

ADOPTED
FEBRUARY 2020

CONNECTING KENTUCKIANA 2040 METROPOLITAN TRANSPORTATION PLAN

LOUISVILLE/JEFFERSON COUNTY, KY-IN
METROPOLITAN PLANNING AREA





**A Resolution
of the
Kentuckiana Regional Planning and Development Agency
Transportation Policy Committee
adopting the
*Connecting Kentuckiana 2040
Metropolitan Transportation Plan***

Whereas, the Kentuckiana Regional Planning and Development Agency (KIPDA) Transportation Policy Committee is designated by the Governors of the State of Indiana and the Commonwealth of Kentucky under state and Federal laws as the Metropolitan Planning Organization (MPO) for the Louisville (KY-IN) Metropolitan Planning Area encompassing Clark and Floyd counties and a portion of Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties in Kentucky; and,

Whereas, Federal laws require the Transportation Policy Committee periodically review and update its Metropolitan Transportation Plan to reflect progress and changes regarding its implementation using the latest forecasts of regional demographic and socioeconomic data; and,

Whereas, pursuant to 23 CFR Section 450.324, the Metropolitan Transportation Plan is based on the latest available estimates and assumptions with regard to population, land use, travel, employment, congestion, and economic activity developed in conjunction with local jurisdictions; and,

Whereas, consistent with Federal and state mandates, states' environmental requirements, and with the KIPDA Transportation Policy Committee's Memorandum of Agreement, *Participation Plan*, and other operating procedures, the KIPDA Transportation Policy Committee has worked with local, state, and Federal jurisdictions and agencies in a continuing, cooperative, and comprehensive planning process; has made draft documents available for public review, has held public meetings and other efforts including providing data and information related to the Metropolitan Transportation Plan update on the KIPDA website, to involve citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of persons with disabilities, and other interested parties in order to facilitate their ability to provide input, discussion, and review of *Connecting Kentuckiana 2040*, and has incorporated the work of local governments, and the suggestions of citizens, businesses, and interests throughout the MPA in this document; and,

Whereas, the KIPDA Transportation Policy Committee is to certify *Connecting Kentuckiana 2040* complies with all of the applicable requirements of the Federal Transit Act, Clean Air Act, Americans with Disabilities Act, Civil Rights Act, Federal Transportation Act, and all other applicable state and Federal laws; and,

Whereas, *Connecting Kentuckiana 2040* has been determined to conform with the State Implementation Plans of Indiana and Kentucky; and,

Whereas, the results of a regional emissions analysis indicate *Connecting Kentuckiana 2040* meets the requirements of conformity under the eight-hour ozone standard; and,



Whereas Connecting Kentuckiana 2040 will serve as the KIPDA Metropolitan Transportation Plan under Federal law contingent upon and effective when a conformity finding is made by the appropriate Federal agencies; and,

Now, therefore let it be resolved that the KIPDA Transportation Policy Committee adopts the Connecting Kentuckiana 2040 Metropolitan Transportation Plan to serve as the KIPDA MPO official Metropolitan Transportation Plan, contingent upon and effective when a conformity finding is made by the appropriate Federal agencies; and,

Let it be further resolved that KIPDA staff is authorized to transmit Connecting Kentuckiana 2040 to the Federal Transit Administration, Federal Highway Administration, and the Environmental Protection Agency to make the Federal conformity determination in accordance with Federal conformity regulations; and,

Be it further resolved that KIPDA staff is authorized to transmit Connecting Kentuckiana 2040 to the Governors of the State of Indiana and the Commonwealth of Kentucky, and to the Indiana Department of Transportation and the Kentucky Transportation Cabinet in compliance with Federal and state requirements.

Adopted by the KIPDA Transportation Policy Committee this 27th day of February 2020.

A handwritten signature in blue ink, appearing to read "Byron Chapman", is written over a horizontal line. The signature is stylized and cursive.

The Honorable Byron Chapman
Transportation Policy Committee Chair

A handwritten signature in blue ink, appearing to read "Amanda Spencer", is written over a horizontal line. The signature is cursive and compact.

Amanda Spencer, Recording Secretary
KIPDA Transportation Division Director

The Kentuckiana Regional Planning & Development Agency

is the federally designated Metropolitan Planning Organization for a five-county region in two states: Clark and Floyd counties in Indiana; and Bullitt, Jefferson, and Oldham counties in Kentucky.



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01 INTRODUCTION

IN THIS CHAPTER

KIPDA

The Metropolitan Transportation Plan

Connecting Kentuckiana 2040 Update

INTRODUCTION

Connecting Kentuckiana 2040 outlines the long-range vision and goals and identifies strategies and investments for the future transportation system in the Louisville/Southern Indiana region. The vision, goals, and objectives were adopted by the Metropolitan Planning Organization (MPO) to guide the development of the transportation system for the next 20 years. Analysis of trends and forecasts and public and stakeholder outreach informed the strategies and investments for the Plan.

KIPDA

The Kentuckiana Regional Planning and Development Agency (KIPDA) serves as the Metropolitan Planning Organization (MPO) for the Louisville/Jefferson County KY-IN urbanized area. An MPO is defined in federal transportation legislation as the designated decision-making body that is responsible for carrying out the metropolitan transportation planning process as defined by the current federal transportation act.

An MPO is designated for each urban area with a population of more than 50,000 people (i.e., for each Urbanized Area (UZA) defined in the most recent decennial Census). Because the Louisville/Jefferson County KY-IN Metropolitan Planning Area has a population greater than 200,000 it is designated as a Transportation Management Area (TMA). TMAs have unique planning and programming requirements. The Louisville/Jefferson County KY-IN Metropolitan Planning Area (MPA) consists of the U.S. Census-defined Louisville Urbanized Area and the area projected to be urbanized by the year 2040. The MPA includes Bullitt, Jefferson, and Oldham counties in Kentucky and Clark and Floyd counties in Indiana, as well as 1/10th of a square mile in Harrison County, Indiana and four square miles of Shelby County, Kentucky.

The MPO is governed by the Transportation Policy Committee (TPC), composed of state, county, city elected officials, the transit agency, and representatives and other advisory members with specific transportation interests. A Transportation Technical Coordinating Committee (TTCC) serves as advisors to the TPC.

THE METROPOLITAN TRANSPORTATION PLAN

Federal regulations require the MPO to develop a long-range metropolitan transportation plan (MTP) to be updated every four years. The Plan has a 20-year planning horizon and outlines the region's proposed investments in the surface transportation system. The planning process is Continuing, Cooperative, and Comprehensive and incorporates the USDOT Key Planning Factors and Emphasis Areas into the development of the goals, data, and investments. The MTP must be financially reasonable, meaning investment costs are balanced with realistic revenue expectations from federal financial resources. Surface transportation projects in the MPA using federal funds must be incorporated into the MTP and participate in the MPO planning process.

The MPO has adopted a performance-based planning and programming method in accordance with federal regulations and good planning practice. At the core of this practice are data-driven goals, evaluation, and decisions to manage and plan for the long-range future of the transportation system.

CONNECTING KENTUCKIANA 2040 UPDATE

Connecting Kentuckiana 2040, the update to the previous MTP, *Horizon 2035*, is anticipated to be adopted by the KIPDA Transportation Policy Committee on February 27, 2020. It serves as a regional platform to support and implement a sustainable and multimodal transportation system applying the following principles:

- Improved connections
- A safe and reliable transportation system
- Expanded mobility options
- New and innovative approaches to improve the transportation system in a cost-effective and efficient manner.
- Responsive to the needs and wants of the users
- More efficient use of the existing transportation system

The Plan has a strong focus on performance-based planning, by linking investment strategies and projects to the goals and targets set forth in federal regulations and through the direction of the TPC.

KEY PLANNING FACTORS

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system;
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10. Enhance travel and tourism.



02

TRENDS, FORECASTS & FORCES

IN THIS CHAPTER

Socioeconomic Forecasts

Environmental Justice

Freight

Transportation

Future Forces

SOCIOECONOMIC FORECASTS

BACKGROUND

Socioeconomic forecasting is an important tool used to better understand existing and future transportation needs and wants as well as enhance the decision-making process. Effective planning for transportation projects depends on high-quality, up-to-date socioeconomic forecasting that reflects recent trends, as well as expectations of future growth, and has been developed in a collaborative manner. A comprehensive set of socioeconomic forecasts for *Connecting Kentuckiana 2040* were developed for the horizon year of the MTP, 2040.

The core set of socioeconomic variables include population, households, and place-of-work employment. Each of these variables are forecasted at the Transportation Analysis Zone (TAZ) level. TAZs are small geographic areas, developed by KIPDA and used in KIPDA's Regional Travel Demand Model. There are currently 984 TAZs in the KIPDA Region, ranging in size from a city block in dense urban areas to many square miles in the more rural portions of the region.

For use in the KIPDA Model, estimates of population at the TAZ level are developed to include only non-group quarters (NGQ) population. NGQ population exclude people living in group quarters, such as:

- Dormitories
- Correctional facilities
- Nursing facilities
- Group homes

Households are stratified into as many as 40 household types at the TAZ level for travel demand forecasting purposes by:

- Size (1, 2, 3, 4, 5+ persons per household)
- Structure type (single family, multi-family)
- Vehicle availability (0, 1, 2, 3+ vehicles per household)

Employment is estimated at the TAZ level accounting for place-of-work employment. Estimates of place-of-work employment in an area reflect the number of people that work in the area, as opposed to the number of people that are employed and live in that area. These estimates include both full-time and part-time jobs, as well as multiple jobholding. For use in the KIPDA Model, employment

is stratified by three employment types, representing the industry classification of each job defined by the NAICS (North American Industry Classification System):

- Retail (sales, food and drink establishments)
- Service (scientific, professional, management, health, education, finance, insurance, real estate)
- Basic (agriculture, mining, construction, transportation, communications, utilities, wholesale trade, government)

To assist in the development of the Year 2040 socioeconomic forecasts, a Base Year of 2015 was established. All of the variables mentioned above were assessed at the TAZ level for 2015 for use as the base year of an updated KIPDA Model. Several geographically based tools contributed to the development of the future socioeconomic forecasts and the creation of base year estimates. These include:

- American Community Survey - American Fact Finder, a product of the United States Census Bureau
- Bureau of Economic Analysis (BEA)
- Woods & Poole
- InfoUSA
- Kentucky State Data Center (KSDC)
- Census Transportation Planning Package (CTPP)

DATA USES

Socioeconomic data is used in a wide variety of ways.

The primary purpose for collecting and forecasting the data at the small geographic level is for its use in travel demand modeling. KIPDA is required to utilize a travel demand model that accurately forecasts traffic conditions in order to perform a regional emission analysis as part of KIPDA's transportation conformity process. This process is described in further detail in Chapter 5 and in Appendix I.

The KIPDA Model is a traditional daily, four-step, trip-based model that is developed using specialized software called TransCAD. The four steps in the model are Trip Generation, Trip Distribution, Mode Choice, and Trip Assignment. A trip-based model uses the socioeconomic data inputs to determine the number of trips that are produced in or are attracted to each TAZ in the Trip Generation step. The origin zone and destination zone for all trips get

paired in the Trip Distribution step based on the levels of socioeconomic activity in, and the proximity to, the other TAZs. The trips are next transformed into vehicle trips, accounting for transit and vehicle occupancy in the Mode Choice step. The final step is Trip Assignment, where the vehicle trips are assigned a path along the roadway network.

The KIPDA Model is used for several purposes other than the regional emissions analysis, which is performed each time the MTP is updated, and for most amendments. On a regular basis, project sponsors depend on the KIPDA Model to provide traffic forecasts in project-level planning studies and design projects. Various scenarios are typically tested in the model, representing different years and network configurations.

The socioeconomic data and the KIPDA Model were used in multiple ways to assist in the development of *Connecting Kentuckiana 2040*. The model was used to estimate expected levels of future congestion, as is described later in this chapter. The horizon year socioeconomic forecasts were also used to identify locations of intense future growth. Projects were prioritized in the locations where congestion was forecasted or where significant growth is expected.

LAND USE

Local comprehensive plans throughout the KIPDA Region were used to help determine where future development that impacts employment, households and population density may be located. This was done primarily through a comparison of current and future land use maps. If the comparison indicated the presence of proposed land use changes impacting any of the socioeconomic variables above, it could be inferred that there would be a corresponding change in that variable.

Estimates of future socioeconomic variables developed from the review of Comprehensive Plans were reviewed by local agency staff. The final sets of variables reflect the adjustments based at the local level as part of this review.

Listed below are summaries of the Comprehensive Plans that were used in the analysis.

Bullitt County, KY Comprehensive Plan

The goals of the Bullitt County Comprehensive Plan are a transportation system that is sensitive and responsive to the relative growth the county will experience, with facilities, services and land-use projects done concurrently

to eliminate a potentially inadequate transportation network as well as a way to manage and maintain the growth and development the county will experience.

Charlestown, IN Comprehensive Plan

The purpose of the Charlestown Comprehensive Plan is to articulate a vision and establish guidelines for future growth and development through the coordination of future land uses and community design, a thriving downtown, safe and quality housing options, connectivity between neighborhoods for all modes, expansion of parks, improving existing infrastructure and economic development.

Clarksville, IN Comprehensive Plan

The Town of Clarksville's Comprehensive Plan sets forth a vision of future development and sustainability in regard to physical, social and economic aspects. Goals and objectives were developed that support local land use management and also recognize the importance of interconnecting planning and practices from other community elements.

Floyd County, IN Comprehensive Plan

The Floyd County Comprehensive Plan was developed to anticipate the needs of the community. This Plan strives to involve the community, understand land use trends and plan for future land use that suits the trends and interest of the community.

Jeffersonville, IN Comprehensive Plan

The City of Jeffersonville's Comprehensive Plan strives to find the balance between economic growth and orderly development that will not negatively impact the area's environment and neighborhoods. The goals of Jeffersonville's Comprehensive plan are to have distinct and deliberate development, revitalize and clean up certain areas, provide multi-modal transportation options, provide capable utilities for future growth, promote economic development to attract more employees, strengthen parks and public spaces, provide a wide range of housing options and ensure that Jeffersonville becomes a destination.

New Albany, IN Comprehensive Plan

The Comprehensive Plan for the City of New Albany has identified key themes such as investing in the quality of life of its residents and neighborhoods,

continue making a walkable community, improve multi-modal connectivity and switching the focus from suburban development to urban development.

Oldham County, KY Comprehensive Plan

The Oldham County Comprehensive Plan sets forth a future in which growth is planned to ensure land is protected from premature or unsustainable growth and encourages the preservation, as well as the development of a span of housing opportunities.

Sellersburg, IN Comprehensive Plan

Sellersburg's Comprehensive Plan outlines how they will move into the future in such a way that interconnects the existing grid pattern of development, keep residential areas protected from adverse developmental impacts, redevelop, rehab and reinvest in older and declining neighborhoods and continue with a transportation network for all users.

Jefferson County, KY

In Jefferson County, a unique process was used to develop future land use forecasts. The process in Jefferson County relied heavily on previous forecasting efforts developed in 2015 by the Urban Studies Institute and the Kentucky State Data Center at the University of Louisville. These efforts are included in the report entitled [Louisville Metro Demographic and Economic Projections: 2010 - 2040](#).

The projections for Louisville Metro in this report reflect a thorough analysis of existing population, housing, and employment conditions in the county, as well as an analysis of factors that are expected to contribute to the changes in these projections in the future. The report utilizes a unique geography established by Louisville Metro known as Market Areas. Market Areas are 21 distinct sections of the county that generally have similar land usage and are made up of groups of neighboring Census tracts. The report includes projections of households and population made at the Census Tract level and estimates of employment at the Market Area level.

Projections made at the Census Tract and Market Area levels in this report were translated to the TAZ level for use in the KIPDA Model and other planning purposes.

SOCIOECONOMIC ASSESSMENT: DISCUSSION, TABLES AND MAPS

From the base year 2015 to the horizon year 2040, the KIPDA Region is expected to continue to grow in each of the three primary socioeconomic variables: NGQ population, households, and employment. This growth will translate into more trips within and through the region. Population, households, and employment are expected to shift within the region, as some areas are projected to experience more growth than others. This may impact local travel patterns in several ways. For example, by 2040, new and redistributed residents will make trips to and from areas that are different from where trips were made in 2015. New and increased employment opportunities may also draw trips from households in other parts of the region and from outside of the region as well.

POPULATION

A comparison of the base year and horizon year estimates of NGQ population shows that the regional population is expected to grow by about 20% over this 25-year period, from a base of approximately 1.07 million people in 2015 to 1.29 million in 2040. This equates to a growth rate of about 0.7% per year. This growth rate is in line with historic growth trends.

At the individual county level, the forecasted growth varies. Of the additional 216,000 residents expected to live in the region in 2040 as compared to 2015, approximately 110,000 of them are forecasted to live in Jefferson County. Within Jefferson County, much of the forecasted population growth is expected to occur in the suburban areas. This equates to 15% population growth in Jefferson County, or 0.6% per year. On a percentage basis, each of the suburban counties are expected to grow at a faster rate than Jefferson County. Oldham County is expected to grow by approximately 34,000 people, which represents an increase of 57%, or 1.8% per year. The other suburban counties are collectively expected to grow at a rate of approximately 1.0% per year.

County and regional level estimates of non-group quarters population are shown in Figure 1. The maps on the following pages show population growth shown at the

TAZ-level: Figure 2 shows the growth in terms of the number of additional residents in each TAZ, and Figure 3 shows the percentage growth expected in each TAZ.

Figure 1: Forecasted Population Change by County

Source: KIPDA, 2019

COUNTY	2015 NGQ POPULATION	2040 NGQ POPULATION	CHANGE
Bullitt	77,394	97,880	26%
Clark	112,200	145,785	30%
Floyd	75,011	92,677	24%
Jefferson	744,060	853,868	15%
Oldham	59,635	93,420	57%
Shelby (partial)	1,377	1,842	34%
Regional Total	1,069,677	1,285,472	20%

Figure 2: Forecasted Population Growth, Absolute Change

Source: KIPDA, 2019

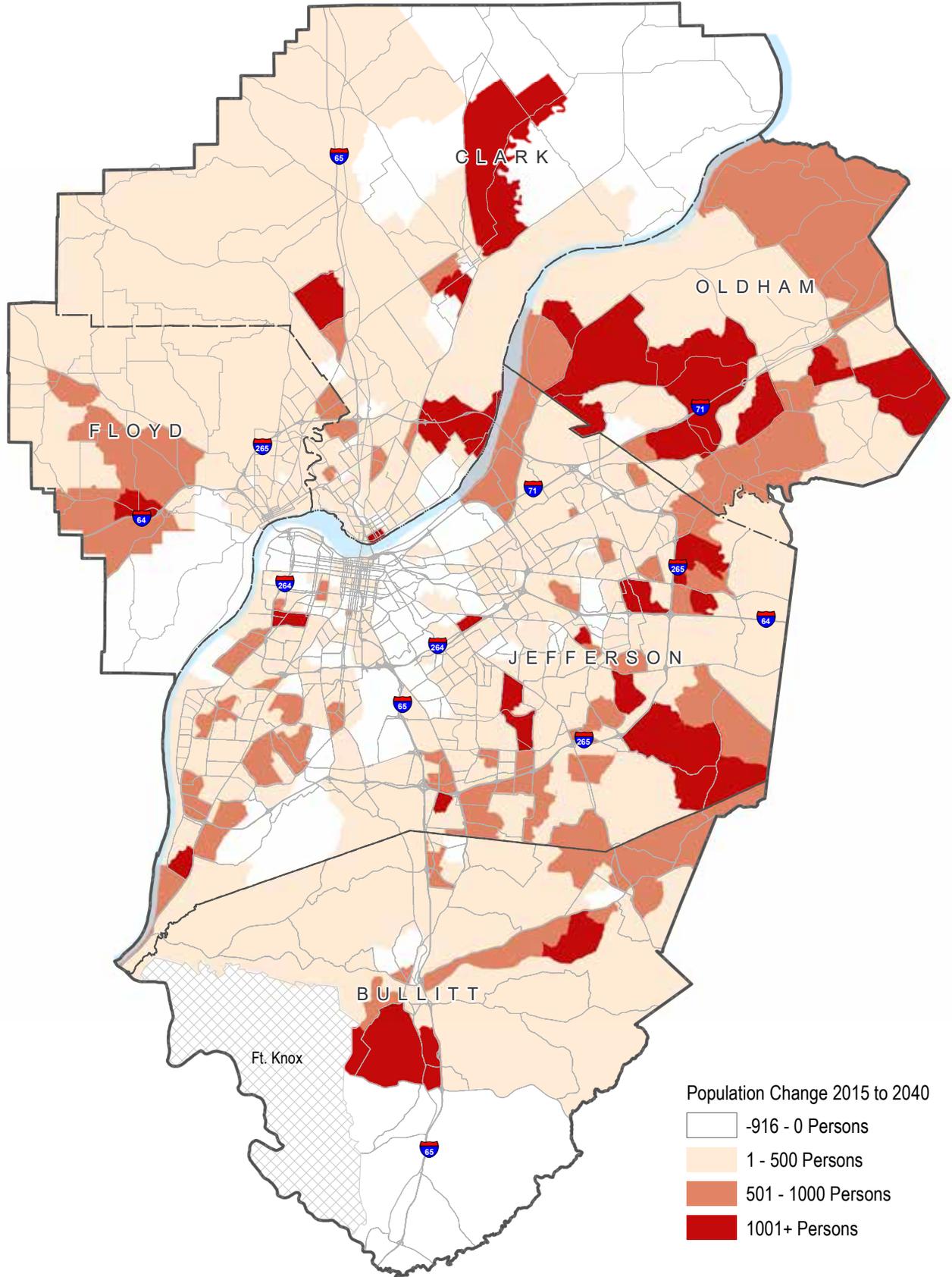
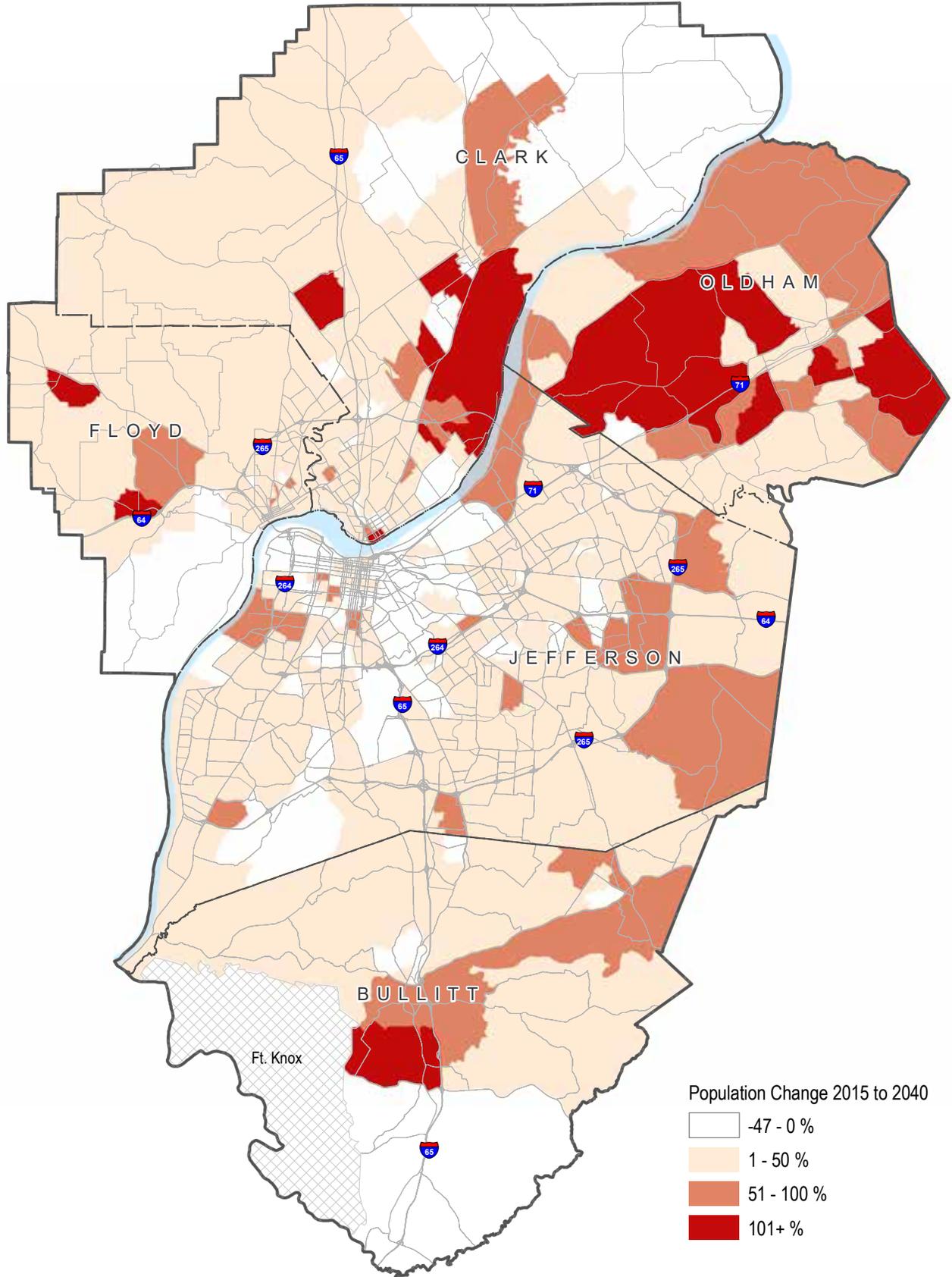


Figure 3: Forecasted Population Growth, Percent Change

Source: KIPDA, 2019



HOUSEHOLDS

The forecasted trend in the regional growth in the number of households, or occupied housing units, reflects similar trends as the population growth. Households are expected to grow by approximately 20% over the 25-year period, from about 432,000 households in 2015 to 546,000 households in 2040. This equates to a growth rate of 0.9% per year. This growth rate is slightly greater than the growth in population, and therefore reflects a decrease in the average regional household size, from 2.47 persons per household in 2015 to 2.35 persons per household in 2040.

Like the regional household growth comparison, county level household growth trends reflect county level population growth. All counties are expected to experience significant increases in household growth. Jefferson County

is forecasted to have the largest increase in the number of households with the expected addition of nearly 65,000 households by 2040, with most of the additional households expected to be in the suburban portions of the county. The household growth rate is expected to be greatest in Oldham County, where an increase in the number of households by 70%, or 2.2% per year is forecasted.

County and regional level estimates of households are shown in the table below (Figure 4). The maps on the following pages show household growth shown at the TAZ-level: Figure 5 shows the growth in terms of the number of additional households in each TAZ, and Figure 6 shows the percentage growth expected in each TAZ.

Figure 4: Forecasted Household Change by County

Source: KIPDA, 2019

COUNTY	2015 HOUSEHOLDS	2040 HOUSEHOLDS	CHANGE
Bullitt	28,533	42,464	49%
Clark	43,074	56,754	32%
Floyd	29,034	37,187	28%
Jefferson	310,355	374,600	21%
Oldham	20,148	34,304	70%
Shelby (partial)	461	559	21%
Regional Total	431,605	545,868	26%

Figure 5: Forecasted Household Number Growth, Absolute Change

Source: KIPDA, 2019

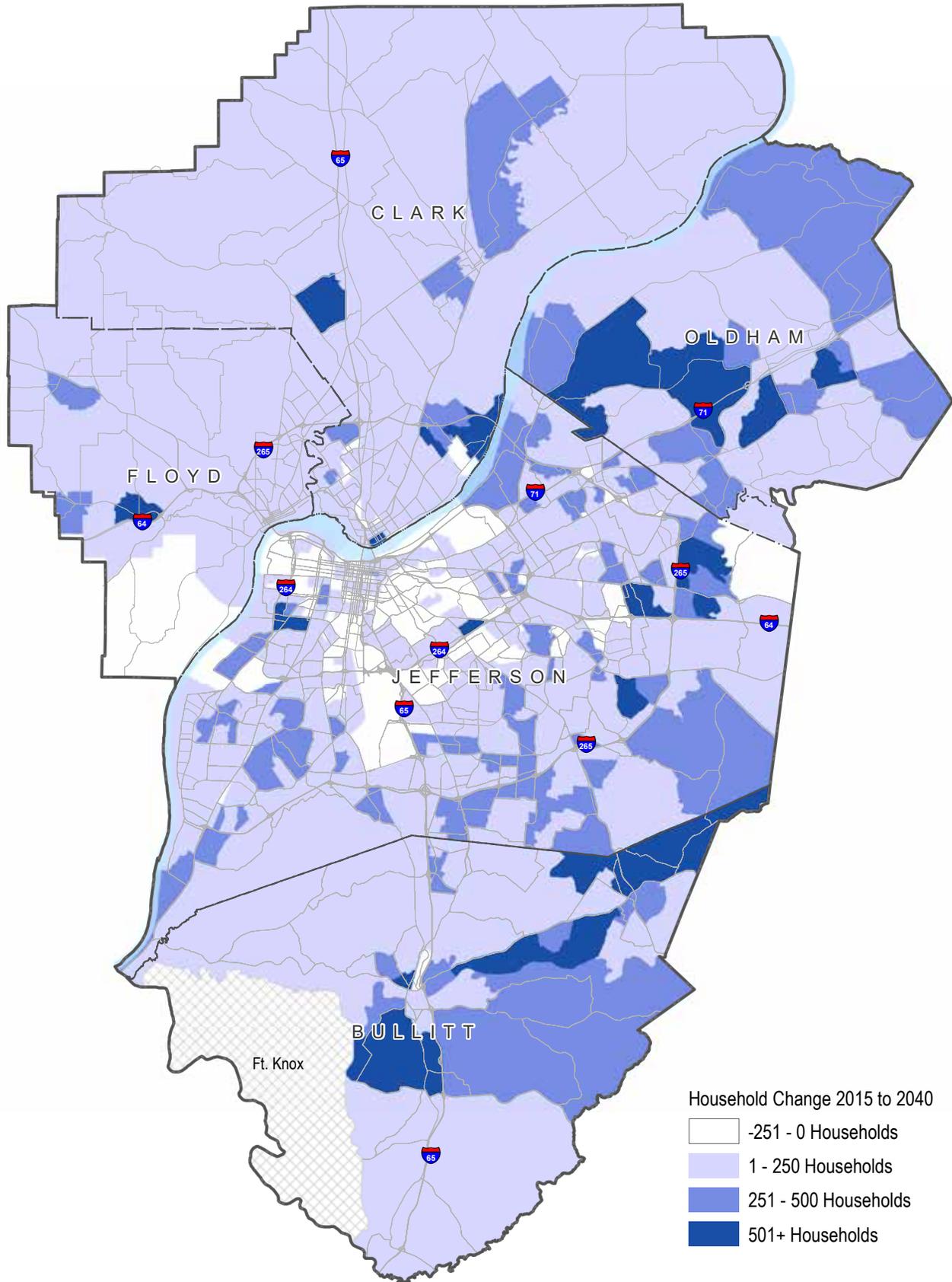
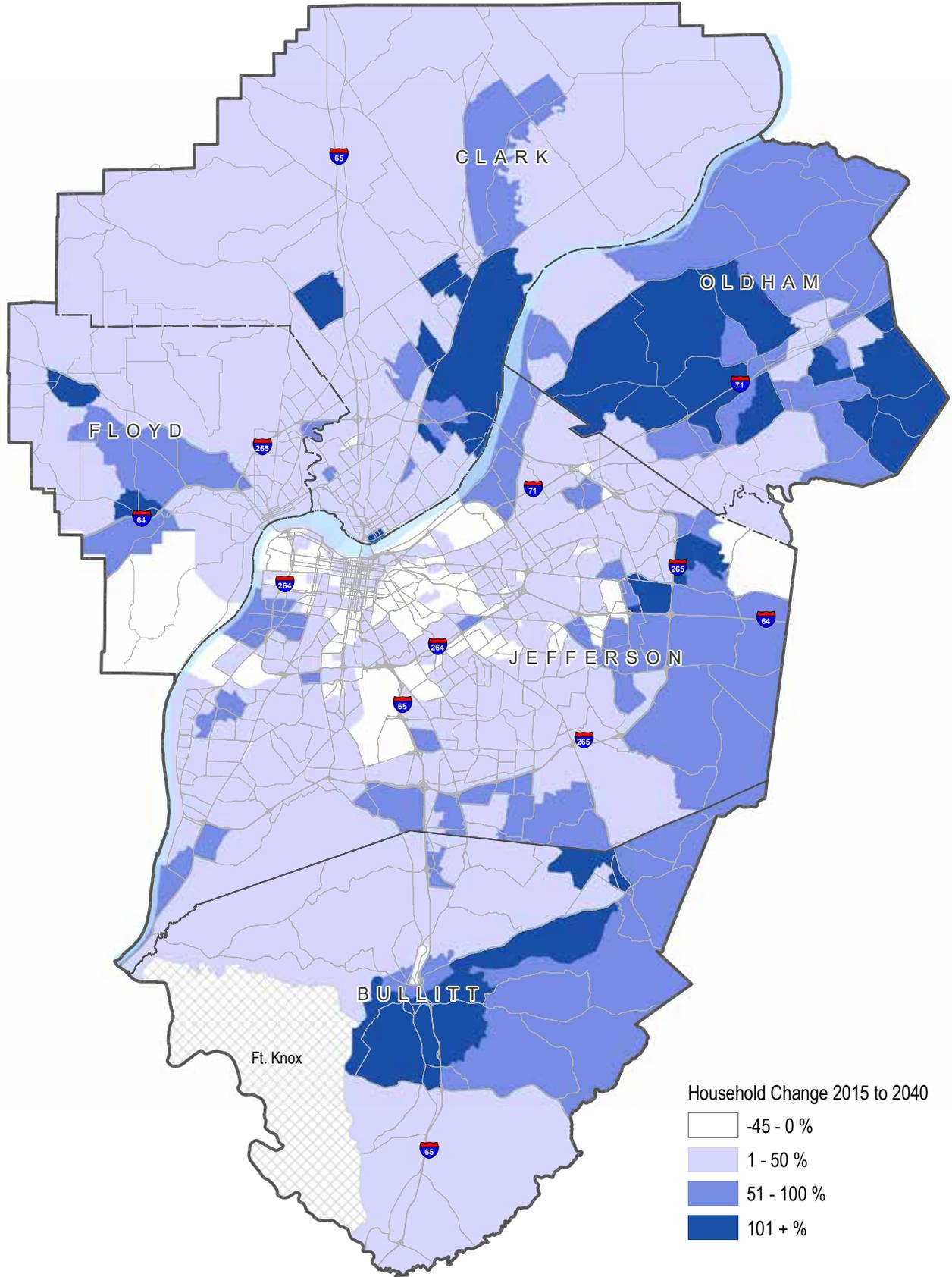


Figure 6: Forecasted Household Number Growth, Percent Change

Source: KIPDA, 2019



EMPLOYMENT

Forecasting employment is traditionally the more challenging of the three primary socioeconomic variables to forecast. Accurate estimates of existing place of work employment are difficult to find and forecasting future levels of employment given the tremendous amount of uncertainty involved in doing so is difficult as well. Many factors can contribute to future employment projections, including global, national, statewide, and local economic conditions. Industries can be expected to evolve over the 25-year forecast period, unemployment rates can change, the age of the existing workforce can limit future growth, and improvements in technology can be expected to lead to changes in the number and skill level of employees. These factors are only a few of the factors that contribute to the uncertainty in projecting future employment.

Regional growth in place of work employment is forecasted to grow by about 23% over the 25-year time period, from about 730,000 employees in 2015 to 900,000 employees in 2040. This equates to a growth rate of 0.8% per year.

At the county level, employment growth trends incorporated in *Connecting Kentuckiana 2040* vary. Employment in Jefferson County is expected to grow by nearly 40,000 employees, representing a relatively modest growth rate of 0.3% per year. While not as pronounced as the projected population and household growth, much of the employment growth in Jefferson County is expected to occur in suburban areas. Employment in each of the suburban counties surrounding Jefferson County is expected to grow at a much greater rate.

County and regional level estimates of place of work employment are shown in the table below (Figure 7). The maps on pages 24 and 25 show employment growth shown at the TAZ-level: Figure 8 shows the growth in terms of the number of additional employees in each TAZ, and Figure 9 shows the percentage growth expected in each TAZ.

Figure 7: Forecasted Employment Change by County

Source: KIPDA, 2019

COUNTY	2015 EMPLOYMENT	2040 EMPLOYMENT	CHANGE
Bullitt	29,790	86,773	191%
Clark	66,947	102,273	53%
Floyd	39,901	55,824	40%
Jefferson	570,619	609,574	7%
Oldham	23,214	44,122	90%
Shelby (partial)	509	712	40%
Regional Total	730,980	899,278	23%

Figure 8: Forecasted Employment Growth, Absolute Change

Source: KIPDA, 2019

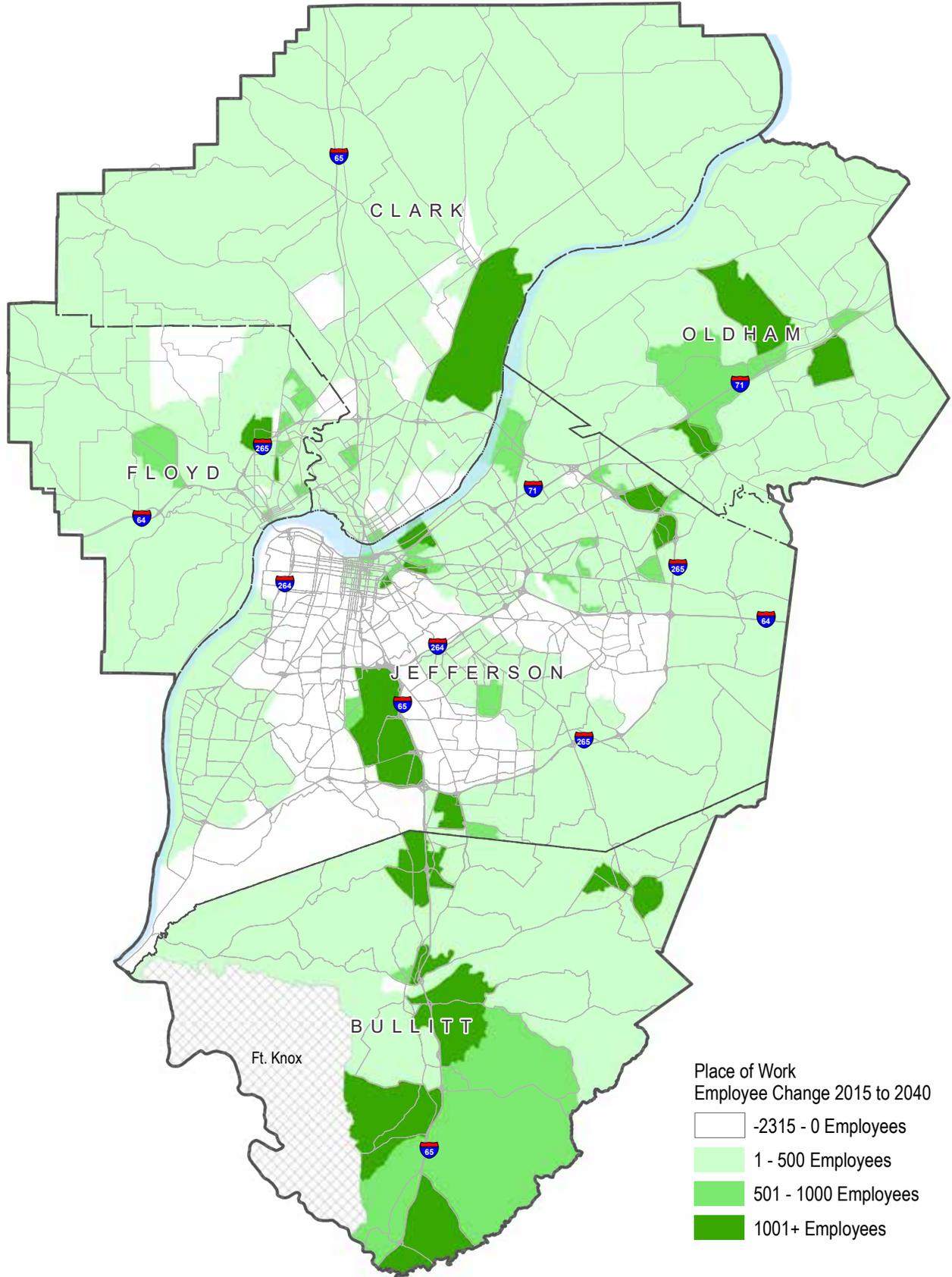
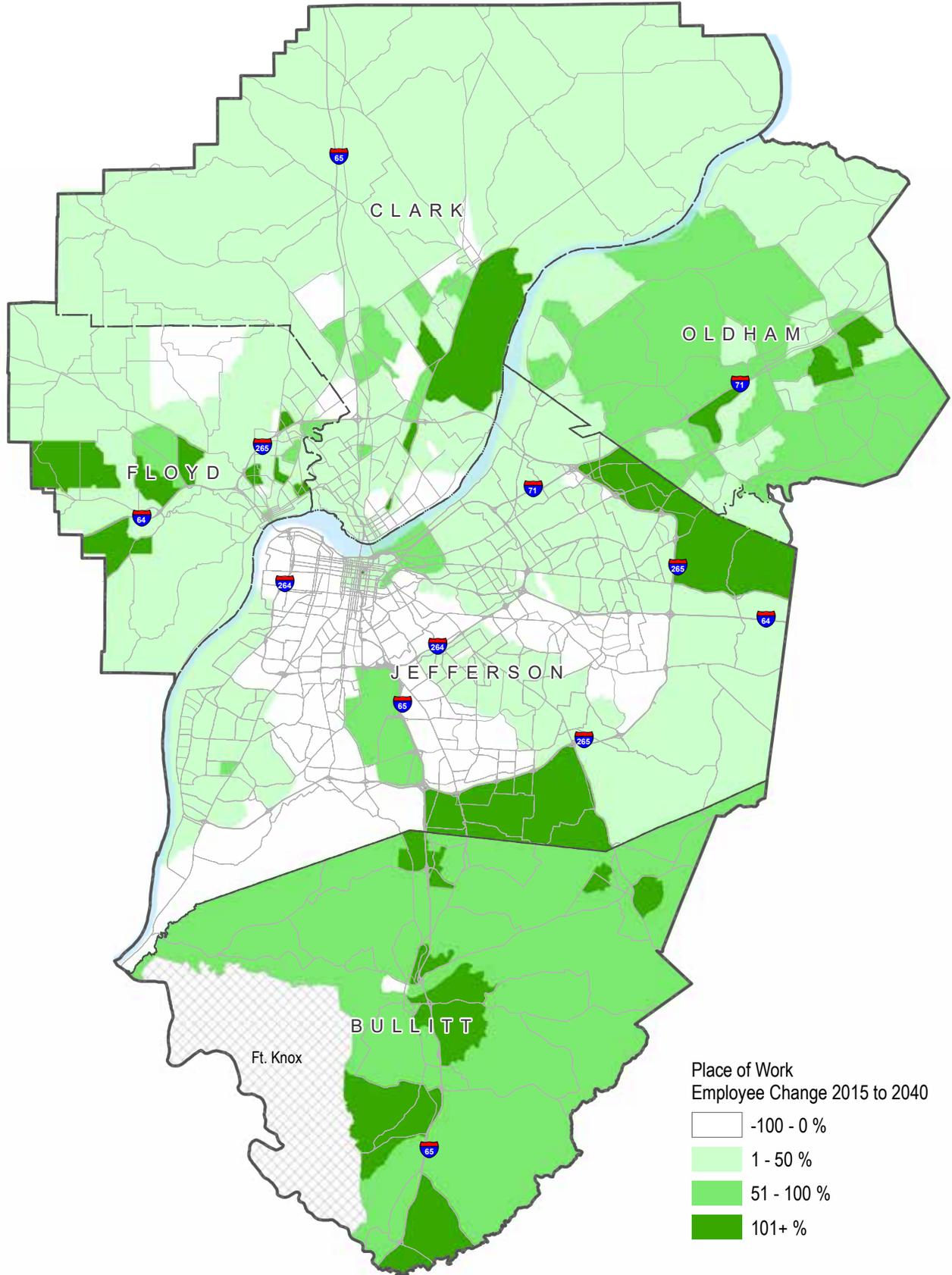


Figure 9: Forecasted Employment Growth, Percent Change

Source: KIPDA, 2019



ENVIRONMENTAL JUSTICE

In April of 2018 KIPDA developed an [Environmental Justice Resource Document](#) which outlines President Clinton's Executive Order 12898, KIPDA's methodology in defining Environmental Justice Study Areas, the Study Areas, Environmental Justice connections with other planning resources, mitigation and alternatives and KIPDA's vision with Environmental Justice going forward.

Environmental justice is also considered during project evaluations. Projects will receive points for bicycle and pedestrian facilities that go into or are within a mile of (bicycle) Environmental Justice Study Areas.

ENVIRONMENTAL JUSTICE POPULATIONS

Regional census data was used to help identify environmental justice communities. The American Community Survey (ACS) – American Fact Finder, a product of the United States Census - five-year estimates for 2011-2015 were used to identify which census block groups had a higher than regional average population of low-income and/or minority persons.

The Environmental Justice analysis analyzed data from two ACS tables: ACS Table B17021, Poverty Status in the Past 12 Months. This table indicates persons who are living at or below the federally established poverty level. Poverty guidelines are established by the United States department of Health and Human Services (HHS) as a standard, while the Census Bureau provides a simplified version of poverty thresholds that are updated annual and are available in 1-year averages, 5-year averages and the decennial and are used for program eligibility. The other ACS table in the environmental justice analysis is ACS Table B03002 Hispanic or Latino by Race, which is how a person chooses to identify.

Environmental Justice areas in the KIPDA Region are defined as Census Block Groups that have minority or low-income percentages that are (200%) the regional percentage. The low income threshold used in the region is 28%, and the minority threshold is 48%. Following are tables that represent the county level proportions and percentages of low-income and minority persons in the KIPDA region.

Geography; County	Total Population ¹	Low-Income Population	Percent Low-Income
Clark	111,396	12,009	10.78%
Floyd	74,648	9,530	12.77%
Bullitt	76,385	7,911	10.36%
Oldham	58,701	3,503	5.97%
Jefferson	740,545	121,683	16.43%

Geography; County	Total Population ¹	Minority Population	Percent Minority
Clark	113,181	17,547	15.50%
Floyd	75,900	8,561	11.28%
Bullitt	76,961	3,642	4.73%
Oldham	63,037	7,216	11.45%
Jefferson	755,809	230,379	30.48%

Total Population	1,084,888
Non-Environmental Justice Population	662,907
Environmental Justice Population	421,981
Percent Environmental Justice Population	39%

Source: ACS, 2016

PROJECT TYPE ANALYSIS

Environmental Justice communities typically rely on non-vehicular modes of transportation in a greater degree than other communities. An analysis was done to determine the location of projects in Environmental Justice Study Areas. KIPDA identifies bicycle and pedestrian, interstate/interchange, roadway, transit and program as project types. For the benefit of this analysis, only project types that would directly benefit Environmental Justice Study Areas, such as bicycle and pedestrian and transit projects were analyzed.

BICYCLE AND PEDESTRIAN

Bicycle and pedestrian projects are particularly essential in Environmental Justice Study Areas, since Environmental Justice communities typically have a large percentage of

¹ The American Community Survey gathers sample data, therefore, sample sizes may vary.

the population traveling on foot or by bicycle. Whether that is to complete their whole trip, or to get them to a transit stop to use the bus. Not only are these improvements important and necessary in Environmental Justice communities, but in the adjacent communities as well. Other than improving access and providing essential connections to people living in Environmental Justice communities, bicycle and pedestrian projects can contribute to a healthier lifestyle and a cleaner environment.

- 13% of *Connecting Kentuckiana 2040* projects are bicycle and pedestrian
- 36% of projects in Environmental Justice Study Areas are bicycle and pedestrian
- 14% of roadway projects in *Connecting Kentuckiana 2040* have a bicycle or pedestrian component
- 38% of roadway projects in Environmental Justice Study Areas have a bicycle or pedestrian component

TRANSIT

Transit projects within Environmental Justice Study Areas, or close proximity to, can alleviate some of the burden the community faces by having limited access. Increasing the frequency and span of transit service has meaningful benefits for the communities, by reducing headway, providing connectivity and increasing transportation opportunities.

- 3% of all *Connecting Kentuckiana 2040* projects are transit
- 8% of all projects in Environmental Justice Study Areas are transit

ROADWAY

Roadway projects within or adjacent to Environmental Justice Study Areas may potentially have disproportionate impacts on the communities. Roadway projects such as widenings, that increase capacity may have a negative and/or disproportionately high impact on the communities. Other roadway projects such as road diets or projects that address safety issues may potentially positively impact the communities because of the addition of transit facilities, bicycle and/or pedestrian facilities. Adding such facilities is a way that may mitigate any negative and/or disproportionately high impacts from roadway projects.

- 14% of all *Connecting Kentuckiana 2040* projects are roadway with a bicycle or pedestrian component
- 38% of all projects in Environmental Justice Study Areas are roadway with a bicycle or pedestrian component
- 2% of all *Connecting Kentuckiana 2040* projects are roadway with a transit component
- 6% of all projects in Environmental Justice Study Areas are roadway with a transit component

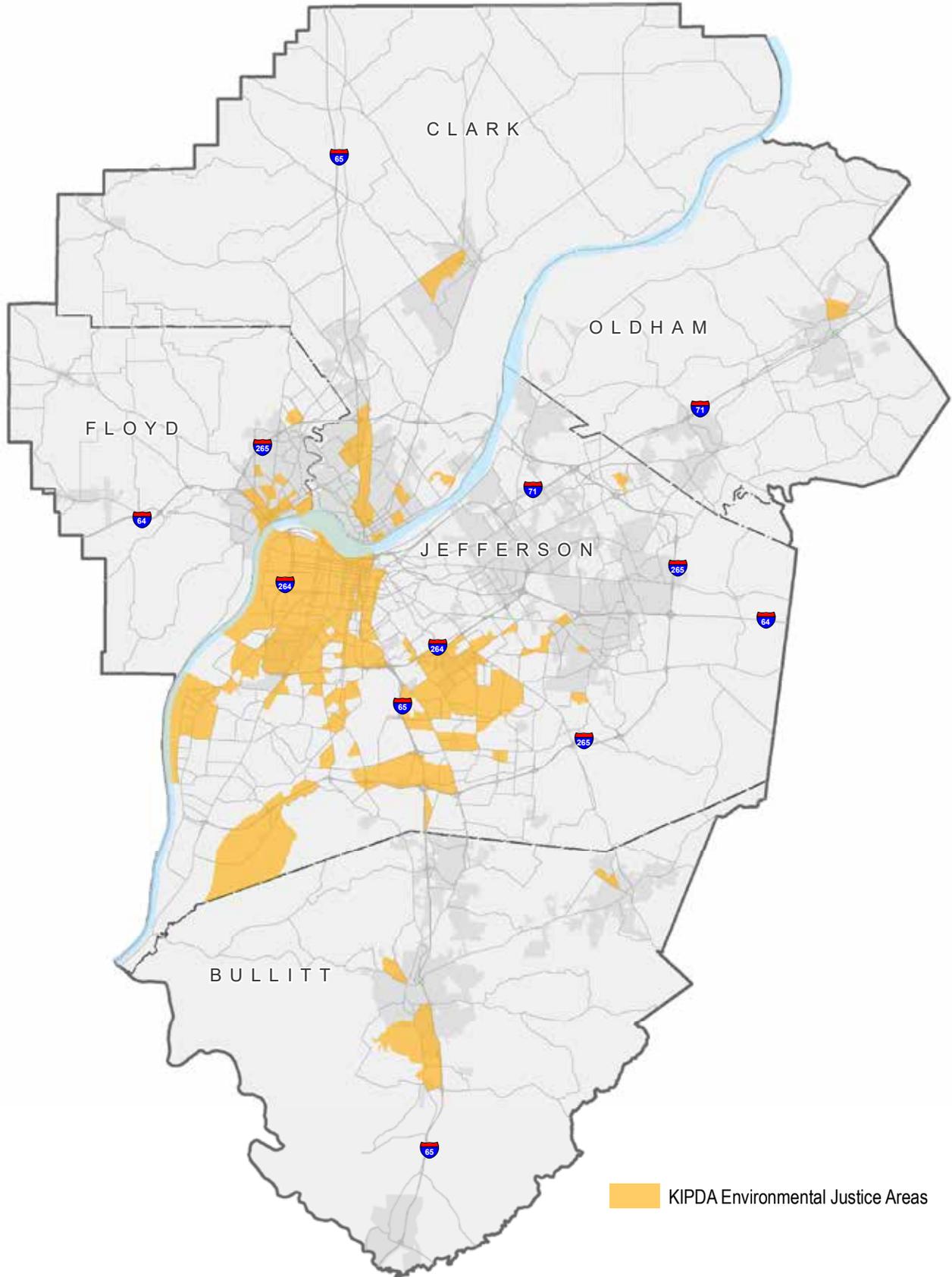
Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys:

- the same degree of protection from environmental and health hazards, and
- equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

United States Environmental Protection Agency (EPA)

Figure 10: KIPDA Environmental Justice Areas

Source: KIPDA, 2019



FREIGHT

The efficient, reliable, and safe movement of freight, one of the goals adopted by the TPC for *Connecting Kentuckiana 2040*, is of increasing concern nationally and regionally. Goods move from the supplier to the consumer through a complex network of transportation service providers and infrastructure. Shipments may consist of small packages or bulk items, finished products or raw materials, but all require some form of transportation to move them from origin to destination. Increasing demand will be placed on the transportation network, calling for strategies to ensure the transportation system can accommodate the influx of freight vehicles and minimize conflict with other vehicles and modes.

Several tools have been developed to aid planning efforts in supporting safe and efficient freight movement in the MPA, including updating the KIPDA Freight Network and developing the [Regional Freight Mobility Study](#) and [Freight Design Guide](#) that explores strategies for the integration of freight movement with other modes of transportation and reduction of conflict points. The MPO has also adopted performance measures and targets per federal regulation and the TPC to monitor and evaluate freight transportation in the region.

CURRENT CONDITIONS

Location has played a major role in the development of the MPA as a major freight movement and logistics hub. The area's central location within the United States places the region within a day's drive of over two-thirds of the nation's population. The Ohio River is a major waterway thoroughfare for freight moving to and from the Mississippi River. Three interstates converge in Louisville and the UPS Worldport Hub is a major freight generator, as well as an attraction for associated logistics and warehousing operations. All major freight modes are present in the region: truck, rail, water, air, and pipeline, as well as intermodal shipping.

The region's economy is dependent on freight-related and supported industries. In 2016, over 43 percent of the region's \$57.2 billion Gross Domestic Product (GDP) was generated by the manufacturing, trade, and

transportation industries.¹ Additionally, the second highest employment sector is manufacturing with 72,797 employees. Overall, 35 percent of the region's employment are associated with freight dependent industries and 14 percent of the region's new jobs will be in these sectors.

KIPDA FREIGHT NETWORK

The KIPDA Freight Network is a planning tool that highlights where trucks are currently traveling in high volumes on roadways connecting to high density freight and shopping land uses that attract freight traffic. The network was updated in April 2018.

The KIPDA Freight Network update is based on criteria that uses a combination of Federal and state freight networks and data sets; and KIPDA freight and regional shopping cluster data. Two criteria tiers were developed to determine which roadway segments to include on the network:

- Tier 1: National Highway Freight Network (NHFN), Kentucky Highway Freight Network routes that are within one mile of a major freight cluster, and additional roadways that have significant truck utilization (more than 1,000 truck AADT and 10% truck traffic utilization) based on Freight Analysis Framework (FAF) 4 data.
- Tier 2: Additional roadway segments to provide network connectivity between Tier 1 and the clusters that represent freight generators and destinations

KIPDA REGIONAL FREIGHT MOBILITY STUDY

Adopted by the TPC in February 2019, the [KIPDA Regional Freight Mobility Study](#) is a supplement to the MTP to guide investment in a sustainable multimodal transportation system. The study evaluates the current and forecasted multimodal freight conditions,

¹ University of Kentucky, Community & Economic Development Initiative of Kentucky (CEDIK), 2018

identifies specific freight mobility issues on the roadways, and provides recommendations for acting on the issues and concerns in the freight network.

Current issues for freight on the MPA's roadways were analyzed as part of the Regional Freight Mobility Study. Locations of impedances were selected based on their proximity to the KIPDA Freight Network and freight and shopping high density clusters. These locations were used in the evaluation and ranking of potential projects for *Connecting Kentuckiana 2040*.

FREIGHT FORECASTS

Both freight tonnage and cargo values are predicted to continue increasing over the next 20 years. By 2040, the Federal Highway Administration (FHWA) estimates that the total national freight tonnage will increase by 40 percent.² Regionally, the increase is estimated to be closer to 50 percent increase over all modes, with the highest increase in air freight shipping (see Figure 11). The value of freight goods is also expected to increase by 126 percent, with the highest increase in air freight shipping value.

Specifically related to roadway investment, freight weight and value via trucking is estimated to increase by 41 percent and 68 percent, respectively. The upward trend of truck-based freight movement has been nearly consistent since 2000. The increasing volume and time sensitivity of freight shipments, as the prevalence of one-day and same-day shipping options increases, requires transportation agencies to focus on freight-specific investments to relieve conflict points.

FREIGHT IMPEDANCE CATEGORIES

- Bridge condition
- Low bridge clearance (roadway and railroad)
- Railroad crossing capacity
- Railroad crossing safety
- Road weight class
- Commercial vehicle crash locations
- Interchanges
- Freeway segments
- Intersections
- Roadway segments
- Delay and travel time reliability

Figure 11: 2012 & 2040 Commodity Moves by Mode

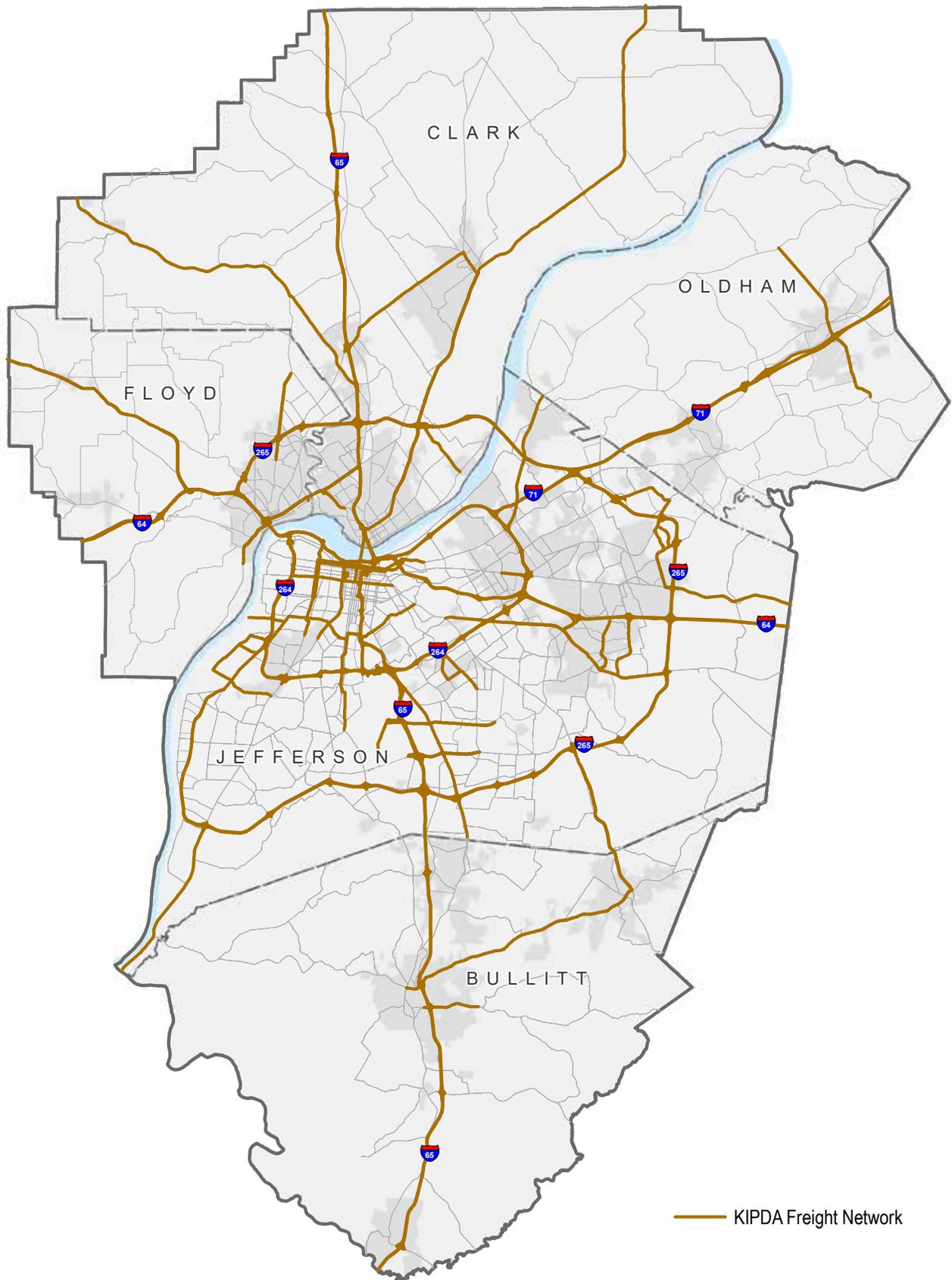
Source: FHWA Freight Analysis Framework 4, 2012

	WEIGHT (KILOTONS)				VALUE (MILLIONS)			
	2012	2040	Change	% Change	2012	2040	Change	% Change
Truck	73,560	103,831	30,271	41%	\$144,950	\$243,612	\$98,662	68%
Rail	7,547	13,309	5,762	76%	\$4,507	\$10,048	\$5,541	123%
Water	18,556	24,400	5,844	31%	\$2,697	\$3,415	\$718	27%
Air	512	1,498	986	193%	\$66,744	\$241,939	\$175,195	262%
Pipeline	16,863	31,503	14,640	87%	\$4,781	\$7,522	\$2,741	57%
Total	117,038	174,541	57,503	49%	\$223,679	\$506,536	\$282,857	126%

² USDOT, National Freight Strategic Plan, 2015

Figure 12: KIPDA Freight Network

Source: KIPDA, 2019



TRANSPORTATION

The region's transportation infrastructure is in a constant state of evolution. Understanding some of the key components to the transportation system as it exists today and may exist in the future is critical to completing a transportation planning process that contributes to meeting the needs and wants of a diverse region such as the KIPDA MPA. Following are a series of snapshots that help to form a necessary foundation from which transportation planning is conducted.

EXISTING CONGESTION & STATE OF THE SYSTEM

Level of Service (LOS) is a qualitative method commonly used to describe the severity of congestion on roadways. Similar to letter grades in school, Levels of Service range from A through F. LOS A represents uncongested or free-flow conditions and LOS F represents severely congested or over-capacity conditions. In urban areas, congestion as severe as LOS D is generally thought to be acceptable, representing a compromise of sorts between the impacts of the moderately congested roadway conditions and the cost to add significant capacity to improve a roadway's LOS.

For the congestion analysis for the *Connecting Kentuckiana 2040* MTP, the LOS on roadways functionally classified as collectors, arterials, freeways, and interstates in the MPA was assessed based on recent traffic counts. The age of the traffic counts varied, with the most recent counts from 2016. Each roadway was assessed in segments, ranging in length from a city block to several miles between interchanges on interstates. To assign LOS for each segment, the most recent daily traffic count available on each segment was compared to estimates of the upper limiting daily traffic volume for each LOS. Estimates of the segment's capacity and LOS come from the methods utilized in the Highway Capacity Manual (HCM). Factors that influence a roadway's LOS and capacity in the HCM include the number of lanes, the number of signalized intersections per mile on non-interstates, and the interchange spacing on interstates, among others.

All segments of roadways assigned a LOS of D, E, or F are shown in Figure 13. These roadways are considered as congested roadways in the analyses used throughout

Connecting Kentuckiana 2040. It is important to note that all the analyses are daily analyses, and there may be additional locations of congestion that users experience that are caused by conditions that create local bottlenecks, exist only during the peak hours of the day, or are locations of non-recurring congestion caused by irregular incidences such as crashes, construction zones, special events, etc.

FORECASTED CONGESTION

Similar to the Level of Service (LOS) analysis that identified currently congested roadways, an additional congestion analysis was performed for the horizon year of *Connecting Kentuckiana 2040*. The key difference between the analyses is that instead of comparing recent daily traffic counts to the estimates of daily capacity, output from a Year 2040 scenario of KIPDA's Regional Travel Demand Model was used instead.

The scenario that was specific for the 2040 analysis assumes all of the growth in the forecasted socioeconomic inputs to the model, as is discussed earlier in this chapter, but only includes the projects included in the Transportation Improvement Program (TIP) at the time of the analysis. This type of analysis is often referred to as an Existing Plus Committed Analysis, or E+C. This is created to estimate how the congested conditions might be expected to deteriorate if no additional capacity investments are assumed. Locations that are expected to be congested in this analysis are likely to be locations where future investments can be focused or prioritized.

As is the case with the Existing Congestion analysis, all segments of roadways assigned a LOS D, E, or F are shown in Figure 14.

Figure 13: Current Congestion in the KIPDA MPA

Source: KIPDA, 2019

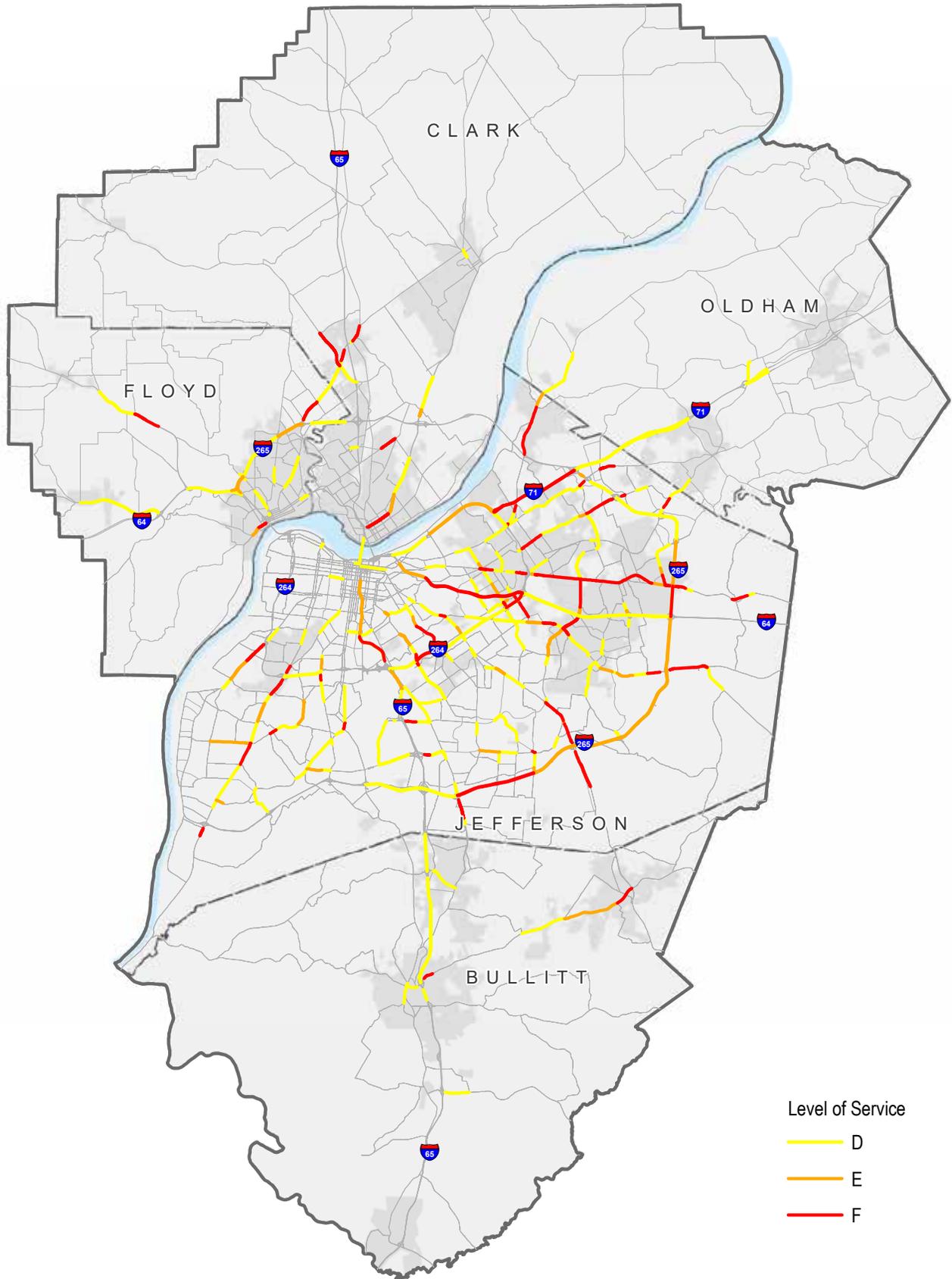
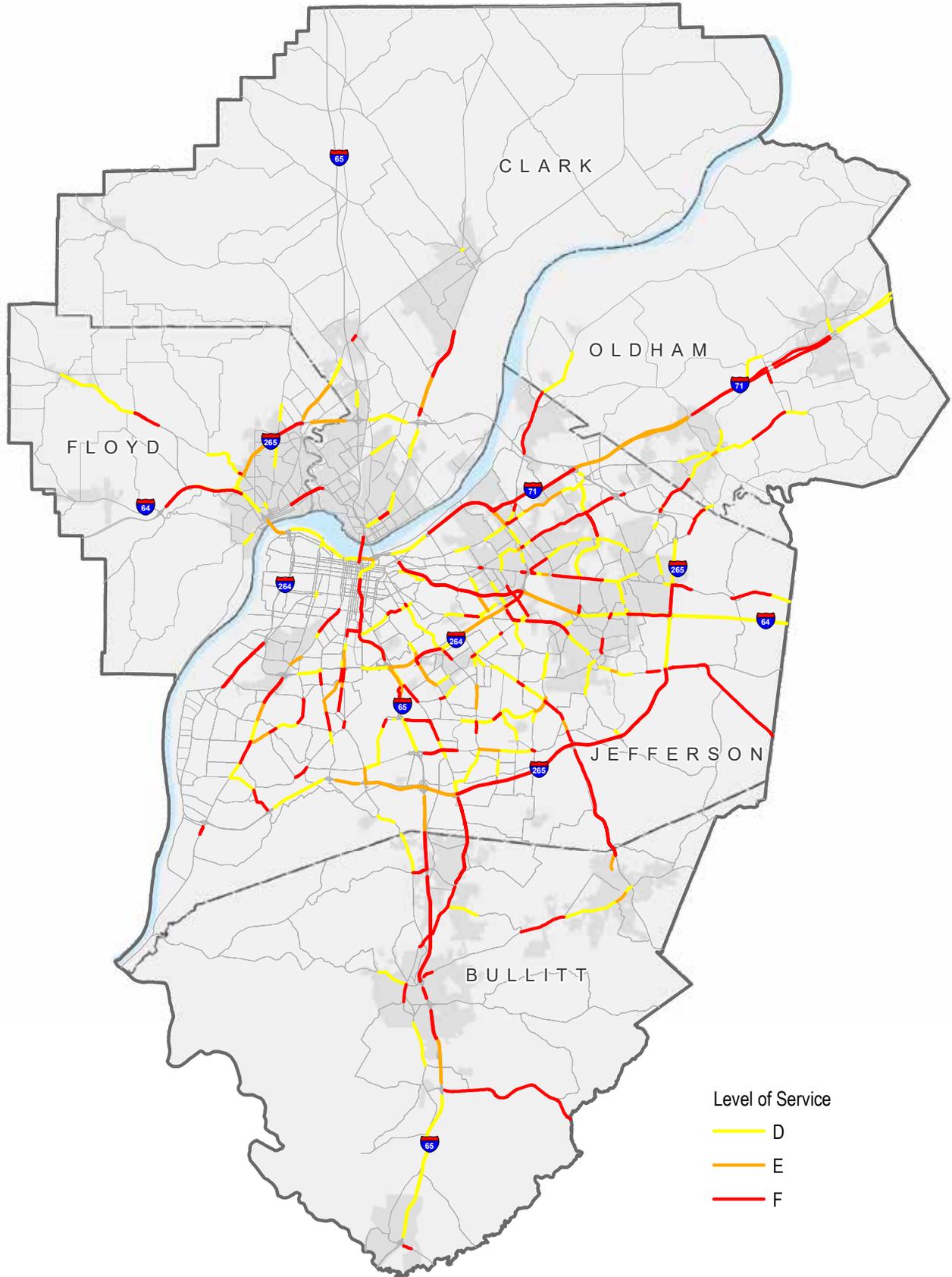


Figure 14: Forecasted Congestion in the KIPDA MPA

Source: KIPDA, 2019



SYSTEM INVENTORY

ROADWAYS

All roadways are typically classified in a hierarchical format known as Functional Classification. There are seven functional classifications identified by FHWA, ranging from Local Roads to Interstates. The different functional classifications provide different levels of mobility and access. Local Roads provide high levels of access as there are many driveways and intersections along them, but don't provide much mobility since the speeds typically

are lower and frequent stopping occurs at intersections. On the other end of the spectrum, Interstates provide high levels of mobility as these are designed to be high speed facilities with few access points, but they don't provide much access since the only opportunities to access them are at the interchanges. Roadways classified as collectors and arterials typically provide moderate levels of both access and mobility. Most federal funding is limited to projects on or along roadways that are functionally classified as something other than a Local Road. The number of roadway miles within each functional classification are shown in the following table and graph.

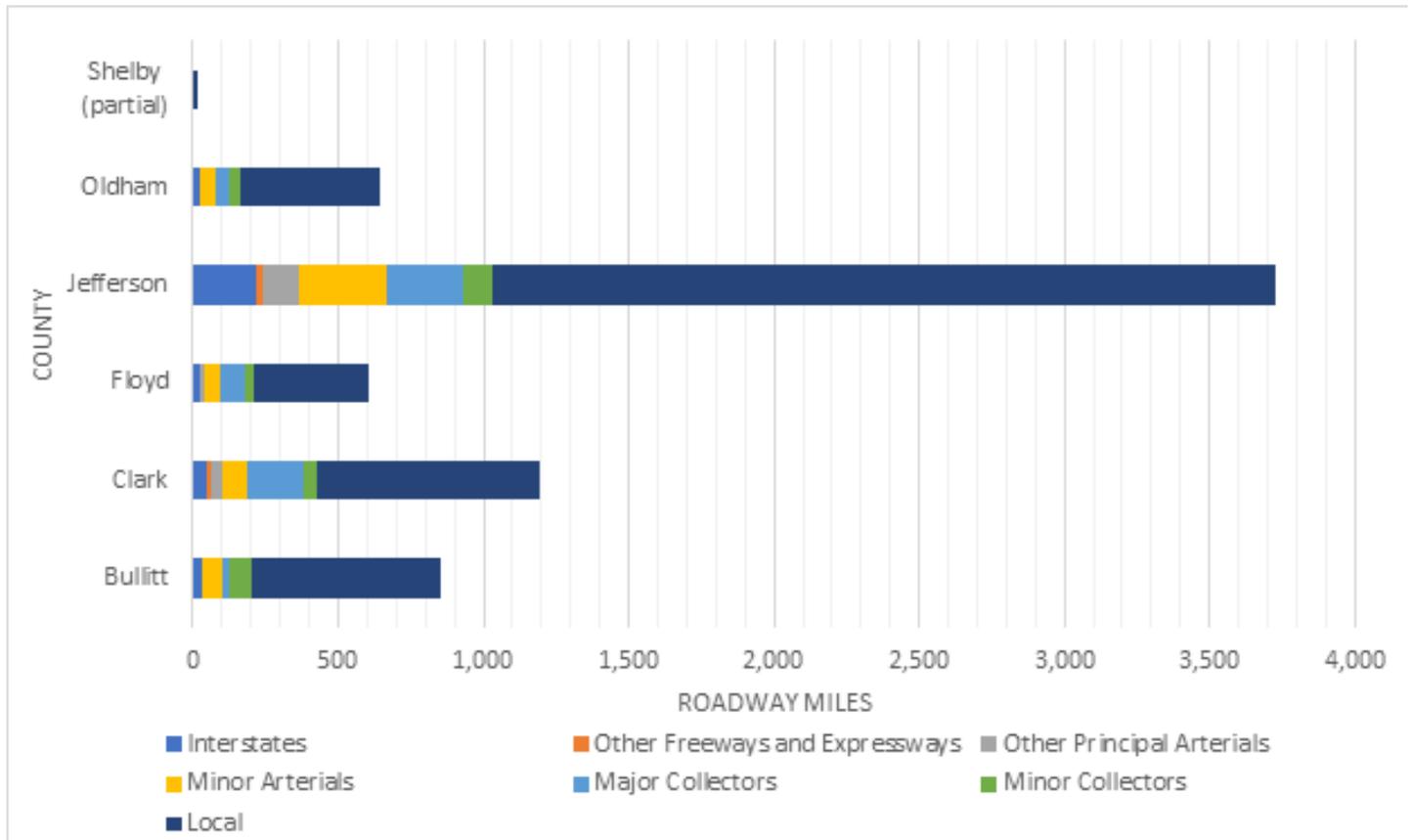
Figure 15: Functional Classification by County

Source: KIPDA, 2019

ROADWAY MILES							
FUNCTIONAL CLASSIFICATION	BULLITT	CLARK	FLOYD	JEFFERSON	OLDHAM	SHELBY (PARTIAL)	KIPDA MPA REGION
Interstates	29.7	43.7	25.6	217.6	21.0	0.0	337.6
Other Freeways and Expressways	0.0	19.8	0.4	21.3	0.0	0.0	41.5
Other Principal Arterials	0.0	35.3	12.8	124.8	0.0	0.0	172.9
Minor Arterials	70.2	89.0	51.5	299.3	58.8	0.0	568.8
Major Collectors	25.8	193.0	91.6	265.5	45.5	1.8	623.2
Minor Collectors	72.9	43.9	25.3	103.5	35.6	2.5	283.7
Local	654.1	769.1	395.3	2,698.8	483.5	10.9	5,011.7
Total	852.7	1,193.8	602.5	3,730.8	644.4	15.2	7,039.4

Figure 16: Functional Classification by County

Source: KIPDA, 2019



BICYCLE/PEDESTRIAN

In 2016, KIPDA created the first regionwide inventory of bicycle and pedestrian facilities. This inventory includes an assessment of the bicycle and pedestrian facilities along all roads functionally classified as Collectors and Arterials. A total of 877 miles of pedestrian facilities were identified, which include sidewalks, multi-use paths, and crosswalks. A total of 145 miles of dedicated bicycle facilities were identified, which include bike lanes, multi-use paths, and sharrows with signage.

The creation of this inventory allows for the identification of gaps in the bicycle and pedestrian facility network. A gap has been defined as a location where there is a lack of a pedestrian facility or a dedicated bicycle facility within one mile of another bicycle or pedestrian facility within or intersecting a corridor. A total of 212 miles of gaps of pedestrian facilities were identified, along with 40 miles of gaps of dedicated bicycle facilities. Identifying the

locations of these gaps allows for future investments to be focused or prioritized at these locations in order to develop a more complete network of bicycle/pedestrian infrastructure. The locations of these gaps are shown on the maps on the following pages (Figures 17 and 18).

Figure 17: Bicycle Network Gaps

Source: KIPDA, 2019

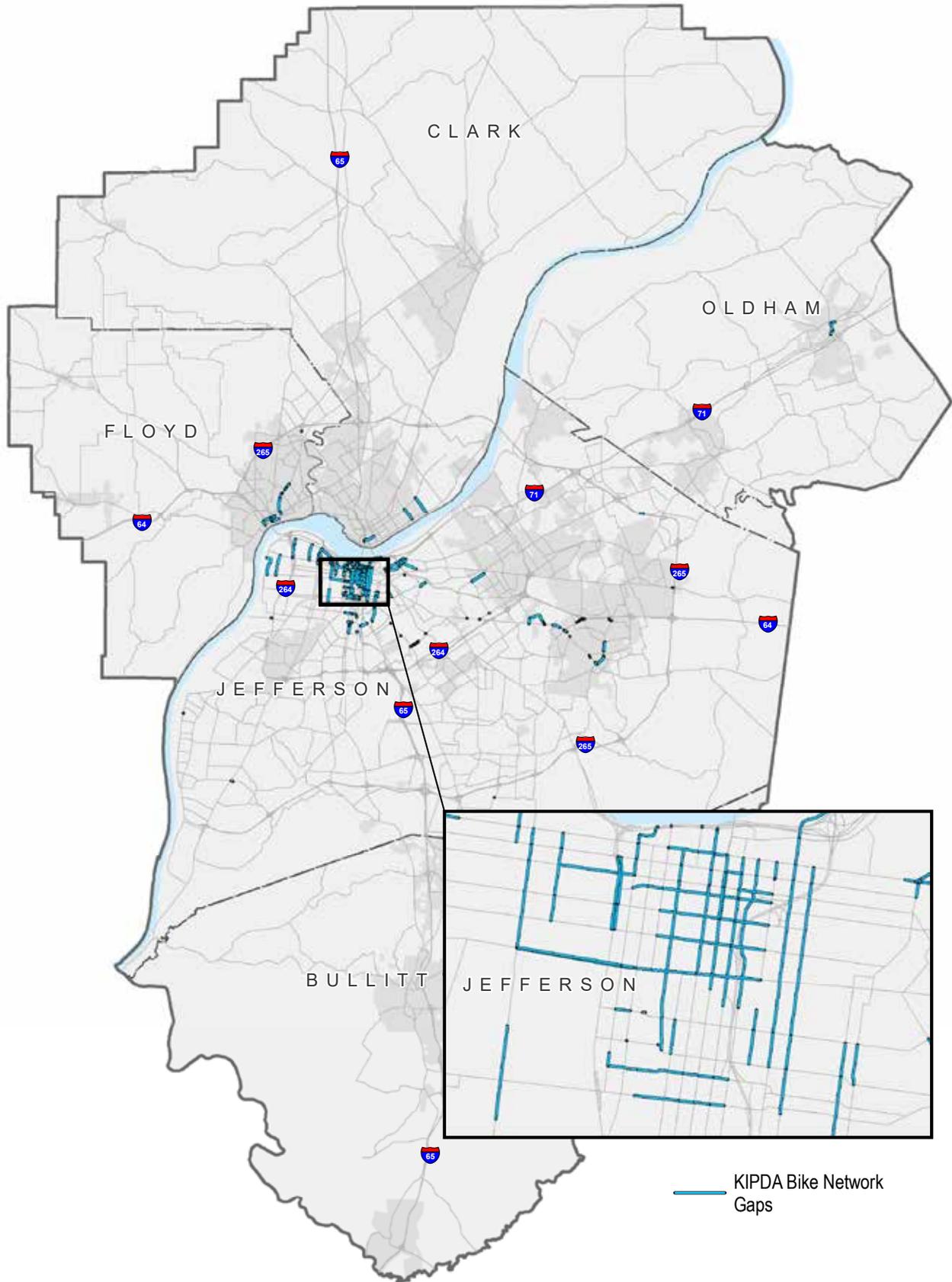
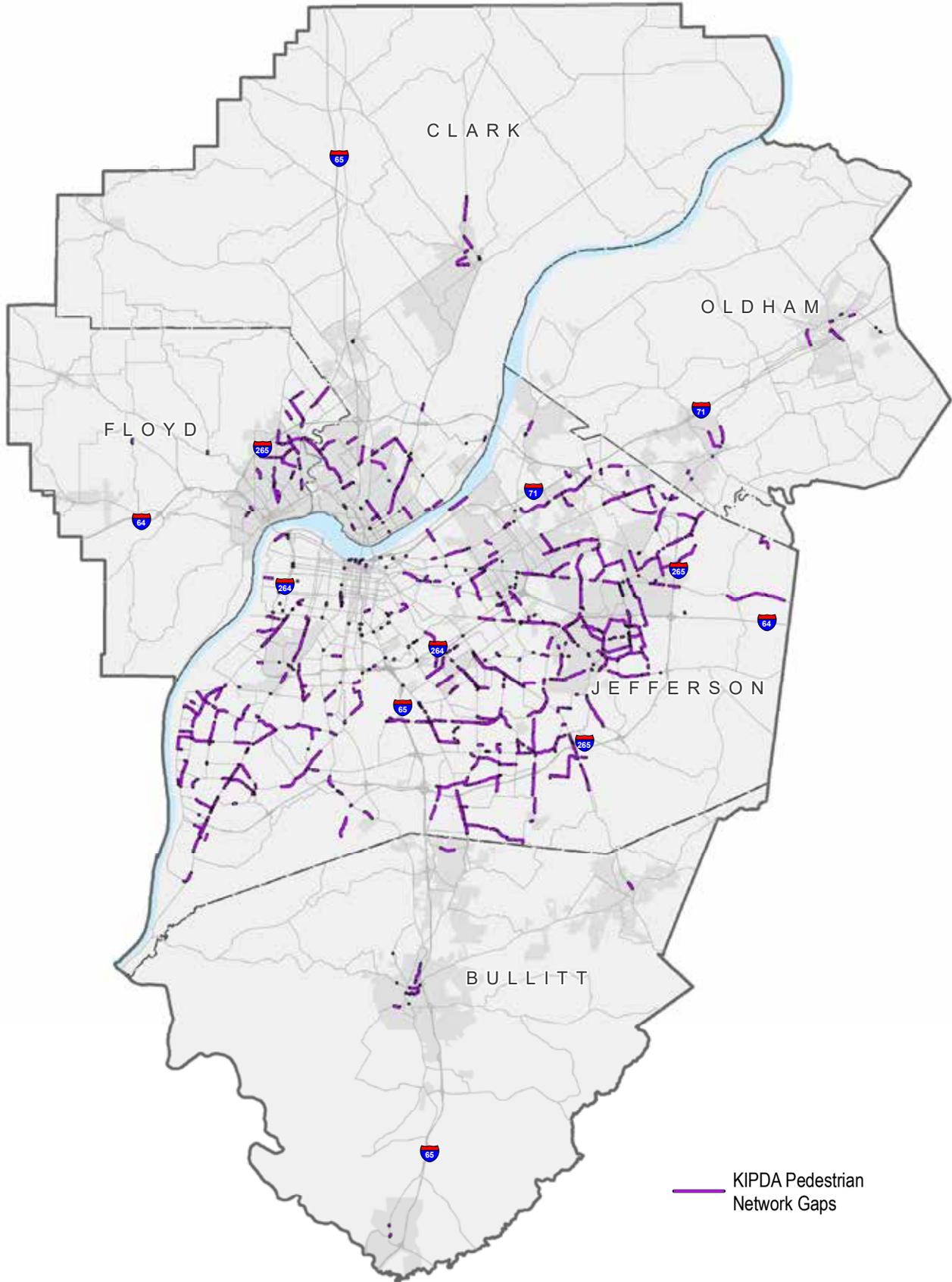


Figure 18: Pedestrian Network Gaps

Source: KIPDA, 2019



TRANSIT

Most of the transit assets in this region are owned and operated by the Transit Authority of the River City (TARC). TARC operates a total of 31 fixed routes, which include 23 traditional fixed routes and 8 circulator and shuttle routes, 15 express routes, and paratransit service that operates within a limited distance of the fixed route system.

TARC has identified the assets in their Transit Asset Management (TAM) Plan. The TARC TAM Plan identifies approximately \$167 Million in total assets in 2018. Among these assets, TARC owns 228 buses. In addition to the buses, TARC owns 168 other vehicles for revenue and non-revenue operations.

At the time of this writing, TARC is in the process of developing a Comprehensive Operations Analysis (COA) and a Long Range Plan (LRP). These efforts, expected to be completed in 2020, have the potential to significantly impact TARC's existing route structure, service levels, and the assets needed to operate.

The other public transportation service in the region is Oldham's Public Bus. It operates a single route near LaGrange on weekdays.

By sharing a ride to work, carpoolers can save money on fuel, parking, and wear and tear on their vehicle. Potential regional-level benefits also include reduced congestion on roadways, improved air quality, and less degradation of the existing transportation infrastructure.

The [Every Commute Counts Program](#) is a regional ridesharing program administered by KIPDA. The Every Commute Counts Program provides a ridematching service for those interested in finding a carpool, bikepool, transit access, park and ride lots, and/or vanpool match. Every Commute Counts administers the vanpool program in partnership with TARC. These programs seek to match individuals that are interested in ridesharing with others that live and/or work in nearby locations. Over 2,500 commuters currently utilize the ridesharing programs offered by Every Commute Counts. The vanpool portion of the program has a total of 89 vehicles in the fleet and currently operates a total of 66 active vanpools, serving about 460 commuters. These vanpools operate to and from a variety of locations in and near the KIPDA Region, with an average round trip distance of about 79 miles. At recent levels of ridership, the vanpool program is estimated to reduce the number of vehicle miles traveled (VMT) by approximately 8 million VMT each year.

RIDESHARING/VANPOOL

Ridesharing has numerous benefits including economic, environmental, and congestion reducing. The traditional means of ridesharing is an unofficial arrangement between neighbors or coworkers that carpool to work.

COMMUTING PATTERNS

Regional commuting patterns are often analyzed using Journey to Work Data. The Journey to Work Data provide estimates of the number of residents commuting to their primary job at the county level. This data has

Figure 19: 2011 - 2015 American Community Survey Journey to Work Data

Source: ACS, 2016

		WORKPLACE COUNTY					
		Bullitt, KY	Jefferson, KY	Oldham, KY	Shelby, KY	Clark, IN	Floyd, IN
RESIDENCE COUNTY	Bullitt, KY	11,597	22,263	185	248	447	198
	Jefferson, KY	5,439	323,561	3,551	2,122	7,216	2,741
	Oldham, KY	96	17,459	9,072	370	374	240
	Shelby, KY	105	6,069	490	10,454	107	0
	Clark, IN	219	18,466	211	9	25,933	6,647
	Floyd, IN	120	12,020	126	53	7,010	15,216

most recently been reported in the US Census Bureau’s 2011-2015 American Community Survey (ACS). The ACS Data provide rolling 5-year estimates.

The 2011-2015 ACS Data for the KIPDA MPA is shown in the table below. Commuters to and from the small portion of Shelby County in the MPA cannot be identified, so Shelby County is included in its entirety. The county that the commuter lives in is shown in the rows, while the county the commuter works in is shown in the columns. As an example of how to read the following table using the first row, the ACS Data tell us that approximately 11,597 residents of Bullitt County also work in Bullitt County, while approximately 22,263 residents of Bullitt County commute to Jefferson County for their primary job.

MODE SPLIT

Mode Split refers to the means of transportation, or the type of vehicle one uses to travel. This data traditionally comes from survey data where respondents state how they traveled. This type of survey is rare, and therefore the only reliable dataset to assess Mode Split in the KIPDA MPA at this time comes from the American Community Survey (ACS). The ACS Data is limited to the work trip, so recent estimates of mode split for trips to other destinations are unavailable at this time. The most recent estimates for the KIPDA MPA, from 2013-2017 are shown in Figure 21. Approximately

91% of the trips to work in the region are made by car, with the majority of those (82% of overall trips) made by drivers with no other occupants in their vehicle, known as a Single Occupant Vehicle trips, or SOV. Modes such as public transportation, bicycle, or walking cumulatively constitute about 4% of the trips to work regionwide.

Regional level trends can be generated from the ACS Data and can go back nine years to help identify trends in travel patterns related to mode split. See the graph below for the regional mode split trends and their change over time:

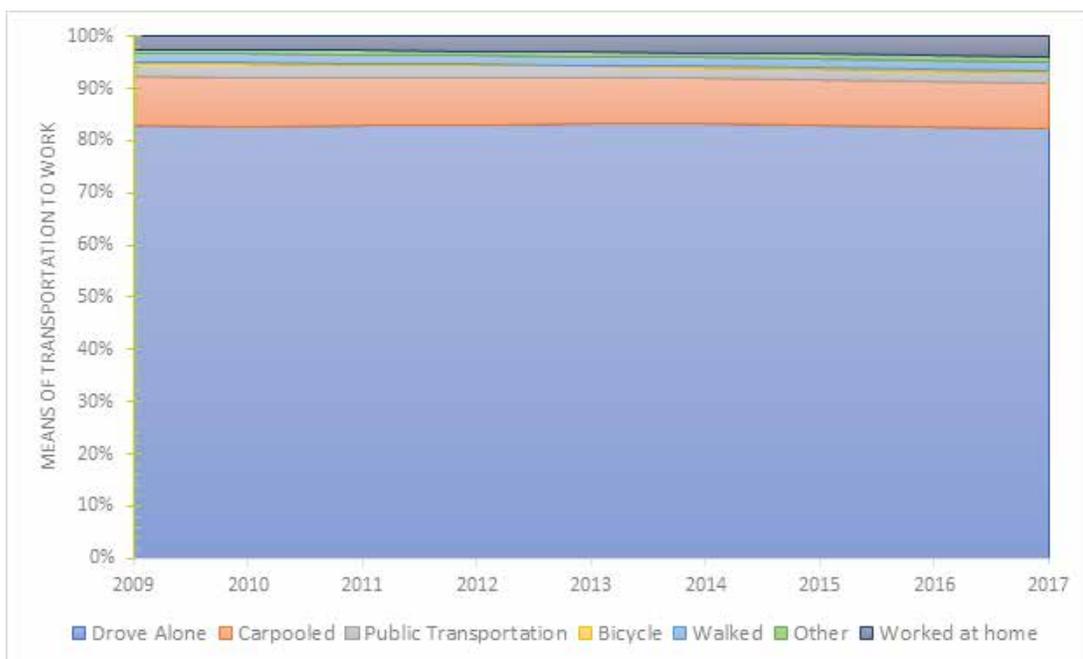
Figure 20: Means of Transportation to Work

Source: ACS, 2018

	Regional Total	Regional Percentage
Drove Alone	435,317	82.3%
Carpooled	45,501	8.6%
Public Transportation	11,144	2.1%
Bicycle	1,406	0.3%
Walked	8,709	1.6%
Other	6,234	1.2%
Worked at home	20,722	3.9%
Total	529,033	100.0%

Figure 21: Regional Means of Transportation to Work Trends

Source: ACS, Table B08301



The trends appear to show very little change in mode split over the past decade. The percentages of workers that drive alone, carpool, use public transportation, and walk to work have all seen small decreases over the decade, while bicycling to work remains about the same. These decreases are balanced by the increases seen in the number of workers working from home and those utilizing modes considered to be Other Modes, which includes taxis, motorcycles and other various means. Depending on how the survey respondent considered an Uber/Lyft trip, the increase in Other Modes could reflect the increased utilization of these services.

VEHICLE MILES TRAVELED (VMT) TRENDS

The amount of overall travel on roadways is typically measured by estimating vehicle miles traveled (VMT). The VMT in an area is a measure of all the vehicles that traveled on all roadways in that area multiplied by how many miles they traveled. It is impractical to accurately measure this metric, so it is estimated in each county on an annual basis, based primarily on traffic counts that are performed at the same location each time they are counted.

National Trend

Nationwide VMT are currently at the highest levels ever. It is estimated that there are over 3.24 trillion VMT annually in the United States. The national VMT trend over the past 25 years is shown in the graph below. Other than the period between approximately 2008-2012, national VMT has always steadily increased with population growth and suburban land development. The decline in VMT during this time period has been widely attributed to historically high fuel prices coinciding with an economic recession.

Regional Trend

The trend in VMT growth in Kentucky and Indiana generally resemble the national trends. Statewide VMT in each state have steadily increased for many years, experiencing a short-term peak during the recent economic recession.

VMT in the KIPDA MPA have grown more slowly than statewide and national VMT have grown over the last 20 years. VMT over this time period have remained consistent in Jefferson County, and grown in the other counties, with the most significant growth occurring in Bullitt County. See the table and graph on the following page for more information on local VMT trends.

Figure 22: Estimated Regional Daily Vehicle Miles Traveled

Source: Kentucky Transportation Cabinet and Indiana Department of Transportation

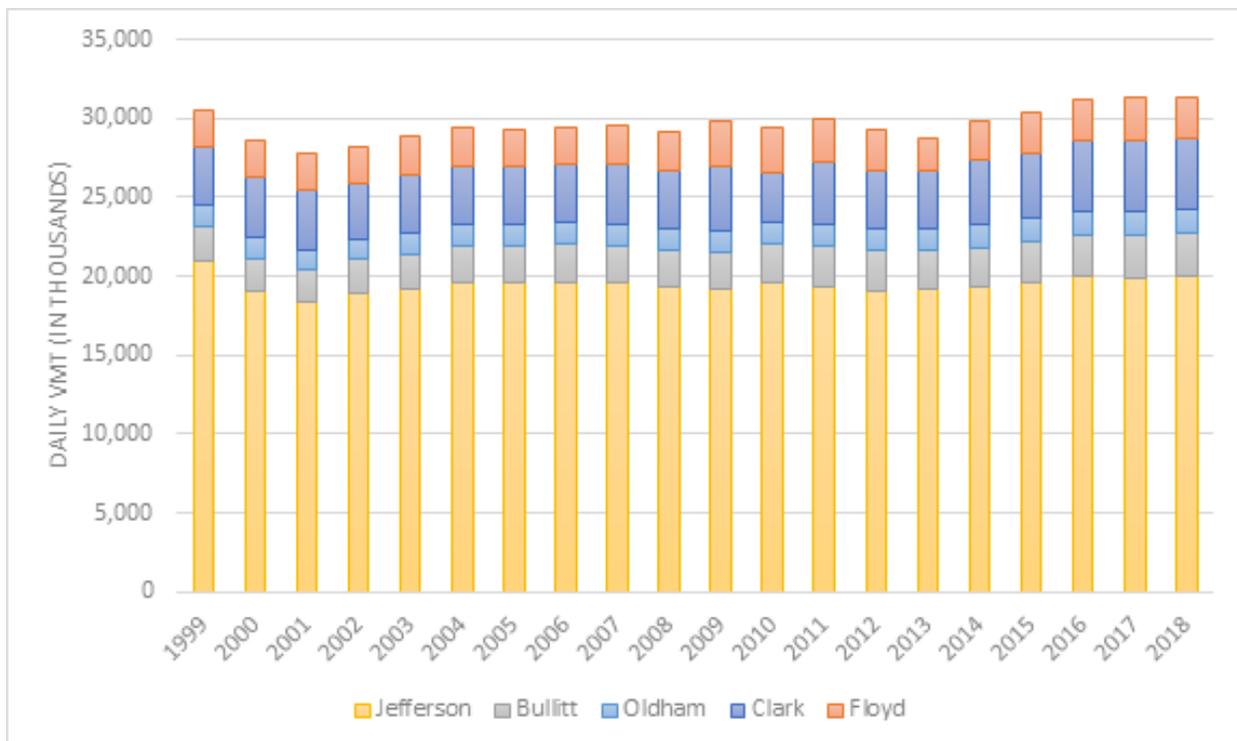


Figure 23: Estimated Daily Vehicle Miles Traveled (in thousands)

Source: Kentucky Transportation Cabinet, Indiana Department of Transportation, and Federal Highway Administration

	CLARK	FLOYD	BULLITT	JEFFERSON	OLDHAM	KIPDA MPA	INDIANA	KENTUCKY	U.S.A.*
1999	3,810	2,264	2,111	21,039	1,305	30,529	195,777	132,224	7,341,000
2000	3,881	2,292	2,078	19,084	1,278	28,613	198,126	128,278	7,526,000
2001	3,754	2,381	2,037	18,336	1,303	27,811	202,964	127,116	7,659,000
2002	3,536	2,412	2,141	18,907	1,264	28,260	204,510	128,405	7,823,000
2003	3,674	2,411	2,245	19,199	1,331	28,860	203,761	128,479	7,918,000
2004	3,675	2,421	2,323	19,620	1,384	29,423	204,216	129,948	8,123,000
2005	3,633	2,338	2,297	19,662	1,391	29,321	203,489	129,823	8,190,000
2006	3,656	2,334	2,381	19,666	1,423	29,460	203,258	130,519	8,259,000
2007	3,782	2,396	2,366	19,583	1,382	29,509	203,410	131,150	8,304,000
2008	3,705	2,438	2,323	19,313	1,356	29,135	200,322	129,249	8,155,000
2009	4,017	2,888	2,395	19,162	1,342	29,804	212,376	129,415	8,101,000
2010	3,096	2,939	2,426	19,592	1,409	29,462	198,237	131,662	8,127,000
2011	3,920	2,808	2,506	19,386	1,419	30,039	212,209	132,015	8,026,000
2012	3,752	2,590	2,511	19,115	1,365	29,333	215,469	129,442	8,051,000
2013	3,633	2,085	2,517	19,139	1,377	28,751	217,432	128,914	8,125,000
2014	4,128	2,457	2,557	19,302	1,405	29,849	221,585	131,430	8,285,000
2015	4,202	2,546	2,547	19,662	1,446	30,403	221,918	133,591	8,477,000
2016	4,489	2,584	2,622	20,037	1,497	31,229	226,332	134,783	8,699,000
2017	4,483	2,653	2,709	19,923	1,543	31,311	229,032	135,069	8,803,000
2018	4,443	2,695	2,726	20,012	1,524	31,400	228,345	135,746	8,827,000

*Annual VMT/365

Figure 24: National Vehicle Miles Traveled (VMT) Trend

Source: FHWA Office of Highway Policy Information Traffic Volume Trends, August 2019 Report



TRANSIT TRENDS

Transit rides in the KIPDA MPA are almost exclusively limited to rides on TARC. While there are a few other operators of public transportation in the region, many of these provide specialized trips and all of them operate on a much smaller scale than TARC. The majority of overall TARC trips are on one of the 23 traditional fixed routes that TARC operates. In addition to the fixed routes, TARC operates 15 express routes and several circulators and shuttle routes as well. TARC also provides paratransit trips that operate within ¼ mile of one of their fixed routes.

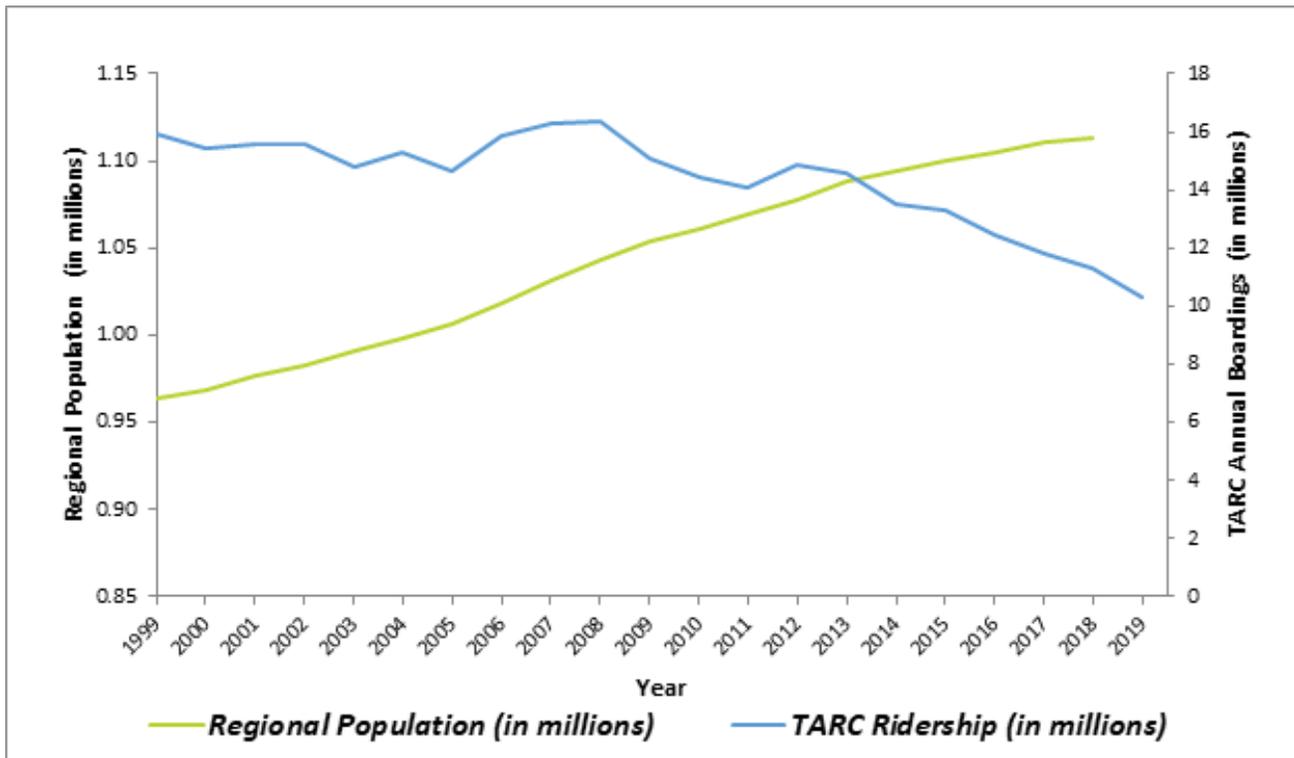
TARC’s ridership trends are showing declines over the past decade. This trend is not unique to TARC, as ridership on transit systems around the country have experienced similar declines as travelers choose other means of transportation. The most recent annual ridership

data that is available from TARC, from fiscal year 2019, estimate about 10.3 Million rides were taken on TARC’s fixed routes, express routes, and circulators. This reflects a decrease of nearly 40% from the most recent peak in ridership that occurred around 2008, during the period of high gas prices. Looking at the trend over the past 20 years shows that annual boardings have typically ranged in the 14-16 Million range since the late 1990s.

When ridership is viewed on a per capita basis, the trend shows a steeper decline. Regional population has steadily grown, by approximately 15% over the past 20 years. Over this same time period, annual TARC ridership has decreased by about 35%. These two trends contribute to a decrease in Annual TARC Boardings Per Capita from 16.5 in 1999 to 9.2 in 2019, a decrease of nearly 45%.

Figure 25: Total Annual TARC Boardings vs. Regional Population

Source: TARC & U.S. Census Bureau Estimates



SAFETY

HIGH CRASH LOCATIONS

As a part of the development of *Connecting Kentuckiana 2040*, KIPDA developed a methodology for identifying high crash locations within the region. The analysis contains six unique components that identify high crash location by type of facility and by mode. These include:

- High Crash Intersections
- High Crash Roadway Segments (non-interstates)
- High Crash Interstate Segments
- High Crash Interchanges
- High Crash Bicycle Segments
- High Crash Pedestrian Segments

While the individual components of the analysis varied slightly, locations were analyzed based upon three primary factors: 1) the frequency of crashes which occur at a given location, 2) the rate of crashes relative to the volume of traffic at the location, and 3) the severity of the crashes which occurred at the location.

The analysis of locations resulted in high crash lists, and maps to accompany these lists. The lists are intended to serve as starting points for further study and as a key consideration when prioritizing the programming of funding sources. The lists of high crash locations do not necessarily indicate that one location is more dangerous than another. In some cases, the frequency of crashes that occur near a given location may reflect the high volume of traffic travelling through it. Unfortunately, there are situations where the severity of crashes in terms of injuries and fatalities is less a matter for studied improvement and more a reality of individual driver behavior or circumstance for which little can be addressed near a given location. It is understood that reducing the number of injuries and fatalities near a given location is often a product of reducing the number of crashes.

The intent of this identification of high crash locations was to put all the high crash locations in the KIPDA MPA on a more level playing field where a more thorough review and comparison could be completed. Through an analysis which normalizes the relationship between the frequency of crashes and the volume of traffic, accounts for crash related injuries and fatalities, and focuses

attention to where the greatest numbers of crashes occur, a process was developed where geo-specific safety issues are identified and relative priority can be assigned.

The six maps on the following pages show the most recently identified high crash locations for each of the four types of locations, and for locations with high numbers of crashes involving bicyclists and pedestrians. The high crash location analysis will be updated every few years using the most recent crash data to help identify any new locations and to assist in a review of the effectiveness of safety-enhancing strategies.

FUTURE FORCES

The transportation sector is rapidly changing with technologies that have the potential to revolutionize the way people and goods move and how cities and towns look. While some versions of these technologies are available and on the road currently, the scope of the change to the transportation system and travel patterns is unknown.

Connecting Kentuckiana 2040 recognizes these changes and the MPO will pursue those that align with the goals and objectives of the MTP.

Figure 26: High Crash Intersections In The Region

Source: KIPDA, 2019

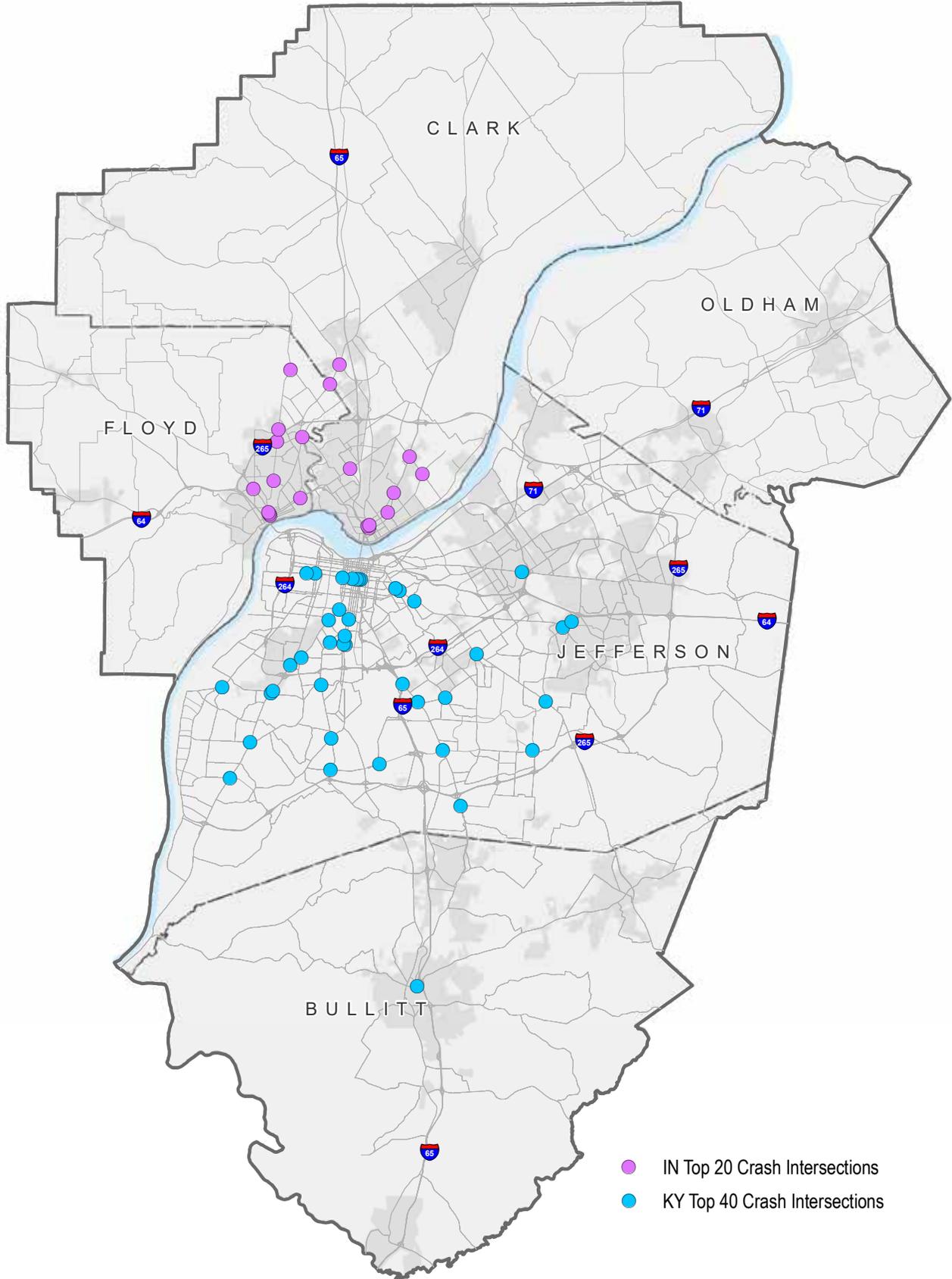
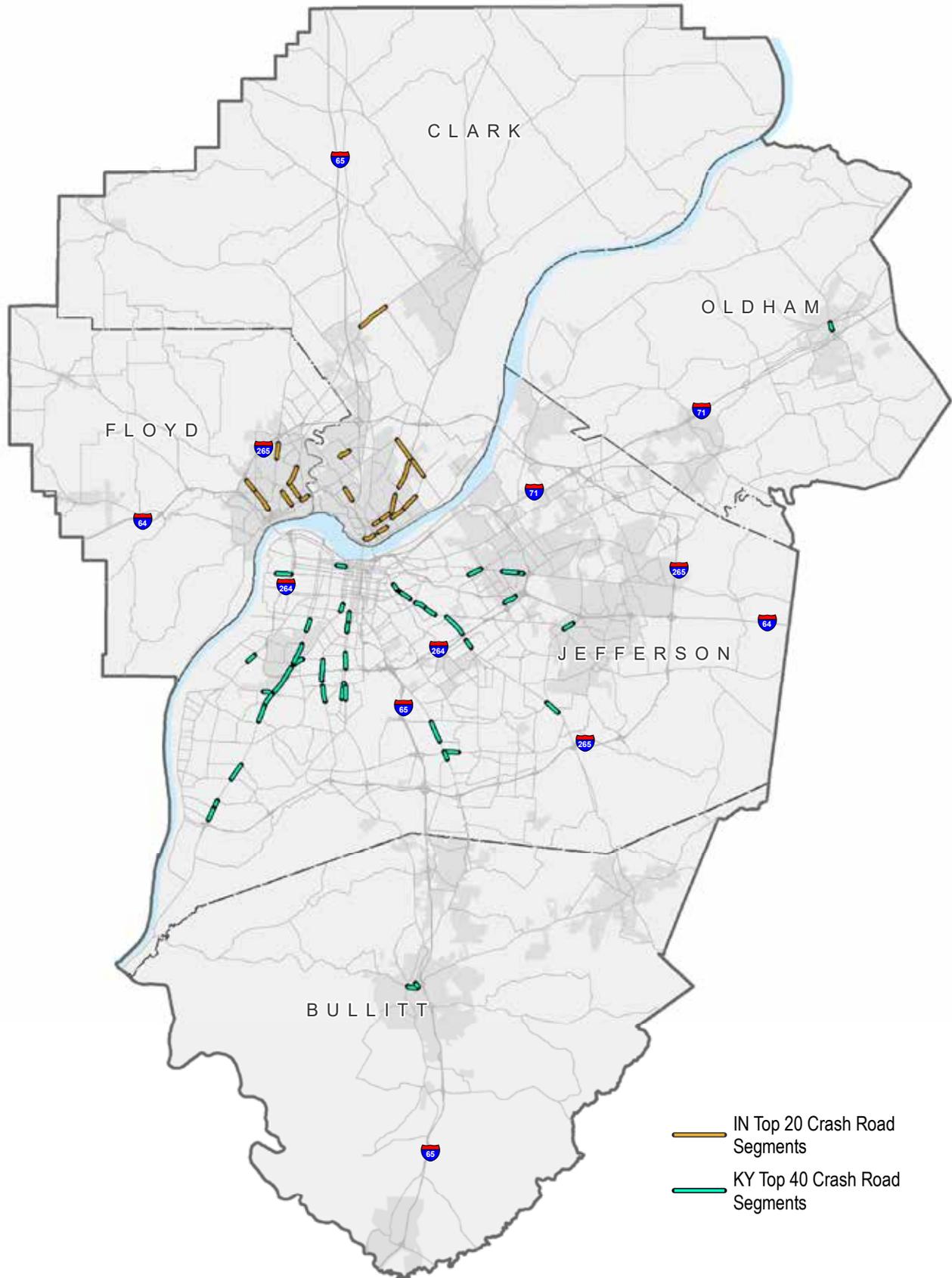


Figure 27: High Crash Roadway Segments In The Region

Source: KIPDA, 2019



- IN Top 20 Crash Road Segments
- KY Top 40 Crash Road Segments

Figure 28: High Crash Interstate Segments In The Region

Source: KIPDA, 2019

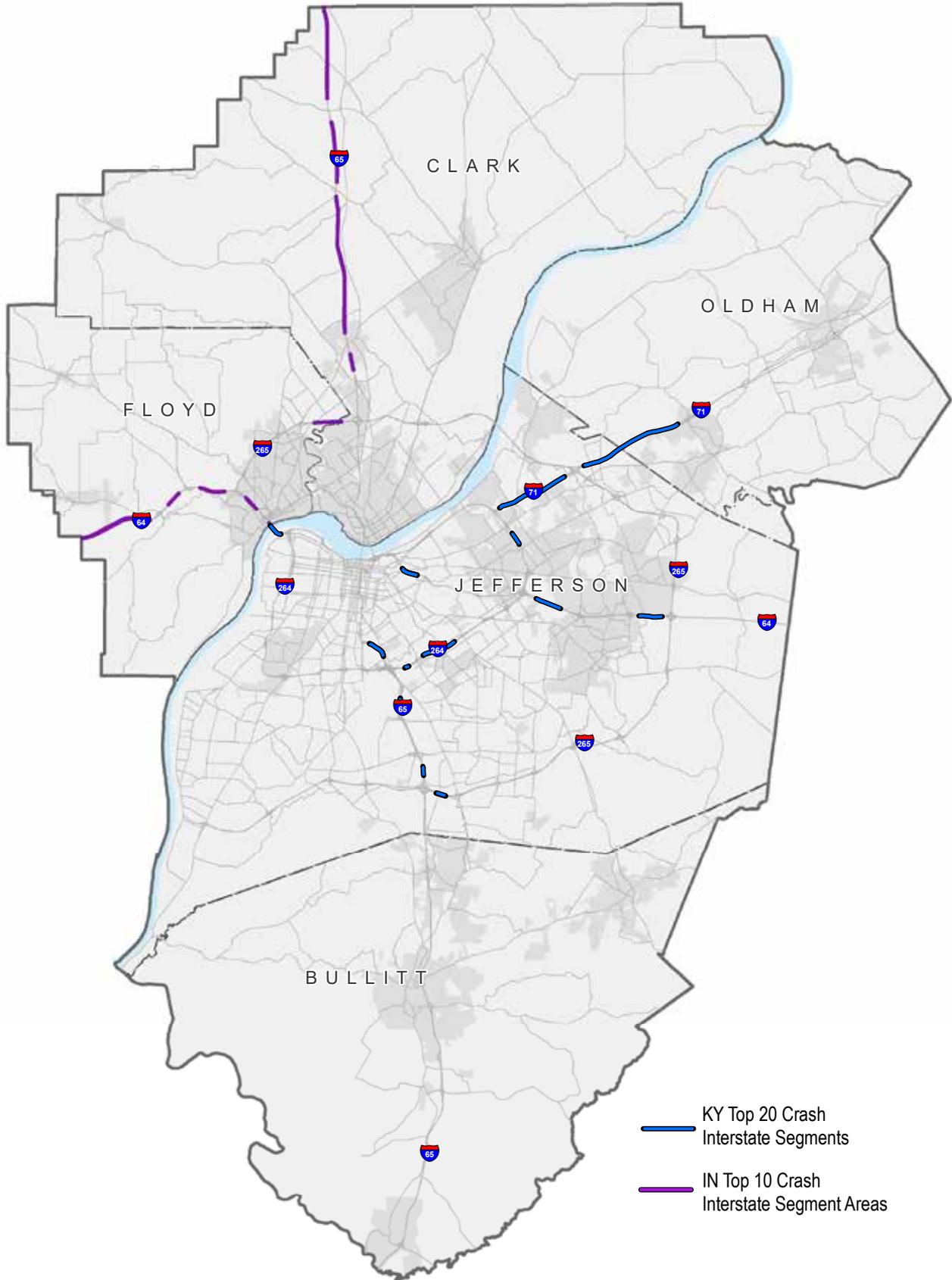


Figure 29: High Crash Interstate Interchanges In The Region

Source: KIPDA, 2019

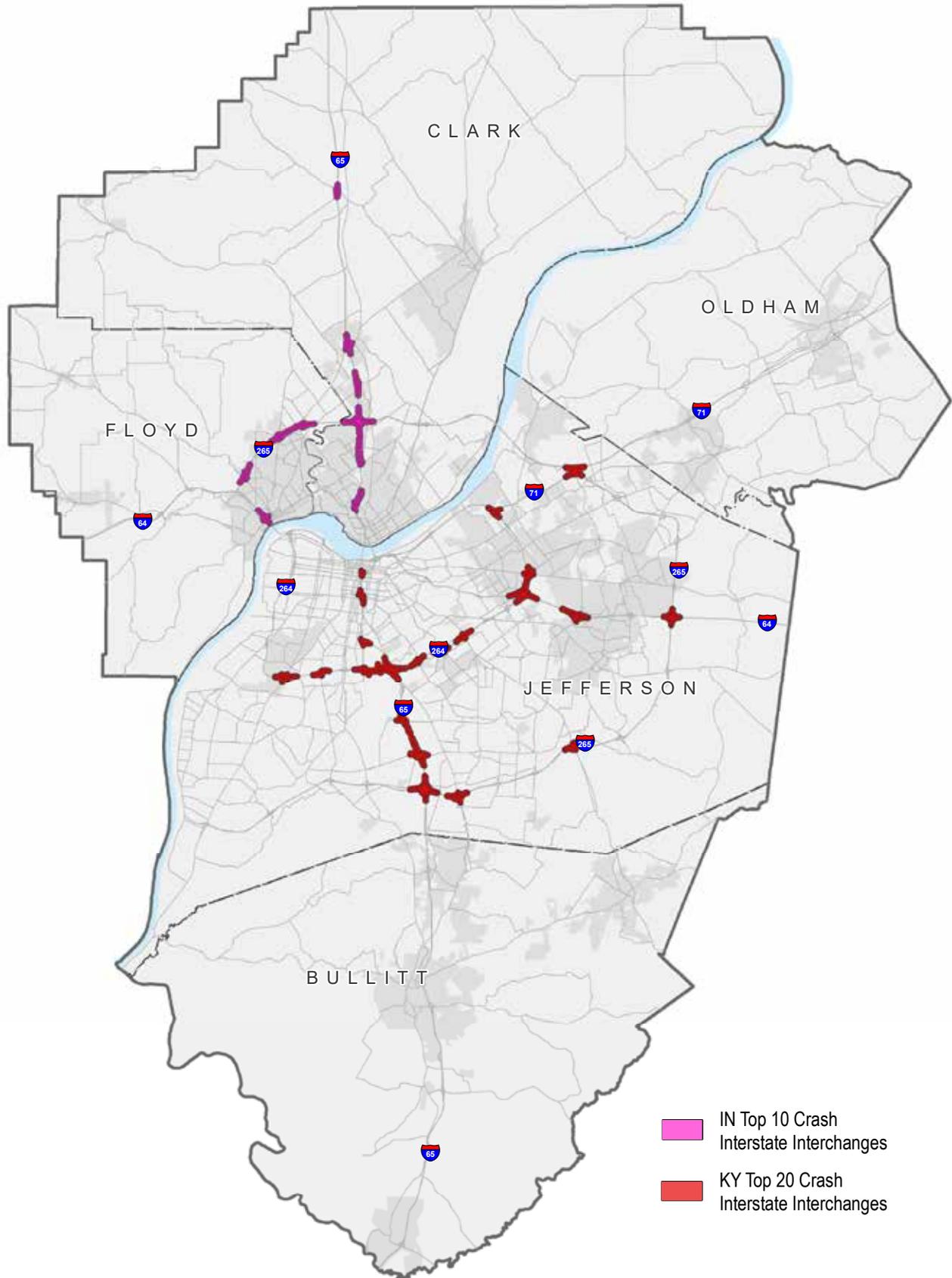


Figure 30: Top 20 High Crash Bicycle Segments In The Region

Source: KIPDA, 2019

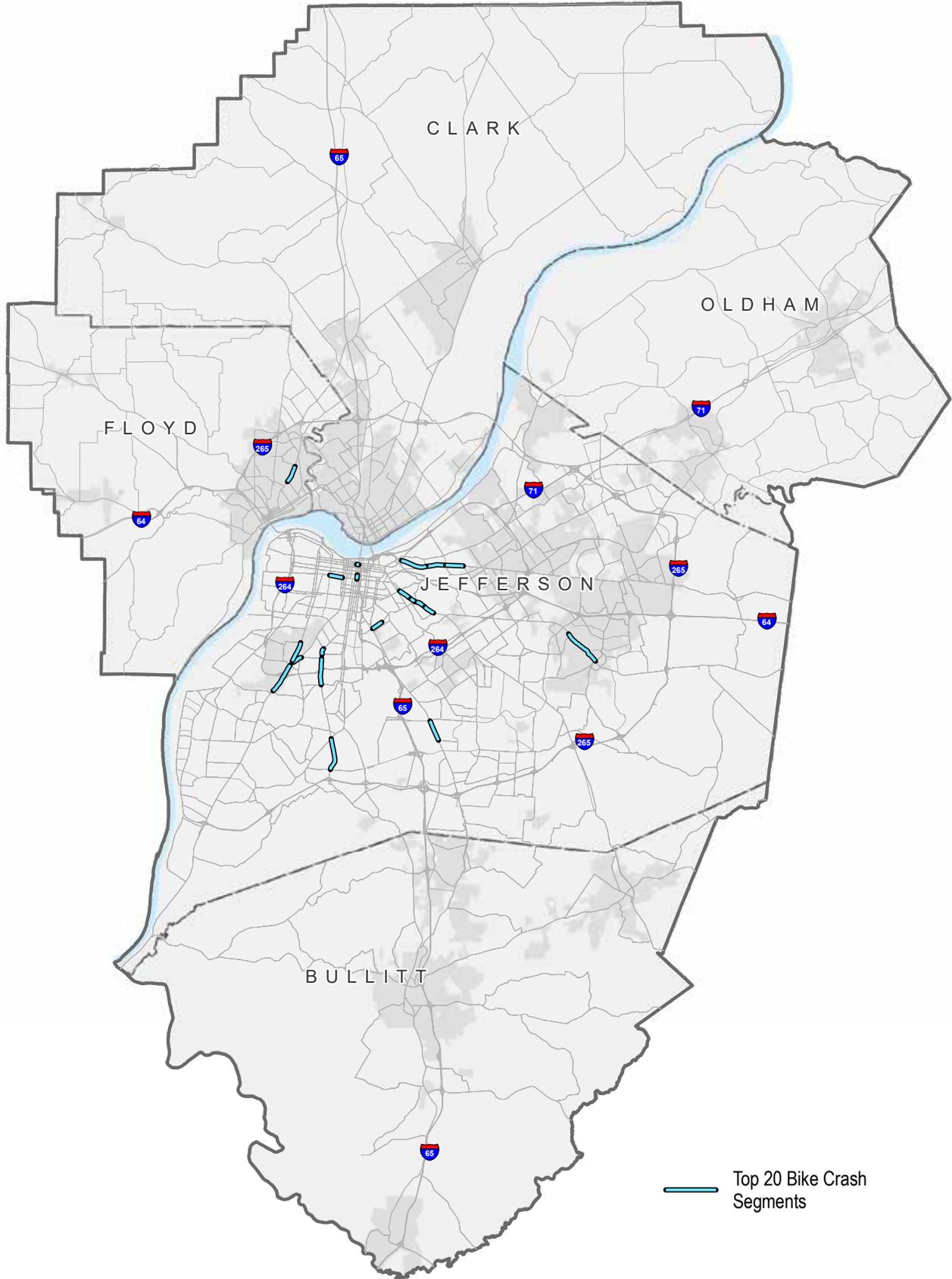
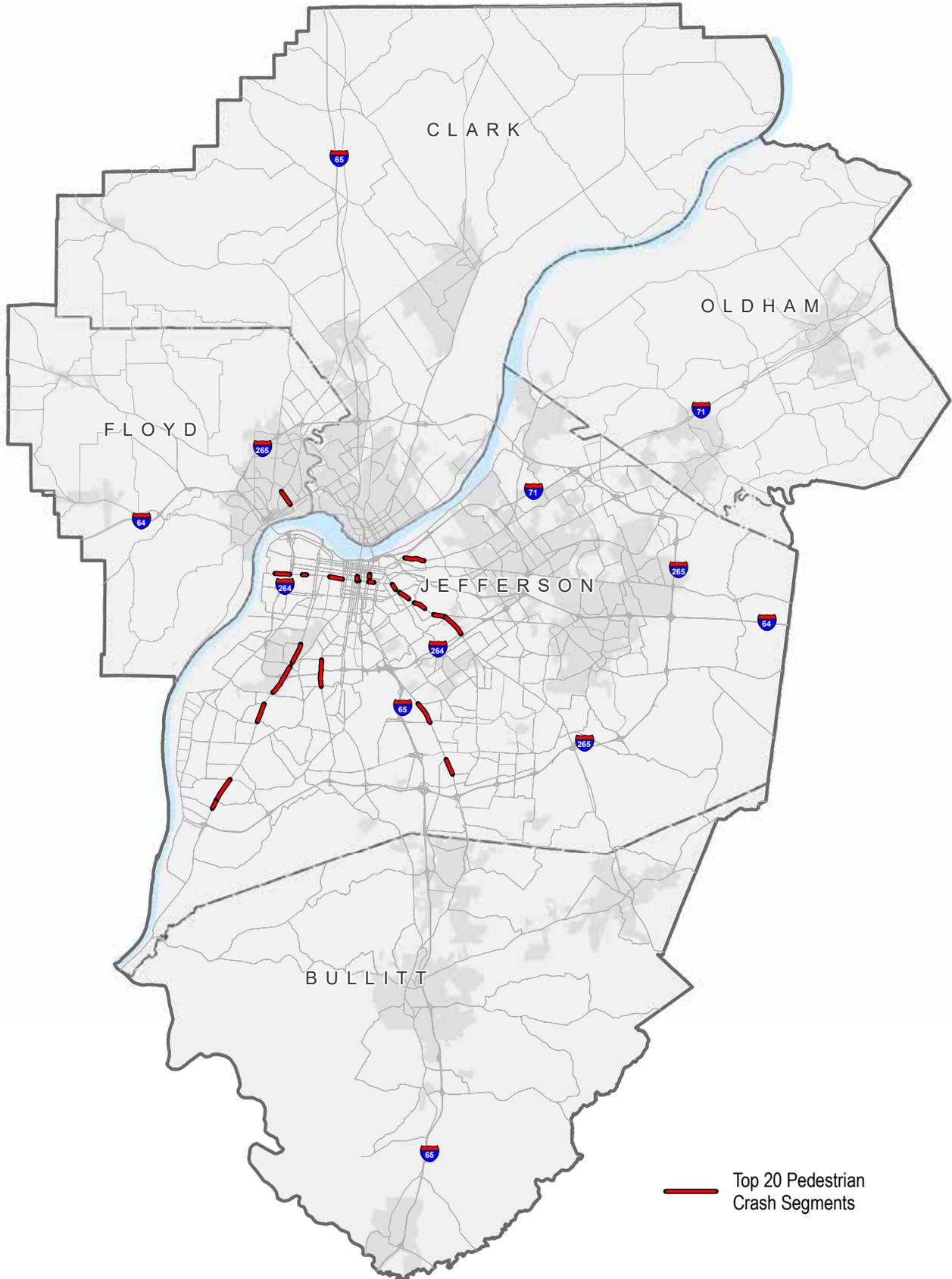


Figure 31: Top 20 High Crash Pedestrian Segments In The Region

Source: KIPDA, 2019





03 PLAN DEVELOPMENT

IN THIS CHAPTER

Public Participation

Vision Statement & Goals

Performance Management

Project Development

Environmental Mitigation

PUBLIC PARTICIPATION

Interaction with the public has contributed to the development of the *Connecting Kentuckiana 2040* MTP. The public comments collected since 2012 have been reviewed, and when possible geo-coded into KIPDA’s Geographic Information System (GIS) databases. The geo-coding of this information has proven valuable during project development as it has been made available to planning partners and utilized as one of the factors influencing project development. The project and program evaluation and ranking process also used geo-located comments to assess the communities needs and account for the potential to impact issues identified through public participation.

Following the guidance provided in the KIPDA Participation Plan, *Connecting Kentuckiana 2040* was made available to the public for their review prior to any

consideration for adoption by the Transportation Policy Committee (TPC). The draft Metropolitan Transportation Plan (MTP) was available to review at all public libraries in the five-county region, on the KIPDA website and social media, and during eight public meetings held throughout the region during the Public Involvement Period. Comments received from the public were made available to the TPC for their consideration in advance of the request for adoption of the draft MTP.

The *Connecting Kentuckiana 2040* MTP was updated, finalized, and adopted following the public participation activities. See Appendix B for full details of public involvement and comments received on the MTP.

VISION STATEMENT & GOALS

In April 2013, the Transportation Policy Committee established a Goals Working Group to undertake the responsibility of developing a recommendation for the *Connecting Kentuckiana 2040* Vision Statement and Goals. The Goals Working Group’s activities were based upon an extensive public involvement effort to identify transportation issues, as well as KIPDA research and analysis on existing infrastructure inventories, clusters of trip attractions, and other pertinent transportation related research and information. The Goals Working Group also considered the intent of federal regulations. The Goals Working Group discussed how the transportation system for the area will evolve. Many issues and wants were considered as they identified what were believed to be important for the region and what steps may be necessary to achieve the goals that were drafted.

In August 2013, the Goals Working Group presented a recommended *Connecting Kentuckiana 2040* Vision Statement and set of Goals to the Transportation Policy Committee for their review and consideration. The TPC adopted the Working Group’s recommendation. The Goals were reaffirmed by the TPC in May 2018.

GOALS WORKING GROUP PARTICIPANTS

- Jefferson County League of Cities
- TARC
- City of Jeffersonville
- Bullitt County
- Oldham County
- Town of Clarksville
- Louisville Metro
- KYTC
- City of St. Matthews
- City of Jeffersontown

VISION STATEMENT

Connecting Kentuckiana 2040, the Metropolitan Transportation Plan for the Louisville (KY-IN) Metropolitan Planning Organization (MPO), is a regional platform to support and implement a sustainable and multimodal transportation system applying the following principles:

- Improved connections
- A safe and reliable transportation system
- Expanded mobility options
- New and innovative approaches to improve the transportation system in a cost-effective and efficient manner
- Responsive to the needs and wants of the users
- More efficient use of the existing transportation system

Connecting Kentuckiana 2040 explores the many facets of transportation ranging from connectivity within small geographic areas to connectivity throughout the region and beyond. This is accomplished by striving to ensure the various modes available for moving persons and goods operate safely and efficiently.

There are unique challenges and opportunities facing the KIPDA Louisville (KY-IN) MPO region. This region is anticipated to expand in terms of the population, number of households and number of jobs. There are portions of the region that are well-established today. The needs of both the growing and established areas must be incorporated for a balanced system that supports the existing infrastructure as well as the new.

Connecting Kentuckiana 2040 sets forth a vision for transportation in the region as it exists today and its evolution into the future to ensure, as we move forward, it is in an efficient and productive manner that recognizes the various needs of transportation users, giving recognition to the opportunities and benefits associated with advancing innovative strategies and fostering expanded modal choices.

CONNECTING KENTUCKIANA 2040 GOALS & OBJECTIVES

TRANSIT

Improve public transit connectivity to identified Community Access Clusters, including, but not limited to, high density employment, high density residential, high density retail, commerce centers, and Access to Education.

- By 2040, and where opportunities for growth exist, increase by 20% the percent of land area within identified clusters of Community Access, high density employment, high density medical, high density shopping, high density housing, and schools served by public transit.
- Increase the number of occupied spaces in Park and Ride Lots by 40% by 2040.
- By 2040 increase the number of park and ride lots with dedicated bicycle access by 10%.
- By 2040 increase the number of park and ride lots with pedestrian access by 20%.

MULTI-MODAL

Increase the availability and efficiency of person based multi-modal options.

- Increase system wide transit ridership by 20% by 2040.
- Reduce by 20% the identified gaps in pedestrian walkways along functionally classified roadways by 2040.
- Reduce by 20% the identified gaps in bikeways along functionally classified corridors by 2040.

NON-MOTORIZED

Improve the connectivity of the pedestrian network.

- By 2040, increase by 10% pedestrian walkways within identified Community Access Clusters (including, but not limited to, high density employment, high density residential, high density shopping, and Access to Education clusters) and to public transit stops.

Improve the connectivity of bicycle facilities.

- By 2040, increase by 10% the number of miles of dedicated bicycle facilities within identified Community Access Clusters, high density employment, high density medical, and high density shopping and within 1 mile of the boundary, and near schools by adding new facilities, filling in gaps in existing facilities, and improving access to transit stops on functionally classified roadways.

CONGESTION

Manage and reduce roadway congestion where appropriate.

- Maintain or improve Level of Service on freeway and Interstate roadway miles with a Level of Service of D or worse through 2040.
- Maintain or improve Level of Service on arterial roadway miles with a Level of Service of D or worse through 2040.

SAFETY

Increase safety for all users.

- By 2040, reduce by 20% the ratio of all crashes to regional Vehicle Miles Traveled with high priority given to reducing crashes involving bicycles and pedestrians.

FREIGHT

Ensure timely and efficient movement of freight within, departing, and entering the region.

- Maintain or improve Level of Service on roadway miles included on the KIPDA Freight Network through 2040.
- By 2040, reduce by 10% the number of locations on the KIPDA Freight Network and within 1.0 miles of identified clusters of freight distributors where roadway geometry (turning radii, lane width, shoulder width, roadway curvature, etc.) contributes to delay or hinders freight truck access to and from destinations.

ECONOMY

Influence positive economic impacts.

- Reduce the average headway time on public transit by 40% on TARC-defined Title VI Routes by 2040.
- By 2040, increase by 10% pedestrian walkways within areas with moderate to significant employment growth and to public transit stops.
- By 2040, increase by 10% the number of miles of dedicated bicycle facilities within areas with moderate to significant employment growth by adding new facilities, filling in gaps in existing facilities, and improving access to transit stops on functionally classified roadways.

ENVIRONMENT

Reduce and/or mitigate negative environmental impacts, including climate change.

- Meet or be under mobile source budgets in State Implementation Plans for Air Quality with each update and amendment to the Metropolitan Transportation Plan.

MAINTENANCE

Maintain the existing transportation network in a state of good repair.

- By 2040, increase by 10% the miles of functionally classified roadways that meet or exceed the federally defined Good pavement condition.
- Reduce the number of bridges that are identified as Poor (using federally defined criteria) by 50% by 2040.
- By 2040, reduce the percent of transit fleet (both revenue and non-revenue vehicles) that have met or are above the useful life benchmark.

PERFORMANCE MANAGEMENT

Performance-based planning is a strategic approach that uses data to support investment decisions that help to achieve performance goals. Performance-based planning also facilitates a reasonable understanding of what impacts a project, as well as the entire slate of projects in the MTP, may have on the community. It is the reasonable understanding of possible impacts that contributes to enhanced dialogue amongst all parties impacted, better informed decision making, and a greater understanding of how prioritization and project selection can be more effective when limited resources may make it challenging to address all the needs of the transportation system simultaneously.

KIPDA's transportation planning process utilizes the performance-based planning and programming approach. The Performance Management Process, integrated into *Connecting Kentuckiana 2040*, provides the foundation for identifying MTP project ranks, informing the decision-making process, and advancing project-based contributions toward achieving performance targets.

In developing the [Performance Management Plan](#) (PMP), KIPDA utilized the framework established by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) by incorporating the National Performance Measures and Planning Factors as defined through federal legislation. The PMP outlines the federally required performance measures, and the MPO-developed performance measures developed by the Transportation Policy Committee. The PMP details the baseline data, historical data, performance targets, and target-setting methodology for all performance measures.

One of the most important aspects of the PMP is tracking progress towards achieving the performance targets. The reporting process provides the necessary performance-based feedback to the TPC, as well as our federal, state, local, and community planning partners.

For each performance measure, KIPDA will report on data sources, baseline data, historical data, performance targets, and target-setting methodology in the PMP. On a regular basis, KIPDA will report the necessary performance-based feedback to the Transportation Policy Committee, as well as our federal, state, local, and community planning partners. KIPDA will report on progress towards achieving performance targets, in a Baseline Performance Period Report, a Mid Performance Period Report, and a Full Performance Period Report.

The PMP is integrated into a multitude of transportation planning activities, including, but not limited to:

- The Planning Process Memorandum of Agreement
- Unified Planning Work Program
- Metropolitan Transportation Plan
- Transportation Improvement Program and the Project Management Processes
- Congestion Management Process
- Participation Plan
- Regional Mobility Freight Study
- Other relevant planning documents, programs, and procedures

The PMP played a critical role in the project and program development of *Connecting Kentuckiana 2040*. The performance measures provided the direction for data collection relative to the MTP update as well as the project evaluation and ranking process. The PMP influenced project development both in terms of project submission and evaluation.

It is important to understand the differences between the analysis in Chapter 5: Performance & Impacts and the role of the PMP. Chapter 5 includes an analysis of what impacts may occur if a project advances to completion. Given the fluid nature of transportation planning and project implementation in it is unreasonable to predict what exactly will happen when a project is proposed for inclusion in the MTP. The PMP reporting process identifies what did happen and will continue to happen as a result of the completion of a transportation improvement. The key is in appreciating the differences between “may”, “will”, and “did”.

Additional information about the Performance Management Plan is available in Appendix K.

PROJECT DEVELOPMENT

The project development process generated potential surface transportation projects and programs for *Connecting Kentuckiana 2040*. It incorporated the *Connecting Kentuckiana 2040* goals and objectives and performance-based planning into one cohesive, data-driven process with the aim of improving project and program delivery and inform investment decisions. KIPDA achieved this intention with new online tools for the development, application, and evaluation of candidate projects for the MTP. By moving project development to an online approach, the process was more transparent and detailed.

Data resources via the [Transportation Planning Portal](#) were provided to project sponsors to review existing *Horizon 2035* projects and new MTP projects. The data was made available to assist project sponsors in determining if proposed projects might address performance measures or could be modified to do so. The same data was used to develop, evaluate, and rank each project in order to form a baseline analysis of all the proposed projects .

KIPDA staff created the [Project Application Assistant](#), an interactive map featuring a drawing tool, for the sponsor to draw their project location. The project sponsor then answered questions in the Project Application Form corresponding to data displayed on the interactive map. Each question gathered information to feed into the evaluation form (see Appendix D) with criteria derived from the Performance Management Plan, the Congestion Management Process, and the *Connecting Kentuckiana 2040* goals and objectives .

Following project development, each proposed project and program was evaluated and ranked using criteria aligned with the project application and the performance measures in the PMP. The evaluation and ranking of projects are a component of the information sharing that contributes to better informed decision making and improved dialogue.

The evaluations included two components: the need (score of 0-5) of criteria in an area and the degree of impact (0, 1, or 2) a project may have on the criteria. The need score was determined by a combination of focus areas, TAD reports, clusters, and other areas of concern. Each TAD in the region was pre-assigned a need score for each performance section – safety, transit, non-motorized, motor vehicle access, and freight. The impact score was determined by how much the project contributed to the need. Each criteria line was summed to a final score.

The rankings given to proposed projects are a measure of how well the projects address the performance measure and the need values in the evaluation. Ranks were assigned based on increments from the top-ranking project. The project ranks are intended to be used in the decision-making process as the MTP is implemented and funding is allocated. The full list of *Connecting Kentuckiana 2040* projects and programs and their associated ranks can be found in Chapter 4: Investments.

DATA RESOURCES

Several sets of data were used in evaluating the proposed projects for the MTP. The following resources were compiled by KIPDA staff and can be viewed on the [Online Resource Center](#).

TRANSPORTATION ANALYSIS DISTRICT (TAD) REPORTS

The [Transportation Analysis District \(TAD\) Review](#) closely examined clusters of trip attractions and the transportation options and impedances for traveling to the destinations within each TAD. Within the five county KIPDA region there are 41 TADs.

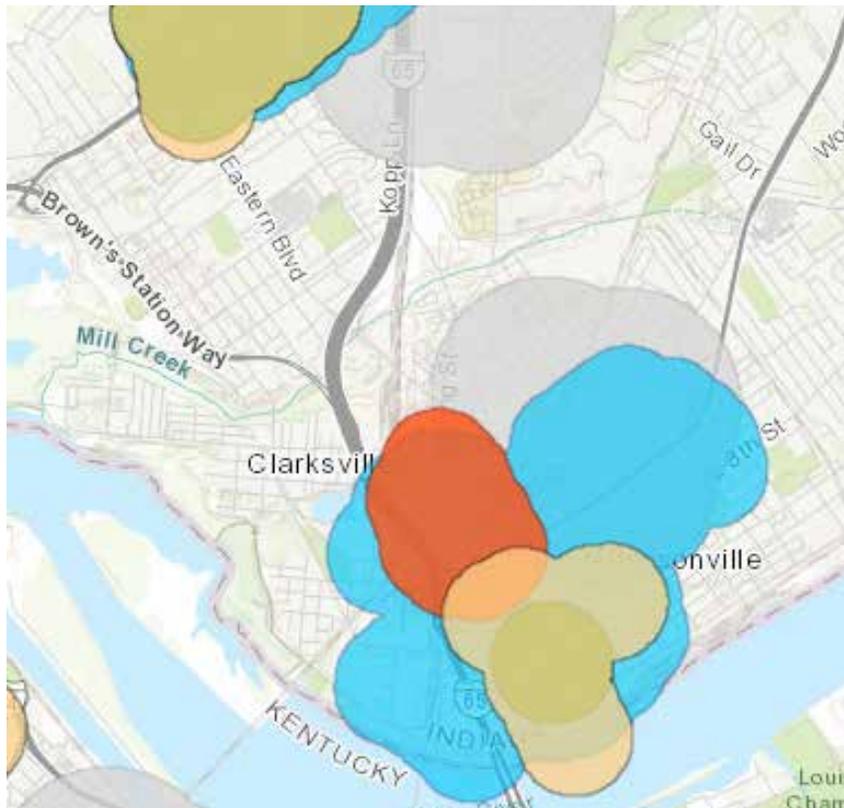
Data on potential trip attractions was collected and imported into a GIS database to create a cluster analysis. Each piece of data included location information such as street address or latitude and longitude coordinates. Using the location information, the GIS analysis identified clusters of data points (or trip attractions). Additional data was collected in order to better understand current and forecasted levels of congestion on roadways, demographic changes projected to occur by 2040, and public transit information. The review of each cluster focused on the transportation needs of that cluster. For example, a cluster of schools may require greater consideration of pedestrian, bicycle, and public transit facilities while clusters of major freight distributors may give more consideration to the current and forecasted levels of congestion.

LAND USE DENSITY CLUSTERS

KIPDA staff developed geospatial analysis on clusters of types of facilities to identify where there might be concentrations of similar land uses that would attract trips and may benefit from transportation improvements. The cluster categories are listed below with the methodology.

Community Access Clusters

Community Access Clusters are identified as locations where three or more community facilities exist within ¼ miles of each other. Community facilities include community centers, senior centers and nutrition sites, libraries, museums, colleges or universities, schools, government facilities, high density shopping areas, shopping malls, entertainment venues, and parks.



High Density Medical Clusters

High Density Medical Clusters are identified as locations where 26 or more medical facilities exist within ¼ miles of each other. Medical facility data was derived from the InfoUSA 2015 employer database and includes locations of all doctors' offices, hospitals, and other medical facilities in the five county MPO region.

High Density Shopping Clusters

High Density Shopping Clusters are identified as locations where 40 or more retail services within ¼ miles of each other. Locations of the retail services were identified from the InfoUSA 2015 employer database, using both verified and non-verified business listings. Shopping points that had 40 or more other shopping sites within ¼ miles were buffered by an additional ¼ miles to create the clusters.

High Density Employment Clusters

High Density Employment Clusters are identified as locations where 1000 or more employees work within ¼ miles of each other. The locations of the employers and the number of employees working at each location were identified in the InfoUSA 2015 employer database, using both verified and non-verified business listings.

Each location that was identified as having 1000 or more employees working within ¼ miles of it was buffered by an additional ¼ miles to create the clusters.

Freight Clusters

Freight Clusters are identified as locations where 5 or more freight facilities are located within ½ miles of each other. Freight facilities were identified from data KIPDA staff collected for the KYTC Major Freight Users Inventory for Kentucky and from InfoUSA 2015 data for Indiana. All points with 5 facilities located within ½ miles of each other were buffered by an additional ½ miles to create the clusters.

CRASH ANALYSIS

High crash locations were determined based on a series of three factors, including the frequency of crashes, the crash rate, and the severity of crashes that occurred at the location in the four-year period from 2012-2015. The crash analysis was broken

up into several components that examined different types of roadway facilities, including intersections, roadway segments, interchanges, and interstate segments. Locations of each type were assessed and ranked based on the factors listed above. Additionally, an assessment of locations that experienced a high number and rate of crashes involving pedestrians and bicyclists over a 10-year period was

performed as well. All crash data that was analyzed in this analysis came from the respective statewide crash databases for Kentucky and Indiana. These databases include information on all crashes that occurred on public roadways in each state. While the two state databases differ somewhat, the data is provided in the same general format. It is important to point out that while KIPDA identified Top 20 and Top 40 crash locations for the different modes and facility types, it should not be automatically assumed that the second ranked crash location is less hazardous than the first, and so on. The intent of the crash location lists is to identify areas that may be of greater concern. Each location requires a more thorough review and consideration of crash related factors of influence in order to ascertain the appropriate strategy to improve safety.

- Indiana Intersection Crashes Top 20
- Indiana Road Segment Crashes Top 20
- Kentucky Intersection Crashes Top 40
- Kentucky Road Segment Crashes Top 40
- Pedestrian Road Segment Crashes Top 20

CONGESTION ANALYSIS

A regional congestion analysis was performed on all functionally classified roads in the KIPDA Region, with the exception of the interstates, to develop a Level of Service (LOS) data layer. The analysis compared the most recent daily traffic counts on a roadway to an estimate of the roadway's daily capacity. The results represent the LOS, a letter grade that qualitatively describes the level of congestion on the roadway (LOS A = best, LOS F = worst). The LOS Worst 10% data layer represents the highest 10% v/c ratio on segments of surface streets with a grade of D, E or F.

Forecast Congestion/No Build

In order to estimate potential congestion levels in the future, planning-level Level of Service (LOS) estimates were assigned to all interstates, freeways, arterials, and collectors in the region. This analysis is similar to the LOS analysis performed on current conditions using recent traffic counts, except for that the recent traffic counts are replaced with Year 2035 traffic forecasts from KIPDA's regional travel demand model. The Year 2035 model scenario that was developed specifically for this analysis assumed the socioeconomic/land use assumptions in the Horizon 2035 Metropolitan Transportation Plan (MTP), paired with a travel model roadway network that

only includes project that are in KIPDA's Transportation Improvement Program (TIP). All roadways that are forecasted to operate at LOS D, E, and F are displayed.

FOCUS AREAS

Focus Areas are geographic areas identified by the proximity of the locations with highest levels of surface street congestion and high crash locations relative to one another. The purpose of the Focus Areas is to highlight the areas where concentrations of crashes and congestion may introduce greater concerns relative to basic travel and safety issues. A Focus Area may also provide opportunities to more efficiently utilize resources by addressing multiple concerns on corridors within the Focus Areas.

Using 2016 traffic data, the congestion locations were identified from non-interstate roadway segments operating at a Level of Service of D, E, or F. From the segments, the most congested 10% were used to identify Focus Areas.

The high crash locations were comprised of the Indiana Intersection Crashes Top 20, Indiana Road Segment Crashes Top 20, Kentucky Intersection Crashes Top 40, Kentucky Road Segment Crashes Top 40, Pedestrian Road Segment Crashes Top 20, and Bicycle Road Segment Crashes Top 20. These areas were weighted by type and given a score based on the number and type of feature within ½ mile of each other. The weights were 25 for high congestion, 25 for high segment crash, 25 for high intersection crash, 15 for high pedestrian crash, and 10 for high bicycle crash. Features that had a weighted score of 100 and were within ½ mile of 4 or more other features became focus areas.

PUBLIC COMMENTS

Public comments received from community outreach efforts were geocoded and displayed in the Online Resource Center and incorporated into the project development process. The comments helped identify community needs that may not reveal in other data analysis.

Comments are continually collected via the KIPDA website, email, at KIPDA meetings, by phone or in person at events throughout the region. Over 26 public meetings were held in a two week span of 2012, providing the bulk of the comments on this map. Many comments were received at WorldFest and the Globalou (formerly Americana) Festival.

BICYCLE & PEDESTRIAN NETWORK GAP ANALYSIS

In 2016 KIPDA completed a bicycle and pedestrian facilities inventory for the 5 county KIPDA region. All facilities located on functionally classified roadways were identified. Using the inventory of facilities, bicycle and pedestrian gaps were identified.

Gaps in bicycle facilities, such as bike lanes, bike boxes, sharrows lanes and multi/shared-use paths have been identified throughout the region. A bicycle gap is defined as a break in bicycle facilities greater than one mile where no facility exists on either side of the road. The gap analysis is limited to functionally classified roads.

Gaps in pedestrian facilities such as sidewalks, multi/shared-use paths and crosswalks have also been identified throughout the region. A gap is defined as a break in existing pedestrian facilities less than one mile where no facility exists on either side of the road. The gap analysis is limited to functionally classified roads.

Bicycle and pedestrian facility data are provided for roadways functionally classified as arterials and collectors. Data location is based off road center line data and may differ slightly from current imagery. The KIPDA Bicycle and Pedestrian Inventory and the subsequent Gap Analysis is updated on a regular basis.

MAINTENANCE INVENTORIES

Bridge Inventory

All bridge condition data comes from the [National Bridge Inventory \(NBI\)](#). Within the NBI database, there are over 100 fields that describe all bridges and culverts on publicly owned roadways. The FHWA Performance Measure regulations related to bridge condition defines a rating system that rates each bridge and culvert as either: Good, Fair, or Poor. For bridges, the overall bridge rating depends on three qualitative numerical ratings of the bridge's components: Substructure, Superstructure, and Deck. These bridge component ratings are assigned when a bridge is inspected. Culvert ratings are based on a single rating that is assigned when culverts are inspected.

Pavement Condition

Pavement condition data have been provided to KIPDA by KYTC and INDOT. The data are limited to state-owned routes at this time.

The FHWA Performance Measure regulations related to pavement condition defines a rating system that rates each 0.1-mile segment of pavement as either: Good, Fair, or Poor. A segment's overall rating is dependent on three components of the pavement condition, which include: International Roughness Index (IRI), Rutting (asphalt pavement only), Faulting (concrete pavement only), and Cracking Percentage.

KIPDA has added one additional pavement condition classification, called Borderline. A section of pavement is considered Borderline when it is at risk of becoming Poor based on the component ratings mentioned above. Projects that are expected to improve the condition of pavements that are rated as Poor or Borderline are prioritized.

ONLINE RESOURCE CENTER

KIPDA created an [Online Resource Center](#) containing a series of interactive maps to display the data resources listed above. These maps allowed the members of the TPC and TTCC, project sponsors, and the public to explore the datasets, to identify relationships between phenomenon, and to formulate investment solutions based on a data-driven process.

ENVIRONMENTAL MITIGATION

INVENTORY

Environmental Mitigation exists to determine if any of the recommended actions within *Connecting Kentuckiana 2040* may negatively impact any identified environmental resources in the KIPDA region.

Environmental Mitigation is conducted to follow through on environmental commitments, as required by the National Environmental Policy Act (NEPA). Impacts vary depending on the type of environmental resource, the location of the resource, and the scope of a project. *Connecting Kentuckiana 2040* proposes a vast variety of projects, such as building additional travel lanes on existing roadways, construction of new roadways, interstate and interchange additions and modifications, intersection improvements, bicycle and pedestrian facility additions and modifications, safety and transit additions and modifications. Impacts from these projects vary; roadway widenings and new constriction propose the greatest risk of impact, while the addition of a bicycle facility may propose a low risk of impact on the environment.

In the early stages of developing *Connecting Kentuckiana 2040*, KIPDA created an [Online Resource Center](#), a series of interactive maps populated with pertinent datasets. One of the many purposes behind the Online Resource Center was to create a tool for KIPDA planning partners to better account for environmental encroachment issues in the early stages of project development. The Online Resource Center also serves to inform the public of issues they may want to consider when reviewing planned projects. One of the maps on the Online Resource Center is a red flag inventory. For KIPDA, the environmental mitigation process is derived from the red flag inventory, which is a collection of different environmental resources that may potentially be impacted by a transportation related project.

Figure 32 depicts natural resources in the region. Natural resources include some threatened species (glade cress, a small annual plant that is considered a threatened species in Bullitt and Jefferson Counties), parks, many hydrological features, sinkholes and fault lines.

ENVIRONMENTAL DATA RESOURCES

- Archeological sites
- Cemeteries
- Fault lines
- Floodplains
- Fort Knox, US Army Post
- Geology
- Glade cress
- Groundwater wells
- Historical districts
- Historical places
- Bridges
- Brownfield sites
- Landfills
- National Pollutant Discharge Elimination Systems (NPDES)
- Discharge sites
- Facility locations
- Petrol
- Fields
- Wells
- Gas & oil facilities
- Railroads
- Parks
- Ports
- Sinkholes
- Streams
- Superfund sites
- Wetlands

Sources: US Fish and Wildlife, KY Ecological Services, KYGeoportal, IndianaMAP, KY Office of Land Quality, IN Department of Natural Resources, IN Department of Environmental Management

Figure 32: Natural Resources

Source: KIPDA, 2019

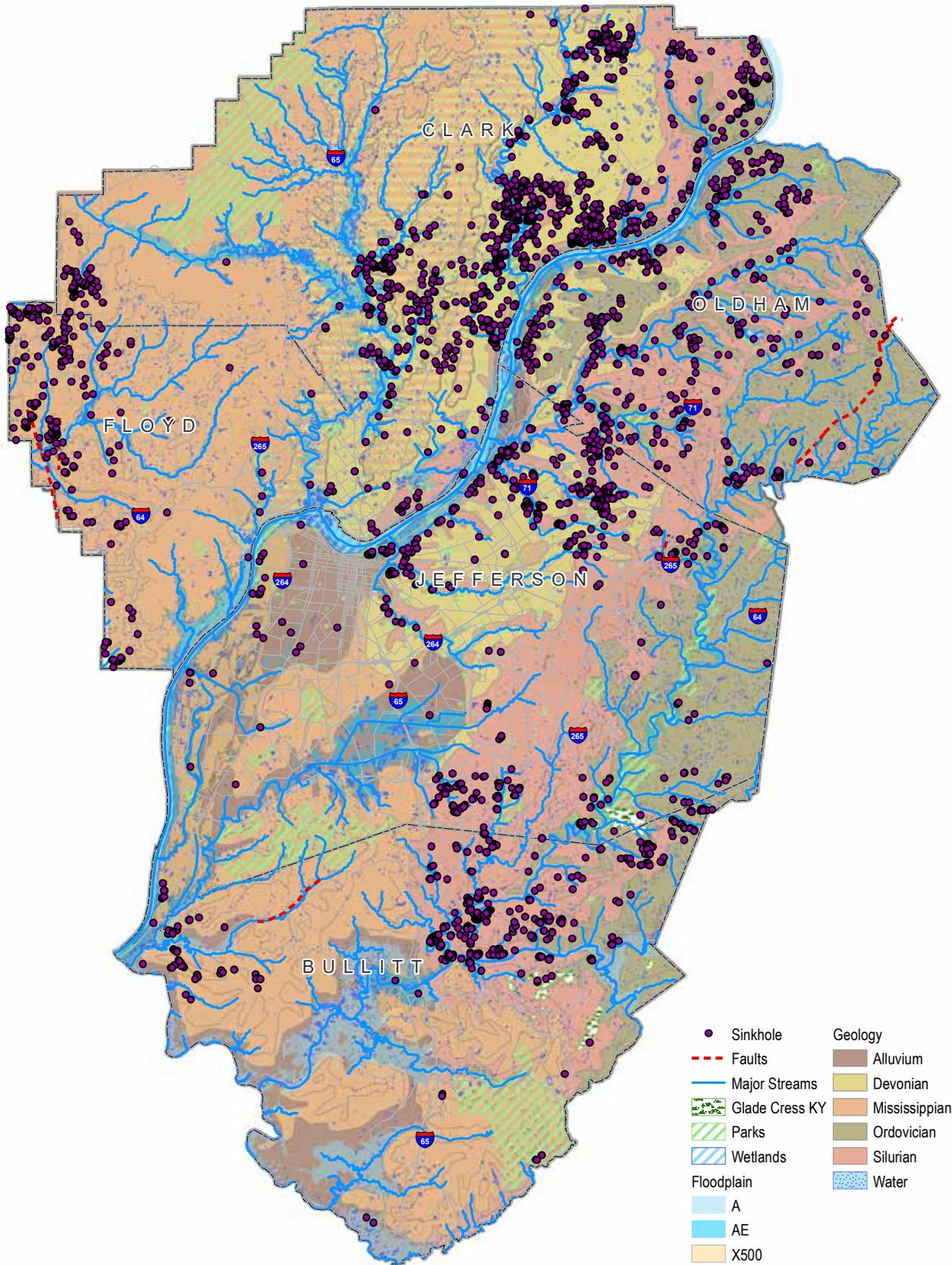


Figure 33 outlines historical and community resources in the region. These resources include cemeteries, places and districts that may be on a historical register, significant archeological locations, transportation structures such as bridges, railroads and ports as well as the military post Fort Knox.

Figure 34 shows environmental concerns in the region. These environmental concerns are parts of various environmental monitoring programs, such as the Superfund Program. These environmental concerns may potentially impact the health and wellbeing of a community if disturbed as they may release toxic chemicals, air pollutants and other damaging particulates.

ENVIRONMENTAL CONSULTATION

KIPDA is committed to involving a variety of environmental agencies and governments to contribute to the planning process. The purpose of the environmental consultation is to develop and plan for a transportation network that contributes to preserving and enhancing natural, historical, community and environmental resources.

An interactive map was sent to environmental and governmental agencies in an effort to collect feedback on the identified natural, historical, community and

environmental resources. A link to the interactive map as well as a list of contacts of such agencies and their relevant comments can be found in Appendix E.

CLIMATE CHANGE

As we know, greenhouse gas emissions from transportation outputs make up a sizeable percentage of greenhouse gas emissions throughout the United States. Because of this, companies, policy makers, and the transportation sector as well as the general public will undoubtedly participate in the ongoing conversations revolving around the contribution the transportation sector has in the rise in greenhouse gas emissions and the potential ways to minimize that impact.

The transportation sector has potential to be a leading entity for improving air quality. Investments in non-motorized transportation, ridesharing, transit, and cleaner and more fuel-efficient vehicles can all contribute to reducing emissions. Perhaps less obvious ways the transportation sector can reduce greenhouse gas emissions are by improving the transportation system (more efficient operations and technology), reducing the number of vehicle miles traveled (VMT), and making the move toward fleet modifications that may include cleaner burning engines and hybrid and electric vehicles. *Connecting Kentuckiana 2040* emphasizes an expansion of modal opportunities as the reliance on any one single mode of transportation is difficult, inefficient, and may sustain, if not increase, greenhouse gas emissions.

“A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The MPO shall develop the discussion in consultation with applicable Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation;”

23 CFR § 450.324

Figure 33: Historical and Community Resources

Source: KIPDA, 2019

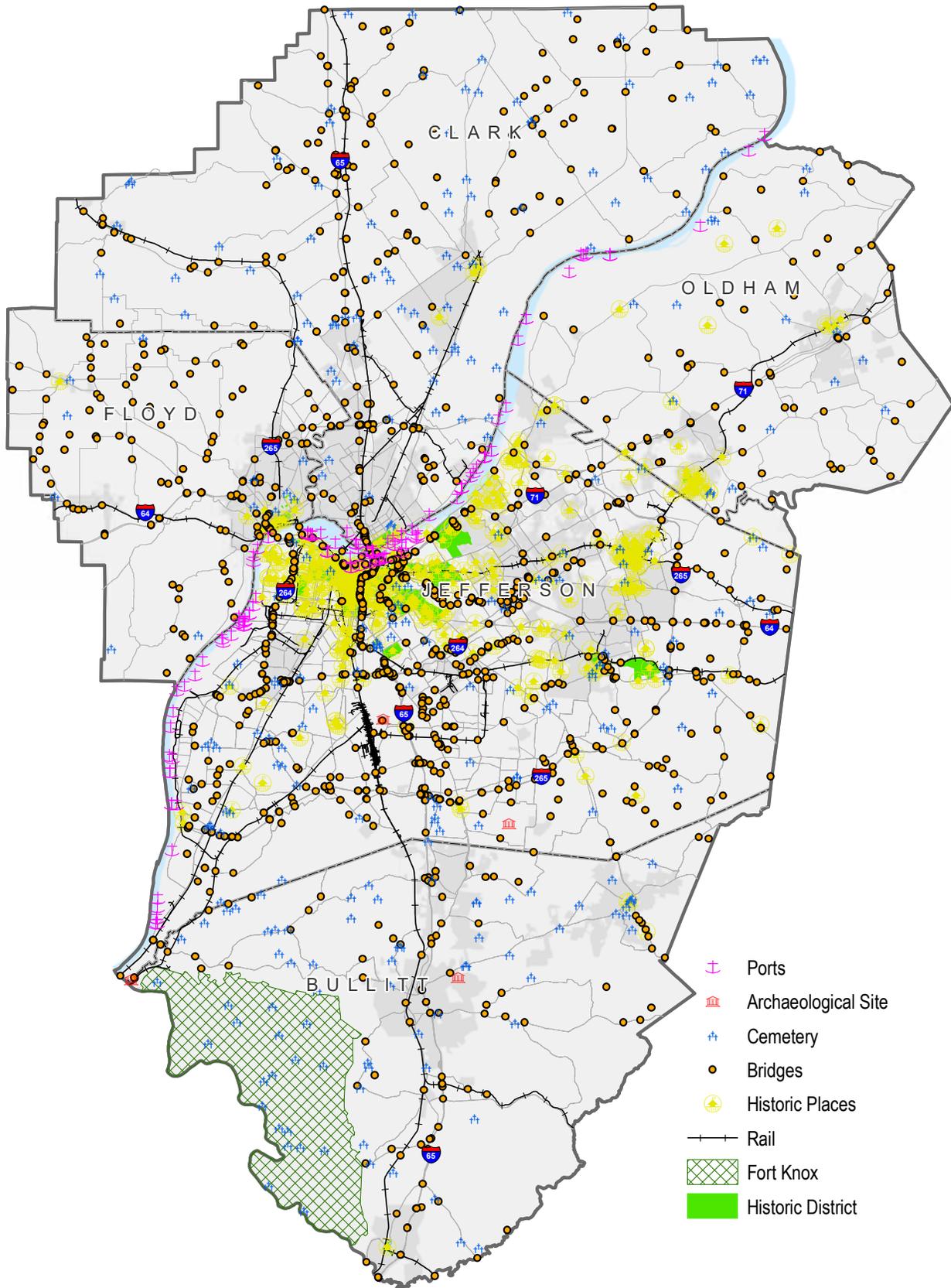
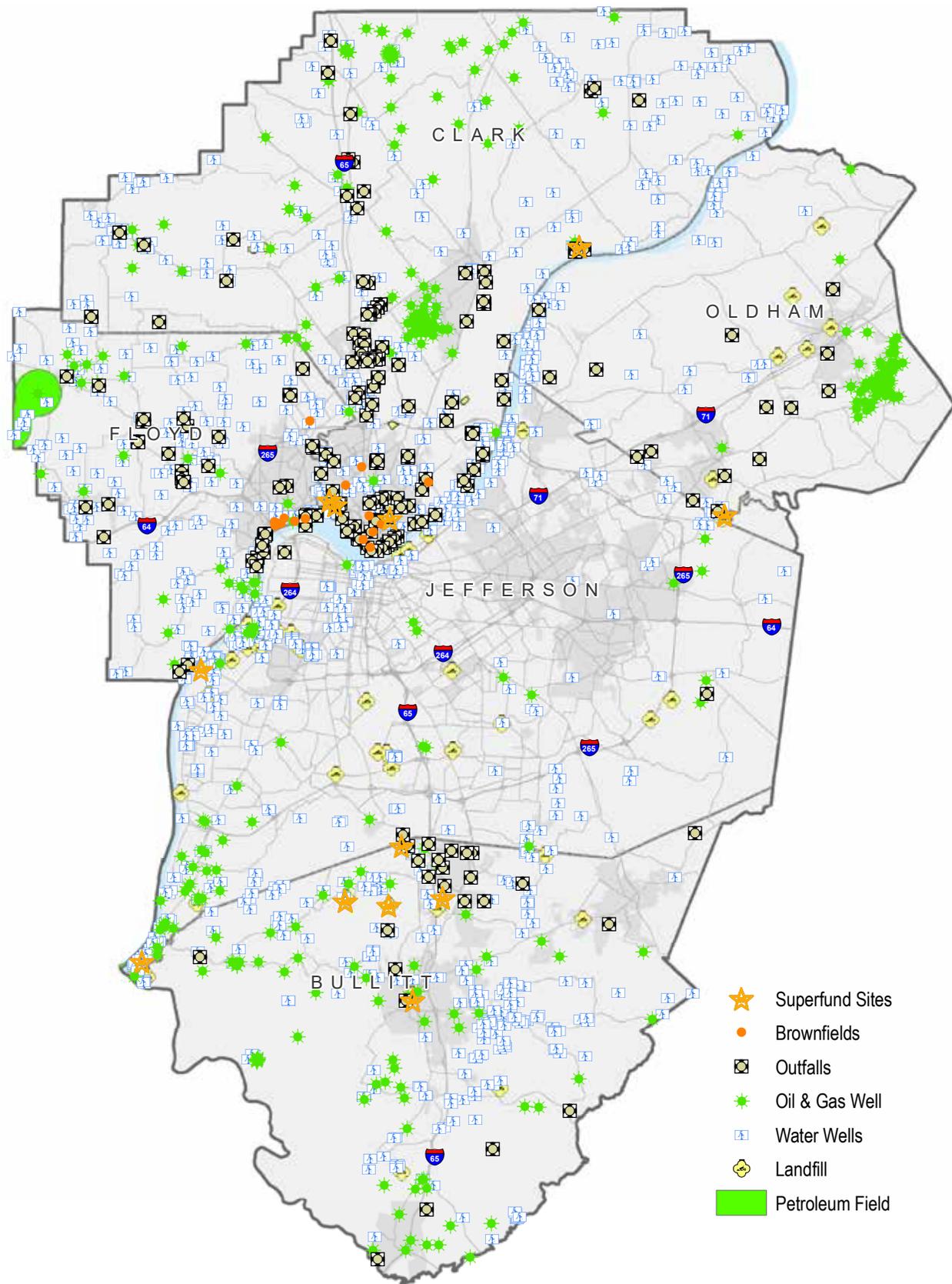


Figure 34: Environmental Concerns

Source: KIPDA, 2019





04 INVESTMENTS

IN THIS CHAPTER

Financial Plan

Group Project Categories

MTP Projects & Programs

FINANCIAL PLAN

Comparing estimated costs for transportation improvements against anticipated dollars is important with any planning activity. As such, project costs in *Connecting Kentuckiana 2040* have been compared to an estimation of reasonably anticipated available financial resources.

PROJECT COSTS

The estimated cost associated with each transportation improvement is developed by a project's sponsor. A project sponsor is typically the agency responsible for implementing the proposed improvement. Cost assumptions are based on various factors that each agency takes into consideration; these may include items such as estimated cost of acquiring land for a project's right of way, equipment acquisition, cost of materials, and labor, etc. Project costs are identified in their anticipated Year of Expenditure (YOE). Year of Expenditure is a process that adjusts the cost of a project that may be submitted for Metropolitan Transportation Plan (MTP) consideration in today's dollars to more closely reflect the possible cost of the project by the time it is opened to the public or available for public use. Each agency submitting projects for consideration in *Connecting Kentuckiana 2040* was asked to submit their projects with consideration given to Year of Expenditure.

RESOURCES

Federal regulations state that the MTP must include a financial plan that demonstrates how the transportation plan can be implemented. Since KIPDA's 1993 transportation plan, *Regional Mobility 2010*, and each subsequent update, the process for determining future funding estimates begins with a review of the cost of projects programmed in the previous years of the Transportation Improvement Program (TIP). The TIP is the programming document that identifies specific dollar amounts and sources needed to fund a project. Resource estimates for this document, *Connecting Kentuckiana 2040*, were developed based on a historic analysis of fiscally constrained TIPs. Resource projections assume a similar level of federal, state, and local availability of funds through the horizon year of the MTP. Inherent in identifying projections of anticipated resources is the possibility that funding levels may change with the introduction of

federal, state, and/or local legislative action. If warranted, a review of the anticipated resources will be conducted to reflect modifications introduced as a result of changing circumstances at the federal, state, and/or local level.

While the identified future funding sources are a reasonable estimation of funds available for MTP implementation, they are not a commitment from the Kentucky Transportation Cabinet, the Indiana Department of Transportation, the Transit Authority of the River City, the Federal Highway Administration, the Federal Transit Administration, nor any other funding agency. The forecast, based on historical programming of funds in the KIPDA region, reflects possible financial resources that may be utilized toward the implementing of projects in *Connecting Kentuckiana 2040*. Given the long-term nature of the MTP, it is difficult for any entity with funding authority to commit to exact funding amounts for projects that, in some cases, will not be ready for implementation for years into the future.

TRADITIONAL FUNDING SOURCES

Traditional funding sources are those federal, state, and local transportation funds that are generally available for the implementation of projects identified in the MTP. Federal funds, often referred to as formula federal aid dollars, are funds provided annually to each state based upon formulas derived from the U.S. Department of Transportation. In order to identify a reasonable estimate of traditional funds that may be available for the implementation of projects a review of previous TIP programming began with Fiscal Year 2017 and ended with Fiscal Year 2019. In the analysis of the TIP, some projects, because of their unique nature and scope and/or funding opportunities, were removed from the analysis and did not contribute to estimating future resources. Just as estimated project costs reflect Year of Expenditure, so do anticipated sources of funding. Beginning with a funding estimate in today's dollars, the anticipated resources are factored to reflect inflation rates, etc. In adjusting for Year of Expenditure, an annual 5% factor is applied to the anticipated sources.

For *Connecting Kentuckiana 2040*, the estimation of available resources is based on formula distribution of federal funds to Indiana and Kentucky. Examples of federal funding categories distributed to each state based on a formula that, among other things, takes into consideration a state's or region's population are: National Highway System and Surface Transportation Program, etc.

NON-TRADITIONAL FUNDING SOURCES

There are funding sources other than those distributed to the states by formula that may be considered when proposing projects for the *Connecting Kentuckiana 2040* MTP. Examples of these types of funds may include congressional appropriations through legislative action, local and state funding initiatives, sale of bonds, etc. Project sponsors are asked to identify reasonable funding sources for projects for which they intend to use funds other than federal funds distributed on a formula basis. At this time, all projects identified in *Connecting Kentuckiana 2040* are assuming future funding from Traditional Funding Sources.

OPERATIONS & MAINTENANCE

The nature of an MTP does not lend itself to specifically identifying all future maintenance needs through the horizon year. The MTP's emphasis is on projects and programs which hold constant (relative to demand), and when appropriate, expand the transportation system to meet evolving needs and wants. Maintenance projects are intended to repair and rehabilitate existing facilities without introducing significant changes that may influence travel behavior once they are complete. Maintenance projects that are outside the guidance identified in the Group Project Category criteria are listed individually in the MTP. Operation and maintenance of the transit system is seen in the same context as roadway operation and maintenance. The intent is to ensure that the transit system continues to operate with minimal disruption of service.

Both states, the local governments, and the Transit Authority of River City (TARC), rely on a mix of resources to preserve, maintain, and operate the road, public transportation system, and bicycle and pedestrian facilities. Contributors to the mix include federal formula funds, state transportation funds, local transportation funds, and local tax revenue dedicated to TARC. Both the states of Kentucky and Indiana have state funding sources for maintaining and preserving the transportation infrastructure as well as applicable federal funds. The states also make available to local governments funds for the maintenance of roads, bridges, bicycle and pedestrian



facilities located in their jurisdictions. For example, the state of Kentucky provides County Road Aid, Municipal Aid, and Rural Secondary funds to the local government entities. The state of Indiana also provides revenue to local jurisdictions for the maintenance of existing infrastructure. Indiana provides local governments with resources from the Local Road and Street Accounts, and the Motor Vehicle Highway Accounts. Along with fare box revenue and Federal Transit Administration funding, TARC utilizes a payroll tax (Mass Transit Trust Fund) to meet some of their operating and maintenance expenses. All project sponsoring entities have a history of operating and maintaining transportation facilities through the various funding options outlined above. At all levels of government, there have been no indications that this commitment will diminish in the future.

GROUP PROJECT CATEGORIES

The intent of including Group Projects in the Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) is to recognize the collective contributions of relatively small-scale transportation projects to the region's transportation system. The Group Project concept also serves to more efficiently advance projects through the transportation planning process. A project that is considered a Group Project must meet the intent and criteria of the Group Category as defined in *Connecting Kentuckiana 2040*.

GROUP CATEGORIES IN THE MTP

The Group Project categories are included in the Metropolitan Transportation Plan (MTP) in order to provide for financial and performance-based planning accountability of relatively small-scale projects, programs, and studies that may not be listed individually in the MTP.

All Group Project categories will be based on mode or purpose and are not subject to subdivision based on local jurisdiction or project sponsor. Within each state, Group Categories are available for all jurisdictions and sponsors.

GROUP CATEGORIES IN THE TIP

With appropriate demonstration of fiscal constraint, Group Project categories are eligible for inclusion in the Transportation Improvement Program (TIP). Group Project categories allow for an administrative modification of the TIP to include eligible new projects.

Without exception, Group Project categories in the TIP are the same as those in the MTP.

For a project to be considered for administrative modification based on a Group Category, the following are required:

- The proposed project or program meets the eligibility requirement of a Group Project Category

- The proposed project or program meets the guidelines and standards for being added to the TIP through the Administrative Modification process.

GROUP CATEGORY DESCRIPTIONS

Eight Group Project Categories have been identified and included in *Connecting Kentuckiana 2040*. Each category serves to better account for financial accountability and recognition of performance-based contributions. The eight categories include:

- Air Quality Improvements
- Bicycle and Pedestrian Improvements
- Roadway and Bridge Preservation and Rehabilitation
- Roadway Operational Improvements
- Safety Improvements
- Transit Improvements
- Transportation Enhancements
- Transportation Studies

For financial planning purposes seven of the eight Group Categories are each estimated at \$48,000,000 in Indiana and \$64,000,000 in Kentucky through the horizon year of *Connecting Kentuckiana 2040*. The Roadway and Bridge Preservation and Rehabilitation categories are estimated at \$191,000,000 in Indiana and \$256,000,000 in Kentucky. In similar fashion to the development of resources for the *Connecting Kentuckiana 2040* projects, the estimates for the Group Project Categories are based on a review of prior TIP programming and are adjusted for Year of Expenditure. None of the dollar amounts represent a "set aside" of funds for projects. The dollars represent estimates of what may be programmed by 2040 for the projects that fit within the prescribed Group Category criteria and should not be considered a commitment of funds by the states of Kentucky, Indiana, or the Transit Authority of the River City.

A list of projects submitted for consideration in *Connecting Kentuckiana 2040* that are candidates for Group Projects are found in Appendix G.

AIR QUALITY IMPROVEMENTS

Projects and programs in the Air Quality Improvements Group are intended to provide for a healthier region by reducing mobile source air pollutants.

Examples of Air Quality Improvements include, but are not limited to:

- Ridesharing and vanpooling
- Park and ride facilities
- Traffic flow improvement programs that demonstrate emissions reductions
- Programs for improved public transit
- Bicycle and pedestrian improvements (not including the rehabilitation of existing facilities)
- Employer-based transportation management plans, including incentives

For projects and programs to be considered for the Air Quality Improvements Group, the projects and programs:

- Must contribute to improving air quality and meet any of the project and program criteria as defined in Section 108(f) of the Clean Air Act of 1990
- Must contribute to meeting KIPDA Performance Targets
- May not have a total project cost in excess of \$1,000,000
- May not be considered regionally significant as defined in 23 CFR 450.104
- May contribute to a reduction in vehicle miles travelled
- Must be categorized as an Air Quality Exempt project as defined in 40 CFR 93.126 and 93.127

BICYCLE AND PEDESTRIAN IMPROVEMENTS

Projects and programs in the Bicycle and Pedestrian Improvements Group are intended to enhance connectivity for functional trips undertaken by cyclists and pedestrians.

Examples of Bicycle and Pedestrian Improvements include, but are not limited to:

- Sidewalks
- Bicycle lanes
- Shared use paths
- Crosswalks and cross signals

- Pedestrian islands
- Rehabilitation of existing pedestrian and bicycle facilities
- Curb ramps
- Signage

For projects and programs to be considered for the Bicycle and Pedestrian Improvements Group, the projects and programs:

- Must improve modal connectivity for cyclists and pedestrians completing functional trips
- May not have a total project cost in excess of \$1,000,000
- Must contribute to meeting KIPDA Performance Targets
- May not be considered regionally significant as defined in 23 CFR 450.104
- Must be categorized as an Air Quality Exempt project as defined in 40 CFR 93.126 and 93.127
- Must meet ADA accessibility requirements as defined by 28 CFR 35.151
- Are encouraged to:
 - Support the KIPDA Bicycle and Pedestrian planning process
 - Improve bicycle and pedestrian connectivity with transit
 - Reduce automotive trips, trip length, and mobile source emissions
 - Rehabilitate existing bicycle and pedestrian facilities that have deteriorated
 - Assist with meeting ADA requirements

ROADWAY AND BRIDGE PRESERVATION AND REHABILITATION

Projects in the Roadway and Bridge Preservation and Rehabilitation Group are intended to protect and maintain the transportation infrastructure in an efficient manner.

Examples of Roadway and Bridge Rehabilitation include, but are not limited to:

- Pavement resurfacing
- Roadway and bridge rehabilitation
- Preventative maintenance

- Bridge replacement
- Bridge painting
- Bridge inspection

For projects to be considered for the Roadway and Bridge Preservation and Rehabilitation Group, the projects:

- Must preserve the existing roadways and or bridges, retard their future deterioration, and/ or contribute to a safer travelling experience,
- May not have a total project cost in excess of \$15,000,000
- Must contribute to meeting KIPDA Performance Targets
- May not be considered regionally significant as defined in 23 CFR 450.104
- Must be categorized as an Air Quality Exempt project as defined in 40 CFR 93.126 and 93.127

ROADWAY OPERATIONAL IMPROVEMENTS

Projects and programs in the Roadway Operational Improvements Group are generally considered low-cost traffic improvements that do not add either capacity for single occupant vehicles or additional roadway miles.

Examples of Roadway Operational Improvements include, but are not limited to:

- Signal timing optimization
- Turning lanes
- Pavement striping
- Lane assignment changes
- Signage and lighting

For projects and programs to be considered for the Roadway Operational Improvements Group, the projects and programs:

- Must improve the flow of traffic
- May not have a total project cost in excess of \$1,000,000
- Must contribute to meeting KIPDA Performance Targets
- May not be considered regionally significant as defined in 23 CFR 450.104
- Must be categorized as an Air Quality Exempt project as defined in 40 CFR 93.126 and 93.127

SAFETY IMPROVEMENTS

Projects and programs in the Safety Improvements Group are intended to reduce crashes on all public roadways and transit. Examples of Safety Improvements include, but are not limited to:

- Guardrails
- Signage
- Lighting improvements
- Pedestrian crosswalks and crossing signals
- Intersection improvements
- Access to transit stops
- Transit boarding and alighting
- Education and awareness programs
- Railroad / Roadway Crossing Improvements

For projects and programs to be considered for the Safety Improvements Group, the projects and programs:

- Must contribute to reducing crashes, including those that involve bicyclists or pedestrians; or enhance public transportation safety
- May not have a total project cost in excess of \$1,000,000
- Must contribute to meeting KIPDA Performance Targets
- May not be considered regionally significant as defined in 23 CFR 450.104
- Must be categorized as an Air Quality Exempt project as defined in 40 CFR 93.126 and 93.127
- Are encouraged to:
 - Address safety concerns found at the KIPDA High Crash Locations
 - Consider the FHWA Proven Safety Countermeasures
 - Consider HSIP Eligible projects criteria as defined in 23 USC 148(a)(4)(B)
 - Support the National Public Transportation Safety Plan
 - Support the Public Transportation Agency Safety Plan as defined in 49 CFR Part 673
 - Support the Strategic Highway Safety Plan (SHSP) in Kentucky and Indiana

TRANSIT IMPROVEMENTS

Projects and programs in the Transit Improvements Group are intended to enhance the operation of public transit and to contribute to maintaining, and when possible increasing, its utilization.

Examples of Transit Improvements include, but are not limited to:

- Bus stop improvements
- On-board transit amenities
- Facility improvements
- Bicycle and pedestrian facilities that improve non-motorized access to transit
- Park and ride facilities
- Transit education and awareness programs
- Rolling stock purchases, updates, and modifications

For projects and programs to be considered for the Transit Improvements Group, the projects and programs:

- Must contribute to enhancing the operation of public transit and contribute to maintaining, and when possible, increasing its utilization
- May not have a total project cost in excess of \$1,000,000
- Must contribute to meeting KIPDA Performance Targets
- May not be considered regionally significant as defined in 23 CFR 450.104
- Must be categorized as an Air Quality Exempt project as defined in 40 CFR 93.126 and 93.127

TRANSPORTATION ENHANCEMENTS

Projects and programs in the Transportation Enhancement Group are intended to provide for transportation related environmental mitigation and beautification to the transportation system.

Examples of Transportation Enhancements include, but are not limited to:

- Streetscapes
- Landscaping
- Storm water management

- Pedestrian and cyclist amenities such as benches and bicycle racks
- Inventory control or removal of outdoor advertising
- Preservation and rehabilitation of historic transportation facilities

For projects and programs to be considered for the Transportation Enhancements Group, the projects and programs:

- Must contribute to enhancing the transportation system
- May not have a total project cost in excess of \$1,000,000
- May not be considered regionally significant as defined in 23 CFR 450.104
- Must be categorized as an Air Quality Exempt project as defined in 40 CFR 93.126 and 93.127

TRANSPORTATION STUDIES

The Transportation Studies Group is intended to facilitate the research, review, and consideration of solutions to various transportation issues and enhancements.

Examples of Transportation Studies include, but are not limited to:

- Corridor studies
- Transit studies
- Bicycle facilities studies
- Pedestrian facilities studies
- Anticipated demographic changes and Transportation Demand Management

For studies to be considered for the Transportation Studies Group, the studies:

- Must contribute to a more informed decision-making process, as well as a more efficient and expeditious project and program development and advancement,
- May not have a total project cost in excess of \$1,000,000
- Must demonstrate consideration of contributing to achieving KIPDA Performance Targets
- When applicable, are encouraged to:
 - Include consideration of various modal opportunities
 - Include consideration of TSMO strategies (including ITS and TDM)

- Include a well-rounded community engagement process, including early and continuous involvement
- Include consideration of KIPDA’s Congestion Management Process
- Include consideration of KIPDA’s Environmental Justice Resource Document

LOUISVILLE-SOUTHERN INDIANA OHIO RIVER BRIDGES PROJECT

The Louisville-Southern Indiana Ohio River Bridges Project, including both the Downtown and East End Crossings were open to the public in 2016 and are considered substantially complete and fully operational. The on-going financial strategy is identified in the Louisville Southern Indiana Ohio River Bridges Project Financial Plan, 2017 Annual Update (September 2017). The Financial Plan provides an accounting of costs to date and estimate of future trailing costs and limited future resources. The Louisville Southern Indiana Ohio River Bridges Project Financial Plan, 2017 Annual Update (September 2017) is located in Appendix F.

COMPARISON OF COSTS & RESOURCES

After completing project development, the total estimated cost of proposed projects (in Year of Expenditure dollars) in *Connecting Kentuckiana 2040* is found to be within reasonable limits of the anticipated resources (in Year of Expenditure dollars) for their implementation.

Based upon the Financial Plan outlined above, the *Connecting Kentuckiana 2040* MTP is consistent with being considered financially reasonable. Financial reasonableness is indicated when the estimated project costs for each state are within 10% of the estimated funding resource.

It is important to recognize that *Connecting Kentuckiana 2040* does not regard the estimated forecast of available resources as a commitment of funding from the Indiana Department of Transportation, the Kentucky Transportation Cabinet, the Transit Authority of the River City, local governments, or any other associated agency. The project cost estimates are not considered final and may adjust up or down as projects advance and additional project related information becomes available. The dollar amounts for resources and cost estimates have been developed for planning purposes only.

Figure 35: Financial Plan

SOURCE: KIPDA, 2019

	INDIANA	KENTUCKY
ESTIMATED RESOURCES	\$900,000,000	\$6,200,000,000
ESTIMATED PROJECT COST	\$408,000,000	\$6,100,000,000
ESTIMATED GROUP PROJECTS	\$528,000,000	\$703,000,000
BALANCE	(\$36,000,000)	(\$603,000,000)

MTP PROJECTS & PROGRAMS

The projects and programs included in *Connecting Kentuckiana 2040* represent the intended investments in the MPA's transportation system for the next 20 years.

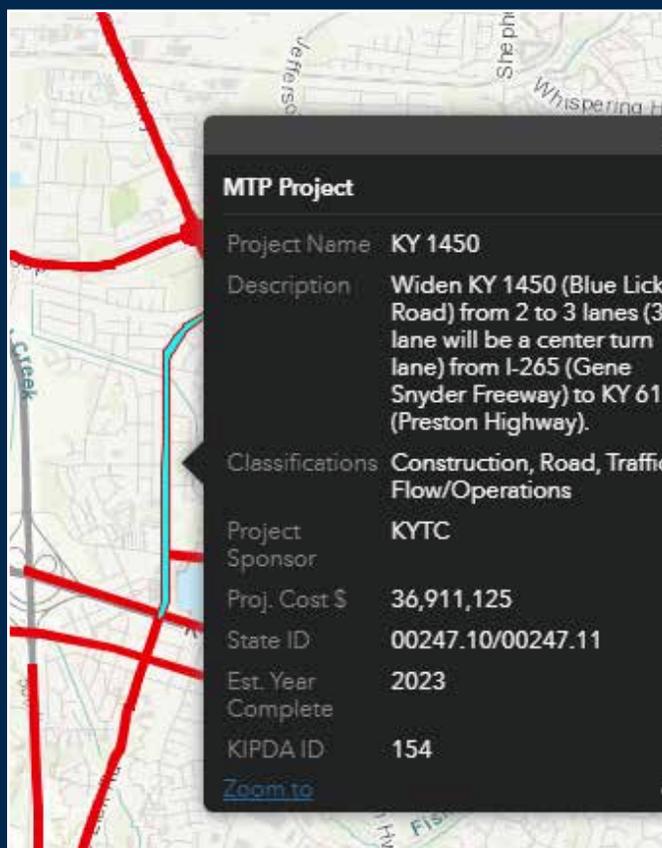
The subsequent list of projects and programs are displayed by county and then by project type. Project types include: bike and pedestrian, interstate and interchange, roadway, transit, and program. The project type represents the primary scope of the project, but does not necessarily identify all improvements the project is anticipated to have. For this reason, roadway projects have additional notation if they have proposed bike and pedestrian facilities in the plan.

The details for each project were gathered during project development and represent the best anticipated improvements, cost, and timeline the sponsors could provide at the time. Each project detail includes the

project name, KIPDA ID, state ID, description, purpose and need, sponsor name, project cost, estimated completion date, and the performance rank given based on the evaluation of all MTP projects.

A map accompanies each table of projects. The KIPDA ID can be used to find a project in the table on the map. An interactive map is also available online for further exploration of the projects. Please see the [MTP Interactive Project Map](#) on the KIPDA website.

A complete alphabetical list of projects and programs for the MTP can be found in Appendix H.



MTP INTERACTIVE PROJECT MAP

The MTP Interactive Project Map is available on the KIPDA Online Resource Center for further information and exploration into the projects included in *Connecting Kentuckiana 2040*.

KEY TO PROJECT DESCRIPTIONS

PROJECT NAME	The project name is a short identifying description of the project's location or program's intent. The Project Name is provided by the agency or organization submitting the project to <i>Connecting Kentuckiana 2040</i> .
KIPDA ID	The KIPDA ID is a unique identifier provided by KIPDA. This ID will remain with the project through its completion.
STATE ID	The State ID is each state's unique identifier. It is assigned by the respective state.
DESCRIPTION	The description is intended to define what the project or program is doing and when and where it may happen. The description may change as the project is developed or the program advances. The description is provided by the agency or organization submitting the project to <i>Connecting Kentuckiana 2040</i> .
PURPOSE & NEED	The purpose and need is intended to define why the project or program has been identified and what issues may be addressed, needs fulfilled, or desired outcomes, once the project is complete or program implemented. The purpose and need is provided by the agency or organization submitting the project to <i>Connecting Kentuckiana 2040</i> .
SPONSOR	The sponsor is the agency or organization that has proposed and submitted a project or program for inclusion in <i>Connecting Kentuckiana 2040</i> . In many cases, the sponsor is also the agency or organization that will complete the project or implement the program. Sponsorship may change as a project or program advances.
ESTIMATED COMPLETION	The estimated completion date is the year the project is anticipated to be completed or the program implemented. The estimated completion date is provided by the agency or organization submitting the project to <i>Connecting Kentuckiana 2040</i> .
PROJECT COST	The project cost, identified by the agency or organization submitting the project to <i>Connecting Kentuckiana 2040</i> , is a total cost estimate that has been adjusted to reflect Year of Expenditure. Costs often change as more project or program information becomes available.
PERFORMANCE RANK	All projects in <i>Connecting Kentuckiana 2040</i> have been reviewed relative to their potential contribution to achieving performance targets. The result of the review provides a rank of High, Medium, Low, or Further Review. The rank is not a reflection of the quality or need for the project or program, but an indication of a project or programs contribution to performance targets. Greater contribution to targets equates to a higher rank. Project reviews are conducted by KIPDA staff and reviewed by submitting agencies, organizations, and the Transportation Policy Committee. The initial project review does not consider local or state priorities and only considers the performance measures adopted by the Transportation Policy Committee and prescribed by the FHWA and FTA. Each project or program's rank is intended to inform decision makers and is not in determinant in and of itself as to whether a project may receive future funding.

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BULLITT COUNTY

INTERSTATE/INTERCHANGE PROJECTS

Figure 36

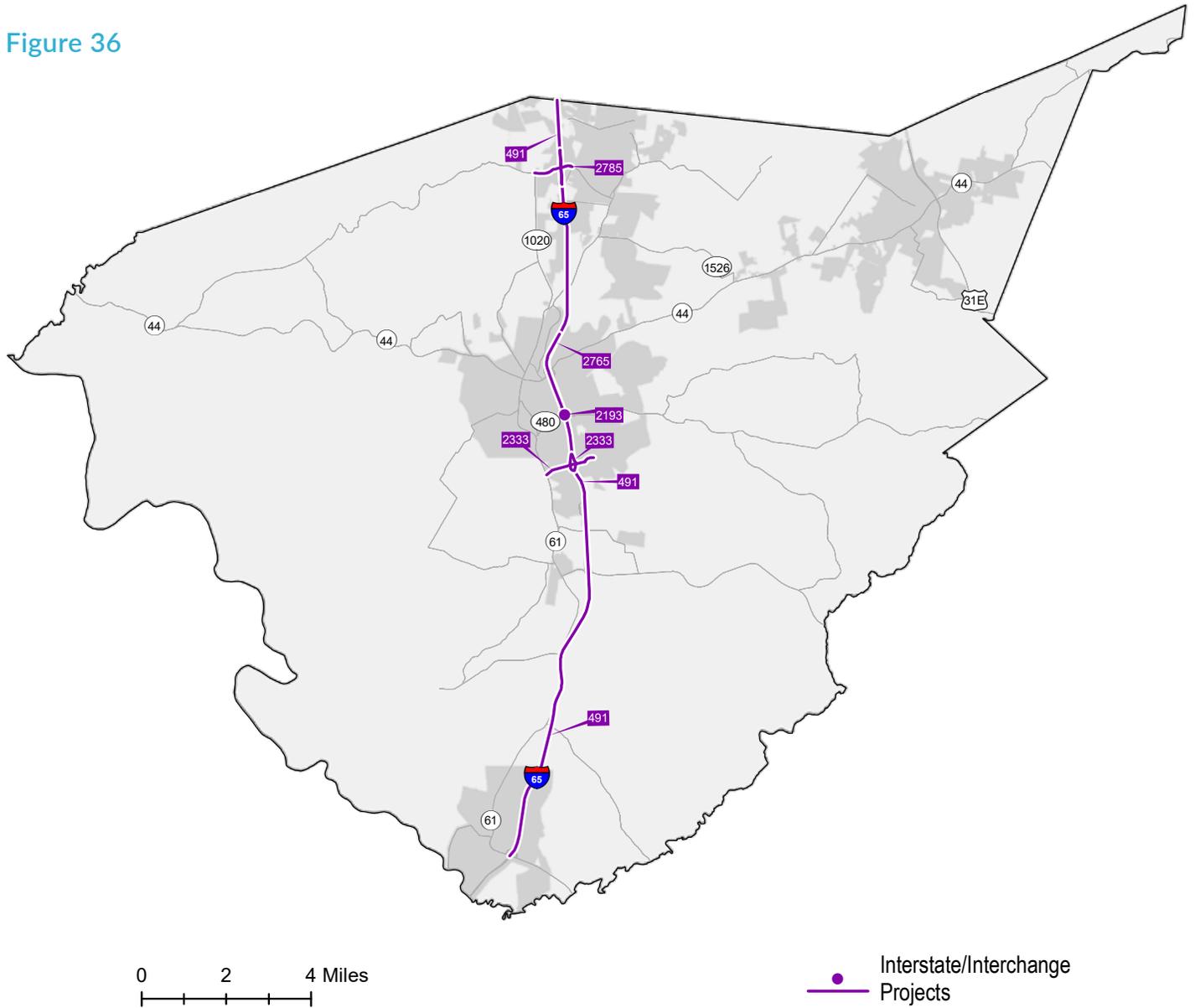


Figure 37: Bullitt County, Interstate/Interchange MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I- 65		6YP DESC: Widen I-65 from 6 to 8 lanes from KY 61 (Preston Highway) in Lebanon Junction to I-265 (Gene Snyder Freeway). CHAF DESC: Reduce congestion and improve mobility on I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County. CHAF ID: IP20170064.	KYTC	\$305,700,000
491	00550.00	The purpose of this project is to reduce congestion and improve mobility on I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County. This project is needed because the capacity of I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County is inadequate to meet current and future traffic volumes, resulting in congestion and reduced mobility on this stretch of I-65. This stretch of I-65 is also an important freight corridor and has a high percentage of truck volume.	2030	LOW
I- 65		KYTC Highway Plan (June, 2018): Construct new I-65 interchange between KY 480 and KY 245. Project length is 1.5 miles. CHAF ID: IP20160210. Additional Considerations: Project includes construction of a 3 lane connector road from KY 61 east to Alpha Way.	KYTC	\$40,500,000
2333	00538.00	CHAF Purpose: Improve access and mobility between I-65 and the rapidly growing commercial development to the south of KY 480 (Cedar Grove Road). CHAF Need: This project is needed because the I-65/KY 480 interchange is projected to operate at LOS F in the PM peak period for both southbound and northbound ramp intersections and in the AM the southbound ramp intersection is projected to operate at LOS D.	2020	LOW
I- 65 / KY 1526		Improve safety and reduce congestion at the I-65/KY 1526 (Brooks Hill Road - John Harper Highway) interchange including improvements to KY 1526 from KY 1020 (Coral Ridge Road) to KY 1450 (Blue Lick Road). I-65 MP 121.20 to MP 122.00. Design may consider addition of dedicated turn lanes along length of KY 1526 where appropriate and adding turn lane capacity to interstate ramps. CHAF IP20190078.	KYTC	\$6,600,000
2785	2785	Improve safety and reduce congestion at the I-65/ KY 1526 (Brooks Hill Road - John Harper Highway) interchange including improvements to KY 1526 from KY 1020 (Coral Ridge Road) to KY 1450 (Blue Lick Road). I-65 MP 121.20 to MP 122.00. Multiple concerns from First responders as they head into traffic on the John Harper Highway along with congestion on Blue Lick Road due to accelerated growth of both Industrial and Commercial on Blue Lick. The west side of Exit 121 is now an Opportunity Zone and development will accelerate and will add to the strained traffic patterns caused by the growing employment of the industrial and commercial growth.	2026	LOW

INVESTMENTS

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I- 65 / KY 61		Construct new interchange at I-65 and KY 61 (Preston Highway).	KYTC	\$50,000,000
392		Provide access to I-65 for developing area of Bullitt County. Alleviate congestion of existing I-65/KY 44 interchange in Shepherdsville.	2039	LOW
I- 65 Barrier Wall MP 116 to MP 118		Sound barrier wall on I-65 from MP 116 to MP 118 post northbound side.	Bullitt Co.	\$4,800,000
2765		To provide relief of interstate noise to residents that bound the northbound lanes of I-65 from MP 116 to MP 118.	2026	FURTHER REVIEW
I- 65/KY 480 Interchange		6YP Desc: Improve operational performance of the I-65/KY 480 interchange including ramp improvements and turning lanes. (12CCR)(14CCR)(2014BOP) (16CCR) From MP 0.80 to MP 1.30. CHAF ID: IP20160218	KYTC	\$12,160,000
2193	00391.30	CHAF Purpose: The purpose of this project is to reduce future traffic congestion at the I-65/KY 480 (Cedar Grove Road) interchange to acceptable levels of service (i.e., A, B, C, or D) and to improve access to existing and committed businesses in the Cedar Grove Business Park and surrounding area. CHAF Need: The I-65/KY 480 southbound ramps' signalized intersection west of I-65 operates at LOS C during the AM peak travel period and LOS D during the peak PM travel period. In the 2040 design year, it is projected to operate at LOS D during the AM peak and LOS F during the PM peak, assuming that no improvements are made to the interchange. For the I-65/ KY 480 northbound ramps' signalized intersection east of I-65, the 2015 AM and PM LOS of B will decline in operational performance to LOS E for the AM peak and LOS F for the PM peak in the 2040 design year.	2026	LOW

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BULLITT COUNTY

ROADWAY PROJECTS

Figure 38

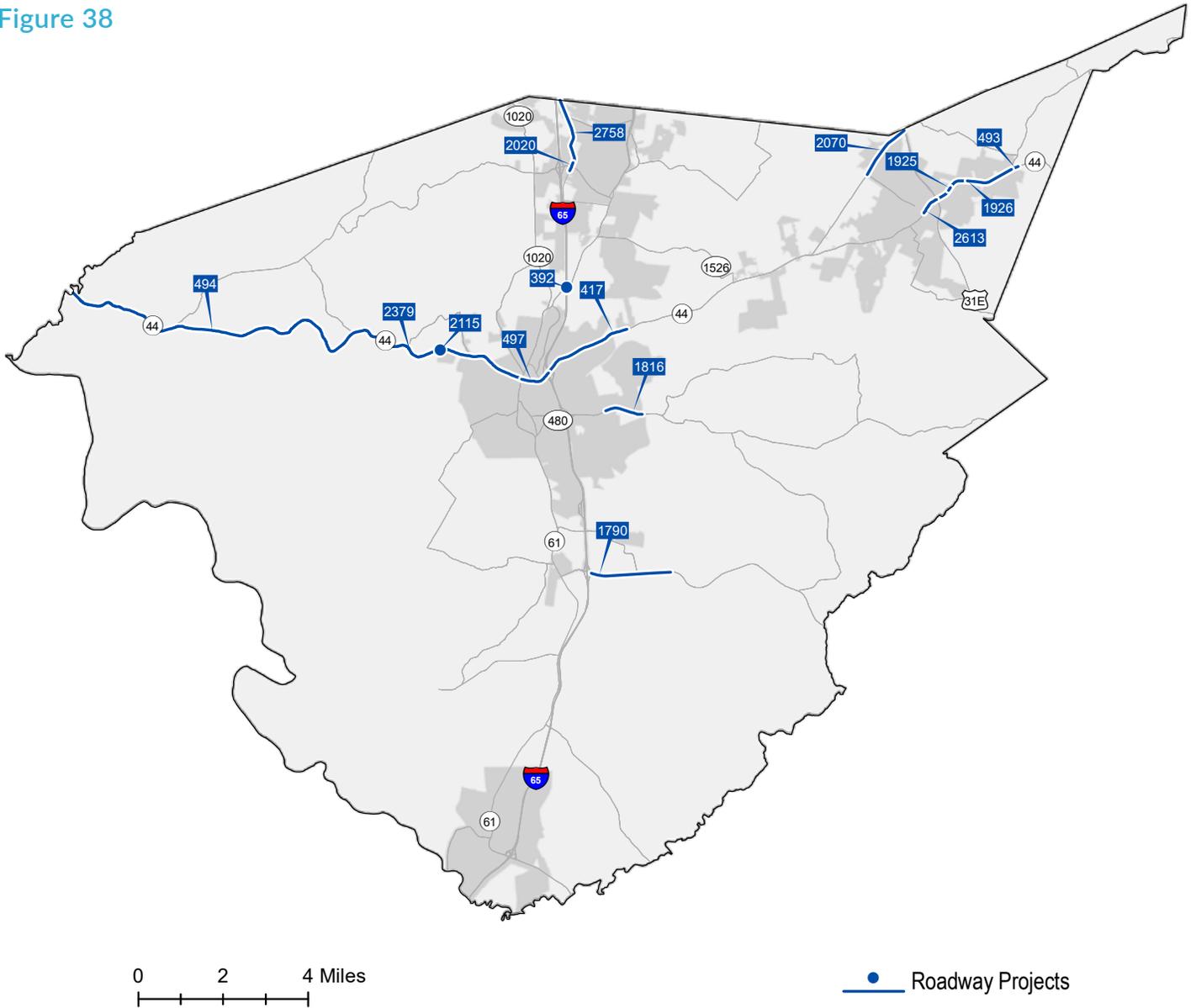


Figure 39: Bullitt County, Roadway MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 44		CHAF: Section 1 -1 from I-65 to Chimney Rock Drive (06CNN). CHAF ID: IP20150318. Additional Considerations: Propose 2 added lanes per CHAF database.	KYTC	\$43,568,000
417	00150.00	CHAF Purpose: The purpose of this project is to reduce congestion, improve safety and provide for better emergency vehicle access. This project would provide improved connectivity between the cities of Mt. Washington and Shepherdsville. CHAF Need: From the approved design executive summary (DES) completed in 2012 for the 2030 No-Build Analysis this segment has a Critical Rate Factor (CRF) of 1.9, a volume to capacity ration (V/C) of 1.83 and level of service (LOS) of F. Pedestrian facilities currently terminate at Lees Valley Road.	2027	MEDIUM
KY 44		CHAF: Mt. Washington-Taylorville Road; Reconstruct KY 44 from Mt. Washington Bypass East 2.0 miles (04CCN). CHAF ID: IP20150255 Additional Considerations: Add center turn lane.	KYTC	\$7,860,000
493	00347.50	CHAF Purpose: The purpose of this project is to improve capacity, relieve congestion, and improve safety along KY 44 from US 31E/150 (Bardstown Road) to KY 1319 (Kings Church Road). CHAF Need: KY 44's intersection with US 31E has a current overall LOS of C and a projected 2033 overall LOS of F. Crash data reveals 252 crashes along the subject section of KY 44 over the last ten years, including 122 rear end collisions, 50 angle collisions and 42 single vehicle collisions. Of the 29 crashes at the intersection of KY 44 and US 31E (Bardstown Road), 21 were rear end collisions. The significance of crashes along this section is further enhanced by the narrow roadway providing poor access for emergency vehicles. The KY 44 vertical alignment provides inadequate sight distance at the east end of the project, particularly at the intersections with East Sanders Lane and Kings Church Road. Relieving congestion and delays for traffic destined for Bullitt East High School and Old Mill Elementary School, especially during the a.m. peak hours, is particularly needed.	2032	LOW

INVESTMENTS

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 44		Reconstruct KY 44 from US 31 W (Dixie Highway) to KY 61 (Preston Highway) in Shepherdsville. Project design will consider 3 lane section with two way left turn lane. CHAF ID: 20170066	KYTC	\$105,250,000
494		Reconstruct KY 44 from US 31 W (Dixie Highway) to KY 61 (Preston Highway) in Shepherdsville. Route is an unimproved two lane country road with deficient roadway geometrics not meeting current roadway design standards resulting in higher than average crash rates. Issues include insufficient lane and shoulder widths, deficient vertical and horizontal curves, faulty or insufficient drainage features, insufficient sight distance at intersections and/or curves.	2030	MEDIUM
KY 44		Improve safety and reduce congestion on KY 44 between the I-65 interchange and the KY 61 intersection. Consider access management, pedestrian facilities and grade separated rail crossing. IP20130129.	KYTC	\$11,545,000
497		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.	2027	MEDIUM
KY 44		CHAF: New turn lanes in front of Bullitt East High School (Breakout from 347.50) (18CCN). CHAF ID: IP20150154	KYTC	\$1,720,000
1925	00347.51	CHAF Purpose: Improve safety and reduce congestion. CHAF Need: This project is needed because of existing delays especially during the AM peak periods near the KY 44/US 31E intersection and Bullitt East High School/Old Mill Elementary School and a high crash rate from US 31E (Bardstown Road) to Parkland Trace/Winning Colors Drive.	2023	LOW
KY 44		CHAF: KY 44 Section 2 from Parkland Trail/Winning Colors Drive eastward to Kings Church Road (KY 1319). (2008BOPC) CHAF ID: IP20150246 Additional Considerations: Add center turn lane.	KYTC	\$11,719,000
1926	00347.56	CHAF Purpose: Improve capacity, relieve congestion, and improve safety along KY 44 from Parkland Trace/Winning Colors Drive to KY 1319 (Kings Church Road). CHAF Need: This project is needed because the vertical alignment provides inadequate sight distances, particularly at the intersections with East Sanders Lane and Kings Church Road on KY 44 from Parkland Trace/Winning Colors Drive to KY 1319 (Kings Church Road). Existing delays especially during the AM peak periods also occur due to traffic destined to Bullitt East High School/Old Mill Elementary School and Mount Washington.	2028	FURTHER REVIEW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 44		<p>CHAF: Provide a reliable connection and improve safety along KY 44 from MP 9.2 to MP 10.3, including raising the roadway, widening and replacing bridge 015B00020N. (16CCN). Project length is 1.1 miles.</p> <p>CHAF ID: IP20160220</p> <p>Additional Considerations: Widening roadway from 2 to 3 lanes.</p>	KYTC	\$10,815,000
2379	08956.00	<p>CHAF Purpose: Provide a reliable connection and improve safety along KY 44 from MP 9.2 to MP 10.3, including raising the roadway, widening and improving or replacing bridge 015B00020N. (16CCN)</p> <p>CHAF Need: KY 44 is a two lane minor arterial road that is prone to flooding between MP 9.20 and 10.30 in the vicinity of Bridge ID 015B00020N creating system reliability issues between Shepherdsville and Fort Knox. There are also deficient roadway geometrics not meeting current roadway design standards resulting in higher than average crash rates. Issues include insufficient lane and shoulder widths, deficient vertical and horizontal curves and roadway elevation too low in flood prone area.</p>	2024	FURTHER REVIEW
KY 44		<p>Section 5 - From US 31EX to US 31E Bypass. (2008BOPC). Project length is 0.45 miles.</p> <p>CHAF ID: IP20150201</p>	KYTC	\$5,000,000
2613	00150.50	<p>The purpose of the KY 44 project is to reduce congestion, improve safety and provide for better emergency vehicle access.</p> <p>The 3/2012 DES (5-150.01 in Attachments) for the KY 44 corridor cited a CRF of 2.3 for this segment and projected a 2030 V/C of 1.73 and a LOS of F in the No-Build Alternative. This project would provide improved connectivity between the cities of Mt. Washington and Shepherdsville.</p>	2024	LOW
KY 44 Bridge		<p>CHAF: Improve safety and address geometric deficiencies along KY 44 near Old Pitts Point Road (in and west of Shepherdsville).(ID#015B00020N).</p> <p>CHAF ID: IP20130146</p>	KYTC	\$10,815,000
2115		<p>CHAF Purpose: Improve safety and address geometric deficiencies along KY 44 near Old Pitts Point Road (in and west of Shepherdsville).</p> <p>CHAF Need: Rehabilitate bridge and approaches on ID#015B00020N on KY 44 over Bullitt Lick Creek in Bullitt County in order to maintain the bridge for safety. Bridge was originally constructed in 1938, and approaches, due to erosion from the creek, need to be reconstructed. KYTC D-5 Maintenance Division has performed regular and routine maintenance over the years on this bridge and approaches. Project intent is to raise elevation to make a reliable connection for freight.</p>	2024	FURTHER REVIEW

INVESTMENTS

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 245		<p>Widen KY 245 from Bernheim Forest to the Community College. (08CCN)(10CCR)(14CCR)(16CCR) From MP 4.425 to MP 6.415.</p> <p>CHAF ID IP20150316</p> <p>Additional Considerations: Four lanes, plus turn bays are assumed from the SB I-65 Ramps to a point approximately 1.7 miles E of the I-65 Interchange.</p>	KYTC	\$19,953,500
1790	08509.00	<p>The purpose of the KY 245 Widening Project is to provide an improved transportation facility to meet the additional traffic demand forecasted to occur and accommodate any existing or future developments, and/or tourist destinations along the corridor. KY 245 leading southward from its interchange with I-65 is the major link between I-65 and the City of Bardstown and the western entrance to the Kentucky Bourbon Trail. The area has significant institutions and tourist destinations near the interchange that attracts local traffic, visitors and travelers along 1-65. Among the most important attractions are the Bernheim Arboretum, Jim Beam Distillery, The Boy Scout Camp, Bernheim Middle School and the Bullitt County Fairgrounds which hosts many events during the year. Currently the roadway is a two lane minor rural arterial. Traffic volumes increased from 9,520 ADT in 1991 to 12,800 ADT in 2007 and it is projected to grow to 17,200 ADT in 2034. A proposed Hotel development is planned on the North side of KY 245 next to 1-65 interchange, which will increase current volumes. Local officials indicated the need to improve access to local institutions expected to enhance tourism and economic development. The proposed road is expected to provide a safe and efficient facility, help address future traffic demand, and generate an entry way that integrates businesses and natural areas creating a major tourist center.</p>	2025	LOW
KY 480		<p>CHAF: Widen Cedar Grove Road (KY 480) from Cedar Grove Elementary School to Valley View Drive. (12CCR)(14CCR) (See 5-391.3 for interchange improvements). From: MP 2.01 to MP 2.84.</p> <p>CHAF ID: IP20160217</p> <p>Additional Considerations: Widen from 2 to 5 lanes per KIPDA database.</p>	KYTC	\$8,211,000
1816	00391.20	<p>CHAF Purpose: Improve capacity and safety on KY 480 (Cedar Grove Road) from Omega Parkway to Valley View Drive.</p> <p>CHAF Need: The project is needed because the capacity of KY 480 (Cedar Grove Road) from Omega Parkway to Valley View Drive is inadequate to meet current and future traffic volumes, resulting in congestion. Current level of service and projected level of service in 2029 is LOS E for the no-build condition.</p>	2024	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1450		<p>Improve safety and reduce congestion at the intersection of KY 1450 and KY 1526 east of the I-65/KY 1526 interchange.</p> <p>CHAF ID: IP20130131</p>	KYTC	\$6,700,000
2020		<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. The following needs have been identified at the KY 1450 and KY 1526 intersection as a result of significant commercial and residential growth in the Brooks, KY area:</p> <p>1) Improve Capacity, 2) Provide an improved highway that meets current safety design standards, 3) Enhance network connections, 4) Increase freight capacity, 5) Serve recent and planned growth.</p>	2024	LOW
KY 1450 Blue Lick Road Widening		Widen KY 1450 (Blue Lick Road) from 2 to 4 lanes from Bullitt/Jefferson County line to KY 1526 John Harper Way.	Bullitt Co.	\$8,000,000
2758		Congestion, visibility, intersection realignment, and safety are all issues needing to be addressed that have created the need for this project.	2024	LOW
Northwest Mt. Washington Connector		<p>New route northwest of Mt. Washington from US 31E to KY 2706. (12CCN) (14CCN).</p> <p>CHAF ID: IP20150164</p>	KYTC	\$13,773,000
2070	08710.00	<p>The purpose of this project is to better facilitate traffic movement between Eastern Jefferson and Bullitt Counties, as well as to reduce traffic congestion in downtown Mt. Washington.</p> <p>The need of improved mobility in north Mt. Washington by providing an alternate route between KY 2706 (Wales Run) and US 31E (Bardstown Road) will serve to alleviate traffic congestion (due to future increased traffic volumes and current roadway conditions) in downtown Mt. Washington, while better facilitating the transitioning traffic between US 31E and KY 2706. Increased connectivity will also allow for enhanced public safety by reducing traffic congestion, and decreasing the response time of emergency personnel.</p>	2030	LOW

CLARK COUNTY

BICYCLE & PEDESTRIAN PROJECTS

Figure 40

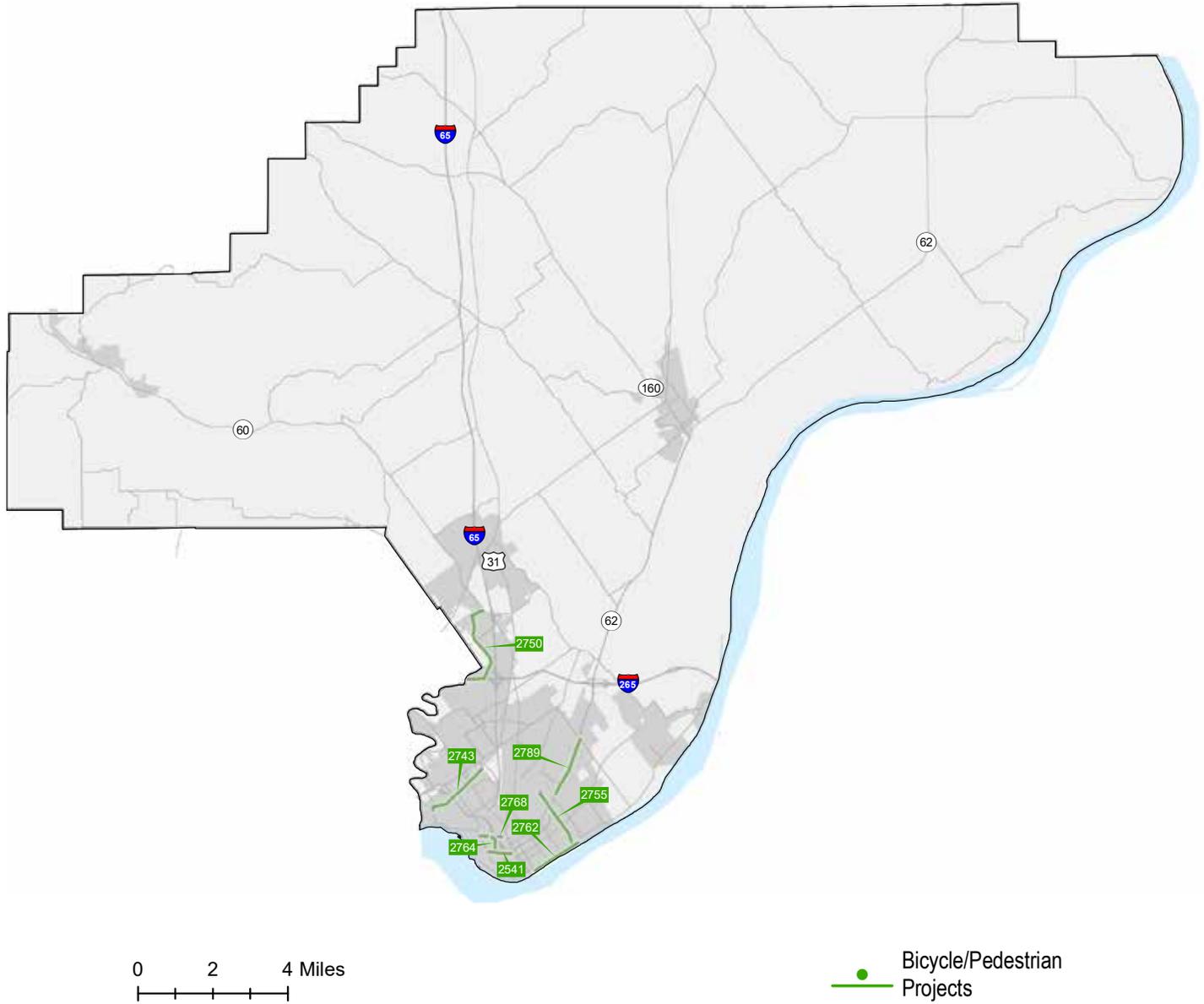


Figure 41: Clark County, Bicycle & Pedestrian MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
10th Street		Provide pedestrian and bicycle facilities on both sides of 10th Street.	Jeffersonville	\$2,000,000
2789		To provide connectivity for pedestrians and cyclists along one of Jeffersonville's busiest corridors.	2022	MEDIUM
CSX Trail Bike/ Ped Project		Bike and Ped trail on former CSX railroad corridor, 10' trail with designated biking lane, will connect to other town bike/ped trails.	Clarksville	\$8,000,000
2743		Town currently working on bike/ped connectivity plan, this project will serve as a central connector.	2020	LOW
Jeff Boat Rail Spur Multi-Use Trail		Following the closure and clean-up of the Jeff Boat Facility, this project will convert the defunct railroad spur into a 1.7 mile, paved, multi-modal trail that will connect Highland Park to the Ohio River.	Jeffersonville	\$4,500,000
2755		This project will provide an off-street bicycle and pedestrian route that connects the existing neighborhood to community facilities along the existing rail spur (Highland Park, Park View Middle School, and the Woehrle Athletic Complex). The Trail culminates at the Ohio River and could one day be connected to the Ohio River Greenway with redevelopment of the Jeff Boat Site. The Project provides a healthy alternative to driving to these destinations and provides a desirable recreation amenity in the existing neighborhoods.	2025	LOW
Jeffersonville 9th Street/Clarksville Montgomery Avenue Multimodal Connection		Design and construction of multimodal connection between Jeffersonville and Clarksville's Arts Districts, underneath I-65 along Montgomery Avenue and 9th Street. The design will include new sidewalks, bicycle paths, lighting, and other aesthetic amenities. Project length is 0.64 miles.	Clarksville	\$2,964,000
2541	0801597	The construction of I-65 has created a significant barrier to community connectivity between Jeffersonville and Clarksville in the Southern Indiana region. In an effort to recreate the connectivity once enjoyed by this area, both communities intend to partner in order to provide a safe, attractive bicycle and pedestrian connection for residents in each community. There are very few alternative transportation options available connecting these two communities, due to restrictions created by the interstate corridor. Citizens and visitors will have a safe route provided to them to cross between communities and Arts and Cultural Districts without using motorized transportation. In conjunction with other projects that Jeffersonville and Clarksville are undertaking, this improvement will provide an additional path to the Ohio River Greenway.	2023	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Marriott Drive Improvements		Streetscape improvements for entirety of Marriott Drive: 14'+ two-way traffic lanes (nearby RV sales), 5' sidewalk, curb and gutter, sharrows or designated bike lanes.	Clarksville	\$1,500,000
2764		Segments on this road are currently dangerous for pedestrians and motorists. Road lacks sidewalks. Nearby hotel guests and other pedestrians walk in the road, causing potential hazards within this commercial section.	2023	LOW
North Clarksville Multi-Use Trail		10' Multi-use bike and ped trail that follows a sewer easement, 8' to 10' separation between multi-use path and vehicular traffic when no curb is in place, minimum 5' required separation between multi-use path and vehicular traffic when curbs are in place.	Clarksville	\$14,000,000
2750		Northern Clarksville currently lacks bike and pedestrian facilities, and access to parks and greenspace in general, a multi-use trail will rectify the lack of recreation activities and provide connectivity to other corridors.	2028	LOW
Ohio River Greenway Extension		Following full cleanup of the Jeff Boat Facility, this project will extend the existing Ohio River Greenway from Walnut Street, upriver, to Arctic Springs Road and up to Utica Pike.	Jeffersonville	\$4,000,000
2762		The Ohio River Greenway extends from Downtown Jeffersonville to Downtown New Albany. With the closure of the Jeff Boat facility there is now an opportunity to extend the Greenway another 1.3 miles up river.	2026	LOW
Stansifer Avenue Improvements		This segment of Stansifer Avenue is 84 feet wide at some points, yet is only used as a 2-way road. Road diet may be required. Current configuration is not clearly delineated. Intersection with South Clark Boulevard is a 4-way stop in need of improvements. Curb and gutter needed throughout. Pedestrian sidewalk upgrades and widening to at least 5', designated bike lanes or sharrows, landscaping improvements, pedestrian/bike crossing at I-65/US-31 needs safety improvements, L&I railroad intersection that leads into Jeffersonville lacks pedestrian and bicycle access entirely. The L&I railroad overpass would require modifications not included in this cost estimate to ensure bike/ped accessibility for both communities.	Clarksville	\$2,500,000
2768		Predominantly residential neighborhood with a small section of local-serving commercial properties. This section is the northernmost boundary of South Clarksville, it has high development potential. Streetscapes, bike/ped, and other improvements will eventually be required.	2023	LOW

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CLARK COUNTY

INTERSTATE/INTERCHANGE PROJECTS

Figure 42

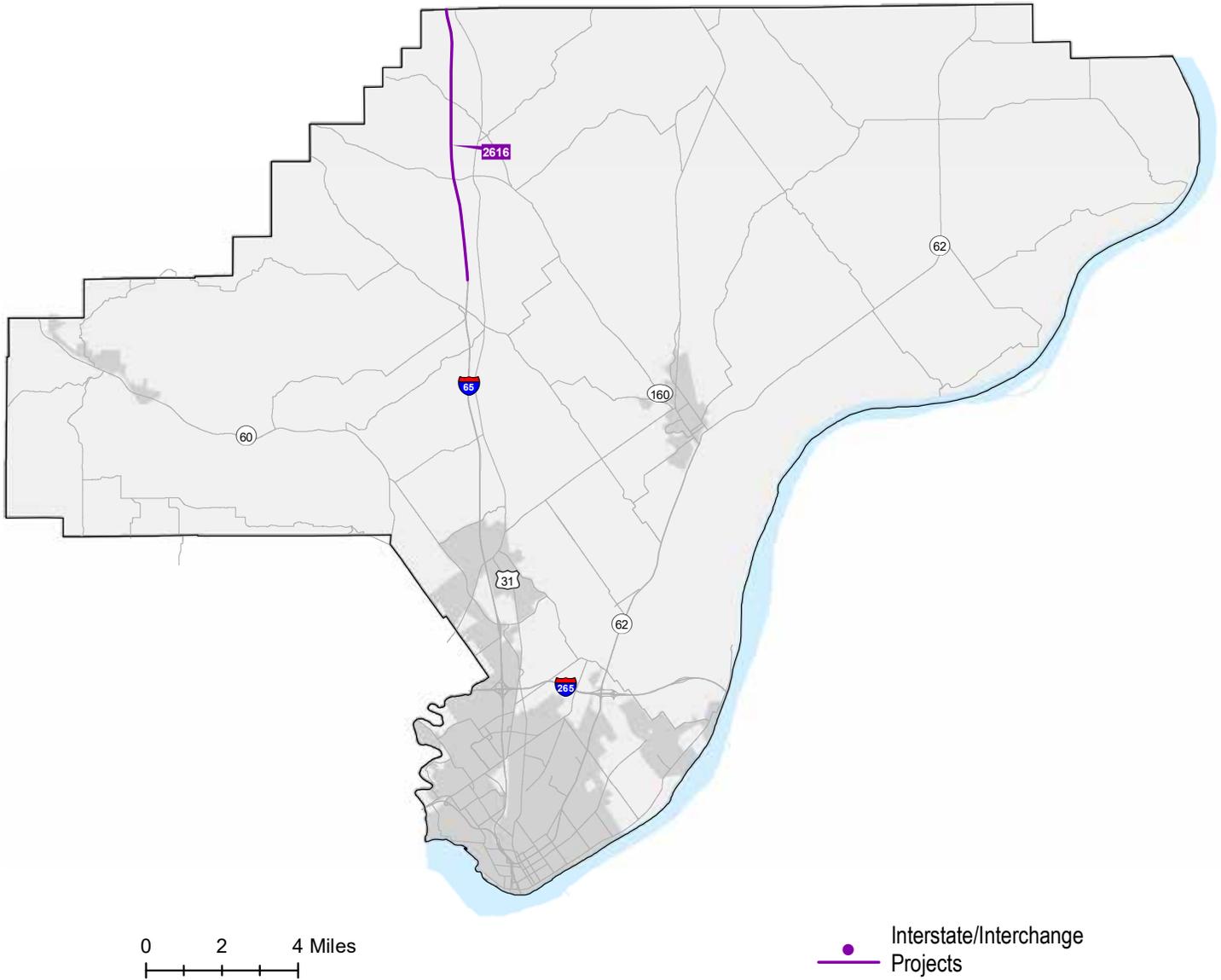


Figure 43: Clark County, Interstate/Interchange MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I- 65 Road Reconstruction		<p>Upgraded to added travel lanes I-65 from RP 19+0.995 to RP 28+0.883 is a composite pavement section, and is exhibiting severe stripping in the HMA layers beneath the surface. During the last construction contract (RS-37549), the centerline and edgelines were patched to the top of concrete to mitigate severe joint deterioration. Unfortunately, these partial depth patches effectively created a dam in the stripped layers, forcing water to come up through the new surface under traffic loading. 71 wet spots have been inventoried and are creating a safety hazard, especially during the winter months, when the water turns to ice. Additionally, questionable subgrade conditions were discovered under the last contract on the southern portion of the job from 16+0.417 to RP 19+0.995 (R-33813) demonstrating yet another water issue. Given these observations, it is likely that the existing underdrains are not performing as intended. 3 pavement drains were installed as experimental features on October 26, 2017 in the driving lane between Scottsburg and Henryville. These consisted of 2.5" wide trenches that were milled to the top of the underlying concrete (approx. 8" depth) and backfilled with permeable concrete. 1" PVC drains were also installed at the HMA/concrete interface to facilitate drainage. During the installation of the drains, stripped aggregate was observed beneath the surface and water flowed out of the HMA layers at a fairly substantial rate. These drains were considered a success, at least temporarily, since the water that was permeating to the surface was eliminated. Thus, the safety was improved especially during the winter months when freezing occurs. However, during this field work, the concerns of stripping were validated leaving the element of time as the unknown variable before substantial pavement distress occurs. Traffic will be maintained utilizing a 3/1 configuration to maintain 2 lanes in each direction throughout construction, with all ramps remaining open. Restricting the length allowed between crossovers is being considered. Project length is 7.25 miles in Clark County.</p>	INDOT	\$155,923,188
2616	1700135	<p>The purpose of this project is to address the safety concern of the wet spots, remove the stripped HMA pavement, replace the existing underdrain system, and improve the subgrade beneath the pavement and construct added travel lanes in this portion of I-65.</p>	2024	LOW

CLARK COUNTY ROADWAY PROJECTS

Figure 44

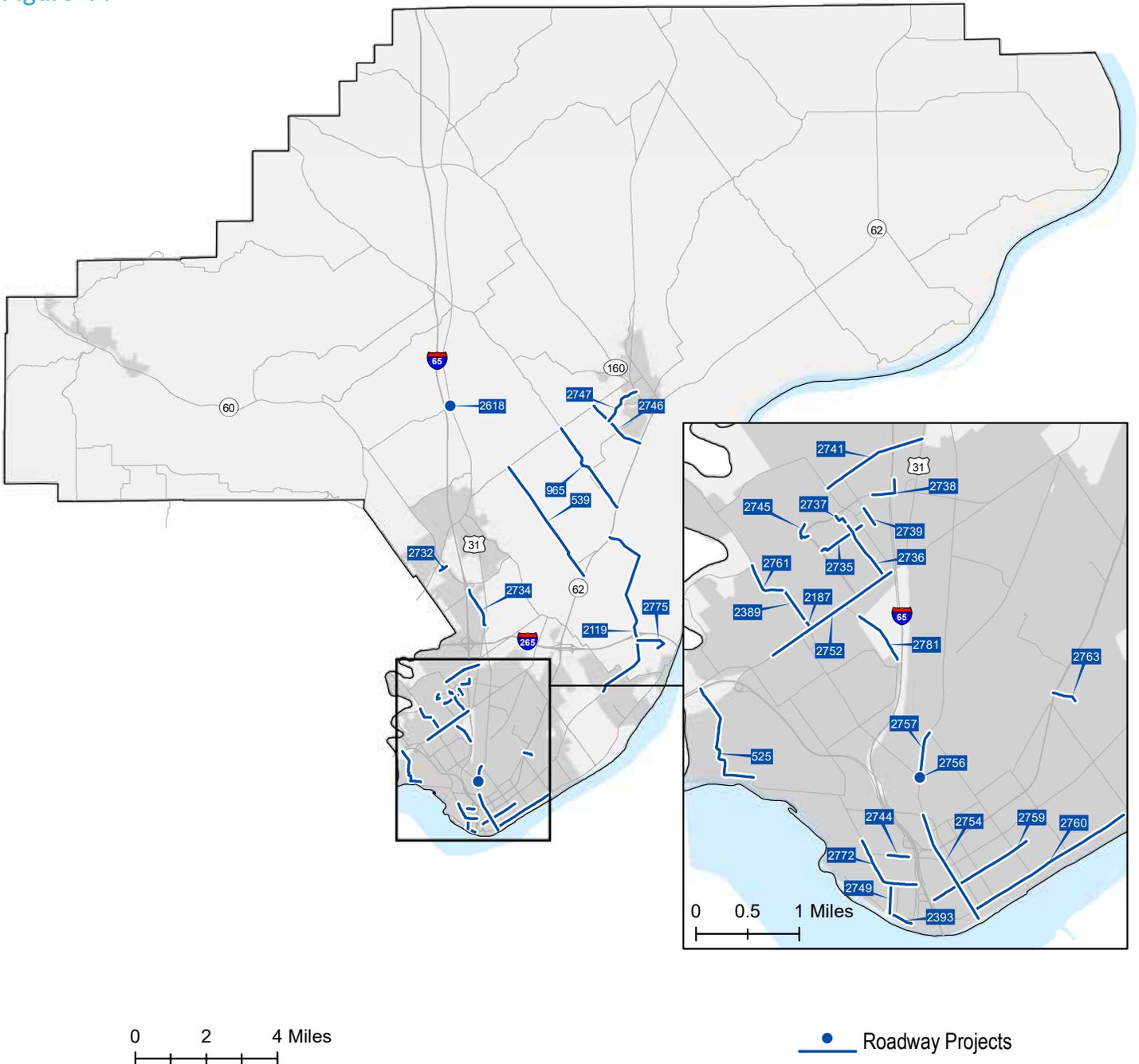


Figure 45: Clark County, Roadway MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
403/62 Connector		Construction of a new two (2) lane arterial road in the City of Charlestown, extending from Highway 403 to Highway 62. The arterial will consist of two (2)- twelve (12)-foot lanes, with curb and gutter and five (5)-foot wide sidewalks on both sides of the road along the entire length.	Charlestown	\$5,250,000
2746		Residential development is occurring rapidly along the city's "western" corridor; in order to serve the developments, this new arterial road will provide a safe and reliable route for both vehicular and pedestrian users. This road will also provide users alternate access to Highways 403 and 62 thus reducing traffic along Highway 3.	2021	LOW
Applegate Lane Improvements		Widening to at least 12' lanes for 2-way traffic, constructing new sidewalks to existing, and making streetlight improvements.	Clarksville	\$4,250,000
2781		Applegate Lane is an important connecting route to the Lewis and Clark Parkway Corridor and I-65/US-31. It is used frequently. Staff reports the road is often used by pedestrians despite existence of sidewalks, particularly at night. Segments are dangerous and safety issues need to be rectified with street, sidewalk, and lighting improvements.	2025	LOW
Appleleaf Lane Reconstruction		Appleleaf Lane needs a designated central turning lane to avoid collisions stemming from vehicles making left-turns. This project will require at least 18' of ROW acquisition as certain segments appear to be only 24' wide, acquisition will predominantly come from western portion of road.	Clarksville	\$4,000,000
2734		Mix of commercial and residential activities on this road segment, some light to heavy industrial truck use occurs and causes potentially hazardous conditions and safety concerns. Internal staff discussion yielded a median left-turn lane as the best option to rectify the safety concerns while also continuing to serve the industrial and residential activities.	2028	FURTHER REVIEW
Bethany Road		Widen existing lanes (no new travel lanes) on Bethany Road, provide turning lanes at 4 intersections and realign vertical/horizontal curves from IN 62 to CR 403.	Clark Co.	\$8,580,000
965	0710003	Bethany Road is located in a fast growing residential area of the city, and is classified as a major collector that connects IN 403 with IN 62. The existing roadway has 2-10 foot lanes and no shoulders. Furthermore, many of the existing vertical curves do not provide sufficient stopping sight distance along the roadway creating a very hazardous situation for drivers. The purpose of this project is to provide a safer roadway by widening the existing travel lanes to 12 feet, providing turn lanes at critical intersections, and reconstructing the horizontal and vertical curves to ensure that proper stopping sight distance is provided for the length of the roadway.	2021	FURTHER REVIEW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Blackiston Mill Road		Reconstruction and improvement of approximately 580 feet of Blackiston Mill Road, just north of Lewis & Clark Parkway, including the installation of turn lanes into and out of Kroger Drive, the addition of a raised center curb, improvement of sight lines, and drainage improvements.	Clarksville	\$2,266,994
2187	1401350	To increase vehicular and pedestrian safety at the intersection. Project is estimated to decrease accidents by over 50% in the improved stretch of roadway.	2020	MEDIUM
Blackiston Mill Road Phase II		Improvements to Blackiston Mill Road from just north of the Kroger entrance to Blackiston View Drive, including the addition of sidewalks, a new turn lane into Peddler's Mall entrance, improved site lines, and improved access control and drainage improvements. 0.34 miles.	Clarksville	\$1,920,000
2389	1700724	Project will improve the safety of the corridor and provide pedestrian and drainage improvements.	2022	LOW
Blackiston Mill Road Phase III		The project will provide for a widening of Blackiston Mill Road from Blackiston View Drive to Marlowe. The two large curves radius and grades will be reduced to allow for better sight distance and safety improvements. Drainage improvements to prevent roadway flooding are also included. Sidewalks will be added along the roadway and connect to Blackiston Mill Road Phase II and Marlowe Drive.	Clarksville	\$4,200,000
2761		The project will provide safety improvements to the vehicles that use the roadway daily for both commuting and recreational purposes. The reduction in the curves is needed to prevent accidents along the roadway.	2026	LOW
Byron Drive to Lombardy Drive Connection		New road project connecting Byron Drive to Lombardy Drive, running somewhat parallel with Greentree Boulevard/Veterans Parkway. Construct 2 12' travel lanes, 2' curb and gutter, 6' ADA accessible sidewalk on eastern side of new road, 6' planting space. Install 3-way traffic signals at Intersection of Byron Drive and Greentree Boulevard. Delineate a left turn lane for Byron Drive to Veteran's Parkway northbound traffic. Install three at-grade crossing signals and crosswalks connecting to nearby sidewalks.	Clarksville	\$3,500,000
2745		Segment is 15th on Indiana Top Crash List, largely due to vehicles driving too fast around the curve and vehicles making left turns lacking demarcation. The new road project connecting Byron Drive to Lombardy Drive will connect the two predominantly residential corridors, a connecting route is currently lacking. The new connecting route should ease some of the traffic stemming from Greentree/Veterans Parkway. Traffic light will slow down traffic and allow nearby residential motorists safer access to Greentree/Veterans Parkway. Crossing signal/crosswalks will allow pedestrians to utilize the sidewalks without risking injury from crossing the busy street.	2025	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Cedar Street Extension		S-Curve alignment road extension of Cedar Street to Veterans Parkway, two-way road with 12'+ lanes, curb and gutter, 5' sidewalks on both sides, 2' median verge, all should match adjacent streetscape.	Clarksville	\$750,000
2737		Since Broadway Street and Cedar Street are truncates at opposite ends, no single street provides a connection lane between Veterans Parkway and Lewis & Clark. The extension of Cedar Street would provide the necessary connection by utilizing already existing internal roadways.	2022	LOW
Cedar Street Reconstruction		Cedar Street would be reconstructed from Woodstock Drive south to Lewis & Clark Parkway. The segment between Ring Road extension (the mall's circulator road) and Madison Street would shift slightly west to operate as both a public street and circulatory for River Falls Mall. This segment of Ring Road would be removed. Throughout the reconstructed road would be curb and gutter, 2-4' planting verge, and 5' sidewalks on both sides of the roadway.	Clarksville	\$3,500,000
2736		The Broadway District and Lewis and Clark Parkway district are not well-connected, the reconstruction of Cedar Street will tie into the new Cedar Street extension, thereby providing accessibility and reducing congestion on the other two connecting routes for these two important corridors.	2022	LOW
Clark Road Extension		Reconstruct and extend portion(s) of Clark Road located in the City of Charlestown. The project consists of uniformly widening approximately 0.6 miles of existing road to two (2) - twelve-foot-wide lanes. Existing sidewalks will be improved and new sidewalks will be constructed along both sides of the road. These sidewalks will be five (5) - foot in width and ADA compliant. Clark Road will be extended by constructing a new two (2) lane road of twelve-foot lane width for approximately 0.6 mile. The extension will terminate at a future arterial road that will connect Highways 403 and 62.	Charlestown	\$4,000,000
2747		Residential development within the city is expanding rapidly, this project will provide motorist and pedestrians safe and reliable access to the "western" corridor of the city. The collector road will provide motorist and pedestrians an alternative route to reduce congestion within Highways 3, 403 and 62.	2021	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Court Avenue Streetscape Improvements		This project will reconstruct portions of Court Avenue from the I-65 Interchange to Graham Street per the recommendations in a recently completed planning study for the corridor. It includes eliminating one lane of travel in each direction from I-65 to Walnut Street in order to slow traffic, provide turn lanes for local streets and provide bicycle infrastructure from Downtown to the Second Street Bridge. The project includes improving sidewalks, creating pedestrian bulbouts for increased safety and walkability, installing street trees, enhancing lighting, and re-configuring existing diagonal parking where necessary to improve safety and accessibility.	Jeffersonville	\$2,500,000
2759		Court Avenue is the City of Jeffersonville's "Civic Spine." It is the location of the county courthouse, the library, Warder Park, the historic Nachand Fieldhouse, nearly 100 small businesses and a future Downtown elementary school (now under construction). As such, Court Avenue needs to be made more walkable and pedestrian friendly - a logical counterpart of Historic Spring Street. Currently sidewalks and curbs are in need of repair, lighting is inconsistent, pedestrian crossings are unsafe, and traffic speeds are too high. The traffic configuration is inconsistent and can easily be reduced from 4-lanes to two (as traffic volumes do not support four lanes of traffic). This project aims to correct these issues and create a much more pleasant pedestrian street which supports the numerous small businesses in the area.	2025	MEDIUM
Emery Crossing Road		The project is a road reconstruction and stabilization project. No additional lanes would be added, but some drainage work will be included.	Clarksville	\$3,500,000
525		The roadway has been severely damaged from heavy industrial traffic, as well as frequent flooding through the years. The anticipated West Riverfront Park is expected to bring hundreds of thousands of visitors to the area and the current roadway conditions will not be able to handle the additional traffic. A rebuild of the roadway to enable the Town to install a roadway suitable for both the heavy visitor and industrial traffic along the roadway, as well as withstand regular flooding.	2025	LOW
Heavy Haul Transportation Corridor		Construction of a new 2 lane road from the Port of Indiana to I-265, and construction of a 3 lane road from the I-265/Old Salem Road interchange through River Ridge to IN 62. The project will also identify a direct railroad route from the Port of Indiana to River Ridge.	INDOT	\$27,397,141
2119	1382612	The Heavy Haul Road provides direct access to IN 265 from both the Port of Indiana and River Ridge and also direct access between the Port of Indiana and River Ridge which will alleviate the mixing of truck and passenger vehicles on IN 62 and Port Road by reducing the amount of trucks in the future. The future railroad will provide a direct connection between the Port of Indiana and River Ridge and also give better connectivity to two Class I railroads.	2022	FURTHER REVIEW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Joseph Drive Extension		Extend Joseph Lane to Hamburg Way and Hwy 60. 14' Lanes for nearby fire truck accessibility, curb and gutter, two 5' sidewalks, 4' vegetative buffer.	Clarksville	\$4,000,000
2732		Adjacent neighborhood currently has only one entrance/exit, this is a fire/police/emergency hazard that needs to be remedied. This configuration will also give the Sellersburg Fire Department Station 5 easier west-bound access if and when needed. Additionally, if Hamburg Way is ever obstructed the firetrucks will have another outlet.	2025	FURTHER REVIEW
L&I Railroad Intersections: Montgomery Avenue and South Clark		Part 1: Overhead L&I Railroad Bridge at Montgomery Avenue is a safety hazard. Clearance is only 10' and the structure is in bad shape, Montgomery Avenue is typically closed for Jeffersonville bound traffic and vice versa. Montgomery Avenue needs to be lowered at a 2-3% decline/incline to allow for an 18' clearance on Montgomery Avenue below the railroad overpass. In order to reach appropriate grade, 1/4 mile of Montgomery Avenue will need to be reconstructed, from Marriott Drive to latitude 38.278284 longitude -85.751269. Propose two 11' lanes, sidewalk on southern side, sharrows on southern side, curb and gutter, and pump station. Part 2: Overhead L&I Railroad Bridge at S Clark: clearance needs to be widened to allow for safe travel of bike/ped.	Clarksville	\$7,500,000
2744		Town applied for LTRAX grant but was denied as the project did not fit the prototypical requirements for the grant process, i.e. not removing railroad tracks or improving traffic crossings. As area develops, South Clark will become a dangerous bottleneck and Montgomery Avenue will become a serious safety hazard. As currently configured, freight traffic cannot enter this corridor from Montgomery Avenue. Important to complete both projects concurrently as both will require railroad coordination.	2026	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
		<p>Segment is 6th worst on KIPDA's Top Crash List for Indiana. Will complete a traffic study in 2019 to confirm, but Town staff feels this segment could warrant a road diet. Currently configured as six 12' lanes of two-way traffic with turning lanes dispersed throughout and 6 11' lanes divided by a 3' curb median for 2-way traffic. Two lanes could be sacrificed in order to make room for more attractive streetscape: 6'+ sidewalks, 6'+ vegetative buffer and two 14 to 15' travel lanes. Segment is host to several dangerous intersections and prone to accidents. Staff consensus is that a road diet will likely be prescribed, the Town will be completing a traffic study for this segment in 2019 to confirm. Road diet, if confirmed by traffic study, will remove at least one traveling lane (likely two) to mitigate and discourage vehicles from dangerous maneuvers, and perhaps widen the lanes to 12 or 13'. Currently there are sidewalks on the north and south side of Lewis and Clark, but they are only 4-5' and the northern side lacks a plant buffer in some areas. The road diet will widen current sidewalks, improve and add crossings, and provide a vegetative buffer between vehicle traffic and pedestrian users in this busy shopping corridor.</p>	Clarksville	\$6,000,000
2752		<p>Currently a dangerous segment, road diet should serve to significantly alter traffic behavior, extra vegetative buffer and lane reduction will increase safety of maneuvering vehicles within this busy commercial corridor. This segment of Lewis and Clark hosts the 7th Top Crash List for Indiana Intersections (Triangle/Blackiston Mill Road) and the 18th Top Crash List for Indiana Intersections (Greentree North), likely because this segment is 6-lanes wide and runs through a major commercial corridor. Lanes are 11'.</p>	2025	LOW
		<p>Following full closure and cleanup of the Jeff Boat Facility, reconstruct Market Street from Spring Street to Blanchel Terrace. Reconstruction will include new pavement, curb, gutter, sidewalks, and sharrows. In addition to sidewalks, street trees, benches, pedestrian lighting and other amenities shall be provided to create a pleasant walkable connection from Downtown Jeff to future riverfront development at the former Jeff Boat site.</p>	Jeffersonville	\$6,000,000
2760		<p>Following the closure and full cleanup of the Jeff Boat Facility, it is anticipated that some quantity of riverfront development will happen on this site. Currently much of the street is in disrepair due to years of freight traffic in the area and general disinvestment in an industrial area. Improvements to this street will be needed to support new development and ensure that there is a safe, accessible, and pleasant pedestrian connection to Downtown Jeffersonville.</p>	2028	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Port of Indiana Truck-to-Rail and Rail-to-Water Improvements		Completion of a waterfront rail loop, construction of a rail-to-barge transfer facility with mini-rail loop, extension of rail within the existing port boundaries, construction of an additional rail siding adjacent to the existing rail yard that will allow rail carriers to deliver a 90 car unit train to the port, and construction of a 3 acre truck-to-rail paved intermodal yard. All projects are proposed to be constructed within the existing port boundary.	Ports of Indiana	\$17,000,000
2231		The purposes of the project are to to improve efficiency of rail operations along the Port of Indiana - Jeffersonville waterfront, provide the ability to accommodate delivery of a 90 car unit train, allow the transfer of cargo efficiently between rail cars and trucks, and increase the Port of Indiana - Jeffersonville's bulk commodity capacity by providing a direct rail-to-water facility to help the port meet increasing global demand for agricultural commodities and other bulk materials.	2020	FURTHER REVIEW
Progress Way Reconstruction		Progress Way is utilized by UPS and several industrial users, it is also used by RVs stemming from nearby Cunningham campers, yet majority of road is 2-way traffic with only 10' lanes. Road will need to be widened in order to provide a middle turning lane, all lanes need to be at least 12'. 6-7' sidewalk improvements with 5-6' planting space will be constructed on the southern portion of Progress Way and will connect to existing sidewalk improvements at Sam Gwin Dr and extend to I-65 Overpass. 2' curb and gutter will also be constructed throughout. 4-way stop sign may be needed at Sam Gwin intersection. I-65 overpass will require restoration as it is showing wear and tear.	Clarksville	\$8,000,000
2741		Current configuration is dangerous, pedestrian vehicles and industrial users both utilize this busy road, the narrow lanes and lack of safety improvements aren't currently sustainable with the amount of traffic.	2028	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Reconstruction of South Clark Boulevard		The proposed reconstruction of South Clark Boulevard project will implement complete street principles to enhance pedestrian circulation, provide a safe and buffered above grade cycle track, improve vehicular movement, and add landscaping along the existing corridor. The segment from Missouri Avenue to the Louisville and Indiana Railroad overpass would become a four-lane divided median roadway. The intersection with Missouri Avenue will require a traffic light as current configuration is somewhat confusing/ dangerous. The portion from the railroad overpass to Montgomery Avenue would become a two-lane road with a parking lane on each side. The section from Montgomery Avenue to South Sherwood Avenue would be a sidewalk component to connect to existing pedestrian facilities. Improvements to the L&I overpass may be constructed as part of a separate project. The project includes new curb and gutter with sidewalks and planting strips on each side of the roadway. An above grade cycle track would be included on one side of the roadway. The intersection at Missouri Avenue would need to be rebuilt and realigned to allow for better traffic flow and a safer pedestrian, cyclist, and motorist environment.	Clarksville	\$8,500,000
2772		The project area is located in the South Clarksville corridor which has been targeted for key development activities.	2026	LOW
Reeds Lane Extension		This plan will improve the geometry of the Reeds Lane and 10th Street intersection and extend Reeds Lane through the existing Shopping Center. The extension will connect to the existing Kehoe Lane and create a new north-south connection across 10th street at a signalized intersection.	Jeffersonville	\$3,000,000
2763		The 10th Street Strategic Investment Plan (2018) identified several opportunities to help revitalize the aging commercial corridor. One concept presented is to create a new north-south spine through the existing (and aging) Jeff Plaza Shopping Center, that can be used as a catalyst for redevelopment of the site. The plan developed creates not only a through road that better connects the north and south sides of 10th street, but also creates a small community greenspace around which new buildings can be constructed.	2027	LOW
River Falls Mall: Ring Road Extension		The northern leg of the River Falls Mall's Ring Road will be reconstructed and extended to create a continuous east-west connection between Greentree Boulevard and Broadway Street. The road will extend on new alignment to the east to cross Cedar Street and then "T" into Broadway. The Bass Pro round-about will remain. Typical sections would be 2' buffers, one 7' cycle track, two 5' sidewalks, two 5-7' landscape buffers, two 2-3' curb and gutter, and two 12' lanes. The northern portion of Horn Street will be vacated after completion of this project, Woodstock Drive has already been vacated from Cedar Street to Broadway Street."	Clarksville	\$2,000,000
2735		The reconstruction will transform Ring Road into a public urban street, instead of a mall access road, and should encourage more diverse types of development.	2024	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Riverside Drive		Reconstruct Riverside Drive from the town limits to Ashland Park, including sidewalks and parking on both sides of roadway, and an elevated cycle track on the south side of roadway. 0.25 miles.	Clarksville	\$7,854,394
2393	1700725	Reconstruction of the existing roadway, improving the safety of the corridor and improving pedestrian and bicycle facilities.	2024	LOW
Salem-Nobel Road		Reconstruct Salem-Nobel Road as a 2 lane (no additional lanes) road from IN 62 to IN 403.	Clark Co.	\$12,900,000
539	0400935	Road improvements to make road safe; horizontal and vertical alignment. The area is rural in nature with residential and commercial subdivisions springing up along the route. The terrain is rolling to steep in some areas with trees lining the road, which creates a safety hazard for the traveling public. There is also a sharp "S" curve within the project limits with very limited visibility and substandard geometry.	2021	FURTHER REVIEW
Sam Gwin Extension		Extension of Sam Gwin Drive to Leisure Way: 2-12' Lanes, curb and gutter, 6' grass strips and 6' sidewalks on each side.	Clarksville	\$1,200,000
2739		Helps achieve more of a complete streets design, provides easier access to town's hotel corridor, and will help continue economic development within Broadway District.	2020	LOW
Smyser Avenue Relocation		New road project connecting South Clark Boulevard to Riverside Drive. Project extends through flood-wall (requires new gate) to connect with Riverside Drive. Two 11' traffic lanes, curb and gutter, bike/ped, 3-way stop or traffic light at junction with Center Street/Court Avenue.	Clarksville	\$7,000,000
2749		Project has been highlighted as crucial to spur redevelopment within the area and will serve as an additional entrance to the mixed-use South Clarkville corridor.	2022	LOW
Spring Street - Eastern Boulevard Intersection		This project will fully reconstruct the Spring Street and Eastern Boulevard intersection.	Jeffersonville	\$1,200,000
2756		The irregular geometry of the Spring Street/Eastern Boulevard intersection creates a number of safety issues for drivers, cyclists, pedestrians, and commercial freight traffic. The goal of this project is to reconfigure the geometry of the intersection, and fully improve all signalization, crosswalks, and handicapped ramps for increased safety for all users. The plan for this project is outlined in the Spring Street Master Plan (2017).	2025	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Spring Street - Eastern Boulevard to Dutch Lane		Reconstruct Spring Street from Eastern Boulevard to Dutch Lane as a two lane road with bicycle lanes, new curb and gutter, and sidewalks. Provide turn lanes where necessary.	Jeffersonville	\$1,500,000
2757		The segment of Spring Street between Eastern Boulevard and Dutch Lane is in rather poor condition and has a narrow, rural cross section with no curb, gutters or sidewalk. This is in stark contrast to the wider and more urban sections to the North and South. As a noted "Minor Arterial" that sees a good deal of freight traffic in this area, the current conditions do not meet the acceptable standards for the road's classification.	2028	MEDIUM
Spring Street Revitalization and Enhancement		This project will completely reconstruct Spring Street through Downtown Jeffersonville. The project will include the addition of bicycle lanes, turn lanes where necessary, transit stop enhancements and improved pedestrian infrastructure.	Jeffersonville	\$3,500,000
2754		Since the opening of the Big Four Bridge, Downtown Jeffersonville has come alive with new restaurants, stores, and housing. With the revitalization has come a larger number of pedestrians, bicycles and transit users in the Downtown Area. While the buildings along Spring Street have been fixed up and reactivated, the street itself is in need of repaving and the sidewalks need a great deal of work. This project, outlined in the Spring Street Master Plan adopted in 2017, aims to create Jeffersonville's first "Complete Street" - designed specifically for all modes of travel. This complete street will extend northward to connect the Clark Memorial Hospital and the Claysburg Neighborhood to the Downtown. Three blocks in Claysburg (north of the Hospital will be completed in 2019; these are not a part of this project).	2030	MEDIUM
US 31 Intersection Improvement		There is a pattern of rear-end crashes with a railroad running parallel to US 31. When a train is crossing Bud Prather Rd (east approach), there is not a large amount of room to store vehicles and a southbound vehicle may not have a safe storage place. Project length is 0.08 miles.	INDOT	\$1,311,719
2618	1800375	The intent of this project is to improve the safety of the intersection and reduce the frequency and severity of crashes that occur by constructing left-turn lanes on US 31.	2023	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Utica Ridge Road		Install new connector road to lessen travel miles of east Utica residents, eliminate through traffic in central part of town, providing two lanes parallel to Highway 265 for local traffic. Right-of-way is preliminarily estimated to be 80 feet with 11-foot lanes and five-foot shoulders. Lighting and landscaping to be included in keeping with the character of the area being a gateway into Indiana.	Utica	\$1,219,600
2775		The project will lessen the drive distance to Highway 265 from the growing east side of Utica. As such it will lessen traffic and stopping within the central core of Utica. The road will be designed to agree with the projected commercial and mixed uses expected to be drawn to the area due to the improved access provided by Highway 265 and the Lewis and Clark Ohio River Bridge. Developers are increasingly being attracted to this area. There is presently a need for approximately 107,000 square feet of commercial space and residential expansions are continuing.	2027	FURTHER REVIEW
Veteran's Parkway & I-65 North		Segment of Veteran's Parkway is categorized as 10% worst level of service (D rating). During peak hours, traffic bottlenecks, specifically for I-65 N bound vehicles. Project will require removing the two left turning lanes between mile markers 1373 and 1389. Left turns in this section are both dangerous and an impediment to traffic during peak hours. Motorists will often stop to allow other motorists to make a left turn, usually into the Lowe's corridor, nearly colliding with unimpeded motorists in the other lane. Removing both left turn lanes will force drivers to utilize the much safer traffic lights. The removal of the left turn lanes will also allow for an additional 420' lane for I-65 N bound traffic. The area may also require a 4' median to discourage aforementioned left turns. Lanes will be demarcated accordingly. The next major road modification is to clearly delineate the northernmost I-65 N bound as left-turn only, the middle lane as left-turn optional, and the southernmost as right-turn optional. The final major modification will be the addition of a 2-lane I-65 N on-ramp to be extended at least 550' until forcing a merge into the existing one-lane I-65 N on-ramp.	Clarksville	\$5,000,000
2738		Citizens, Town Council, and Staff have all highlighted this segment as congested. It is a top top priority for the safety and continued development of the area.	2026	LOW

FLOYD COUNTY

BICYCLE & PEDESTRIAN PROJECTS

Figure 46

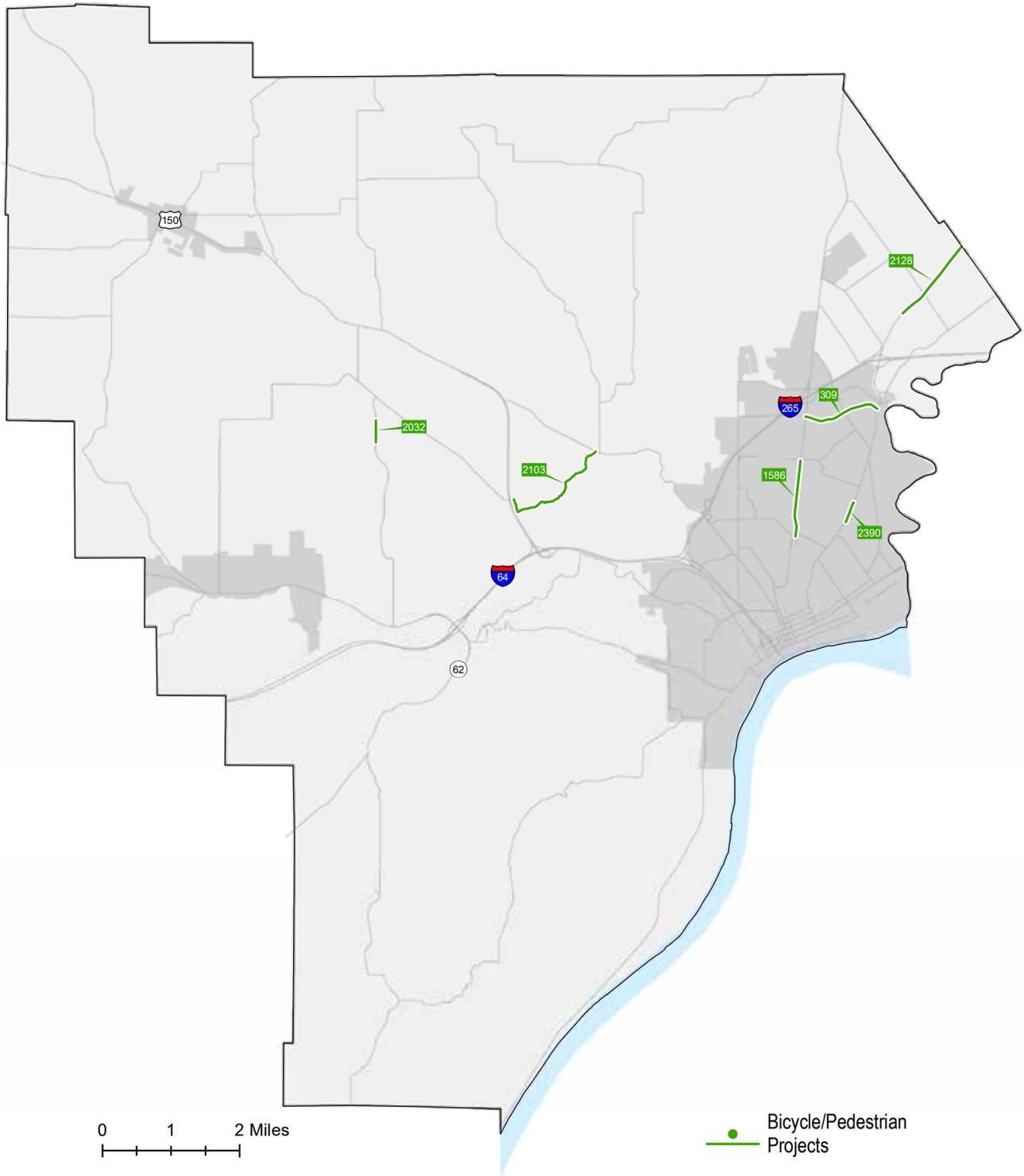


Figure 47: Floyd County, Bicycle & Pedestrian MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Charlestown Road (from Hedden Court to Genung Drive)		<p>The Project begins at Hedden Court and proceeds northerly for 0.31 miles to Genung Drive. The project involves the construction of curb and gutter with sidewalk and a storm sewer system. 6' wide attached sidewalks are planned. The pavement would be milled overlaid/widened to provide a maximum of 33' of pavement width. The pavement width will provide one lane in each direction with a two-way left turn lane. The project is likely to involve phase construction with the shifting of traffic. The existing paved travel lanes/shoulders allow for traffic to be shifted while maintaining a safe distance to work zone for storm sewer construction, curb and gutter and sidewalk construction.</p> <p>The Project includes the following Phases: 1. Preliminary Engineering/Right-of-way Engineering; 2. Right-of Way Acquisition; 3. Utilities; and 4. Construction. The Project provides connections to an Elementary School, a N-hood Center, urban residential neighborhoods and nearby commercial and industrial uses.</p>	New Albany	\$2,541,873
2390	1700727	<p>Charlestown Road is a major arterial, former State Highway, which runs for over 4 miles in a northeasterly direction from the center of the City to a mile north of I-265, finally connecting to I-65 in Sellersburg. The City has constructed a 3-lane section and sidewalks along most all of Charlestown Road with the exception of this 1,600+' section lying between Hedden Court and Genung Drive. This final section of Charlestown Road lies in a fully urbanized area and includes nearby Fairmont Elementary School and the Fairmont (Rauch) Neighborhood Center. Much of this corridor lies in a HUD-designated lower income area and is identified as a KIPDA Title VI - Environmental Justice Area (west side where the School and N-Hood Center are located). Several years ago, the City developed a neighborhood park for Fairmont Elementary School and fully rehabilitated the neighborhood center...each using CDBG funding. Charlestown Road Improvement including the provision of sidewalks is listed in the City's Comprehensive Plan Year 2020. This segment is also listed as #14 on the KIPDA Region's Top 20 Indiana High Crash Segments and is also listed as a KIPDA Bicycle & Pedestrian Priority Corridor. This is a compelling segment to provide sidewalks and to provide for left-turning vehicles...it's not only for the benefit of lower income households, it serves neighborhood commercial and some industrial uses immediately north of the school and the n-hood center. Residents including handicapped people currently use the existing narrow shoulders to reach destinations along this busy stretch as well.</p>	2024	MEDIUM
Charlestown Road Corridor Complete Streets		<p>Construction of a multi-use path from Sunset Drive to County Line Road in New Albany, Indiana. The multi-use path is 10 feet in width. Additional traffic calming measures are planned, including re-striping and additional signage. Project length is 1.31 miles.</p>	Floyd Co.	\$1,250,000
2128	1400550, 1800900	<p>The Charlestown Road Complete Streets Project brings pedestrian and multi-modal infrastructure to an area that currently lacks any at all. The multi-use path will provide access for residents living in the subdivisions along the corridor the ability to access Kevin Hammersmith Park and the commercial area by bike or by foot. Currently, this segment of Charlestown Road is not safe for pedestrian nor bike traffic.</p>	2022	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Floyd Central - Highland Hills Safe Routes to School Project		Multi-use path to connect Floyd Central High School and Highland Hills Middle School in Georgetown. Current area lacks any pedestrian/multi-modal infrastructure. Project could be located along Edwardsville-Galena Road and would provide pedestrian/multi-modal access to existing neighborhoods around both schools.	Floyd Co.	\$3,770,000
2032		After school, many students from Highland Hills Middle School use the athletic fields at Floyd Central High School. However, they do not have any safe access between the schools besides walking on Edwardsville Galena Road. Existing neighborhoods around schools do not have sidewalks, discouraging students from being able to walk to school safely.	2025	LOW
Little Indian Creek Trail - Phase 1		Project is a multi-use path connecting connecting Highlander Point commercial area to Floyds Knobs commercial area. Path will go along Indian Creek stream system.	Floyd Co.	\$2,000,000
2103		Project was identified in the Floyd County Major Thoroughfare Plan to provide multi-modal access and recreation opportunity between the two commercial nodes. Currently, no multi-modal access or trail system exists in unincorporated areas of Floyd County.	2027	LOW
Mount Tabor Road		Phase I - Reconstruct as a two lane road (no additional lanes) from Grantline Road to just west of Klerner Lane intersection including new full depth pavement section, stabilization of adjacent hillsides to arrest slides, slightly narrower reconstructed travel lanes, curb/gutter/drainage system installation, and provision of sidewalks on each side separated from the curb/gutter by a 5' grass strip. Phase II - Klerner Lane to Charlestown Rd. is forthcoming and will include the same improvements as above. A new intersection control at the Klerner Lane intersection will be part of this phase, including new crosswalks.	New Albany	\$11,000,000
309	0710808	Where Mt. Tabor Road is very near Rail/Slate Run Creek, this project will preserve the road by stabilizing the creek embankments and to continue to provide vehicular access to the elementary school at Mt. Tabor Road and Grantline Road and shopping areas at each end of Mt. Tabor Road. Sidewalks will provide pedestrian access for the first time along this road. Travel lane width will be slightly reduced. This project will add a school flasher, upgrade the signal at Grant Line Rd, and add audible pedestrian signals.	2025	LOW

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FLOYD COUNTY

INTERSTATE/INTERCHANGE PROJECTS

Figure 48

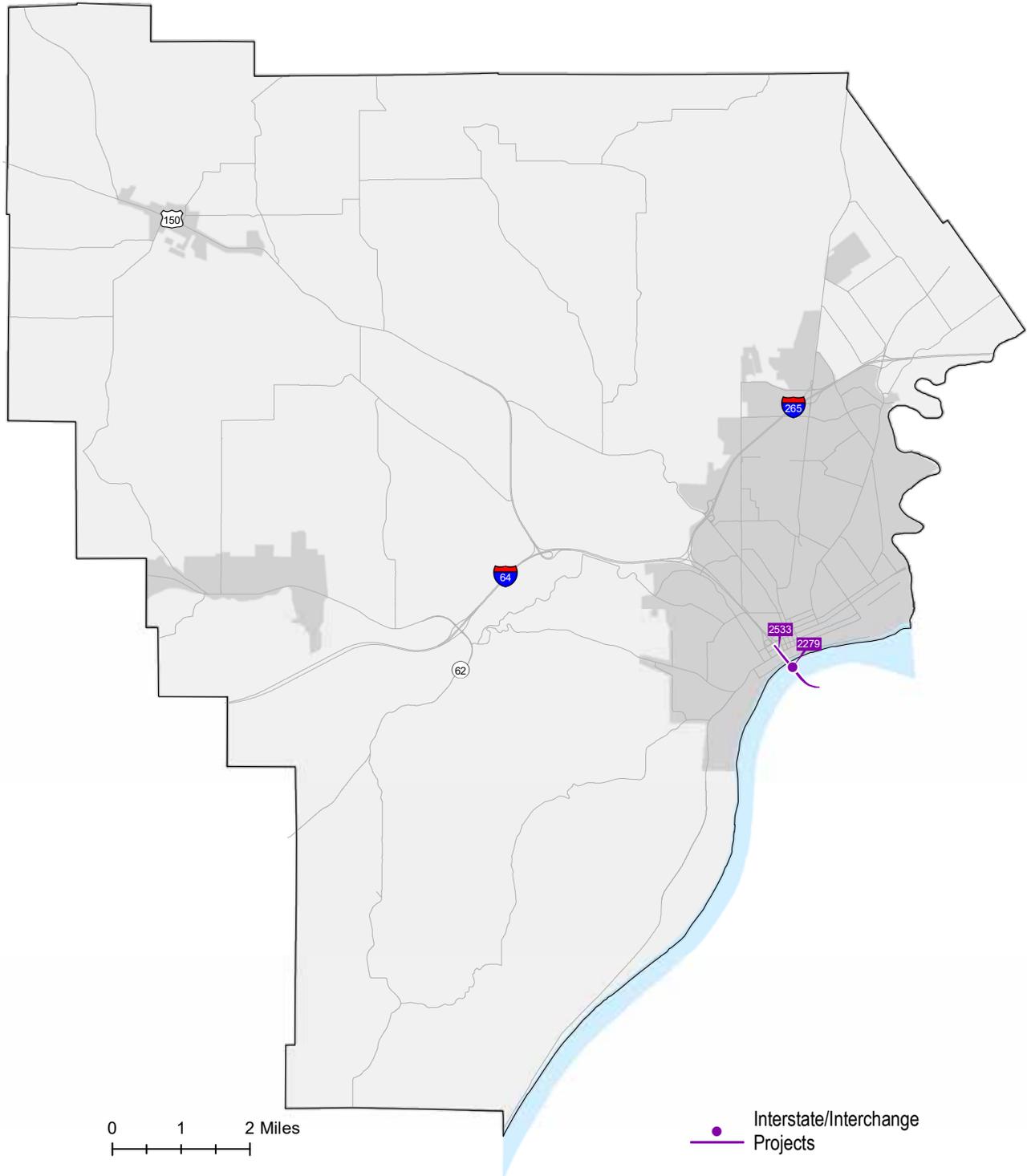


Figure 49: Floyd County, Interstate/Interchange MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I- 64		Bridge painting of the Sherman Minton Bridge over the Ohio River.	INDOT	\$23,500,000
2279	1592187	Bridge painting of the Sherman Minton Bridge over the Ohio River to maintain the integrity of the bridge.	2021	FURTHER REVIEW
I-64 Sherman Minton Corridor Maintenance		Maintenance of the I-64 Sherman Minton Bridge and three Indiana approach bridges and one Kentucky approach bridge.	INDOT	\$48,675,000
2533	1702255	Rehabilitate the bridge decks, perform minor structural repairs on the five bridges in the I-64 Sherman Minton Corridor. These maintenance efforts are required to sustain the bridges through their 100 year design life.	2022	FURTHER REVIEW

FLOYD COUNTY

ROADWAY PROJECTS

Figure 50

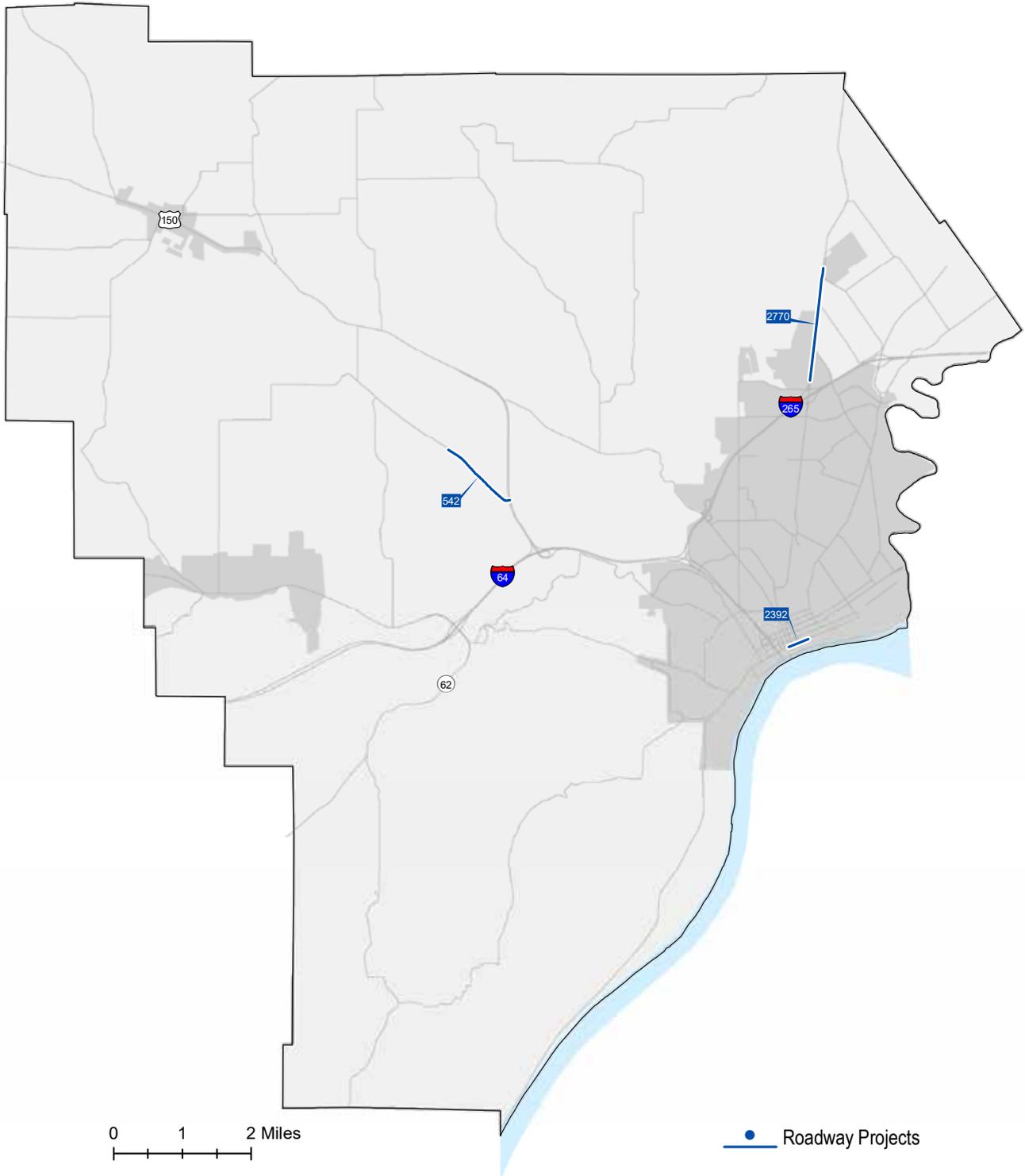


Figure 51: Floyd County, Roadway MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
East Main Street		<p>This road reconstruction project on East Main Street will extend from State Street to East 5th Street for approximately 1,600 feet or 0.3 miles and is located in the heart of Downtown New Albany. The proposed road reconstruction project will provide for a continuation of the improvements of the East Main Street corridor extending from the recently completed project on East Main from Vincennes Street to East 5th Street in 2014 and connect to the improvements completed by INDOT on West Main Street from State Street to Corydon Pike in 2015. Like the preceding East Main project, the improvements will focus on replacing or rehabilitating deteriorated pavement and sidewalks, improve walkability and multi-modal accessibility of the Main Street corridor, improve vehicular, cyclist and pedestrian safety and enhance the overall character of the corridor. Specific improvements include:</p> <ul style="list-style-type: none"> • Full pavement reconstruction for 0.3 miles of roadway (existing 52 foot wide pavement section to be reduced by 8 feet to promote traffic calming). • New pavement markings identifying two 11-foot travel lanes, 7-foot parking lanes and accommodations for cyclists. • Replacement of curb/gutter and the addition of intersection curb bump-outs to provide traffic calming. • Replacement and widening of existing sidewalks to provide for reduced pavement section width and encourage lower travel speeds. • Installation of ADA compliant curb ramps at all intersections/crosswalks. • Installation of street lighting to improve pedestrian visibility and motorist awareness. <p>These improvements will take place entirely within currently designated right-of-way and will not require any acquisitions. Construction is anticipated to be completed in a single phase."</p>	New Albany	\$3,037,239
2392	1700730	<p>The Project includes design and construction of a 1,600+/-' length, 52' wide section of E. Main Street between State Street and E. 5th Street. Currently, this portion of the E. Main Street corridor has extensive deteriorated sidewalks and a poor pavement rating. It's worn out and dysfunctional. It lies in the Mansion Row National Register District and connects the residential portion of this unique Historic District to the Downtown and the north-south Major Arterial, State Street. In fact, the Project ends at the E. Main and State Street intersection where the Founding Father's historic Scribner House Museum and the City's new YMCA-Aquatic Center are located. E. Main Street is a former State Highway (actually Highways 62 and 111) which was relinquished by INDOT to the City in 2010. The proposed improvements for the E Main Street project were listed as a component of the relinquishment agreement between the City and InDot. The proposed project will connect to two recently completed Main Street corridor improvement projects.*</p>	2023	MEDIUM

* Complete text is available in Appendix H.

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
		<p>Need for Improvement: The need for improvement is based on the existing substandard geometrics, and lack of traffic capacity along the corridor, which is in a rapidly growing area of New Albany and Floyd County. Existing Level of Service (LOS) has fallen below minimum standards. This project is needed to improve safety and traffic flow/mobility by adding capacity and improving geometrics along the corridor. This project will increase vehicular capacity, add pedestrian access and resolve fundamental and unsafe roadway deficiencies within this section of Grantline Road north of I-265. This road rehabilitation and multi-use (MU) trail project along Grantline Road will extend from Hausfeldt Lane to Security Parkway. The MU trail/sidewalk only portion of the project will begin at Hausfeldt Lane, and will run north along Grantline Road for approximately 2150 ft. to Indiana University Southeast (IU-SE)/Klerner Lane intersection. The MU trail will be located on the west side of the roadway, and the sidewalk will be located on the east side. The roadway rehabilitation portion of the project will begin at IU-SE/Klerner Lane. The Multi Use Trail/sidewalk and roadway rehabilitation project will then run north to just north of the intersection with Security Parkway. The length of the MU trail/sidewalk only portion of the project will be approximately 0.41 miles. The length of the Grantline Road rehabilitation with MU trail/sidewalk project will be approximately 1.31 miles. The total project length is estimated to be approximately 1.72 miles.*</p>	New Albany	\$9,176,400
2770		<p>More than a decade ago, INDOT had planned to completely improve this important corridor and began design of improvements to the corridor, but instead relinquished it to Floyd County in 2012. Floyd County since transferred it to the City of New Albany. This corridor provides access to IU-SE (enrollment 5,400), Grantline Elementary School and 5 existing Industrial Parks. Multiple apartment complexes and retail uses are planned or already under construction in the area. IU-SE has recently substantially increased their on-campus housing capacity by adding and/or expanding dormitories with more dorms and additional campus buildings in the planning stages. The City recently constructed access and sanitary sewer service on the west side of Grantline Road through land now being developed with apartments to a new forty acre industrial park. The City anticipates development of another 150+ acres of vacant land zoned for industrial or multi-family use on this corridor in the near future. With IU-SE, Grantline Elementary School, 5 industrial parks, multiple apartment complexes, and retail development either planned or under construction along this corridor, the addition of adequate pedestrian facilities will be vitally important for both safety and mobility. There are other pedestrian facilities in the vicinity of this project area. The addition of a MU path and sidewalk with this project will help to provide much-needed connectivity with these other facilities, and to other parts of the community. This corridor provides easy access to the only non-tolled interstate bridge over the Ohio River, the Sherman Minton Bridge. It is also anticipated that this corridor will attract businesses that generate significant truck traffic to metro Louisville via I-265. Hausfeldt Lane is ranked 14th and St. Joseph Road is ranked 20th on KIPDA's Indiana vehicle crashes list. This Project was included in the City's Comprehensive Plan 2020.</p>	2028	MEDIUM

* Complete text is available in Appendix H.

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Grantline Road		Reconstruct Grantline Road as a 2 lane road (no additional travel lanes) from McDonald Lane south to Beechwood Avenue for a distance of 1.1 miles.	New Albany	\$4,298,587
1586	0901276	Improve lanes for vehicular service and safety; provide sidewalks and/or pedway for pedestrian/bike travel and for safety.	2020	MEDIUM
Old Vincennes Road Reconstruction Phase 3		Phase 3 of Reconstruction of Old Vincennes Road from south of Luther Road to US 150 in Floyds Knobs. Reconstruction includes widening of lanes/shoulders, drainage infrastructure, and reduction of unsafe sight lines. Improvement of intersections at Schrieber Road with turn lanes, and reconfiguration at Duffy Road/Highlander Point Drive.	Floyd Co.	\$5,000,000
542		Old Vincennes Road is the main route from US 150 to Floyd Central High School and Highland Hills Middle School. This section is also used for one of Floyd County's main commercial nodes, Highlander Point. Current infrastructure does not meet growing needs of area.	2026	LOW

Figure 53: Jefferson County, Bicycle & Pedestrian MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
A.B. Sawyer Shared Use Path		Design and construct shared-use path through A.B. Sawyer Park along Middle Fork Beargrass Creek to Dorsey Lane and connecting to surrounding neighborhoods including an underpass, bridge, and site amenities; and construction of pedestrian facilities along Hurstbourne Pkwy from Middle Fork of Beargrass Creek bridge to Ormsby Station Rd. including a bridge over Middle Fork Beargrass Creek.	Louisville Metro	\$5,000,000
1662	00529.00	To improve pedestrian and bicycling access and connect park resources with residential neighborhoods.	2025	MEDIUM
Bluegrass Commerce Park Bicycle/Pedestrian Trail Project Phase II		Construct a 10 foot wide multi-use bicycle/pedestrian trail along one side of Bluegrass Parkway from Watterson Trail to Campus Place and along Campus Place from Bluegrass Parkway to Plantside Drive. The trail will be constructed with concrete. Project length is 1.61 miles.	Jeffersontown	\$1,630,000
2084	00543.00	The community including the businesses have expressed interest to provide both pedestrian and bicycle movement throughout the Bluegrass Commerce Park. So the City has been constructing a multi-use trail to connect Hurstbourne Parkway to Blankenbaker Parkway. Better connectivity is desired throughout the employment center in order to provide alternative means to the automobile.	2020	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Comprehensive Campus Improvements for Pedestrians & Bicyclists, Phase II		The project needed by JCTC includes improvements on the downtown campus for pedestrians and bicyclists. The Downtown campus is bordered on Chestnut Street to the north, and Breckinridge Street to the south. The college owns property on east side of 2nd street and on both sides of 1st Street. Additional property is owned at the corner of the off ramp on Interstate 65 North at Broadway. In general this metropolitan campus has been expanded to include additional property and in 2018 the college began construction on an additional classroom building along the east side of south 1st street between Jacob and College streets. The addition of a new building will add many pedestrians to these 5 city blocks that are already congested. There are two access points to Interstate 65 south along our campus borders on 1st street. Students, parking, bicycles, and other foot traffic will continue to increase throughout this area and certainly as a new building is opened and the number of students grows. Improvements to crosswalks, lighting, pedestrian areas, safety, and bicycle lanes and parking are all part of the comprehensive nature of a Phase 3 Downtown Comprehensive Plan for Pedestrian and Bicyclists Improvements. At the current time, no funding has been secured and costs are based on very rough estimates.	JCTC	\$4,000,000
1111		The project will provide safe walkways for pedestrians, many of which are students at the college's campus. These walkways will be used by all students including approximately 1000 students that have identified themselves as having a disability of some kind. The 1st Street corridor is busy with cars and trucks moving in and out of the downtown area. Students are parking, walking to classroom and administrative buildings. Crosswalks on these busy streets can be extremely dangerous, crosswalks at our less traveled areas are non-existent. Adequate lighting is essential as well as other safety mechanisms, like security call boxes with emergency connections to 911 and Metrosafe are essential. As the college encourages students to become greener in their transportation choices, additional and secure parking for bicycles is required. Dedicated bike lanes would be something to consider for any project in the area of the college.	2025	MEDIUM
Good Samaritan Bicycle and Pedestrian Trail Connector		Construct a .67 miles multi-use bicycle and pedestrian trail 10 feet wide along portions of Watterson Trail, Grand Avenue, Bluebird Lane and Shelby Street as well as traversing between the Jeffersontown Public Library and the Academy of Individual Excellence School and the Good Samaritan Residential Community in downtown Jeffersontown.	Jeffersontown	\$1,630,000
2082	00486.00	This project will greatly enhance both pedestrian and bicycle connectivity to the surrounding streets in downtown Jeffersontown as well provide enhanced access to schools, libraries, parks and places of employment. It would also provide a missing gap in the existing multi-use bicycle and pedestrian trail system already constructed that will connect a high commercial corridor to the Bluegrass Commerce Park Employment Center to the surrounding roadway network and the city's downtown.	2020	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Jeffersontown to Parklands Multi-use Bicycle/ Pedestrian Trail		Construct a 10-foot wide multi-use bicycle/pedestrian trail along Taylorsville Road from Chenoweth Run Road to South Pope Lick Road/Parklands.	Jeffersontown	\$5,450,000
2786		To provide alternatives to the automobile by increasing connectivity for pedestrians and bicyclist. Provide opportunities for future transit access and linkages between where people live and work. Taylorsville Road is coming a highly developed corridor and connecting the various residential neighborhoods to arterial streets and transit is desired.	2025	LOW
KY 1747 (Fern Valley Road/ Hurstbourne Parkway) Complete Street		Complete bicycle/pedestrian connections along Fern Valley Road and Hurstbourne Parkway.	Louisville Metro	\$16,500,000
2766		Implement complete streets to support active transportation modes and enhance transit.	2035	MEDIUM
LaGrange Road Bicycle & Pedestrian Improvements		Increase the pavement width along LaGrange Road by 8 feet to provide two 4' on-street bicycle lanes from Lakeland Road to Whipps Mill Road and add bicycle facilities on New La Grange Road from Lyndon Lane to Whipps Mill Road.	Louisville Metro	\$1,035,000
1634		Addition of bicycle and pedestrian facilities.	2020	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
LaGrange Road Pedestrian Facilities Project		Construction of sidewalks along LaGrange Road from Lyndon Lane to Bowen Elementary School.	Louisville Metro	\$1,695,500
1791		Addition of pedestrian facilities.	2021	LOW
Louisville Loop Northeast Shared-Use Path System		Design and construction of a shared-use path connecting Miles Park on Shelbyville Road to River Road. Approximately 18 miles.	Louisville Metro	\$40,000,000
1856		The northeastern corridor of the Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists.	2035	MEDIUM
Louisville Loop Ohio River Levee Shared-Use Path System		Design and construct an accessible shared-use path system connecting the Riverwalk section of the Louisville Loop from West Broadway and Southwestern Parkway at Shawnee Park to the Southern section of the Louisville Loop at Watson Lane at the LG&E Mill Creek Generating Plant. This corridor is approximately 17.0 miles of the 100+ mile Louisville Loop.	Louisville Metro	\$34,000,000
2771		The Ohio River Levee Trail corridor of the Louisville Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists.	2025	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
		<p>"Design and construct an accessible shared-use path system connecting the Ohio River Valley Northeast section of the Louisville Loop from Big Four Bridge in Waterfront Park to the Olmsted Parkways shared use path system and the Ohio River Levee Trail section of the Louisville Loop at West Broadway and Southwestern Parkway. This corridor is approximately 8.0 miles of the 100+ mile Louisville Loop.</p> <p>There are significant lengths of this part of the Louisville Loop that are seasonally flooded. To accommodate the extensive use of the Loop during those seasons, there needs to be a detour alternate route. Northwestern Parkway parallels this section of the Loop and has appropriate ROW for design and construction of bicycle and pedestrian facilities. The improvements vary over 4 distinct zones on Northwestern Parkway:</p> <p>Zone 1 - from West Market Street to Bank Street includes a 10' wide shared use path, restriping pavement dedicated bicycle lanes, signage, and other bicycle and pedestrian facilities, and remains two-way with 2 vehicular travel lanes.</p> <p>Zone 2 - from Bank Street to 39th Street includes 10' shared use path, restriping pavement, dedicated bicycle lanes, signage, and other bicycle and pedestrian facilities, and will be reduced from 2 one-way lanes to 1 lane.</p> <p>Zone 3 - from 39th Street to 33rd Street includes restriping pavement, dedicated bicycle lanes, a cycletrack, signage, and other bicycle and pedestrian facilities, and will be reduced from 4 one-way lanes to 2 one-way lanes.</p> <p>Zone 4 - from 33rd Street to 31st Street includes restriping pavement, dedicated bicycle lanes, a cycletrack, signage, and other bicycle and pedestrian facilities, and remains as two-way traffic with 2 vehicular lanes."</p>	Louisville Metro	\$16,000,000
2234		<p>The Riverwalk corridor of the Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists. The proposed detour alternate route - which currently has limited and disconnected pedestrian facilities - will accommodate pedestrians as well as all categories of bicyclists along the local streets in the Portland and Shawnee neighborhoods.</p>	2028	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Louisville Loop Southern Shared-Use Path		Design and construct a shared-use path system connecting the Ohio River Levee Trail section of the Louisville Loop at Watson Lane to the Parklands of Floyds Fork section of the Louisville Loop at Bardstown Road. This corridor is approximately 33 miles of the 100+ mile Louisville Loop.	Louisville Metro	\$66,000,000
1857		The southern corridor of the Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists.	2035	MEDIUM
Olmsted Parkways Bicycle/Pedestrian Improvements		This project will provide planning, design, and implementation phases for Olmsted Parkways Bicycle and Pedestrian Improvements to rehabilitate Eastern Parkway to modern standards, including lane reductions and complete street elements of bicycle lanes, shared use paths, and sidewalks.	Louisville Metro	\$15,000,000
2142	03213.00	Eastern Parkway is one of the original historic Olmsted Parkways - now over 100 years old - and the most heavily used parkway in Louisville (as Alt US 60, part of the Federal Highway System). Age and use have brought on serious deterioration of an underdesigned facility for current conditions. This project intends to evaluate existing conditions of roadway construction, curbing, drainage, bicycle and pedestrian facilities, and other parkway corridor elements to determine the extent of rehabilitation items required to bring Eastern Parkway up to modern standards and implement the recommendations of the 2009 Olmsted Parkways Shared Use Pathways master plan, which include lane reductions, bicycle lanes, shared use paths, and sidewalks.	2035	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Olmsted Parkways Multi-Use Path System		Construct a multi-use path system connecting Algonquin, Southwestern and Southern Parkways with existing trails to create a continuous 8 miles of connected paths for pedestrians and bicyclists. Change from 4 lanes to 3 lanes (3rd lane will be a center turn lane) on Southwestern Parkway from Shawnee Park to I-264, Algonquin Parkway from I-264 to Winkler, Southern Parkway from New Cut Road to South 3rd Street.	Louisville Metro	\$25,000,000
1273	00506.00, 03709.00	Implement recommendations of Olmsted Parkways Shared-Use Pathway System Master Plan to enhance bicycle and pedestrian opportunities along parkways that extend and link to existing and proposed Louisville Loop. This project will provide an accessible shared-use pathway system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Olmsted Parkways Shared-Use Pathway System intends to serve all categories of bicyclists.	2024	MEDIUM
Park Hill Streetscape Improvements		Create pedestrian-friendly streetscapes in the Park Hill Corridor, namely 9th and 7th Streets and Kentucky Street.	Louisville Metro	\$2,000,000
1864		Improvements within the right-of-ways and public spaces in the Industrial Corridor have an impact beyond simply improving the visual appeal. Streetscape features and open spaces play a key role in defining a location's sense of place, positively or negatively. Currently, the deteriorated sidewalks, nonexistent street trees, and inhospitable open spaces contribute to perceptions that the Industrial Corridor is a forgotten place. In addition, the lack of bus shelters hinders the potential for increased transit ridership; the impervious character of the streetscape compounds the combined sewer overflow issue; and the lack of shade increases the urban heat island effect, affecting Louisville Metro air quality. Strategic public realm improvements within the priority focus area can improve quality of life for local businesses and residents, attracting future investment. Create Pedestrian-friendly Streetscapes Streetscapes that address the needs of pedestrians create the kind of atmosphere and sense of place businesses are looking for. Pedestrian-oriented streetscapes include features like street trees to create shade, seating areas for respite, and sidewalks buffered from vehicular lanes by a landscape strip. More and more, employees are looking for exercise opportunities at lunch. A walkable network of streets can address that need without occupying the valuable land of an individual company. Pedestrian-oriented lighting creates even illumination levels, making it easier to recognize faces, leading to a safer pedestrian environment.	2030	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
River Road Bicycle & Pedestrian Improvements		Design and construct an accessible shared-use path system connecting the Riverwalk section of the Louisville Loop from Big Four Bridge in Waterfront Park to the Northeast section of the Louisville Loop in Prospect at River Road and US 42. This corridor is approximately 8.5 miles of the 100+ mile Louisville Loop.	Louisville Metro	\$17,000,000
1423	00499.00	The Ohio River Valley Northeast corridor of the Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists.	2035	MEDIUM
River Road Multi-Modal Improvements - 3rd Street to 7th Street		<p>Re-allocation of the northern most lane traveling in the west bound direction and relocation of the existing barrier wall to expand the existing separated multi-use path of sub-standard width. In addition, street lighting would be updated and placed into the relocated barrier wall to reduce maintenance costs and better illuminate the path beneath the shadow the the interstate.</p> <p>This would be accomplished by transitioning the two westbound lanes between 3rd Street and 4th Street from 13 feet in width to 11 feet in width at 4th Street. This will allow the barrier wall to be moved south four (4) feet, increasing the width of the current shared use path from a sub-standard width of six (6) feet to a conforming width of ten (10) feet. Between 4th Street and 6th Street, we propose to reduce from two westbound lanes to a single westbound lane with a shoulder, allowing the multimodal path to increase to 14 feet in width.</p> <p>This project dovetails with the planned 4th Street bike connection improvement projects which will feed cyclists directly into this project via actuated loops and allow seamless interaction for traffic coming from downtown that desire to travel west along the riverfront. Additionally, the junction at 6th Street will be improved to provide better connectivity with dedicated bicycle facilities on 6th Street. Pedestrian improvements are intended as well at the intersections of River Road with 3rd Street, 4th Street, and 6th Street.</p>	Louisville Metro	\$854,635
2540	03217.00	<p>Improve safety and comfort of walkers, joggers, and cyclists along the riverfront by re-allocating the northern most travel lane of River Road, relocating the barrier wall and adding street lighting to illuminate the path beneath the shadow of the interstate.</p> <p>The existing path forces users of the path into blind-spots behind the supporting structure of I-64 above. This project allows us to make a safe connection for all users while not adversely impacting operating conditions of motor vehicles.</p>	2022	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
South Louisville Loop Connector		This design-build project is for contextually appropriate bicycle and pedestrian connections along 3rd Street and Southern Parkway up to the intersection of New Cut Road. This multi-modal connection links Downtown, UofL, Iroquois Park, and the Louisville Loop. A mix of on-road and off-road facilities will be required to make an all ages and abilities facility.	Louisville Metro	\$2,000,000
1425		This corridor is an important connection between Downtown, UofL, Iroquois Park, and will connect to another MTP project along New Cut Road to the round-about in Fairdale which will have a trailhead to the Louisville Loop for Jefferson Memorial Forest. It runs through many dense urban neighborhoods.	2030	MEDIUM
Three Forks of Beargrass Creek Greenways		This project will plan, design, and construct an accessible shared-use path system in the three forks of Beargrass Creek watershed, which will provide connections among the existing trails in the watershed. The Muddy Fork Beargrass Creek extends from the confluence at the Ohio River next to Eva Bandman Park northeastward to Indian Hills Trail. The Middle Fork Beargrass Creek extends from its confluence with Muddy Fork near Brownsboro Road and Story Avenue eastward to Shelbyville Road at Oxmoor Mall. The South Fork Beargrass Creek extends from its confluence with Middle Fork near East Main Street southward to Bardstown Road near Bashford Manor Mall.	Louisville Metro	\$75,000,000
2753		The corridors along the three forks of Beargrass Creek provide the route for an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities in the heavily urbanized eastern section of Louisville. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because this shared-use path system intends to serve all categories of bicyclists. There are significant lengths of the three forks of Beargrass Creek that can be seasonally flooded. To accommodate the use of this corridor during those seasons, detour alternate routes will be planned for.	2035	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
US 31W Sidewalk and Pedestrian Improvements		Design and construct pedestrian improvements on Dixie Highway between Broadway and Crums Lane to build upon the Transforming Dixie Highway Project. Improvements include construction of proposed pedestrian infrastructure, signalization upgrades, lighting improvements, and some transit improvements.	Louisville Metro	\$4,208,053
1359		The Transforming Dixie Highway was a major improvement to the streetscape and transportation network; however, not all of the pedestrian improvements identified were able to be extended all the way to Broadway. This project would complete the pedestrian network connectivity along Broadway. These improvements are key to supporting the surrounding neighborhoods, the commercial vitality of the corridor, and the coming BRT and other transit investments being made.	2030	MEDIUM
Watterson Trail Bicycle & Pedestrian Trail Phase II		The project will construct a 10 foot wide concrete multi-use trail along one side of Watterson Trail from Mansfield Estates Drive to Mulberry Row Way.	Jeffersontown	\$1,320,000
2081		The city conducted a bicycle/pedestrian master plan for the city. As a result of the master plan the citizens desired to provide both bicycle and pedestrian facilities that are safe along this section of Watterson Trail. Given the high density of neighborhoods and no sidewalks existing along this section of roadway it was determined to construct a multi-use trail to connect with the central business district of the downtown as well as other segments of the city's trail system.	2021	LOW
Watterson Trail Phase I		Construct new curb and gutters along the project corridor as well as all new sidewalks on both sides along with new ADA Compliant Ramps and MUTCD crosswalks at each street intersection. The proposed sidewalks will be a minimum of 5 feet wide and will exceed that in many areas. The project will relocate the overhead utilities to the secondary streets of Peach Street and Neal Street. New street lights will be constructed along the route in order to provide improved pedestrian and vehicular safety. Enhanced landscaping will also be installed in order to address the heat island effect and ozone alert days and improve air quality.	Jeffersontown	\$4,432,096
1582	03031.00	Citizens have voiced concern about the narrow sidewalks along the project corridor as well as the various tripping hazards created by the sidewalks and utility guy wires and poles. The current sidewalks are approximately 4 feet wide and do not meet current code requirements of 5 feet minimum. Relocating the overhead utilities will help create an expanded pedestrian zone there by creating a buffer between the pedestrians and the vehicular travel lane of Watterson Trail. The project will upgrade the pedestrian crossings with ADA Compliant ramps and tactile warning mats.	2021	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
West Kentucky Street Project		The West Kentucky Street Master Plan Project proposes sidewalk improvements, bicycle facilities, improvements to the rail crossing at 15th Street, the addition of street trees, and holistically analyzes connectivity impacts of nearby street closures. Traffic calming measures (bumpouts, signal upgrades, road realignments) are proposed at 5th, 9th, and 15th Streets.	Louisville Metro	\$3,000,000
1863		Kentucky Street is a critical east-west corridor connecting Old Louisville and the California neighborhoods. The Corridor is home to several major institutions such as Memorial Auditorium, Simmons College, and St. Stephen Church. It runs through several industrial areas and lower-income communities in need of investment.	2030	LOW

Figure 55: Jefferson County, Bicycle & Pedestrian MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Brook Street		Ramp improvements at the Brook Street/Broadway exit from I-65.	Louisville Metro	\$6,000,000
264		The Brook Street intersection and ramp improvements will improve access to the local medical center.	2040	LOW
I- 64		KYTC Highway Plan (June, 2018): Address deficiencies on I-64 Sherman Minton Bridge over the Ohio River. (Joint project with Indiana(056B00279N)(BSBP). CHAF ID: 20190123. Additional Considerations: Address deficiencies on I-64 Sherman Minton Bridge over the Ohio River. (Joint project with Indiana)(056B00279N)(BSBP) From MP 0 to MP 0.316."	KYTC	\$17,000,000
351	00064.00	Maintain travel time reliability of the interstate network. This project will also provide infrastructure preservation and maintain the existing transportation network in a state of good repair.	2026	FURTHER REVIEW
I- 64		6YP DESC: Improvements within the I-64 corridor from the Kennedy Interchange to I-264 (Watterson Expressway) addressing safety and congestion issues. The improvements may include but are not limited to: consideration of alternative transportation modes, deployment. CHAF DESC: Improve safety and reduce congestion within the I-64 corridor from the Kennedy interchange to I-264 (Watterson Expressway). CHAF ID: IP20080187.	KYTC	\$30,482,000
389	00553.00	CHAF Purpose: Improve safety and reduce congestion within the I-64 corridor from the Kennedy interchange to I-264 (Watterson Expressway). CHAF Need: This project is needed because the capacity of I-64 between the Kennedy interchange and I-264 (Watterson Expressway) is inadequate to meet current and future traffic volumes, resulting in congestion and reduced mobility. This section of I-64 also has spots of higher crashes and is an important freight corridor. Improvements may include but are not limited to: consideration of alternative transportation modes, deployment of ITS technology, addition of auxiliary and/or travel lanes, interchange modifications, and installation of traffic safety devices, signs and lighting. None of the potential improvements will involve expansion of the Cochran Hill Tunnel.	2024	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I- 64 Bridge Painting		KYTC Highway Plan (June, 2018): Bridge painting of I-64 Riverside Expressway bridges. (056B00298N, 056B00299N, 056B00300N, 056B00301N, 056B00302N, 056B00285N, 056B00292N, 056B00293N, 056B00142N). CHAF: TBD.	KYTC	\$30,000,000
2596	10016.00	Maintain the existing transportation network in a state of good repair.	2022	FURTHER REVIEW
I- 65		Extend and reconstruct I-65 southbound ramp to Brook Street and Floyd Street. The project will include the consideration of bicycle and pedestrian facilities.	Louisville Metro	\$12,425,000
224	00378.10	Improve interstate egress and movement at Jefferson Street increasing access to the Medical Center.	2028	LOW
I- 65		6YP DESC: Widen I-65 from 6 to 8 lanes from KY 61 (Preston Highway) in Lebanon Junction to I-265 (Gene Snyder Freeway). CHAF DESC: Reduce congestion and improve mobility on I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County. CHAF ID: IP20170064.	KYTC	\$305,700,000
491	00550.00	The purpose of this project is to reduce congestion and improve mobility on I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County. This project is needed because the capacity of I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County is inadequate to meet current and future traffic volumes, resulting in congestion and reduced mobility on this stretch of I-65. This stretch of I-65 is also an important freight corridor and has a high percentage of truck volume.	2030	LOW
I- 65		6YP DESC: Improve safety and reduce congestion at the I-65/I-264 (Watterson Expressway) interchange. Project length is 2.29 miles. CHAF ID: IP20160017. Additional Considerations: Model does not include any changes to this interchange and the configuration is assumed to be the same as the one we drive on today.	KYTC	\$145,593,000
2121	00559.00/ 00559.01	CHAF Purpose: Improve safety and reduce congestion at the I-65/I-264 (Watterson Expressway) interchange. CHAF Need: The I-65/I-264 interchange was ranked as the number one highest crash interchange in the KIPDA MPA area for Kentucky (Bullitt, Jefferson, and Oldham Counties). This analysis was based upon crash data for the years of 2009-2011. In that time period there were 1,056 crashes within the interchange (meaning the area between the exit and entrance ramps in all directions) which included six fatalities and forty injuries. The average daily traffic entering this interchange is 337,350 with a crash rate of 2.859 (the ratio of the number of crashes to the number of vehicles entering an interchange) and severity index of 1.138. The movements that appear to have the most issues at this interchange are I-264 westbound to I-65, I-65 northbound to I-264 eastbound, and I-65 southbound to I-264 eastbound.	2029	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I- 65		Improve safety and reduce congestion at the I-65/I-265 (Gene Snyder Freeway) interchange. CHAF ID: IP20160019.	KYTC	\$100,400,000
2601	00560.00	The Purpose of the I-65/I-265 interchange project is to reduce congestion and improve safety. The 2015 I-265 Programming Study has projected the I-265 westbound to I-65 northbound diverge as operating at a level of service (LOS) of F in both the AM and PM peaks in the year 2020. The study also identifies the I-65 to I-265 eastbound merge as operating at a LOS of D in the AM and F in the PM peaks in the year 2020. The I-65/I-265 interchange was ranked as the 5th highest crash interchange in the KIPDA MPO area for Kentucky (Bullitt, Jefferson, and Oldham Counties). This analysis was based upon crash data for the years of 2009-2011. In that time period there were 347 total crashes within the interchange (meaning the area between the exit and entrance ramps in all directions) which included two fatalities and 5 injuries. The average daily traffic entering this interchange is 181,545 with a crash rate of 1.746 (the ratio of the number of crashes to the number of vehicles entering an interchange) and severity index of 1.071.	2028	LOW
I- 71		6YP DESC: Addition of NB and SB auxiliary lanes on I-71 near Kennedy, including operations improvements to the Zorn interchange (2004BOPC). CHAF DESC: Improve safety and reduce congestion on I-71 from I-64 near the Kennedy interchange to Zorn Avenue. CHAF ID: IP20150266.	KYTC	\$37,970,000
1478	00048.10/ 00048.11	CHAF Purpose: Addition of NB and SB auxiliary lanes on I-71 near Kennedy, including operations improvements to the Zorn interchange (2004BOPC). Improve safety and reduce congestion on I-71 from I-64 near the Kennedy interchange to Zorn Avenue. CHAF Need: This project is needed because of a higher than average crash rate, inadequate current and future capacity, and roadway deficiencies on I-71 from I-64 near the Kennedy interchange to Zorn Avenue. The critical crash rate factor (CCRF) in this 2 mile section is 2.791 as analyzed in the I-71 Study. The percentage truck traffic is 7% with multiple major traffic and freight generators as noted in the I-71 Study. The 2038 anticipated truck percent growth rate is 2.8%. This section of I-71 has a LOS F and volume to capacity ratio of 1.02. Shoulder width deficiencies and functionally obsolete culverts also exist within these milepoints.	2024	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I-71		Improve safety and reduce congestion of the I-265 northbound to I-71 southbound movement at the I-71/I-265 (Gene Snyder Freeway) interchange.	KYTC	\$63,201,000
1480	00048.30	The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Mobility within designated freight corridors. I-71 interchange at I-265 (MP 9.063 to MP 9.163) is located in north eastern Jefferson County. The land uses in this area are low to medium density residential. The adequacy rating data point to crash issues and congestion. At this time, this segment is experiencing a high level of congestion, especially at peak hours. This interchange is used to move people and goods in and out of east Jefferson County and Oldham County; I-71 is used by freight carriers moving goods along the corridor and accessing other interstate facilities in addition to commuters. The planned growth in this area and the Ohio River Bridges project in close proximity may place additional demand on this facility.	2030	LOW
I-71		6YP DESC: Six lane priority section of I-71 between I-265 and KY 329 (16CCR). Project length is 2.785 miles. CHAF ID: IP20150450 Additional Considerations: Widen priority section of I-71 between I-265 and and KY 329 from 4 to 6 lanes.	KYTC	\$66,465,000
2152	00483.00/ 00483.01/ 00483.02	CHAF Purpose: The Purpose of the I-71 widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. It will serve through traffic on I-71, as well as local users traveling to and from the Louisville Metro and Crestwood/Brownsboro areas. CHAF Need: The Needs being addressed by the proposed I-71 project are based on the following facts: <ul style="list-style-type: none"> Increasing traffic volumes have resulted in traffic congestion and poor traffic flow characteristics. In 2009, the Average Daily Traffic was 56,600 vehicles per day (vpd). In 2015, the traffic volume has increased to 61,900 vpd. By 2040, those numbers are forecasted to increase to 80,000 vpd. Traffic projections illustrate continued growth in traffic volumes. This forecast takes into account the future opening of the East End Bridge from I-265/KY 841 in Kentucky north to I-265 in Indiana. I-71 has roadway deficiencies and poor traffic operational characteristics. The life span of the pavement surface and bridges warrant they be replaced within the foreseeable future, regardless of the transportation demands; the clear zones along with the inside shoulder width are less than desirable. Driver crash rates are notably high along this section of I-71. Between January 2012 and December 2015, there were 360 crashes, including 5 fatalities, along the project corridor. The northbound direction had 123 crashes and southbound direction had 237 crashes. Based on a quantitative analysis, the project had six 0.2 mile sections of roadway that had a statistically high crash rate (i.e., critical rate factor greater than 1.0). The six sections were all in the southbound direction and the critical rate factors ranging from 1.072 to 1.5. 	2023	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I-71		6YP DESC: Provide collector-distributor lane on southbound I-71 to facilitate ramp movements to and from I-265. Project length is 1.6 miles. CHAF ID: IP20160234 From: MP 8.60 To: MP 9.50.	KYTC	\$6,000,000
2382	00539.00	CHAF Purpose: The purpose of the proposed project is to facilitate traffic flow on I-71 and improve ramp movement efficiency to and from I-265. CHAF Need: I-71, I-265, and the interchange between these facilities carry high traffic volumes, particularly during peak travel periods. Capacity analysis using the HCS7 Freeways module indicates the weaving segment (between the I-71 southbound loop ramps) is over capacity based on 2015 AM peak hour forecast volumes; it operates at LOS F. The lower volumes heading into town during the 2015 PM peak lead to LOS D operations, speeds drop 20+ mph versus the mainline through vehicles in the adjacent lane. According to Kentucky State Police crash data for 2015-2017, 234 crashes were reported along I-71 mainline between MP 8.4 and 9.8. Of these, 145 (over 60%) were southbound. There were no fatalities and 28 injury collisions, divided evenly between directions. Looking at only southbound crashes, five 0.1 mile long high crash "spots" occur along the corridor.	2020	LOW
I-71		6YP Desc: Improve safety and reduce congestion on I-71 from Zorn Avenue to I-264. I-71 from MP 2.00 TO MP 5.00. CHAF ID: IP20150031. Additional Considerations: Project will evaluate widening to the inside from 4 to 6 lanes.	KYTC	\$39,238,000
2602	00556.00	CHAF Purpose: Improve safety and reduce congestion on I-71 from Zorn Ave to I-264 (Watterson Expressway). CHAF Need: This project is needed because of a higher than average injury crash rate, inadequate current and future capacity, and roadway deficiencies on I-71 from Zorn Avenue to I-264 (Watterson Expressway). The percent of injury crashes cited in the March 2014 I-71 Study along this section of I-71 is 20.3% which exceeds the Interstate average referenced in the study of 17.4%. The percentage truck traffic is 7% with traffic and freight generators close to the 2.0 milepoint. The 2038 anticipated truck growth rate is 1.7%. This section of I-71 has a LOS F and a volume to capacity ratio of 1.27. Deficiencies include shoulder widths.	2030	LOW
I-71		Improve safety and reduce congestion on I-71 from Zorn Avenue to I-265. I-71 from MP 2.00 to MP 9.00. CHAF ID: IP20150032. Project will evaluate widening to the inside from 4 to 6 lanes.	KYTC	\$220,734,000
2611	00557.00	Increase safety for all users. Manage and reduce roadway congestion where appropriate. Ensure timely and efficient movement of freight within, departing, and entering the region.	2030	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I-71 / I-264		Improve safety and reduce congestion at the I-71/I-264 (Watterson Expressway) interchange. CHAF ID: IP20170047.	KYTC	\$69,250,000
2784		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Mobility within designated freight corridors. The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.	2034	LOW
I-264		Reduce congestion and improve safety along I-264 from I-64 to the KY 3082 (Bank Street) interchange. Project design will evaluate the addition of one travel lane in each direction. CHAF ID: IP20130130.	KYTC	\$9,250,000
2025		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Mobility within designated freight corridors. The Purpose of the I-264 and I-64 interchange widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. It will serve through traffic on I-264 and I-64, as well as local users traveling to and from the Downtown Louisville Areas.	2040	FURTHER REVIEW
I-264 / I- 64		KYTC Highway Plan (June, 2018): Improve ramp capacity of the I-64 westbound ramp to I-264 westbound from one to two lanes for entire length and other needed improvements to address weave issues at merge on I-264. (2006BOPP)(12CCR). CHAF: Widen I-64 westbound ramp to I-264 westbound from one to two lanes for entire length and other needed improvements to address weave issues at merge on I-264. (2006BOPP)(12CCR). CHAF ID: IP20150209.	KYTC	\$24,550,000
397	00159.00	The purpose of the project is to improve traffic operations, reduce congestion, and improve safety on I-64 Westbound and I-264 Westbound and on the I-64 Westbound to I-264 Westbound ramp in the vicinity of the I-64 / I-264 interchange. Heavy daily traffic volumes commonly result in traffic delays and traffic queues on I-64 Westbound and poor weaving conditions for motorists between the convergence of the I-64 Westbound ramp and I-264 Westbound and the I-264 / Breckenridge Lane interchange. Crash data was obtained for this study from the Kentucky State Police Collision Analysis database for a three year period from January 1, 2012, through December 31, 2014. The evaluation considered the primary corridor segments as noted below: <ul style="list-style-type: none"> • I-64 Westbound from I-264 to Hurstbourne Parkway (KY 1747) (439 crashes in the westbound direction), • I-264 Westbound from Breckenridge Lane (KY 1932) to I-64 (95 crashes in the westbound direction), • Breckenridge Lane (KY 1932) from Taylorsville Road (KY 155) to Dutchmans Lane (233 crashes in both directions), and, • I-64 Westbound to I-264 Westbound ramp (52 crashes). The crash rate along the existing corridor routes was computed using the methodology provided in the crash analysis report periodically published by the Kentucky Transportation Center (KTC).	2020	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I-264/US 42		KYTC Highway Plan (June, 2018): Reconstruct/widen I-264 (Watterson Expressway) from Westport Road (KY 447) to I-71, including the US 42 interchange as a SPUI. (Project includes 5-594) (12CCR)(14CCR). Project length is 1.7 miles. CHAF ID: IP20160046. Additional Considerations: Widen all ramps to two lanes.	KYTC	\$45,360,000
1922	00804.00	CHAF Purpose: The purpose of the project is to improve system operation by reducing delays and congestion along Interstate 264 (Watterson Expressway) and the interchange at US 42. CHAF Need: The existing I-264/US 42 interchange does not have adequate capacity or storage to accommodate the left turn and through traffic volumes during the AM and PM peak hours. Commuters are experiencing long delays.	2025	MEDIUM
I-265		KYTC Highway Plan (June, 2018): Reconstruction of the I-265/I-64 Interchange. (2016BOP) CHAF ID: IP20110064 Additional Considerations: Reconstruction of the I-265/I-64 interchange Project will evaluate a Spill Thru Flyover Interchange configuration as a potential solution to eliminate all four weaving segments of the existing interchange. I-265 From: MP 24.600 To: MP 26.400/I-264 From: MP:17.700 To: 19.600.	KYTC	\$38,397,500
179	00549.00/ 00549.01	CHAF Purpose: The purpose of the Gene Snyder Interchange Project is to enhance the operation and improve the safety of the I-265/I-64 Interchange. CHAF Need: The present operation and safety of the I-265/I-64 interchange is considered deficient based on a poorly linked, congested, and functionally obsolete transportation network.	2023	MEDIUM
I-265		Six lane priority section of I-265 between Taylorsville Road and I-71. Approximately 11.3 miles, from MP 23.409 to MP 34.727. Project design will evaluate widening from 4 to 6 lanes as a potential solution to the congestion.	KYTC	\$95,920,000
958	00537.00/ 00537.01/ 00537.02	CHAF Purpose: The purpose of the proposed project is to decrease existing congestion on the mainline of I-265 Gene Snyder Freeway between KY 155 Taylorsville Road and I-71. CHAF Need: Carrying 65,000 to 88,000 vehicles per day today, the existing I-165 corridor does not provide adequate capacity to serve current peak period traffic volumes. It exhibits poor Level of Service (LOS), inflated travel times, and ramp queue lengths.	2023	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I-265		KYTC Highway Plan (June, 2018): Improve safety and reduce congestion on I-265 from US 31E (Bardstown Road) to KY 155 (Taylorsville Road). CHAF ID: IP20150080. Additional Considerations: Project will evaluate widening to the inside from 4 to 6 lanes.	KYTC	\$7,500,000
959	00558.00	CHAF Purpose: Improve safety and reduce congestion on I-265 (Gene Snyder Freeway) from US 31E (Bardstown Rd) to KY 155 (Taylorsville Road). CHAF Need: This project is needed because of deficient ramps and inadequate capacity on I-265 (Gene Snyder Freeway) from US 31E (Bardstown Road) to KY 155 (Taylorsville Road). The I-265 Study completed in January of 2015 cites an existing LOS D along this section.	2029	LOW
I-265		KYTC Highway Plan (June, 2018): Improve safety and reduce congestion on I-265 from I-65 to US 31E. CHAF ID: IP20080191. Additional Considerations: Project will evaluate widening to the inside from 4 to 6 lanes.	KYTC	\$76,350,000
407	00554.00	CHAF Purpose: Improve safety and reduce congestion on I-265 (Gene Snyder Freeway) from I-65 to US 31E (Bardstown Road). CHAF Need: This project is needed because of deficient ramps, inadequate capacity, and higher than average crash rates on I-265 (Gene Snyder Freeway) from I-65 to US 31E (Bardstown Road). As cited in the I-265 Study of January 2015 the projected 2020 LOS along this section of I-265 is D with 2 smaller sections having LOS E and F in the PM peak, and the 2020 average PM peak v/c ratio is 0.84. The 2014 rear end crash rate from I-65 to KY 61 exceeds the average rate for the road type according to the most recent I-265 Study. 2014 ramp deficiencies include the merge lengths from Smyrna Pkwy to I-265 WB and EB. Two bridges in this section are identified as functionally obsolete. The surrounding land uses are residential, commercial, and industrial. Commuters use this segment to bypass I-65 as well as gain access to I-65. Adequacy rating data point to high levels of congestion and rough pavement conditions in some areas. There is additional growth occurring now and planned for the future in this area in Jefferson County which will only worsen congestion.	2028	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I-265 Rehl Road		Construct a new interchange on I-265 at Rehl Road.	Louisville Metro	\$50,000,000
1514		Project will improve access to the rapidly developing area between I-64 and Billtown Road. The interchange will provide interstate access and relieve demand at the Taylorsville Road/I-265 interchange.	2040	LOW
I-265/US 60		Snyder Freeway: Reconstruct I-265/US-60 interchange as a single point urban interchange and construct needed improvements to connect with the I-265/I-64 interchange. (2006BOPC). CHAF ID: IP20150185.	KYTC	\$64,410,000
2742		The purpose of this project is to improve traffic operations and safety in the I-265 (Gene Snyder Freeway)/US 60 (Shelbyville Road) interchange area. This project is needed because the capacity of the I-265 (Gene Snyder Freeway)/US 60 (Shelbyville Road) interchange is insufficient to meet current and future traffic demands, which results in congestion and potential safety concerns at this interchange.	2023	MEDIUM
KY 841/ Renaissance Park		KYTC Highway Plan (June, 2018): Construct new interchange on KY 841 at the Renaissance South Business Park. Project length is 1 mile. CHAF ID: 20190131. Additional Considerations: Construct new interchange on KY 841 at the Renaissance South Business Park.	KYTC	\$33,408,000
2606	80006.00	CHAF Purpose: Relieve negative congestion and safety impacts to the existing transportation infrastructure surrounding the Renaissance South Business Park by improving access and upgrading facilities to current design and safety standards. Supplement future success of the Business Park by providing additional ingress and egress. CHAF Need: Congestion and freight delays along Outer Loop, I-65 and Gene Snyder freeway in the vicinity of and accessing Louisville International Airport, Ford's Louisville Assembly Plant and Renaissance South Business Park (UPS). Limited freight access to Renaissance South Business Park.	2024	FURTHER REVIEW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Reconstruction Existing Interchange from Northbound KY 1747 to I-64		Reconstruct existing interchange including construct ramp 7 "flyover" from northbound KY 1747 (Hurstbourne Parkway) to westbound I-64 and re-time signals along KY 1747 (Hurstbourne Parkway). Existing Studies done by MPO MTP (10/02, 12/05, 10/10).	KYTC	\$82,596,000
181	00052.00	<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. This project will reduce traffic congestion and delay by improving ramp and intersection operating conditions, improve vehicular safety by reducing potentially dangerous uncontrolled vehicle conflict points and providing safe access between local and regional highway systems, and will enhance the existing system to provide more efficient connections between local and regional highway systems and promote better use of the existing transportation infrastructure.</p> <p>Current and projected traffic conditions within the study area do not meet the minimum acceptable operating standards. Many of the study intersections operate at poor or failing levels of service during morning and afternoon peak hours. Traffic volumes in the corridor are expected to grow by approximately 28% by 2025.</p> <p>The current roadway design combined with excessive traffic congestion creates a situation where drive safety could be compromised. Significant traffic congestion also leads to longer emergency vehicle response.</p>	2028	MEDIUM

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Figure 57: Jefferson County, Roadway MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
12th Street Extension		Extend 12th Street from Hill Street to Industry Road.	Louisville Metro	\$7,000,000
1965		Extending 12th Street directly to Industry Road can create a continuous central spine through the Park Hill Industrial Corridor. This spine would provide improved access to established companies as well as a number of underutilized properties with redevelopment potential. Truck traffic, transit services, and commuters would no longer have to negotiate the current twists and turns to access properties in the heart of the corridor.	2030	LOW
Applegate Lane		Reconstruct Applegate Lane from from 2 to 3 lanes (3rd lane will be a center turn lane) Smyrna Parkway to Pennsylvania Run Road. Add pedestrian accommodations for the length of the project.	Louisville Metro	\$13,674,261
1320		Improve roadway to current standards and increase safety.	2040	LOW
Arnoldtown Road		Reconstruct Arnoldtown Road as a 2 lane road (no additional lanes) from KY 1931 (Saint Andrews Church Road) to KY 907 (3rd Street Road) with turning lanes at high volume intersections including Windsor Lakes, Windsor Forest, Mountain Brook and Hardwood Forest. Add sidewalks on both sides of Arnoldtown Road for the length of the project.	Louisville Metro	\$6,900,000
249		The Arnoldtown Road reconstruction project is intended to improve the geometrics of the existing roadway. The project will correct poor curves, narrow lanes, and the lack of shoulders and will increase safety for drivers. This roadway has had approximately 180 crashes between January 1st, 2013 and December 31, 2017 with two fatalities. The project will also increase pedestrian safety and accessibility with the addition of sidewalks where they do not currently exist.	2040	LOW
Bardstown Road Safety Study Implementation - Northern Phase		The Bardstown Road Safety Study was created in 2018 and provides recommendations to improve safety (prioritizing non-motorized users) along the corridor from Broadway to I-264. Recommendations include improved pedestrian-scale lighting, a road diet that would reduce the roadway from 4 lanes to 2 with permanent parking on both sides of the street and dedicated turn lanes at signalized intersections from Broadway to Woodford Place.	Louisville Metro	\$4,100,000
2767		Crashes along the corridor are noticeably high for both pedestrians and autos. The critical crash rate for most of the corridor is well above 1. Over the last 5 years there has been an average of 40 collisions per month and 9 pedestrians collisions per year (both of which occur more frequently at night.) The multiple improvements proposed in the plan would help mitigate these unsafe conditions along one of Louisville's most vibrant urban corridors.	2030	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Bardstown Road Safety Study Implementation - Southern Phase		The Bardstown Road Safety Study was created in 2018 and provides recommendations to improve safety (prioritizing non-motorized users) along the corridor from Broadway to I-264. Bump-outs at specific locations to improve ped crossings, removal of the existing alternating lane lights, expanding the travel lanes from 4 to 5 (adding TWLTL) from Douglass Boulevard to Taylorsville Road and from Tyler Lane to Brighton Drive, improved crosswalks at several locations, a 10' shared use path from Eastview Avenue to Tyler Lane, dedicated turn lanes onto Tyler Lane, and improved traffic coordination for arrival and dismissal at Assumption High School, St. Raphael and Hawthorne Elementary.	Louisville Metro	\$3,300,000
2740		Crashes along the corridor are noticeably high for both peds and autos. The critical crash rate for most of the corridor is well above 1. Over the last 5 years there has been an average of 40 collisions per month and 9 pedestrians collisions per year (both of which occur more frequently at night.) The multiple improvements proposed in the plan would help mitigate these unsafe conditions along one of Louisville's most vibrant urban corridors.	2025	HIGH
Baxter/Bardstown Premium Transportation Corridor - Section 1		The Baxter/Bardstown Premium Transportation Corridor Project is a design-build project that will: 1) streamline transit service on a key corridor by adding traffic signal bus prioritization, new bus stops, and increasing bus service frequency; 2) bring intelligent signal upgrades, which will include upgraded traffic signals and communication equipment to support premium transit and overall mobility; 3) incorporate complete streets roadway improvements by including bicycle and pedestrian facilities, intersection safety improvements, access management strategies for surrounding land uses, and new streetscape design elements.	Louisville Metro	\$11,600,000
1353		The Baxter/Bardstown Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It is highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan, as both a "Major Corridor" and a "Premium Transit Corridor." A large sub-area of this Section was the focus of the intensive Bardstown/Baxter Safety Study, completed by Louisville Metro's Office of Advanced Planning. Baxter Avenue and Bardstown Road succeed as a commercial destination resulting in major mobility challenges. These two corridors have limited road space with high-demand for each portion of the cross-section. The vibrant commercial corridor, constituting the heart of Louisville's Highlands Neighborhoods, needs investment and improvements to maintain its success over the years to come.*	2030	HIGH
Blowing Tree Boulevard		Extend and widen Blowing Tree Boulevard from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 155 (Taylorsville Road) to Bunsen Parkway.	Louisville Metro	\$2,300,000
258		The Blowing Tree Boulevard Project is intended to mitigate congestion.	2030	MEDIUM

* Complete text is available in Appendix H.

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Bowling Boulevard/Christian Way		Construct a 5 lane (5th lane will be a center turn lane) connector between Bowling Boulevard and Christian Way.	Louisville Metro	\$21,000,000
260		The Bowling Boulevard / Christian Way connector will improve system continuity as well as provide additional access, respond to regional growth and development and provide traffic congestion relief for US 60 (Shelbyville Road) and KY 1747 (Hurstbourne Parkway).	2040	MEDIUM
Buechel Bank Road		Add center turn lane on Buechel Bank Road from GE Appliance Park to US 31E (Buechel Bypass). Project length is 0.9 miles.	Louisville Metro	\$6,850,000
381	08001.00	This project will reduce traffic congestion.	2025	LOW
Bunsen Boulevard/Christian Way		Construct Bunsen Boulevard/Christian Way connector as a 5 lane (5th lane will be a center turn lane) divided highway.	Louisville Metro	\$32,448,000
265	00119.00	From Bunsen Parkway, drivers would have easy access to KY 1747, KY 155 (Taylorsville Road) and I-64. This alternative would also provide relief to the I-64 and KY 1747 interchange.	2040	LOW
Cardinal Boulevard Extension		Extend Cardinal Boulevard to the west of 4th Street, across the railroad tracks at-grade to connect to Davies Avenue and 7th Street.	Louisville Metro	\$6,000,000
1945		Stronger linkages between the University of Louisville and the Industrial Corridor will benefit both the residents of the new University Housing west of the railroad and help support retail/commercial development along the Cardinal Boulevard corridor.	2030	LOW
Cedar Creek Road Connector		East/west collector corridor from KY 864 (Beulah Church) to Cedar Creek Road consisting of a two-lane roadway with pedestrian accommodations.	Louisville Metro	\$4,000,000
268		This connector will reduce travel times for a growing residential population south of I-265 (Gene Snyder Expressway) lying between US 150 (Bardstown Road) and KY 864 (Beulah Church Road). Additionally, this project will provide vehicle and pedestrian connectivity to future improvements along KY 864 and Cooper Chapel Road.	2035	FURTHER REVIEW
CNG Fueling Stations		Construction of 1 new CNG fueling station in Jefferson County.	Louisville Metro	\$4,901,363
2199	03716.00	Alternative Fuel Infrastructure	2022	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Connection 21 - Signal System Upgrade and Research		Expansion of fiber communications; and upgrades of signal controllers; along heavily traveled corridors in Jefferson County with high current and projected congestion. Preston Highway, Westport Road, Hurstbourne Parkway, Cane Run Road, Bardstown Road, Shelbyville Road (E&W) & West Broadway.	Louisville Metro	\$1,835,000
2669		The project purpose is to mitigate congestion issues, reduce vehicle emissions and fuel consumption, enhance safety and prepare the community for future ITS investments.	2022	MEDIUM
Cooper Chapel Road Phase 2		Phase 2: Reconstruct Cooper Chapel Road as a 2 lane road with left turn lanes at major intersections (Smyrna Parkway, Pennsylvania Run Road, KY 864, Beulah Church Road) from Smyrna Parkway to KY 864.	Louisville Metro	\$15,000,000
271		The area south of I-265 (Gene Snyder Freeway) between KY 61 (Preston Highway) and US 31E (Bardstown Road) is experiencing rapid growth with the development of many new residential subdivisions. Cooper Chapel Road is a heavily traveled collector road serving this area. The project will add shoulders where there are none and improve existing poor geometrics to this rapidly growing residential area south of I-265. The project will also improve traffic flow through major intersections. When coupled with the proposed Fairmount Road extension (KIPDA ID #282 and 283), the project will provide a continuous route parallel to I-265 between KY 61 (Preston Highway) and US 31E (Bardstown Road).	2030	LOW
Cooper Chapel Road Phase 3		Phase 3: Extend and construct 2 lane roadway with a continuous center-turn lane from KY 864 (Beulah Church Road) to US 31E (Bardstown Road) at Bardstown Falls Road. Project will include consideration of bicycle and pedestrian facilities.	Louisville Metro	\$30,699,792
223	00404.01	The area south of I-265 (Gene Snyder Fwy.) between KY 61 (Preston Highway) and US 31E (Bardstown Road) is experiencing rapid growth with the development of many new residential subdivisions. Cooper Chapel Road is a heavily traveled collector road serving this area. The Location and Feasibility Study will establish and preserve a corridor for the future extension of Cooper Chapel Road so that it can be established as a through route between KY 61 and US 31E. The roadway construction will provide access to an area that recently received sanitary sewers and city water service."	2023	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Dixie TIGER Project		Intelligent Transportation System (ITS)/Signal System and Technology Upgrades to connect Dixie Highway to the city's existing traffic operations center for active traffic management operations. Complete Streets and Safety/Access Management Improvements to include construction of pedestrian pathways and improved multi-modal (especially pedestrian and transit) connectivity. Project will include raised medians, consolidation of access points, modification from TWLTL to dedicated turn lanes, signage and striping upgrades. Bus Rapid Transit to include upgraded transit facilities along corridor with approximately 36 new, highly visible and easily accessible BRT stations, newly branded vehicles unique to the Dixie Corridor, appropriately located queue-jump lanes and bus turnouts. Project length is 12.3 miles.	Louisville Metro	\$34,500,000
2232	00478.00	This project takes a strategic and comprehensive approach to building a sustainable, safe and well managed transportation link between the city center and its southwestern communities. The project seeks to address congestion, safety, and functionality. The Dixie corridor carries over 60,000 vehicles per day and serves over 4,800 transit riders per day. This is a major freight and commuter corridor that is highly congested and experiences more than double the number of injury collisions and three times the number of traffic relate fatalities compared to similar roadways statewide.	2020	HIGH
Dutchmans & Breckenridge Lane Intersection Improvements		Lane additions for Breckenridge Lane south of Dutchmans Lane; Dutchmans Parkway west of Breckenridge Lane and Dutchmans Lane east of Breckenridge Lane. The average daily traffic for these three approaches need further evaluation for additional lanes. Lanes re-assignment may occur which may also require signal phase modification. Sidewalks will also be provided on Dutchmans Parkway.	Louisville Metro	\$2,500,000
1915		Mitigate congestion and improve access for pedestrians.	2030	MEDIUM
East Market Street Streetscape Improvements		Streetscape enhancements to improve pedestrian/bicycle amenities along East Market Street from Brook Street to Johnson Street and along the following intersecting streets from Nanny Goat Alley to Billy Goat Strut Alley: Brook St., Floyd St., Preston St., Jackson St., Hancock St., Clay St., Shelby St., Campbell St., Wenzel St., Baxter Ave. and Johnson St. Enhancements include the addition of landscape medians in two separate blocks to serve as a gateway to the neighborhood and repurposing one of the existing east-bound drive lanes to provide a dedicated separate bike facility. Project length 2.1 miles.	Louisville Metro	\$14,000,000
2064	80053.10	This project is for the design and construction documents of the improvements East Market Street and intersecting streets within the area generally bounded by Brook Street to the west; Billy Goat Strut Alley to the north; Baxter Avenue to the east; and Nanny Goat Strut Alley to the south. Streetscape improvements should transform the vehicular and pedestrian spaces into attractive urban space that can serve cars, bikes and people. The design should accommodate and enhance the variety of properties in the neighborhood, including housing, retail, restaurant, manufacturing, and office uses.	2022	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
East Pages Lane		Reconstruct East Pages Lane as a 2 lane (no additional lanes) road with several improvements to intersections from US 31W (Dixie Highway) to KY 907 (3rd Street Road). Construct pedestrian accommodations on both sides of roadway for the length of the project.	Louisville Metro	\$7,895,591
274		East Pages Lane is a narrow 2 lane roadway with inadequate shoulders and poor geometrics. It connects US 31W to KY 907 (Third Street Rd) at KY 907 (Valley Station Road).	2040	LOW
Ellingsworth Lane		Extend and widen Ellingsworth Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 913 (Blankenbaker Parkway) to Urton Lane and add sidewalks.	Louisville Metro	\$11,000,000
276		Ellingsworth Lane connects KY 913 and Tucker Station Road through heavy, residential development. With the proposed reconstruction of Urton Lane (KIPDA # 474) and Tucker Station (KIPDA # 472) Roads, an extension of Ellingsworth Lane would connect Urton Lane, Tucker Station Road and KY 913. This would allow the Urton Lane extension to the south to utilize the existing crossing at I-64 on Tucker Station Road.	2035	LOW
English Station Road		6YP DESC: Widen English Station Road from 2 to 3 lanes (3rd lane will be a center turn lane) from Aiken Road to Avoca Road. (Funding subject to fiscal constraint pending MPO TIP). From: MP 0.457 To: MP 1.232. CHAF ID: IP20170032	KYTC	\$12,445,300
188	00353.00	The purpose of this project is to provide a wider roadway configuration to improve safety, increase capacity and elevate level of service. Project will improve the safety of the rail crossing and enhance bike and pedestrian network. Due to the two lane configuration and the numerous developments and entrances along the roadway, traffic operations are adversely impacted by vehicles making left turns along this congested corridor. Sight distance in the sag near Chenoweth Run and the crest near the railroad at the northern terminal of the project do not meet the 35 mph design speed criteria. The corridor is a high accident area. The existing roadway surface shows excessive wear with several sections having significant base failures that are not remedied by typical pavement resurfacing. The corridor is heavily traveled by trucks accessing a nearby rock quarry on Old Henry Road and school buses going to the Jefferson Public Schools maintenance facility on East Aiken. Several of the entrances have rutting on the shoulders with drop offs resulting from turning radii not adequate for truck turning movements. Rail crossing is substandard. There are gaps in the bike and pedestrian network.	2024	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
English Station Road		Reconstruct English Station Road as a 2 lane (no additional lanes) road from Wibble Hill Road to Christian Academy (700 South English Station Road). Construct pedestrian accommodations on both sides of English Station Road for the length of the project.	Louisville Metro	\$4,200,000
277		This project will facilitate access to Christian Academy, reduce traffic congestion and improve safety.	2025	LOW
Fairground Road		Reconstruct Fairground Road as a 2 lane road (no additional lanes) from US 31E (Bardstown Road) to KY 1819 (Billtown Road), including left-turn lanes at US 31E, Billtown Road and possibly other intersections and consideration of radius improvements at three 90-degree curves.	Louisville Metro	\$6,000,000
281		Fairground Road is a collector serving a residentially developed area. Although the length of Fairground Road is only two miles, it has significant number of local street intersections. Three of these have abnormally high volumes of traffic and actually serve as through routes. Fairground Road is in the top twenty of the highest thoroughfare accident rates of Jefferson County routes.	2040	LOW
Ferndale Road		Reconstruct Ferndale Road as a 2-lane road (no additional lanes) from Watterson Trail to Fern Creek Road. Add pedestrian accommodations on both sides of Ferndale Road for the length of the project.	Louisville Metro	\$13,000,000
1330		To improve roadway to current standards and increase safety. Increase pedestrian safety and connectivity along Ferndale Road to Bardstown Road, a major transit route.	2040	LOW
Flat Rock Road		Reconstruct Flat Rock Road as a 2-lane road (no additional lanes) from US 60 (Shelbyville Road) to Aiken Road. Add pedestrian accommodations on both sides of Flat Rock Road for the length of the project.	Louisville Metro	\$63,542,571
1323		Improve roadway to current standards and increase safety for motorized traffic. Increase pedestrian safety and connectivity from Shelbyville Road to existing and potential residential development.	2028	LOW
Floyd Street Roundabout, Cardinal Boulevard, Brandies Arthur Street Intersection and Other Belknap Campus Improvements		D&C for Multi-modal directional non-vehicle and vehicle safety project at UofL Belknap. 1st year to include construction funds for roundabout at Floyd Street and Cardinal Boulevard, and intersection at Brandeis and Arthur Street. UofL Foundation will pay upfront \$4.5M of \$22.5M (80/20) in 1st year. (14CCN). CHAF ID: IP20160278.	Univ. of Louisville	\$24,000,000
2150	08805.00	The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.	2021	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Galene Drive/ Sprowl Road Collector Extension		Realign Galene Drive and Sprowl Road to eliminate the right turn/left turn movement as it approaches Taylorsville Road. Extend Sprowl Road across Taylorsville Road and connect up with Shelby Street and widen Shelby Street to Watterson Trail intersection. The project includes widening the collector roadway, curb and gutters, sidewalks and bicycle facilities. Project will include turning movements and signalization as warranted.	Jeffersontown	\$3,250,500
2774		The project will increase connectivity in the downtown business district of Jeffersontown and provide a new collector roadway to relieve the congestion at that the Taylorsville Road/Watterson Trail Intersection. It will enhance economic development opportunities and connectivity to schools, civic uses of the city.	2028	MEDIUM
Grade Lane		Widen Grade Lane from 2 to 3 lanes from KY 1065 (Outer Loop) to KY 1631 (Fern Valley Road). Includes pedestrian and bicycle accommodations.	Louisville Metro	\$26,000,000
289		This project will improve access to the Louisville International Airport and industrial development.	2035	MEDIUM
Hubbards Lane		Widen Hubbards Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from US 60 (Shelbyville Road) to KY 1447 (Westport Road). Add bike lanes to Hubbards Lane from Kresge Way to KY 1447. Project length is 1.4 mi.	Louisville Metro	\$4,403,200
384	00479.00	Hubbards Lane is a heavily traveled collector which passes through residential development between US 60 and US 42.	2022	MEDIUM
I- 64		New interchange and connector road from KY 148 to US 60 (Shelbyville Road) with interchange on the I-64 corridor. Corridor would be in the vicinity of Gilliland Road.	KYTC	\$74,240,000
390	080000.00	CHAF Purpose: Eastwood Fisherville Connector to I-64 (18CCN) Reduce congestion and improve connectivity to I-64 in eastern Jefferson County between I-265 (Gene Snyder Freeway) in Jefferson County to KY 1848 (Buck Creek Road) in Shelby County. CHAF NEED: This project is needed because in light of existing and anticipated growth, local and regional access via the interstate system and local roadway network is needed due to their being a distance of 9 miles between access to I-64 from I-265 (Gene Snyder Freeway) in Jefferson County to KY 1848 (Buck Creek Road) in Shelby County. Limited access to I-64 has contributed to ever increasing traffic volumes on US 60 and KY 155/KY 148.	2029	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Intelligent Transportation Systems - Priority Corridors		Upgrade the traffic system along priority corridors identified as Premium Transit Corridors in the Move Louisville planning study to provide a smart traffic management system. Corridors are: Dixie from Broadway to Upper Hunters Trace, Broadway/Bardstown from 29th Street to Hikes Lane, Preston from Main to I-265, and US 60 from Main Street to Lyndon Lane.	Louisville Metro	\$30,000,000
2748		A smart traffic management system along these five (5) corridors will allow for: 1. A reduction in traffic congestion by smoothing traffic flows and prioritizing traffic in response to demand in real time; 2. A reduction of pollution throughout the region by reducing inefficient and polluting stop-start driving; and 3. Prioritization for buses approaching intersections, phasing lights to give traffic flowing with buses a 'green wave' along the corridors.	2035	MEDIUM
KY 1020		Improve safety and mobility on KY 1020 (National Turnpike) from Fairdale Road (CR1005M) MP 0.615 to South Park Road (CR1001M /KY 1020) MP 2.669. Design will include consideration for a 2-lane to a 3-lane widening with 11' lanes, 2' curbed shoulders, and a 13' two way center left turn lane with 5' sidewalks on both sides of the road. CHAF ID 20190134/KIPDA ID #1817.	KYTC	\$14,960,000
1817	08502.00	The purpose of this project is to improve safety and mobility along KY 1020 (National Turnpike). Sections of this roadway have Excess Expected Crashes (EEC) greater than 75%.	2030	LOW
KY 1065		Improve safety and reduce congestion on KY 1065 (Beulah Church Road) from KY 864 (Fegenbush Lane) to US 31E (Bardstown Road). Project will evaluate 3-lane widening or other lower impact solutions and consider accommodations for bicyclists and pedestrians. CHAF ID: IP20080213.	KYTC	\$16,660,000
256		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Modal access and choice. KY 1065 from MP 10.009 to MP 11.858 (from KY 864 to US 31E) is located in south eastern Jefferson County. Surrounding land use is primarily medium density residential with some commercial. Data suggest less-than-optimum pavement condition and that congestion is an issue currently, as are crashes. Additional development is planned along the US 31E corridor as well as to the south, potentially contributing to the congestion issue in the future.	2020	MEDIUM

* Complete text is available in Appendix H.

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1065		Improve safety, access, and mobility for all modes along KY 1065 (Outer Loop) from KY 907 (3rd Street Road) to KY 1865 (New Cut Road). Project will consider 3-lane widening and accommodations for bicyclists and pedestrians. CHAF ID: IP20080212.	KYTC	\$26,470,100
435		The purpose of this project is to improve safety, targeting major intersections (New Cut Road), and improve mobility for travelers. Safety is the primary concern along the corridor. The New Cut Road and National Turnpike intersections are identified as numbers one and nine, respectively, on the region's 2011 Top 40 High Crash Intersections list supplied by the KIPDA MPO. Records show 283 reported crashes along Outer Loop during 2014-2016. This number included three fatal and 51 injury collisions. Five high crash spots were identified on Outer Loop. Current crash trends mirror KIPDA's earlier findings with high crash spots at New Cut Road and National Turnpike. Business entrances and exits too close to the major intersections contribute to angle crashes as motorists must negotiate through traffic in as many as three lanes when turning left. Additional high crash spots occur at 3rd Street Road and the signalized Walmart entrance.*	2026	MEDIUM
KY 1065		Improve safety and reduce congestion on KY 1065 (Outer Loop) from I-65 to KY 2052 (Shepherdsville Road). Project will evaluate the addition of one travel lane in each direction and consider accommodations for bicyclists and pedestrians. CHAF ID: IP20080211.	KYTC	\$35,430,000
436		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. KY 1065 from MP 4.930 to MP 7.655 (from I-65 to KY 2052) is located in south-central Jefferson County. Surrounding land use is primarily medium density commercial with some residential uses. These adequacy rating data suggest high crash potential, rough pavement condition and congestion may become an issue should the area to the south continue to develop at the current rate it is now. Additional commercial development has been planned along this corridor.	2030	MEDIUM
KY 1065		Improve safety and reduce congestion at the KY 1065 and KY 61 intersection. Project will consider adding a right turn lane on westbound KY 1065 (Outer Loop) at KY 61 (Preston Highway). CHAF ID: IP20080210.	KYTC	\$2,075,000
453		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. There is currently insufficient right turn capacity on westbound Outer Loop approaching KY 61. The intersection has had a total of 98 crashes between 5/1/2011 and 4/30/2016, including 44 injuries and one fatality. The highest crash types are angle (44) and real end (43). It is ranked the #5 for crash amount in Jefferson County.	2024	MEDIUM

* Complete text is available in Appendix H.

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1065		Improve safety, access, and mobility for all modes along KY 1065 (Outer Loop) from KY 1865 (New Cut Road) to KY 1020 (National Turnpike). Project will consider 5-lane widening and accommodations for bicyclists and pedestrians. MP 1.00 to MP 2.53.	KYTC	\$23,528,000
2782		The New Cut Road and National Turnpike intersections are identified as numbers one and nine, respectively, on the region's 2011 Top 40 High Crash Intersections list supplied by the KIPDA MPO. Records show 283 reported crashes along Outer Loop during 2014-2016. This number included three fatal and 51 injury collisions. Current crash trends mirror KIPDA's earlier findings with high crash spots at New Cut Road and National Turnpike. Business entrances and exits too close to the major intersections contribute to angle crashes as motorists must negotiate through traffic in as many as three lanes when turning left. Additional high crash spot occurs at the signalized Walmart entrance. Annual average daily traffic (AADT) ranges from 14,000 vehicles per day (VPD) at the western end of the study area to 17,600 VPD near the eastern end.*	2031	LOW
KY 1447		Improve safety and reduce congestion on KY 1447 (Westport Road) from Murphy Lane to KY 146. Project design will evaluate 3-lane widening with two-way center turn lane and consider bicycle and pedestrian facilities. CHAF IP20080214.	KYTC	\$5,470,000
484		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. KY 1447 from MP 7.641 to MP 8.141 is located in eastern Jefferson County. This area is undergoing development currently: residential, commercial, and industrial. This area also contains a Ford auto plant with a large number of employees as well as freight interaction. These data suggest very rough pavement condition and current congestion issues.	2030	MEDIUM
KY 1450		KYTC Highway Plan (June, 2018): Widen Blue Lick Road from Snyder Freeway north to KY 61 (LOU T.I.P.) (Section 2) (RU-04DEOB)(08CCR) (12CCR)(16CCR) CHAF ID: IP20160190 Additional Considerations: Widen KY 1450 (Blue Lick Road) from 2 to 3 lanes (3rd lane will be a center turn lane) from I-265 (Gene Snyder Freeway) to KY 61 (Preston Highway). Approximately 1.669 miles. From MP 1.873 to MP 3.542.	KYTC	\$25,952,125
154	00247.10/ 00247.11	CHAF Purpose: The purpose of this project is to improve safety and relieve congestion while accommodating pedestrian traffic. CHAF Need: Blue Lick Road (KY 1450) from I-265 to Preston Highway is currently a two lane road with narrow driving lanes, no shoulders, and steep roadside ditches. The crash rate in the project area is approximately double the statewide average for similar facilities.	2023	MEDIUM

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PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1450		Widen Blue Lick Road from Bullitt County line north to the Snyder Freeway (LOU T.I.P.)(SEE 5-8010.00 AND 5-8907.00)(08CCR)(10CCR) CHAF ID: IP20150309	KYTC	\$49,993,000
229	08907.00	The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. Blue Lick Road (KY 1450) from Bullitt County line north to the Snyder Freeway is currently a two lane road with narrow driving lanes, no shoulders, and steep roadside ditches. The crash rate in the project area is approximately double the statewide average for similar facilities. Also, there are no accommodations for left turning vehicles or pedestrians for the majority of the corridor. The purpose of this project is to improve safety and relieve congestion while accommodating pedestrian traffic.	2028	LOW
KY 146		Widen KY 146 (LaGrange Road) from 2 to 5 lanes (5th lane will be a center turn lane) from Factory Lane to Reamers Road	KYTC	\$14,500,000
443		The purpose of this project is to improve safety and reduce congestion on KY 146 from Nelson Miller Parkway (CR1019C) to Reamers Road (CR1004D). To include consideration for bicycle and pedestrian facilities.The Critical Rate Factor (CRF) for this segment of KY 146 is 3.79 for the years 2012 to 2016. The KY State Data Center Report indicates a current employment annual growth rate of 2.9% and a population annual growth rate of 0.70%. This route connects I-265 and Oldham County.	2024	MEDIUM
KY 1531		Relocate and reconstruct KY 1531 (Johnson Road) as a 2 lane road (no additional lanes) with improved geometry and a 4 to 6 foot shoulder from US 60 (Shelbyville Road) to Aiken Road.	Louisville Metro	\$35,000,000
411		Johnson Road and its surrounding roads of Aiken Road and Shelbyville Road have been several subdivisions/growth within the last few years. With the added traffic along Johnson Road, the better alignment in various locations along and added shoulders will increase safety amount the traveling public.	2030	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 155		Improve safety, mobility for all modes, and provide better access along KY 155 from KY 148 to I-265 near Pope Lick Park. Project may consider widening up to 4 travel lanes with a two-way center turn lane and consider bicycle and pedestrian facilities. CHAF ID: IP20080202.	KYTC	\$19,840,000
956	08908.00	CHAF Purpose: Improve safety, mobility for all modes, and provide better access along KY 155 from KY 148 to I-265 near Pope Lick Park. CHAF Need: The Critical Rate Factor for this section of KY 155 is 1.192 for the years 2012 to 2016. The KIPDA MPO TAZ data shows a 1.6% projected future population and employment growth in the project area. Commuters use this route to get to and from Shelby and Spencer counties.	2025	LOW
KY 155		Improve safety and reduce congestion on KY 155 from Watterson Trail to I-265. Project design will evaluate 3-lane widening with two-way center turn lane and consider bicycle and pedestrian facilities. CHAF IP20080201.	KYTC	\$24,300,000
1372		The Critical Rate Factor (CRF) for the longest segment of KY 155 (MP 6.9 to MP 9.1) from 2012 to 2016 is 1.72. The KY State Data Center Report indicates a current average Population Annual Growth Rate of 1.47% for this area. The development in the area is both residential and commercial. Commuters use this route to access Shelby and Spencer counties.	2021	MEDIUM
KY 155		Safety project for reconstruction of Taylorsville Road and South Pope Lick Road intersection and bridge over Pope Lick Creek.(2016BOP). Project length is 0.6 miles. CHAF ID: IP20130147.	KYTC	\$2,730,000
2371	00808.00	Improve intersection safety and maintain continuity for roadway users, park users, and local residents at and near the KY 155/South Pope Lick Road intersection in eastern Jefferson County.This project is needed because traffic has increased significantly with recent developments in the area including the new 4,000 acre Parklands of Floyds Fork recreational area making it difficult for vehicles to turn onto KY 155 from the approach roads at the KY 155/South Pope Lick Road intersection. The intersection is not signalized and traffic on KY 155 moves at 55 MPH (the posted speed limit) or higher. Traffic back-ups at this intersection are common and sight distance is limited. The South Pope Lick intersection doubles as a signature entrance to the park on the south side of KY 155. A shared-use trail crosses under KY 155 at the South Pope Lick intersection.	2021	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1747		Widen southbound Hurstbourne Lane to 3 lanes from Linn Station Road (CS-1004H) to Eden Avenue (CS-1660H). (06CCR)(03KYD)(2006BOPP)(See 5-344.02 for KYD C phase)(14CCR). CHAF ID: IP20150293.	KYTC	\$5,910,000
359	00344.01	This project is to improve safety and reduce congestion. Hurstbourne exists today as a highly congested corridor that serves as a commuter route as well as a regional shopping/entertainment destination. The purpose of this project is to reduce congestion and traffic conflict points. The need for this project is demonstrated by the existing traffic congestion that has been quantified as Delay and Queue Length in the project traffic studies. Intersection queue lengths in excess of 800 feet and delays in excess of 60 seconds are common for the design year. The proposed increase in capacity by the addition of a southbound lane including optimization of signal timing is calculated to provide a reduction of these mobility indicators of up to 78%. It is anticipated that additional mobility improvements will be realized by eliminating the numerous conflict points, particularly unsignalized left turn movements, at entrances between signalized intersections. The accident rates in the project area also indicate a need for improvement. The Shelbyville Road Intersection was identified as a Hazard Elimination and Safety Program (HES) project with a Critical Crash Rate Factor greater than 1.0. The crash rate for the remainder of the corridor between Linn Station Road and Whittington Parkway is approximately 60% higher than the statewide average for urban four lane divided roadways (2002-2006). In addition, the proposed project is needed to meet state and local transportation planning goals. The proposed project is part of the Kentucky Transportation Cabinet's 2016 - 2022 Six-Year Highway Plan . The project is also connected to another project, which as a whole will help meet these planning goals. The other project is the reconstruction of the interchange of I-64 and Hurstbourne Lane (KYTC Item No. 5-52.00).	2024	HIGH
KY 1747		Widen KY 1747 (Hurstbourne Parkway) from 4 to 6 lanes with a center turning lane from US 31E (Bardstown Road) to KY 155 (Taylorsville Road).	KYTC	\$25,000,000
386		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Modal access and choice. KY 1747 from MP 0.000 to MP 3.540 is located in eastern Jefferson County. This area is experiencing growth at this time and additional development is planned. Residential and commercial uses are prominent in this area, with commercial and multi-family residential uses directly abutting the corridor. The adequacy rating data indicates potential crash issues, rough pavement condition, and congestion. These issues are likely to grow with the additional planned development.	2030	HIGH

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1747		KYTC Highway Plan (June, 2018): Reduce congestion and improve safety along KY 1747 (Hurstbourne Parkway) from Stony Brooke Drive to I-64. Project length is 1.495 miles. CHAF ID: IP20130135. Additional Considerations: This project has been treated as a study only.	KYTC	\$3,475,000
2607	00555.00	CHAF Purpose: Reduce congestion and improve safety along KY 1747 (Hurstbourne Parkway) from Stony Brook Drive to I-64. CHAF Need: The Critical Rate Factor (CRF) for this section from 2012 to 2016 ranges from 3.18 to 5.01.	2026	MEDIUM
KY 1747/US 60		Improve the Hurstbourne Parkway (KY 1747) at Shelbyville Road (US 60) intersection to increase capacity, reduce delays, and improve safety. (See 5-344.02) (16CCN). Project length is 0.2 miles. KY 1747 MP 13.4-13.6. US 60 MP 7.709-7.960. CHAF ID: IP20080218.	KYTC	\$4,490,000
2384	08953.00	Reduce congestion and improve safety at the KY 1747/US 60 intersection. This project is needed because development in this part of Jefferson County, and additional planned development is contributing to congestion issues at the KY 1747/US 60 intersection, especially at peak hour, where motorists may wait between two to three signal cycles before making it through the intersection. The development of the University of Louisville Shelby Campus (to the west on US 60, in close proximity) will contribute directly to the congestion at this intersection.	2022	MEDIUM
KY 1819		Reconstruct and widen Watterson Trail from Plantside Drive to Blankenbaker Parkway. (98CCR). CHAFID: IP20150319	KYTC	\$15,280,000
233	00373.00	Improve safety and mobility. This section of Watterson Trail has many vertical curves that do not meet minimum sight distance criteria for the design speed of the road. Improvements to the horizontal alignment also need to be made, especially at the north end of the project where a 140' radius curve exists. Existing traffic volumes have exceeded the roadway's capacity and future traffic volumes are predicted to increase significantly. In addition, the intersections named above have less than desirable sight distance and turn radii. The Critical Rate Factors on sections of this roadway are above 0.60 (2012 to 2016).	2024	MEDIUM

INVESTMENTS

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1819		Widen KY 1819 (Billtown Road) from 2 to 3 lanes (3rd lane will be a center turn lane) from I-265 (Gene Snyder Freeway) to KY 1819 (Watterson Trail). Project length is 3.8 miles.	KYTC	\$27,120,000
257	08203.00	The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. The corridor has limited right-of-way and narrow shoulders that are under three feet. Historic traffic volumes have shown strong growth along Billtown Road with traffic volumes expected to increase by 7.5% per year along the length of Billtown Road; with the exception of the Ruckriegel Parkway intersection which is expected to increase by 8.0% per year. A speed study showed that most drivers exceed the speed limit, particularly in the north end of the study area. There are several intersections where, as of 2006, there were poor levels of service. In 2010, all intersections have at least one or more approaches with a poor level of service. At the intersection of Gellhaus Lane and Billtown Road, the queue length of the westbound left turn exceeds the available storage. At the intersection of Ruckriegel Parkway and Billtown Road, the queue lengths during peak periods exceed the available storage for the westbound left and the northbound right turn. The entire corridor operates at LOS E in 2006 and 2010. All sections except the portion of Billtown Road between Shady Acres Lane and Ruckriegel Parkway operate at LOS E in 2030. The Shady Acres Lane to Ruckriegel Parkway section operates at LOS F.*	2020	MEDIUM
KY 1819		6YP DESC - Reconstruct Billtown Road from north of Colonnades Place to south of Easum Road. (04CCN)(06CCN)(08CCR)(10CCR)(12CC) CHAF DESC - The purpose of this project is to bring geometric deficiencies up to modern roadway standards and improve corridor wide capacity and operations. CHAF ID: IP20160185. Travel Model Info - KIPDA ID 257 overrides this project as far as any model changes are concerned. Model reflects KIPDA ID 257 beginning in the 2020 scenario, which is a widening to 3 lanes from I-265 to Watterson Trail. No additional changes to Billtown Rd. are assumed to occur when KIPDA ID 1819 is OTP in 2025. KYTC needs to clarify (should consider removing KIPDA ID 257 from the MTP).	KYTC	\$2,700,000
1819	08203.00	Reconstruct Billtown Road from north of Colonnades Place to south of Easum Road. (04CCN)(06CCN)(08CCR)(10CCR)(12CCR). Limited right-of-way and narrow shoulders (three feet or less) exists along the length of the corridor. Historic traffic volumes have shown strong growth along Billtown Road with traffic volumes expected to increase by 7.5% per year along the length of Bi	2025	FURTHER REVIEW

* Complete text is available in Appendix H.

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1931		<p>6YP DESC: Widen Greenwood Road from Greenbelt Highway to Dixie Highway (US 31W) (3-lane improvement) from MP 0.54 to MP 3.148. (98CCR)(R-04DEOB)(04CCR)(BOP2006P)(10CCR)(12CCR).</p> <p>CHAF DESC: Improve safety and mobility on Greenwood Road (KY 1931) between Greenbelt Highway (KY 1934) and Dixie Highway (US- 31W) by providing operational improvements and safety countermeasures for vehicles, pedestrians and bicyclists. CHAF ID: IP20160186.</p>	KYTC	\$23,890,000
128	00323.01/ 00323.03	<p>CHAF Purpose: Widen Greenwood Road from Greenbelt Highway to Dixie Highway (US 31W) (3-lane improvement) from MP 0.54 to MP 3.148. (98CCR)(R-04DEOB)(04CCR)(BOP2006P)(10CCR)(12CCR).</p> <p>CHAF NEED: Accident data for the last five years show that there have been close to 300 accidents, with an additional 95 accidents involving injuries. Cyclists and pedestrians have few accommodations.</p>	2024	MEDIUM
KY 1931		<p>Improve safety and reduce congestion on KY 1931 (Manslick Road) from KY 1931 (St. Andrews Church Road) to I-264 (Henry Watterson Expressway). Project will evaluate 3-lane widening and consider accommodations for bicyclists and pedestrians. CHAF ID: IP20080221.</p>	KYTC	\$29,709,950
446		<p>The purpose of the proposed KY 1931 project is to improve safety and local traffic operations along this route between Dixie Highway and I-264. Other project goals include accommodating bicyclists and pedestrians, improving emergency response time, minimizing impacts to the environment, and ensuring any improvement can handle traffic from other planned improvements. The need is expressed through above average crash rates, substandard geometric features, and congested traffic operations. Existing traffic volumes range from 11,100 to 18,200 vehicles per day, with the heavier volumes in the middle section between Palatka Road and Hazelwood Avenue. Existing volume-to-capacity ranges from 0.60 to 0.96, largely controlled by signalized intersections.</p> <p>Three intersections (Blanton Lane, Palatka Road, and Hazelwood Avenue) operate at an unacceptable LOS (E or F) during the AM or PM peak hour. The segment of the corridor between Arnoldtown Road and Blanton Lane has the highest crash frequencies; in four years, 65 total reported crashes occurred. This equates to a Critical Rate Factor of 1.92, indicating crashes are happening more often than can be attributed to random occurrence. The entire corridor south of Hazelwood Avenue exhibit CRFs over 1.00.</p>	2030	MEDIUM

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PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1931		Three lane widening along KY 1931 from the Doss High School entrance to Palatka Road, including intersection improvements with Palatka Road and turn lanes.	KYTC	\$11,790,000
2147	08810.00	Improve safety and local traffic operations along KY 1931 (Saint Andrews Church Road) between Doss High School/Trunnell Elementary and KY 1142 (Palatka Road).This project is needed because KY 1931 (Saint Andrews Church Road) between Doss High School/Trunnell Elementary and KY 1142 (Palatka Road) experiences frequent congestion during peak hours and needs significant improvements in safety and local traffic operations. There are above average crash rates, substandard geometric features, and traffic is expected to continue to increase along this stretch of roadway.	2026	LOW
KY 1931		Widen KY 1931 (Manslick Road) from 2 to 3 lanes from US 31W (Dixie Highway) to Doss High School. (2014BOP). Project length is 1.739 miles. CHAF IP20080220.	KYTC	\$14,971,000
2214	00536.00	The purpose of the project is to improve safety, local traffic operations, and mobility for all modes along KY 1931 (Manslick Road) from Dixie Highway (US 31W) to Doss High School. The Critical Rate Factor (CRF) along this segment is greater than 1.0 and over half of the crashes throughout the corridor are rear end collisions, with the next highest type being angle crashes at 20%. This segment experiences congested traffic operations. The KY 1931 corridor links US 31W an Urban Principal Arterial to I-265. Medium density commerical and residential uses abut this segment.	2027	MEDIUM
KY 1932		KYTC Highway Plan (June, 2018): Improve the safety and congestion of KY 1932 (Chenoweth Lane) from US 60 (Shelbyville Road) to US 42 (Brownsboro Road). Approximately 1.07 miles (2014BOP). CHAF ID: IP20080223. Additional Considerations: From: MP 5.523 To: MP 6.590.	KYTC	\$4,522,000
213	00531.00	CHAF Purpose: The purpose of the Chenoweth Lane project - from the CSX railroad (just north of Shelbyville Road) to Brownsboro Road is to 1) Improve sight distance and safety for all users, 2) Improve drainage along the corridor and 3) Improve pedestrian safety and mobility. CHAF Need: The needs stem from a higher than average crash rate in the southern section, pedestrian strike history, sight distance obstructions, obstructions in the clear zones, inadequate drainage in the corridor, substandard shoulders, and narrow (east side).	2025	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1932		Reduce congestion, improve safety, and provide mobility for all users along KY 1932 (Breckenridge Lane) from Hikes Lane to Kresge Way (Hikes Point to DuPont). Project design will evaluate addition of one travel lane in each direction and consider bicycle, pedestrian, and transit facilities. CHAF IP20140002.	KYTC	\$26,750,000
2016		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality.Route is an unimproved two lane local urban arterial road with deficient roadway geometrics not meeting current roadway design standards resulting in higher than average crash rates. Issues include insufficient lane and shoulder widths, deficient vertical and horizontal curves, limited and disconnected bike/ped facilities, faulty or insufficient drainage features, insufficient sight distance at intersections and/or curves.	2035	HIGH
KY 2049		Reduce congestion and improve safety on KY 2049 (Crums Lane) from I-264 underpass to US 31W. Includes consideration of pedestrian facilities, consider bike lane, provide access management and safety improvements from I-264 underpass to US 31W. CHAF IP20130134.	KYTC	\$9,170,000
2014		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality.Route is an unimproved two lane local urban arterial road with deficient roadway geometrics not meeting current roadway design standards resulting in higher than average crash rates. Issues include insufficient lane and shoulder widths, deficient vertical and horizontal curves, limited and disconnected bike/ped facilities, faulty or insufficient drainage features, insufficient sight distance at intersections and/or curves.	2032	MEDIUM
KY 2050		Reduce congestion and improve safety along KY 2050 (Herr Lane) from KY 1447 (Westport Road) to KY 22 (Brownsboro Road). Project will evaluate 3-lane widening and consider accommodations for bicyclists and pedestrians. CHAF IP20140033.	KYTC	\$5,280,000
2114		The purpose of this project is to reduce congestion and improve safety along KY 2050 (Herr Lane) from KY 1447 (Westport Road) to KY 22 (Brownsboro Road). The Herr Lane project corridor is a two-lane, 1.15 mile-long, high-traffic section of road in an area of eastern Jefferson County that is almost totally developed. Average daily traffic (ADT) volumes on Herr Lane range from 11,300 to 13,800 vehicles per day (VPD). The primary land uses along the road are several traditional neighborhoods and four schools. Throughout a typical day, sections of the project corridor experience significant congestion. The southern end of the corridor has a higher than average crash rate.*	2030	MEDIUM

* Complete text is available in Appendix H.

INVESTMENTS

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 2052		Widen KY 2052 (Shepherdsville Road) from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 2845 (Manslick Road) to Applegate Lane and build sidewalks.	Louisville Metro	\$24,000,000
464		This project will reduce traffic congestion and improve safety.	2035	LOW
KY 2053		Improve Mt. Washington Road from Penn Run Creek Bridge to Cedar Creek Road. (10CCN)(Same as 5-8612.00) CHAF IP20150272.	KYTC	\$11,400,000
1396	08205.00	The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality.The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.	2036	MEDIUM
KY 2053		CHAF: Improve Mt. Washington Road from Preston Highway to Penn Run Creek Bridge. (10CCN)(12CCR). Same as 5-8611.00 Section 1 - Current project design is 3-lane widening with two way center turn lane. CHAF ID: IP20150290.	KYTC	\$28,375,000
2148	08205.00	CHAF Purpose: The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, adn3) Air quality. CHAF Need: The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.	2020	LOW
KY 22		Improve safety and reduce congestion on KY 22 from just east of Murphy Lane to Haunz Lane. Project design will evaluate 3-lane widening with two-way center turn lane and consider bicycle and pedestrian facilities. CHAF IP20110072.	KYTC	\$5,600,000
412		The purpose of this project is to Improve safety and reduce congestion on KY 22 from Haunz Lane to KY 329. This project is needed because the crash rate is high (particularly at the end of the project near KY 329), multiple roadway deficiencies exist, and projected growth results in inadequate capacity on KY 22 from Haunz Lane to KY 329. Roadway deficiencies include horizontal curves and numerous vertical curves. Continued development in the area along this corridor will contribute to congestion issues in the future.	2026	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 22		Reconstruct KY 22 at Springcrest Drive. (Emergency culvert replacement awarded under 00371.12) CHAF IP20160177.	KYTC	\$1,740,000
1445	00371.10	The purpose of this project is to provide better turning movements and improve safety on KY 22 at the intersection with Springcrest Drive, thereby improving the existing corridor and supporting the overall quality of life of the roadway users. For the three-year period from 2001-2003, there were thirty crashes on the section of roadway between Greenlawn and Brownhurst Cove Road. The Springcrest intersection is within this section. The project is needed because twelve of these crashes were rear-end crashes which could be attributed to left turns. Since KY 22 is a two-lane roadway, traffic operations are adversely impacted whenever a vehicle attempts to make a left turn at any of the intersections along the corridor. Providing left turn lanes will help the traffic flow through this corridor. Another fourteen of the crashes were either angle, head-on, or sideswipe which could be a result of the roadway geometry.	2023	LOW
KY 22		KYTC Highway Plan (June, 2018): Reconstruct KY 22 at Goose Creek Road (06CCN) (2004BOPC)(14CCR). CHAF ID: IP20150195. Additional Considerations: Center turn bays, but not a continuous 3rd lane have been assumed along KY 22 from US 42 to Hurstbourne. This reflects the series of intersection improvements, not just the one at Goose Creek Road.	KYTC	\$4,762,000
1446	00371.13	CHAF Purpose: Improve safety and traffic operations at the KY 22/Goose Creek Road intersection. CHAF Need: This project is needed because KY 22 near the Goose Creek Road intersection has a critical crash rate factor greater than that of similar roads in the state. There is also an inadequate capacity to handle turning movements at the intersection.	2021	LOW
KY 2845		Reconstruct KY 2845 (Manslick Road) from KY 61 to KY 864 (Beulah Church Road). Project will evaluate 3-lane widening with two-way center turn lane and consider accommodations for bicyclists and pedestrians. CHAF IP20080224.	KYTC	\$16,460,000
961		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Modal access and choice. KY 2845 from MP 0.00 to MP 3.776 is located in southern Jefferson County. Surrounding land uses are primarily medium density residential with some commercial nodes. Data suggest this segment has crash issues, and a very rough pavement condition. Current lane width and geometry does not meet current standards.	2020	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 61		Improve safety, reduce congestion, and improve multi-modal transportation options along KY 61 from Commerce Crossings Drive(BMP 1.395) to Briden Avenue (EMP 8.400) including the I-264 (Watterson Expressway) and I-265 (Gene Snyder Freeway) interchanges. CHAF IP20160018.	KYTC	\$26,400,000
2780		Improve safety, reduce congestion, and improve multi-modal transportation options along KY 61 from Commerce Crossings Dr. to Briden Avenue including the I-264 (Watterson Expressway) and I-265 (Gene Snyder Freeway) interchanges. The KY 61 corridor from Commerce Crossings Drive to Briden Avenue had four roadway segments ranked in the top 41 of the highest roadway crash segments in the KIPDA MPO area for Kentucky (Bullitt, Jefferson, and Oldham Counties). This analysis was based upon crash data for the years of 2009-2011. KY 61 from Blue Lick Road to Outer Loop was ranked 13th with an average daily traffic (ADT) of 31,500 and crash rate of 10.6 (crashes per million vehicle miles traveled). KY 61 from Fern Valley Road to East Indian Trail was ranked 19th with an ADT of 28,100 and crash rate of 6.7. KY 61 from Gilmore Lane to Grade Lane was ranked 39th with an ADT of 27,300 and crash rate of 5.3. KY 61 from Outer Loop to McCawley Road was ranked 41st with an ADT of 24,500 and crash rate of 7.5.*	2031	HIGH
KY 61 Premium Transportation Corridor Project		The KY 61 Premium Transportation Corridor Project is a design-build project that will: 1) streamline transit service on a key corridor by adding traffic signal bus prioritization, new bus stops, and increasing bus service frequency; 2) bring intelligent signal upgrades, which will include upgraded traffic signals and communication equipment to support premium transit and overall mobility; 3) incorporate complete streets roadway improvements by including bicycle and pedestrian facilities, intersection safety improvements, access management strategies for surrounding land uses, and new streetscape design elements.	Louisville Metro	\$18,241,610
1357		The KY 61 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It is highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan, as both a "Major Corridor" and a "Premium Transit Corridor." KY 61 is a successful commercial destination resulting in major mobility challenges. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received \$16.9 million in federal funds. This project will need to account for various demands and changing urban characteristics across its length. Complete multi-modal connections are needed along the entire corridor with premium transit, or Bus Rapid Transit, needing to be further assessed for portions of the corridor. Preston Highway generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. Pedestrian connections need improvements as distance between crossings is so far that it incentivizes uncontrolled crossings. Incomplete sidewalks force pedestrians to use the shoulder. This is a major safety concern as Preston Highway has relatively high rates of pedestrian activity. The 18 Bus, which serves the Corridor is the busiest in the city. There are no safe bicycle facilities along the corridor. Taken together, these issues need to be addressed to ensure that the KY 61 of the future is safer for people of all ages and abilities.	2030	HIGH

* Complete text is available in Appendix H.

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 864		Reconstruct and widen KY 864 (Cedar Creek Road) from 2 to 3 lanes (3rd lane will be a center turn lane) from Mount Washington Road to Cooper Chapel Road and reconstruct and widen KY 864 (Cooper Chapel Road) from 2 to 3 lanes from Cedar Creek Road to Beulah Church Road. Add pedestrian accommodations on both sides of the roadway for the length of the project.	Louisville Metro	\$6,900,000
269	00481.00	This project will reduce traffic congestion and improve safety for vehicles and pedestrians around McNeely Lake Park.	2040	LOW
KY 864		Improve safety and reduce congestion on KY 864 (Fegenbush Lane) from KY 864 (Beulah Church Road) to KY 1747 (Fern Valley Road/South Hurstbourne Parkway). Project design will evaluate 3-lane widening with two-way center turn lane and consider accommodations for bicycle and pedestrian modes. CHAF IP20080205.	KYTC	\$15,880,000
357		The purpose of this project is to improve safety and reduce congestion on KY 864 (Fegenbush Lane) from KY 864 (Beulah Church Road) to KY 1747 (Fern Valley Road/South Hurstbourne Parkway). The Critical Rate Factor (CRF) for the longest section of this KY 864 segment (MP 4.391 to MP 6.596) is 1.68 using 2012 to 2016 data. This route connects I-265 and KY 1747 (Hurstbourne Parkway).	2028	MEDIUM
KY 864		KY 864 - Widen Beulah Church Road from 2 to 3 lanes from I-265 to Cedar Creek Road. Project length 1.627 miles. CHAF IP20080206.	KYTC	\$11,575,000
1879	00481.00	Improve the access, safety and mobility of Beulah Church Road south of the Gene Snyder Freeway. The Beulah Church Road (KY 864) corridor is a rapidly developing section of Louisville with increasing traffic demand. KY 864 is classified as an urban collector and has many access points. It carries traffic from growing residential suburbs to the Gene Snyder Freeway (I-265) with growth expected to continue. According to the 'Traffic Forecast Report, Jefferson County, Widen KY 864, Item No. 5-481.00', which was published January 25, 2013, the 2012 Average Daily Traffic (ADT) Count was 7,600 vehicles per day (vpd), and the projected 2035 ADT is 9,600 vpd. Additionally, the Cooper Chapel Road extension (5-404.01) to Bardstown Road (US 31E) which is currently under design, is anticipated to bring additional traffic to the route once constructed. Safety is also a primary concern within the project corridor. Between January 2010 and February 2015, there have been 27 collisions in the project corridor, 19 with property damage, and 8 collisions with 11 with injuries.	2025	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 907		Improve safety and reduce congestion on KY 907 (Southside Drive) from KY 1865 (New Cut Road) to KY 1020 (National Turnpike). The design will evaluate 3-lane widening or other lower impact solutions and include consideration of bicycle & pedestrian facilities. CHAF IP20080208.	KYTC	\$4,770,000
465	00437.00	The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. Existing and future traffic estimates show high traffic volumes creating congestion and reduced safety associated with the many entrances along the roadway. Adjacent roadways that have been improved to meet this traffic demand include New Cut Road (5 lanes) and National Turnpike (5 lanes). Both roadways intersect with Southside Drive in the project area and create bottleneck issues at the intersections.	2026	MEDIUM
KY 907		Improve safety and reduce congestion along KY 907 (Valley Station Road/3rd Street Road) from US 31W (Dixie Highway) to KY 1865 (New Cut Road). Project will evaluate 3-lane widening and consider bicycle and pedestrian facilities. CHAF IP20080209.	KYTC	\$104,760,000
481		The purpose of this project is to: 1) Improve safety for vehicular, bicycle, and pedestrian traffic, 2) Improve bicycle and pedestrian network and TARC access points, 3) Improve Drainage, 4) Reduce congestion, 5) Improve signage and 6) Focus on low cost solutions. Major issues are deep drainage ditches, substandard shoulders, limited sidewalks, and a lack of adequate lane capacity. There are no bicycle facilities. Average Daily Traffic (ADT) ranges from 5,760 to 22,100 Vehicles per Day (VPD), while the percentage of truck traffic ranges from 4.3% to 7.7%. The corridor has one high crash area that extends south of the Stonestreet Road intersection and ends at the East Pages Lane Intersection (Mile Point [MP] 1.915-2.090), totaling a distance of 0.175 miles. A critical rate factor greater than 1 indicates a high crash area. In this case, the critical rate factor is 1.224.	2030	MEDIUM
KY 907		KY 907 at James Hill Road intersection curve improvements - long term horizontal and vertical curve reconstruction. CHAF IP20110104.	KYTC	\$1,500,000
2017		The purpose of this project is to reduce congestion and improve safety in the long term on the KY 907 (Third Street) and James Hill Road intersection. The roadway network in this area was established many years ago with few major improvements other than some widening and resurfacing. Consequently, some major issues are deep drainage ditches, substandard shoulders, limited sidewalks, and a lack of adequate lane capacity. Throughout the study area, Average Daily Traffic (ADT) ranges from 5,760 to 22,100 Vehicles per Day (VPD), while the percentage of truck traffic ranges from 4.3% to 7.7%. There were several safety concerns identified by the project team based upon analysis of the crash data, public input, and field reviews. Most of these locations were found to coincide with locations that had the worst combinations of horizontal and vertical deficiencies. The data analysis validated the public-identified high crash locations in the absence of a high number of recorded crashes.	2030	FURTHER REVIEW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Main Street/ Story Avenue Intersection		Intersection rebuild at Main Street/Story Avenue/Baxter Avenue including transitions between Wentzel Street to the west and Johnson Street to the east, taking an unsignalized intersection that accommodates three one-way segments and transforming it into a more traditional four-legged intersection; including a new traffic signal, lane markings, crosswalks, and related lane-assignment signage .	Louisville Metro	\$4,582,899
2388	00561.00	Project will enhance pedestrian and bicycle safety and mobility by signaling the intersection and eliminating free flow conditions.	2021	LOW
McNeely Lake Park Road and Shared Use Path System		This project will design and construct a new road and shared use path system to connect the north, south, and east sections of McNeely Lake Park. The road will connect Cooper Chapel Road on the north through Quail Chase Golf Course east of McNeely Lake, to Cedar Creek Road (KY 864) on the southeast at the soccer complex and to Mount Washington Road (KY 2053) on the southwestern portion of McNeely Lake Park. The shared use path system will connect Cooper Chapel Road on the north to the Louisville Loop in McNeely Lake Park on the east and west sides of McNeely Lake, and connect Mount Washington Road to the Louisville Loop in McNeely Lake Park, and connect the Cooper Farms neighborhood and the Washington Green neighborhood to the McNeely Lake Park shared use paths. Bicycling and pedestrian facilities will be designed and built as a part of this project.	Louisville Metro	\$15,000,000
1823	08400.00	This project will provide new and improved accessible bicycle, pedestrian and vehicular access to and within McNeely Lake Park. McNeely Lake Park is an 847 acre park in south Louisville Metro which has never had internal park connectivity for vehicles, pedestrians, or bicyclists. In order to use the various sections of the park, users would have to drive miles along county roads from the north section to the southeast section and to the southwest section.	2035	LOW
Mud Lane		Widen Mud Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 1450 (Blue Lick Road) to Brookley Drive. Project will provide sidewalks and review for a bicycle facility.	Louisville Metro	\$11,000,000
449		As planned development occurs along KY 1450 (Blue Lick Road), Mud Lane will increasingly serve as a much needed outlet for traffic. Mud Lane is also a high accident corridor which will worsen as traffic volumes increase. This project will reduce traffic congestion and improve safety.	2035	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
New Cut Road Complete Street		New Cut Road is a four lane cross section from Southern Parkway to Palatka Road, 5 lane cross section from Palatka Road to I-265 and from I-265 to Mitchell Hill Road, 2 lanes with a turn lane at intersection. This project would reconstruct New Cut Road/West Manslick Road, adding access management, sidewalks and bicycle accommodations. We would review for the appropriateness of road re-configurations to achieve better pedestrian accommodations, fill in sidewalk gaps and create bike lanes.	Louisville Metro	\$15,000,000
2769		New Cut Road was widened from a 3 lane section to a 5 lane section from just north of the railroad tracks to I-265 in 2004, with anticipation of traffic growth. ADT's along New Cut Road in this segment have been stagnate to date according to KYTC traffic historic counts. There is opportunity to create a complete streets and take some of the unneeded excess right-of-way from the 2004 widening as well as north and south of that segment. The Fairdale round-about was open in 2017 and a greenspace beside the round-about with a Louisville Loop/Jefferson Memorial Forest trailhead installation. This will be a great opportunity to connect pedestrian and bicycle gaps to reach the proposed shared used paths on both sides of the terminus of this project (Southern Parkway and Jefferson Memorial Forest).	2035	HIGH
Old Heady Road		Reconstruct and widen Old Heady Road from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 155 (Taylorsville Road) to Chenoweth Run Road. Add pedestrian accommodations on both sides of Old Heady Road for the length of the project.	Louisville Metro	\$45,620,937
1325		Improve roadway to current standards and increase safety for motorized traffic. Increase pedestrian safety and connectivity from Taylorsville Road to existing and proposed residential development.	2040	LOW
Old Henry Road		New route between the KY 362 (Ash Avenue) in Pewee Valley and KY 22 (Ballardsville Road) / KY 329B (KY 329 Bypass) in Crestwood. Project is Section 2 of the 5-367.00 Crestwood Bypass parent project. Section 1, KY 3084 (Old Henry Road) from I 265 (Gene Snyder Freeway) to KY 362 (Ash Avenue), being constructed under 5-367.20. Project design will evaluate 3-lane roadway section with two-way center turn lane and will consider accommodations for bicyclists and pedestrians. CHAF ID: IP20110079.	KYTC	\$47,330,000
198	00367.00	The purpose of this project is to improve mobility and reduce congestion between the KY 3084 (Old Henry Road) interchange at I-265 (Gene Snyder Freeway) and KY 329B (KY 329 Bypass) in Crestwood. This project is needed to improve mobility between the KY 3084 (Old Henry Road) interchange at I-265 (Gene Snyder Freeway) and KY 329B (KY 329 Bypass) in Crestwood. The existing two-lane KY 146 through Pewee Valley has poor roadway geometrics, numerous roadside obstacles, and high traffic volumes contributing to unsafe travel conditions.	2030	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Old Henry Road		Extension of Old Henry Road east to Ash Avenue (KY 362) (12CCR). CHAF ID: IP20160276.	KYTC	\$18,180,000
1936	00367.20/ 00367.21	The purpose of this project is to provide improved access to the I-265/ Old Henry Road (KY 3084) interchange for vehicles traveling from Oldham County, Shelby County, and far eastern Jefferson County. This project is needed because vehicles are using a residential street, Village Green Boulevard, to access Old Henry Road and the interchange. Roadway deficiencies include 10' lanes, 1' shoulders, and substandard geometrics.	2024	LOW
One-Way Street Conversion to Two-Way Phase 1		Design and construction for the conversion of the following one-way streets in downtown Louisville to two-way traffic flow: Jefferson Street (Floyd to Baxter Avenue); Liberty Street (Jackson to Baxter); Muhammad Ali Blvd. (Jackson to Chestnut Connector); Chestnut Street (Jackson to Chestnut Connector); 8th Street (Kentucky to Main); 7th Street (Oak to Main); Shelby Street (Gray to Main Street); and Campbell Street (Chestnut to Main Street).	Louisville Metro	\$4,390,000
1809	00470.00	One-way streets make for efficient movers of traffic, but can often introduce safety concerns for motorists, bicyclists and pedestrians because they tend to provide for higher travel speeds than two-way streets and in some cases hinder opportunities for economic development as certain businesses have a formal policy against locating on one-way streets. The benefits of two-way streets are numerous. They tend to have slower travel speeds than one-way streets, they reduce confusion for motorists unfamiliar with the area, they provide better access to both businesses and residential areas, and in some circumstances they can reduce the traffic load on other one-way streets.	2020	LOW
One-Way Street Conversion to Two-Way Phase 2		Design and construction for the conversion of the following one-way streets in downtown Louisville to two-way traffic flow: 3rd Street (Market Street to Main Street); and Main Street (2nd Street to Story Avenue). Project length is 1.14 miles.	Louisville Metro	\$825,000
1810	0470.10	One-way streets make for efficient movers of traffic, but can often introduce safety concerns for motorists, bicyclists and pedestrians because they tend to provide for higher travel speeds than two-way streets and in some cases hinder opportunities for economic development as certain businesses have a formal policy against locating on one-way streets. The benefits of two-way streets are numerous. They tend to have slower travel speeds than one-way streets, they reduce confusion for motorists unfamiliar with the area, they provide better access to both businesses and residential areas, and in some circumstances they can reduce the traffic load on other one-way streets.	2025	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Outer Loop, Fegenbush Lane, and Beulah Church Intersection		Major revision of the intersection located at the Outer Loop, Fegenbush Lane, and Beulah Church Road. Turn lane to be completed by Transportation Cabinet per agreement. (04CCN)(08CCR)(10CCR)(12CCR) CHAF IP20160080.	KYTC	\$6,270,000
365	00122.00	The primary purpose of the project is to relieve the vehicle delay and improve safety while considering the possible residential, commercial, environmental, and historical impacts of any solution. Currently KY 1065 (Outer Loop), Fegenbush Lane, Beulah Church Road, and Watterson Trail (CR-1005H) converge within 900' of each other. The junction is controlled by two signalized intersections. Both are plagued by excessive vehicle delay during the morning and evening peak periods. The Critical Rate Factor (CRF) for this section of KY 1065 is 1.817 from 2012 to 2016.	2026	MEDIUM
Plantside Drive		Extend Plantside Drive from Rehl Road to Taylorsville Road.	KYTC	\$34,150,745
2608	80003.00	CHAF Purpose: The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Mobility within designated freight corridors. CHAF Need: The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.	2026	LOW
Portland Neighborhood Transportation Plan		Convert existing, arterial one-way streets in Portland to two-way operation.	Louisville Metro	\$1,500,000
1332		Recent studies by Metro have identified a number of benefits to converting one-way streets to two-way operation, especially in neighborhood settings such as Portland Avenue and Bank Street. These facilities will be slower, safer, and more active. They will support more direct connections for all modes of travel.	2030	LOW
Rangeland Road		Widen Rangeland Road from 2 to 3 lanes from Poplar Level Road to Shepherdsville Road, for 1.23 miles.	Louisville Metro	\$5,670,000
2153	08801.00	Reduce congestion and improve safety on Rangeland Road for 1.23 miles.	2025	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Reimagine 9th Street		<p>This project is a major complete street re-design of 9th Street just west of the Central Business District of Louisville from the Ohio River south to its intersection with Broadway. Ninth Street was originally designed to serve as a freight route with a right of way that ranges from 125 to 206 feet wide with 4-6 lanes and 45-foot medians. This project would redesign the six-lane cross section as a four lane urban arterial with turn lanes and transform the underutilized right of way into a linear park experience that accommodates all users.</p> <p>This project will include: A Redesign of the six-lane cross-section as a four-lane urban arterial with turn lanes; Use of the reclaimed right-of-way for an urban trail, off-street bicycle facilities, wider sidewalks, and transit amenities; Narrowed travel lanes that use a wider outside lane to accommodate trucks and buses; Calmed traffic with maintained roadway efficiency, using upgraded signals and optimized timing on 9th Street and Broadway; Enhanced corridor for non-vehicular users through landscaping, green infrastructure, and a linear park with inviting gathering spaces; Reduced roadway width to facilitate safe crossings by pedestrians and cyclists; New recreational facilities, event space, community gardens, and open space; and, A new pedestrian connection to River Road and the planned fourth phase of Louisville's Waterfront Park.</p>	Louisville Metro	\$13,000,000
2733		Eliminate the physical and psychological barrier that the "9th Street divide" creates between Louisville's Central Business District and the West End neighborhoods; create a safe and accessible travel experience for all users including pedestrians, cyclists and transit riders; increase economic vitality through creating a safe, attractive and comfortable environment; provide opportunities for parks and open spaces, playgrounds, recreation access, street tree canopy and storm water management features; and provide a safe and efficient corridor for vehicle and freight travel.	2025	MEDIUM
River Road		Widen River Road from 2 to 4 lanes from east of Beargrass Creek near Pope Avenue to Zorn Avenue. To include bike lanes and shared use path. Project length is 1.3 miles.	Louisville Metro	\$24,270,000
163	00091.02	This project will improve access to downtown Louisville and the waterfront.	2021	LOW
River Road Extension		Extend River Road west from 7th Street to Northwestern Parkway. The project is feasible using a low design speed criteria and a two-lane section.	Louisville Metro	\$19,577,400
1338	00091.08	Project will extend roadway corridor.	2024	FURTHER REVIEW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Tucker Station Road		Reconstruct Tucker Station Road as a 2 lane road (no additional lanes) from Rehl Road to Ellingsworth Lane and improve intersections (South Pope Lick, Rehl Road and Ellingsworth Lane). Construct pedestrian accommodations for the length of the project.	Louisville Metro	\$14,409,290
472		Tucker Station Road is a narrow 2 lane collector extending from U. S. 60 to KY 155 (Taylorsville Road). It is the only non-interstate route which crosses I-64 between Blankenbaker and English Station Roads. With planned development in the Urton Lane corridor, it should be able to relieve some traffic demand if an Urton Lane-Tucker Station Road-Ellingsworth Road connection is made. It would serve increased development south of I-64 near Rehl Road as well.	2040	LOW
University Corridor Fourth Street Intersection Improvements		Widen South 4th Street between Industry Road to Central Avenue (no additional travel lanes) to provide a center median, sidewalk improvements, and bicycle accommodations. The project includes intersection improvements at Industry Road and Central Avenue to facilitate truck movements.	Louisville Metro	\$10,500,000
1799		Phase I of plan to utilize Fourth Street as a transportation corridor in order to move various modes of traffic - motorists, bicyclists and pedestrians - to and from the city's industrial core, through the University of Louisville campus and the Old Louisville neighborhood to I-65 South.	2020	MEDIUM
Urton Lane		Extend and widen Urton Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from north of I-64 to Seatonville Road.	Louisville Metro	\$100,000,000
474		Urton Lane begins on the north at the US 60 - English Station Road intersection in Middletown, north of I-64. Several developments are currently planned between US 60 and I-64 along the route. Currently Urton Lane is a narrow 2 lane facility with poor geometrics. By extending Urton Lane south of I-64, traffic from the proposed developments could access Blankenbaker Road/I-64 via Rehl Road and I-265 via KY 155 (Taylorsville Road). An Urton Lane extension from north of I-64 to Seatonville Road would open hundreds of acres to development and provide a parallel route to I-265 which could be used to divert incident related traffic.	2040	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
US 150 Premium Transportation Corridor - Section 2		The US 150 Premium Transportation Corridor Project - Section 2 - is a design-build project that will: 1) streamline transit service on a key corridor by upgrading bus stops and enhancing service; 2) bring intelligent signal upgrades, which will include upgraded traffic signals and communication equipment to overall mobility; 3) incorporate complete streets roadway improvements by including bicycle and pedestrian facilities, intersection safety improvements, access management strategies for surrounding land uses, and new streetscape design elements.	Louisville Metro	\$12,100,000
1354		The Second Section of the US 150 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan as a "Major Corridor." This section of US 150 is a commercial corridor for the surrounding residential areas. Residential growth in the area has strained the transportation network in the area. This "suburban marketplace corridor" needs to account for various future demands across its length. Improved mobility and accessibility for all users, including motorists, transit riders, pedestrians, and cyclists will be key to achieve Louisville Metro's long-term goals as outlined in the Move Louisville, Plan 2040, among others. This vibrant commercial corridor needs investment and improvement to enhance access and livability in this growing area of Louisville. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received \$16.9 million in federal funds. US 150 generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. It also fails to provide complete pedestrian connections and few to no safe bicycle facilities. Taken together, these issues need to be addressed to ensure that the US 150 of the future continues to succeed while providing even greater access to people of all ages and abilities.	2030	MEDIUM
US 31W		Transportation System Management improvements on US 31W (Dixie Highway) from KY 150 (Broadway) in the city of Louisville to KY 44 in southern Jefferson County to include consideration of access management. Approximately 17.7 miles.	KYTC	\$8,150,000
273		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. While Dixie Highway is one of the busiest and most important transportation corridors in the region, it is also frequently congested (LOS E, F found at multiple intersections), has very high total and fatal crash rates, and passed through several low and moderate income neighborhoods. It also hosts the regions best performing transit route, Route 18, which serves the project corridor with over 4,800 daily riders. The high transportation demand by both vehicular and transit riders results in low speeds and long delays at critical locations; the volume of vehicular traffic coupled with numerous access points and intersections.	2028	MEDIUM

INVESTMENTS

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
US 31W		Improve Dixie Highway between Greenwood Road (KY 1931) and Stonestreet Road (CR 1003). (14CCN). CHAF IP20150310.	KYTC	\$7,300,000
2779		Improve safety by reducing the number of vehicular and pedestrian injuries, and improve mobility by reducing the travel times for both vehicular and transit users. The CFR for this section of roadway exceeded 1.0 for the years 2012 to 2016 including 5 fatal crashes. Existing sidewalks are discontinuous and in disrepair and not ADA Compliant. Intersections are often far apart resulting in unsafe mid-block crossings.	2020	HIGH
US 42		US 42 safety improvements from Harrods Creek Bridge to River Road (10CCR). CHAF IP20150155.	KYTC	\$12,000,000
230	00972.00	Reduce traffic congestion and improve safety along US 42 from Harrods Creek Bridge to River Road. This project is needed because of current traffic congestion combined with the projected future volumes on US 42 from Harrods Creek Bridge to River Road. The traffic congestion also leads to an increase in crashes.	2035	MEDIUM
US 42		Improve safety and reduce congestion on US 42 (Brownsboro Road) from I-264 (Henry Watterson Expressway) to Seminary Drive. Project will evaluate one additional travel lane in each direction and consider accommodations for bicyclists and pedestrians. CHAF IP20080194.	KYTC	\$10,470,000
476		The purpose of the project is to limit the congestion and delay on US 42 and increase safety of I-264, while minimizing the right-of-way impacts to the community. The existing I-264/US 42 Interchange area does not have adequate capacity or storage to accommodate the current left-turn and through-traffic volumes during the peak hours. Commuters often sit through green phases at signalized intersections due to queues from other intersections. These delays cause long queues on the I-264 exit ramps, creating a safety concern. As normal growth and new developments occur in the project area, the problem will continue to degrade, resulting in longer travel times.	2030	HIGH

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
US 60		Improve safety and reduce congestion on US 60 from KY 1747 to Old Shelbyville Road (CS 3596). Project will evaluate the addition of one travel lane in each direction and will consider accommodations for bicyclists, pedestrians, and transit users. CHAF IP20080197.	KYTC	\$54,883,000
479		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. US 60 from MP 7.857 to MP 11.100 is located in eastern central Jefferson County. This area is developed with primarily commercial uses directly abutting the corridor and residential uses either abutting the corridor or located directly behind the commercial uses. These adequacy rating data suggest rough pavement conditions and congestion. There are a number of destinations located along this corridor, and with the additional development at US 60 and KY 1747 as well as other development to the east will worsen congestion along the corridor. Certain solutions need to be found that work with the recent improvements made in the City of Middletown along the US 60 corridor.	2030	HIGH
US 60		Improve safety and reduce congestion on US 60 from I-264 to KY 1747. Project design will evaluate one added travel lane in each direction and consider bicycle and pedestrian facilities. CHAF IP20080196.	KYTC	\$26,890,000
480		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. US 60 from MP 5.529 to MP 7.857 is located in eastern central Jefferson County. This area is developed with primarily commercial uses abutting the corridor and residential uses either abutting the corridor or located directly behind the commercial. These adequacy rating data point to rough pavement conditions, crash issues, and congestion. There are a number of regional destinations located along this corridor, such as Oxmoor Mall and the University of Louisville Shelby Campus. In addition, there is development planned for the vacant portion of Shelby Campus, which will put more demand on surrounding roadways, including this corridor.	2035	HIGH
US 60		Widen US 60 to three lanes from Eastwood Cutoff (MP 14.7) to Rockcrest Way (MP 15.1). (16CCN) (Locals will do design for \$330,000). Project length is 0.396 miles. CHAF IP20160176.	KYTC	\$2,200,000
2598	08952.00	Improve safety and mobility. The Critical Rate Factor (CRF) along this segment of US 60 is 0.53. The KY State Data Center Report shows an employment annual growth rate in this area ranging from 1.6% to 2.9% and a population annual growth rate ranging from 0.4% to 2.6%.	2024	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
US 60		Widen US 60 to 6 lanes from Old Shelbyville Road to North English Stations Road.	KYTC	\$4,025,000
2610	80001.00	The following needs have been identified for this project: 1) Improve Capacity, 2) Provide an improved highway that meets current safety design standards, 3) Enhance network connections, 4) Serve recent and planned growth.	2025	MEDIUM
US 60		Improve safety and reduce congestion on US 60 from Rockcrest Way (CS 3157) to Notting Hill Boulevard (CS 1224J) at the Jefferson/Shelby County line. Project design will evaluate 3-lane widening with a continuous two-way center turn lane and other lower impact alternatives. Design will also consider accommodations for bicyclists, pedestrians, and future transit users. CHAF IP20080198.	KYTC	\$4,890,000
2776		The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. The Critical Rate for this section of US 60 is 0.53 from years 2012 to 2016. This area is developing with primarily residential uses with commercial nodes. Additional development in this area is expected. US 60 is a regionally significant route linking Louisville to Simpsonville, Shelbyville and beyond. US 60 provides an alternate east-west route to I-64 and is essential to I-64 incident management.	2026	LOW
US 60 Premium Transportation Corridor Project - Section 1		Conduct US 60 (Shelbyville Road) Corridor Transportation Management Study between KY 1747 (Hurstbourne Parkway) and English Station Road, approximately 4.1 miles.	Louisville Metro	\$16,000,000
1352		The US 60 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan, as both a "Major Corridor" and a "Premium Transit Corridor." US 60's success as a commercial destination has led to major mobility challenges in the area. Transitioning from a "traditional neighborhood marketplace" to a "suburban marketplace corridor" about halfway through the project area, Section 1 of this project will need to account for various demands across its 7.84 mile length; however, these two sub-areas, despite their differences are united in their demand for significantly improved mass transit service and complete multi-modal connections. The vibrant commercial corridor, anchored by two of Louisville's three regional malls, needs investment and improvements to maintain its success over the years to come. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received 16.9 million in federal funds. US 60 generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. It also fails to provide complete pedestrian connections and few to no safe bicycle facilities. Taken together, these issues need to be addressed to ensure that the US 60 of the future continues to succeed while providing even greater access to people of all ages and abilities.	2030	HIGH

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
US 60 Premium Transportation Corridor Project - Section 2		The US 60 Premium Transportation Corridor Project - Section 2 - is a design-build project that will: 1) streamline transit service on a key corridor by upgrading bus stops and enhancing service; 2) bring intelligent signal upgrades, which will include upgraded traffic signals and communication equipment to overall mobility; 3) incorporate complete streets roadway improvements by including bicycle and pedestrian facilities, intersection safety improvements, access management strategies for surrounding land uses, and new streetscape design elements.	Louisville Metro	\$8,400,000
1362		The Second Section of the US 60 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan as a "Major Corridor." This section of US 60 is a commercial corridor for the surrounding residential areas. Residential growth in the area has strained the transportation network in the area. This "suburban marketplace corridor" needs to account for various future demands across its length. Improved mobility and accessibility for all users, including motorists, transit riders, pedestrians, and cyclists will be key to achieve Louisville Metro's long-term goals as outlined in the Move Louisville, Plan 2040, among others. This vibrant commercial corridor needs investment and improvement to enhance access and livability in this growing area of Louisville. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received \$16.9 million in federal funds. US 60 generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. It also fails to provide complete pedestrian connections and few to no safe bicycle facilities. Taken together, these issues need to be addressed to ensure that the US 60 of the future continues to succeed while providing even greater access to people of all ages and abilities.	2030	HIGH
Watterson Trail Phase II		Widen Watterson Trail from 2 to 3 lanes from Ruckriegel Parkway to Maple Road and widen Watterson Trail from 2 to 3 lanes from Old Taylorsville Road to Ruckriegel Parkway. Project will construct sidewalks on both sides of each roadway segment along with new curb and gutters. The project will also create on-street parking along one side of each segment. The project will also include landscape enhancements as well as pedestrian street lighting.	Jeffersontown	\$2,456,850
1583	00518.00	Citizens have expressed desire to improve pedestrian safety and circulation along this corridor as well as address congestion at the Ruckriegel Parkway/Watterson Trail intersection. An additional lane width is desired in order to provide adequate turning movement and on-street parking demands.	2022	MEDIUM
Watterson Trail South		Reconstruct and widen from 2 to 3 lanes (3rd lane will be a center turn lane) Watterson Trail South from KY 1747 (Hurstbourne Parkway) to Glaser Lane. Add pedestrian accommodations on both sides of South Watterson Trail for the length of the project.	Louisville Metro	\$47,109,148
1324		Improve roadway to current standards and increase safety for motorized traffic. Increase pedestrian safety and connectivity from Hurstbourne Parkway to residential development.	2040	LOW

OLDHAM COUNTY

BICYCLE & PEDESTRIAN PROJECTS

Figure 58

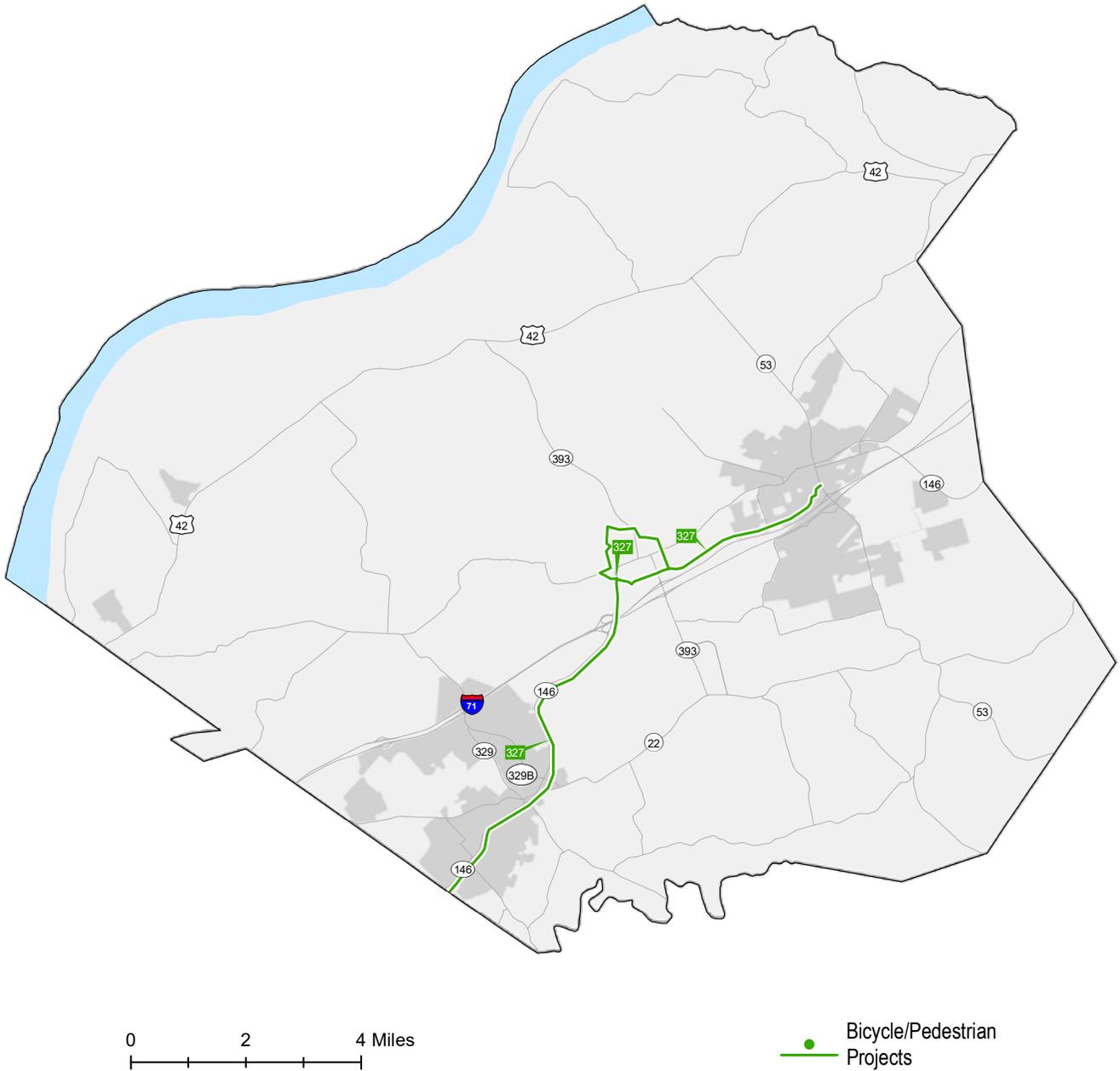


Figure 59: Oldham County, Bicycle & Pedestrian MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Oldham County Bicycle & Pedestrian Trail		Construct a non-motorized corridor from LaGrange to Jefferson County line along the Buckner Connector, the new 393 alignment to Wendell Moore Park and/or along KY 146 at the new pedestrian bridge over I-71.	Oldham Co.	\$1,225,000
327	00410.00	The project will allow alternative transportation, calm traffic, build transit oriented development, improve the environment, encourage healthy lifestyles through safer bike and pedestrian access, and link parks, schools, neighborhoods, and commercial areas throughout the County.	2025	MEDIUM

OLDHAM COUNTY

INTERSTATE/INTERCHANGE PROJECTS

Figure 60

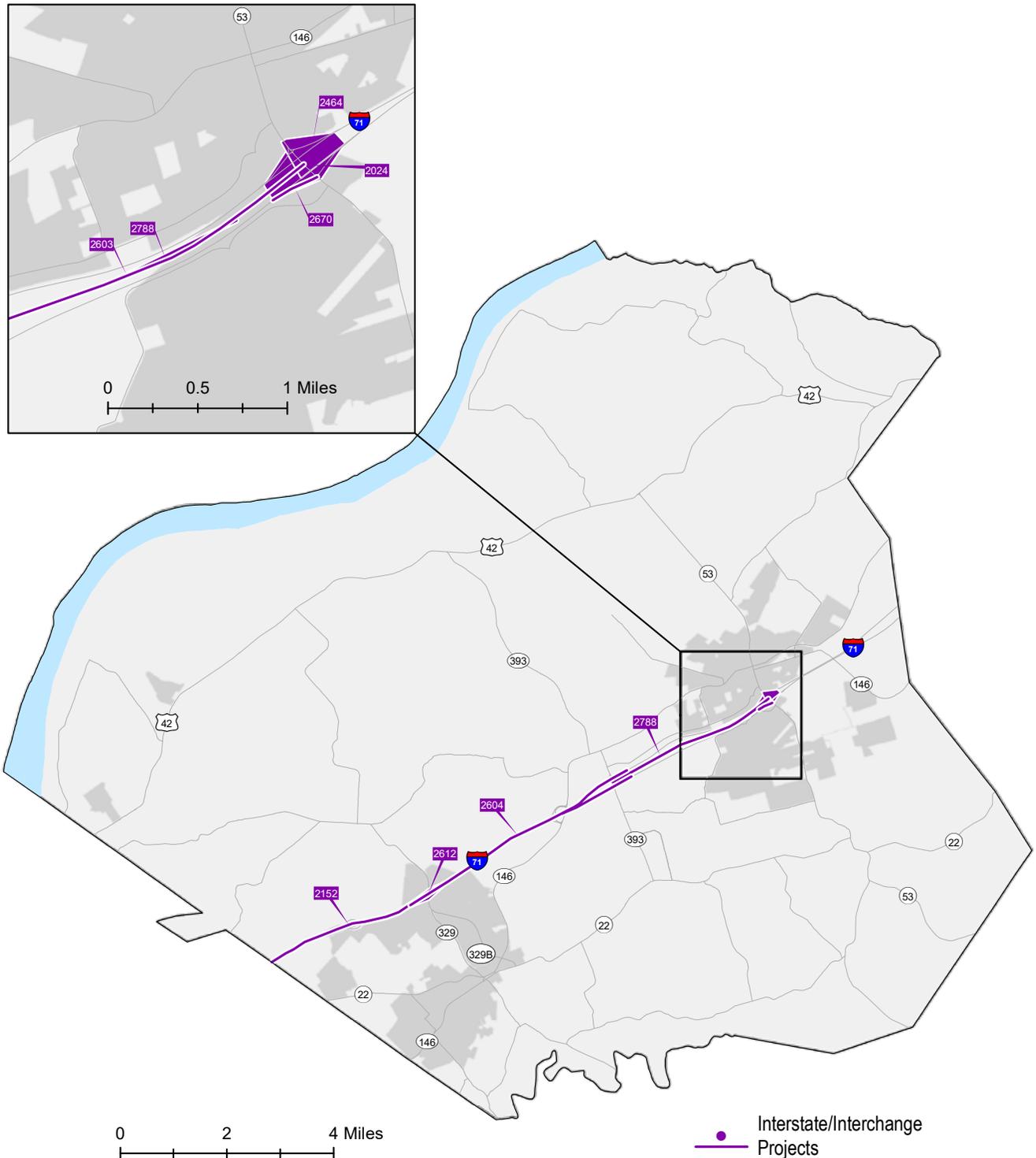


Figure 61: Oldham County, Interstate/Interchange MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I- 71		Improve safety and reduce congestion at the I-71/KY 53 (North/South First Avenue) interchange. Includes consideration of an additional two-way left turn lane and bike/ped accommodations.	KYTC	\$9,800,000
2024		The purpose of this project is to improve safety and reduce congestion at the I-71/KY 53 (North/South First Avenue) interchange. This project is needed because the current I-71/KY 53 (North/South First Avenue) interchange is inadequate to meet current and future capacity demands. This interchange operates at a low level of service and fails in the AM and PM peaks.	2028	MEDIUM
I- 71		6YP DESC: Six lane priority section of I-71 between I-265 and KY 329 (16CCR). Project length is 2.785 miles. CHAF ID: IP20150450 Additional Considerations: Widen priority section of I-71 between I-265 and and KY 329 from 4 to 6 lanes."	KYTC	\$66,465,000
2152	00483.00/ 00483.01/ 00483.02	<p>CHAF Purpose: The Purpose of the I-71 widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. It will serve through traffic on I-71, as well as local users traveling to and from the Louisville Metro and Crestwood/Brownsboro areas.</p> <p>CHAF Need: The Needs being addressed by the proposed I-71 project are based on the following facts:</p> <ul style="list-style-type: none"> Increasing traffic volumes have resulted in traffic congestion and poor traffic flow characteristics. In 2009, the Average Daily Traffic was 56,600 vehicles per day (vpd). In 2015, the traffic volume has increased to 61,900 vpd. By 2040, those numbers are forecasted to increase to 80,000 vpd. Traffic projections illustrate continued growth in traffic volumes. This forecast takes into account the future opening of the East End Bridge from I-265/KY 841 in Kentucky north to I-265 in Indiana. I-71 has roadway deficiencies and poor traffic operational characteristics. The life span of the pavement surface and bridges warrant they be replaced within the foreseeable future, regardless of the transportation demands; the clear zones along with the inside shoulder width are less than desirable. Driver crash rates are notably high along this section of I-71. Between January 2012 and December 2015, there were 360 crashes, including 5 fatalities, along the project corridor. The northbound direction had 123 crashes and southbound direction had 237 crashes. Based on a quantitative analysis, the project had six 0.2 mile sections of roadway that had a statistically high crash rate (i.e., critical rate factor greater than 1.0). The six sections were all in the southbound direction and the critical rate factors ranging from 1.072 to 1.5. 	2023	MEDIUM

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I-71		KYTC Highway Plan (June, 2018): Construct new I-71 interchange between KY 393 and KY 53 to relieve congestions in LaGrange. Project length is 1.0 miles. CHAF ID: 20190047	KYTC	\$18,400,000
2603	00483.30/ 00483.31	The purpose of the project is to provide connectivity to the surrounding development/community that is already experiencing growth today.	2026	LOW
I-71		6YP DESC: Widen I-71 from four to six lanes from KY 329 (MP 14.1) to KY 393 (MP 18.0). (16CCN). Project length is 3.9 miles. CHAF ID: IP20160192.	KYTC	\$4,258,000
2604	00483.10	<p>CHAF Purpose: The Purpose of the I-71 widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. It will serve through traffic on I-71, as well as local users traveling to and from the Louisville Metro and Crestwood/Buckner areas.</p> <p>CHAF Need: The Needs being addressed by the proposed I-71 project are based on the following facts:</p> <ul style="list-style-type: none"> Increasing traffic volumes have resulted in traffic congestion and poor traffic flow characteristics. In 2009, the Average Daily Traffic was near 56,600 vehicles per day (vpd). In 2015, the traffic volume has increased to approx. 61,900 vpd. By 2040, those numbers are forecasted to increase to around 80,000 vpd. Traffic projections illustrate continued growth in traffic volumes. This forecast takes into account the recent opening of the East End Bridge from I-265/KY 841 in Kentucky north to I-265 in Indiana. I-71 has roadway deficiencies and poor traffic operational characteristics. The life span of the pavement surface and bridges warrant they be replaced within the foreseeable future, regardless of the transportation demands; the clear zones along with the inside shoulder width are less than desirable. Driver crash rates are notably high along this section of I-71. 	2025	LOW
I-71		<p>KYTC Highway Plan (June, 2018): Improve the interchange of I 71 and KY 329. CHAF ID: IP20080244.</p> <p>Additional Consideration: Project will evaluate: signaling SB I-71 on and off ramps; adding left turn lane on KY 329 for left turns onto SB I-71 ramp; multi-use path along KY 329; and various sight distance improvements.</p>	KYTC	\$4,240,000
2612	80005.00	<p>CHAF Purpose: Improve safety and reduce congestion at the I-71/KY 329 interchange.</p> <p>CHAF Need: This project is needed because of a high amount of crashes and limited sight distance that exists at the I-71 ramps at KY 329. Additionally, the capacity of KY 329 is inadequate to handle current traffic volumes during peak hours.</p>	2025	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
I- 71		KYTC Highway Plan (June, 2018): Widen I-71 from four to six lanes from KY 393 (MP 18.0) to KY 53 (MP 22.4). (16CCN) CHAF ID: IP20160193.	KYTC	\$71,300,000
2788		CHAF Purpose: The Purpose of the I-71 widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. CHAF Need: The Needs being addressed by the proposed I-71 project are based on the following facts: Increasing traffic volumes have resulted in traffic congestion and poor traffic flow characteristics. In 2009, the Average Daily Traffic was approximately 56,600.	2030	FURTHER REVIEW
I- 71 Northbound Exit Ramp Improvements to KY 53		Safety improvement and congestion mitigation improvements at the I-71 northbound exit ramp at KY 53 in Oldham County. (2018BOP). Project may include the following scope: widen the exit ramp from 1 to 2 lanes; add a right turn lane and a left turn lane to create dual right and dual left turn movements; install a new traffic signal for the intersection improvements; and add lane striping and way finding signs for lane assignment to guide drivers to the correct lane for turning or thru traffic movements at the intersection.	KYTC	\$2,009,000
2670	00567.00	Reduce congestion and improve safety on the northbound exit ramp from I-71 to KY 53, and at the exit ramp and KY 53 intersection.	2020	LOW
KY 53 from I-71 to Crystal Drive and I-71 SB Ramps		The I-71 Southbound off-ramp to be reconfigured to allow for two right turn only lanes and one left turn only lane. KY 53 to be reconfigured with the addition of a left turn lane at Crystal Drive. Striping and lane assignment signs will also be added to the I-71 ramp to direct drivers in to the correct turn lane.	KYTC	\$2,593,690
2464	00444.10	This intersection gets highly congested, backing up traffic onto the I-71 Southbound off ramp. This queue of vehicles threatens to extend onto the mainline of I-71. In 2009, the intersection of Crystal Drive at KY 53 was identified as having the highest crash rate location in Oldham County. By adding a dedicated left turn lane at Crystal Drive, there will be an increase in driver safety at this dangerous intersection. The proposed project is intended to decrease congestion and increase safety on KY 53 from I-71 to Crystal Drive, including the I-71 Southbound off-ramp. These improvements will improve air quality by reducing the delay times at both the I-71 and Crystal Drive intersections with KY 53.	2021	LOW

OLDHAM COUNTY

ROADWAY PROJECTS

Figure 62

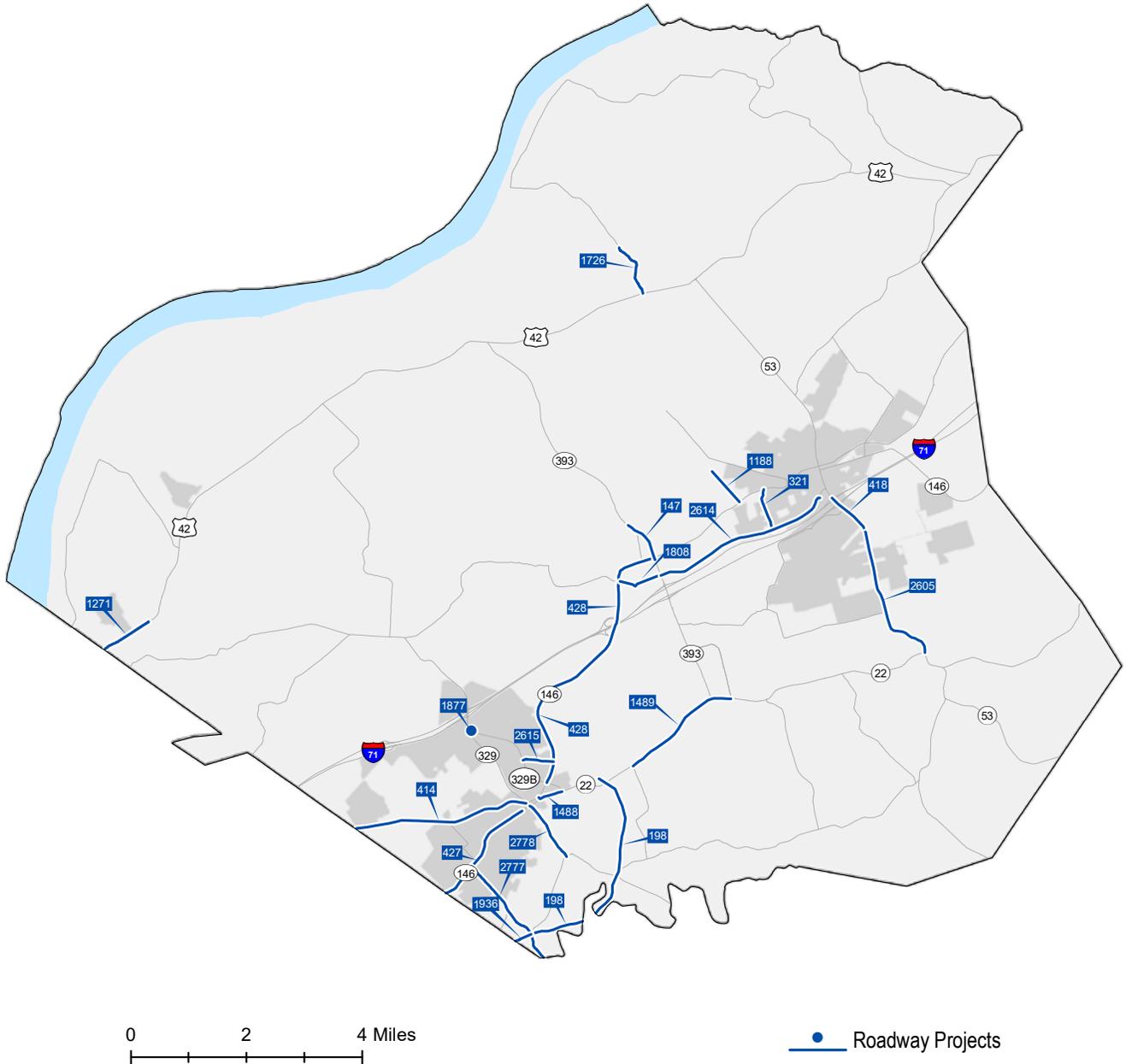


Figure 63: Oldham County, Interstate/Interchange MTP Project Details

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Buckner Connector		The proposed project will extend Commerce Parkway and the shared use path west 0.8-mile from KY 393 on new alignment to connect with Mattingly Road. Commerce Pkwy in Oldham County is currently a 2-lane road with a 10-foot wide shared use path along the north side, separated from the road with a grass verge. The road currently extends from KY 393 east approximately 3 miles to LaGrange. The proposed extension would begin approximately 1200 ft. north of I-71 and KY 393 interchange. Mattingly Road provides access to several industrial sites. the proposed project will provide access to I-71 from Mattingly Road that would allow traffic to avoid an at-grade railroad crossing.	Oldham Co.	\$4,330,340
1808	00754.00	The purpose of the project is to improve system connectivity. Mattingly Road serves the Oldham County Industrial Park, located between the CSX railroad and dead-ends at I-71. At present, all industrial park traffic must cross the CSX railroad at two at-grade locations to access I-71. The road would connect the Park to KY 393 just north of I-71, thereby providing an option to avoid the two railroad crossings.	2021	LOW
Commerce Parkway Widening		Widen Commerce Parkway between Parker Drive and KY 393 adding a continuous turn lane for approximately three miles including the relocation of 10' wide shared-use path. Lane width is 12' with one proposed signal between termini. Project length is 3 miles.	Oldham Co.	\$17,500,000
2614		The purpose of the project is to improve capacity, access, and mobility along Commerce Parkway through an actively developing industrial and business park. The widening of the road will reduce congestion, improve safety, and increase travel capacity and alternatives for residents, businesses, and freight traffic given the anticipated direct connection with new I-71 ramps.	2029	FURTHER REVIEW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Kenwood Road		Construct a new urban roadway section to connect KY 146 and KY 393 Bypass in Crestwood. The proposed facility will be three-lanes with a continuous, center left-turn lane, curb, gutter, a sidewalk, and a potential traffic signal. Lane width will be 11 feet with a proposed posted speed of 25 MPH.	Oldham Co.	\$3,279,688
2615		The purpose of this project is to improve access and mobility within the northern portion of Crestwood by improving connectivity between KY 329 B and KY 146. The development of a new roadway connector between these facilities will reduce congestion at the existing intersection between KY 329 B and KY 146 and increase travel alternatives for residents and truck traffic while also providing greater access to the South Oldham school campus.	2026	LOW
KY 22		Reconstruct KY 22/KY 146 from Pryor Avenue to KY 329B - 3 lane section with center turn lane. From MP 3.250 to MP 3.929. CHAF ID IP20190082.	KYTC	\$16,500,000
1488	00304.10	Reconstruct KY 22/KY 146 from Pryor Avenue to KY 329B - 3 lane section with center turn lane. From MP 3.500 to MP 3.929. Improve capacity, provide an improved highway that meets current safety design standards, enhance network connections, implement a long term regional priority and serve recent and planned growth. Complete build out of parent project 5-304.00.	2028	LOW
KY 22		Reconstruct KY 22 with consideration of a 3 lane section with center turn lane from KY 2858 (Abbott Lane) to Centerfield Drive. MP 5.32 to MP 7.50. IP20150249.	KYTC	\$18,240,000
1489	00304.20	Reconstruct KY 22 with consideration of a 3 lane section with center turn lane from KY 2858 (Abbott Lane) to Centerfield Drive. MP 5.32 to MP 7.50 The following needs have been identified for this project: 1) Improve Capacity, 2) Provide an improved highway that meets current safety design standards, 3) Enhance network connections, 4) Implement a long-term regional priority, 5) Serve recent and planned growth.	2026	LOW
KY 22		Improve safety and reduce congestion on KY 22 from Haunz Lane to KY 329. Includes consideration of a three lane widening and bike/ped accommodations.	KYTC	\$12,140,000
414		The purpose of this project is to improve safety and reduce congestion on KY 22 from Haunz Lane to KY 329. This project is needed because the crash rate is high (particularly at the end of the project near KY 329), multiple roadway deficiencies exist, and projected growth results in inadequate capacity on KY 22 from Haunz Lane to KY 329. Roadway deficiencies include horizontal curves and numerous vertical curves. Continued development in the area along this corridor will contribute to congestion issues in the future.	2028	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 53		Improve safety and reduce congestion on KY 53 from I-71 to Zhale Smith Road. Includes consideration of a five lane widening and bike/ped accommodations.	KYTC	\$20,170,000
418		The purpose of this project is to improve safety and reduce congestion on KY 53 from I-71 to Zhale Smith Road. This project is needed because there are a high amount of crashes and continued development in this area and south along KY 53 is anticipated, adding to future potential congestion issues on KY 53 from I-71 to Zhale Smith Road.	2026	MEDIUM
KY 53		KYTC Highway Plan (June, 2018): Design for improving KY 53 from Zhale Smith Road to KY 22 (Total 3.2 miles). (14CCN). Project length is 2.617 miles. CHAF ID: IP20150414. Additional Considerations: Project will evaluate 3 lane section from Zhale Smith Road to KY 22.	KYTC	\$39,400,000
2605	08852.00	CHAF Purpose: The purpose of this project is to improve safety and reduce congestion on KY 53 from Zhale Smith Road to KY 22. CHAF Need: This project is needed because continued development in this area and south along KY 53 from Zhale Smith Road to KY 22 will contribute to congestion issues in the future. This route is also highly traveled by local commuters to gain access to I-71.	2026	FURTHER REVIEW
KY 146		Reduce congestion, improve access, and provide better mobility for all modes along KY 146 from the Oldham/Jefferson County line to Pryor Avenue in Crestwood. Project design will consider reconstructing KY 146 as a 2 lane road (no additional lanes) from Jefferson/Oldham County line to Pryor Avenue in Oldham County with consideration for turn lanes at Ash Avenue, Houston Avenue, Maple Avenue and Central Avenue. CHAF ID: IP20080252.	KYTC	\$14,750,000
427		The purpose of this project is to reduce congestion, improve access, and provide better mobility for all modes along KY 146 from the Oldham/Jefferson County line to Pryor Avenue in Crestwood. This project is needed because KY 146 from the Oldham/Jefferson County line to Pryor Avenue in Pewee Valley experiences a high level of congestion and has potential crash issues. With the additional population expected in Oldham County in this area, and the additional development of commercial and industrial uses in eastern Jefferson County, congestion is expected to increase in the near future and is already problematic today. Congestion is further compounded by the rail line running parallel to the corridor.	2026	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 146		Improve safety and reduce congestion on KY 146 (LaGrange Road) from KY 329B (KY 329 Bypass) to KY 393. Includes consideration of a four lane widening and bike/ped accommodations. CHAF ID: IP20080251.	KYTC	\$20,510,000
428		The purpose of this project is to improve safety and reduce congestion on KY 146 (LaGrange Road) from KY 329B (KY 329 Bypass) to KY 393. This project is needed because there are sections of KY 146 from KY 329B (KY 329 Bypass) to KY 393 that has inadequate capacity and is frequently congested during peak hours. With planned development in Oldham County, this area is expected to grow and this segment is expected to carry approximately 36,000 vehicles by the year 2030, greatly increasing congestion and the potential for crashes (OCMTP, 2003).	2028	LOW
KY 329		Improvements to the area of the KY 329 and KY 329 Bypass intersection in Oldham County adjacent to the KY 329 interchange with Interstate 71. Congestion occurs during the morning and evening rush hours due to several nearby public schools as well as several roadways converging close to the intersection. Other areas of concern in the area include the 5% downgrade on KY 329 Bypass approaching KY 329 intersection; the sight distance between KY 329 Bypass to the business on the east of the road is obscured by an existing rock and the distance between a crest vertical curve on KY 329 and the intersection with the Spring Hill Subdivision looking east 575 ft. The project is planned to include: widening or reconstruction of KY 329 to include dual left turn lanes and a signal; widening of the KY 329 Bypass to include a left turn lane onto KY 329 and right turn lane onto KY 329; and, sight distance improvements on both the KY 329 Bypass and existing KY 329."	Oldham Co.	\$3,444,375
1877	00542.00	The purpose of this project is to make the KY 329 and KY 329 Bypass intersection safer and to improve Level of Service. The needs being addressed by the project are based on the following data: Existing traffic volumes result in traffic congestion and intersection delays. The existing eastbound left turn movement has an LOS F in both the AM and PM. MUTCD warrants for signalization are met for this intersection. Sight distance deficiencies - stopping sight distances for posted speed limits of 55 MPH on both roads are not met (vertically on KY 329 and horizontally with rock slopes obstructions on KY 329 Bypass). Crashes are notably high along this intersection of KY 329. Crash data between 1/1/2012 and 12/31/2016 was analyzed. The crash rate approaches critical (CRF = 0.95). There have been numerous crashed including one fatal and five injury crashes near the intersection."	2022	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 362		Improve safety, access, and address geometric deficiencies along KY 362 from the Oldham/Shelby County line to KY 146 (in and south of Pewee Valley). Includes consideration of a 3 lane widening with a two way left turn lane and bike/ped accommodations. CHAF IP20130132.	KYTC	\$10,385,000
2777		The purpose of this project is to improve safety, access, and address geometric deficiencies along KY 362 from the Oldham/Shelby County line to KY 146 (in and south of Pewee Valley). This project is needed because of a high crash rate, substandard curves, lane widths, and shoulders along KY 362 from the Oldham/Shelby County line to KY 146 (in and south of Pewee Valley). A new corridor (Old Henry Road) will eventually tie into this section of roadway creating additional demand.	2028	LOW
KY 393		KY 393 reconstruction from 140 feet south of railroad crossing (CSX) extending northwest towards KY 146 ending at Station 12+00 (Design under 5-230.00). (Construction Seq.#2). CHAF ID: IP20160227.	KYTC	\$11,990,000
147	00234.00	The primary purpose of the proposed project is to improve traffic flow and correct safety deficiencies through reconstruction and realignment of the existing facility, including construction of an underpass to replace the at-grade crossing of the CSX Railroad paralleling KY 146. The proposed improvements will accommodate the predicted increase in traffic volumes, reduce accident potentials, upgrade connections with I-71, and improve traffic service and safety for the large Oldham County school complex along the west side of existing KY 393 at KY 146. The project will correct identified traffic problems associated with existing design deficiencies, sight distance, grades and curves, train/automobile conflicts, school complex ingress and egress, emergency service demands, travel safety, travel time, and convenience. An improved facility is needed because of the route's importance in the local and regional transportation network and the necessity for improving system connectivity and travel conditions for school buses, emergency services, farm equipment, commercial vehicles, and local public access.	2022	LOW
KY 524		Landslide repair on KY 524 (Westport Road) from Junction US 42 northwest, 1.0 mile. (2002BOPC)(Not required). CHAF ID IP20150467.	KYTC	\$5,600,000
1726	05013.00	The purpose of this project is to improve safety and reliability of KY 524 (Westport Road) from US 42 to 1/4 miles south of Smith Lane. This project is needed because there has been an ongoing landslide issue on KY 524 (Westport) from US 42 to 1/4 miles south of Smith Lane. Maintenance addresses the problem each year with band-aid approaches including driving pilings, adding new rip rap, and replacing guardrail that slides down the slope but a more permanent fix is needed requiring funding outside of the maintenance budget. Correction of the landslide will maintain the reliability of the network.	2026	FURTHER REVIEW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
KY 1408		Improve safety, access, and address geometric deficiencies along KY 1408 (Floydsburg Road) from Old Floydsburg Road to KY 146 (in and near Crestwood). Includes consideration of a three lane widening with a two way left turn lane. CHAF IP20130133.	KYTC	\$5,300,000
2778		The purpose of this project is to improve safety, access, and address geometric deficiencies along KY 1408 (Floydsburg Road) from Old Floydsburg Road to KY 146 (in and near Pewee Valley). This project is needed because of a high crash rate, substandard grades, curves, lane widths, and shoulders along KY 1408 (Floydsburg Road) from Old Floydsburg Road to KY 146 (in and near Pewee Valley).	2030	LOW
LaGrange Underpass West of LaGrange		Construction of an uninterrupted rail underpass west of LaGrange on Allen Lane. The project will widen Allen Lane between KY 146 and Commerce Parkway aligning across from the I-71 Overpass.	Oldham Co.	\$16,710,000
321	00434.00	The project will allow traffic to be unimpeded by the very heavily used CSX rail line improving congestion. It will also provided enhanced safety as emergency vehicles will be able to bypass the rail line.	2025	LOW
Luther Lockett Collector		Construct new 2 lane road along Corrections Department Property from the main entrance of the KY State Reformatory at KY 146 to Dawkins Road. The road will have restricted access for public safety and the lanes will be 12' wide.	Oldham Co.	\$1,500,000
1188		The road will allow restricted access to the prison for transport of prisoners, staff, and trucks for supplies, maintenance, etc. This need is reduce congestion at the existing entrance and to provide a second entrance to the facility.	2026	FURTHER REVIEW
Old Henry Road		New route between the KY 362 (Ash Avenue) in Pewee Valley and KY 22 (Ballardsville Road) / KY 329B (KY 329 Bypass) in Crestwood. Project is Section 2 of the 5-367.00 Crestwood Bypass parent project. Section 1, KY 3084 (Old Henry Road) from I 265 (Gene Snyder Freeway) to KY 362 (Ash Avenue), being constructed under 5-367.20. Project design will evaluate 3-lane roadway section with two-way center turn lane and will consider accommodations for bicyclists and pedestrians. CHAF ID: IP20110079.	KYTC	\$47,330,000
198	00367.00	The purpose of this project is to improve mobility and reduce congestion between the KY 3084 (Old Henry Road) interchange at I-265 (Gene Snyder Freeway) and KY 329B (KY 329 Bypass) in Crestwood. This project is needed to improve mobility between the KY 3084 (Old Henry Road) interchange at I-265 (Gene Snyder Freeway) and KY 329B (KY 329 Bypass) in Crestwood. The existing two-lane KY 146 through Pewee Valley has poor roadway geometrics, numerous roadside obstacles, and high traffic volumes contributing to unsafe travel conditions.	2030	LOW

PROJECT NAME		DESCRIPTION	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK
Old Henry Road		Extension of Old Henry Road east to Ash Avenue (KY 362) (12CCR). CHAF IP20160276.	KYTC	\$18,180,000
1936	00367.20/ 00367.21	The purpose of this project is to provide improved access to the I-265/Old Henry Road (KY 3084) interchange for vehicles traveling from Oldham County, Shelby County, and far eastern Jefferson County. This project is needed because vehicles are using a residential street, Village Green Boulevard, to access Old Henry Road and the interchange. Roadway deficiencies include 10' lanes, 1' shoulders, and substandard geometrics.	2024	LOW
US 42		KYTC Highway Plan (June, 2018): Reconstruct US 42 and widen from 2 lanes to 3 lanes (3rd lane will be a center turn lane) from Jefferson/Oldham County Line to Ridgemoor Drive. Project will include the consideration of improvements to the Hayfield Way intersection (2004BOPC). CHAF ID: IP20080245.	KYTC	\$10,284,000
1271	00441.01	CHAF Purpose: The purpose of the project is to improve traffic flow, minimize congestion, and address safety issues on US 42 between the Jefferson County/Oldham County line and Ridgemoor Drive. CHAF Need: Due to an increase in commuters to and from Louisville and the development along the project corridor, the traffic volumes are expected to double in the next 20 years. The accident data for the last 3 years shows that there are between 10 and 14 rear end.	2021	LOW

REGIONAL TRANSIT PROJECTS

Figure 64

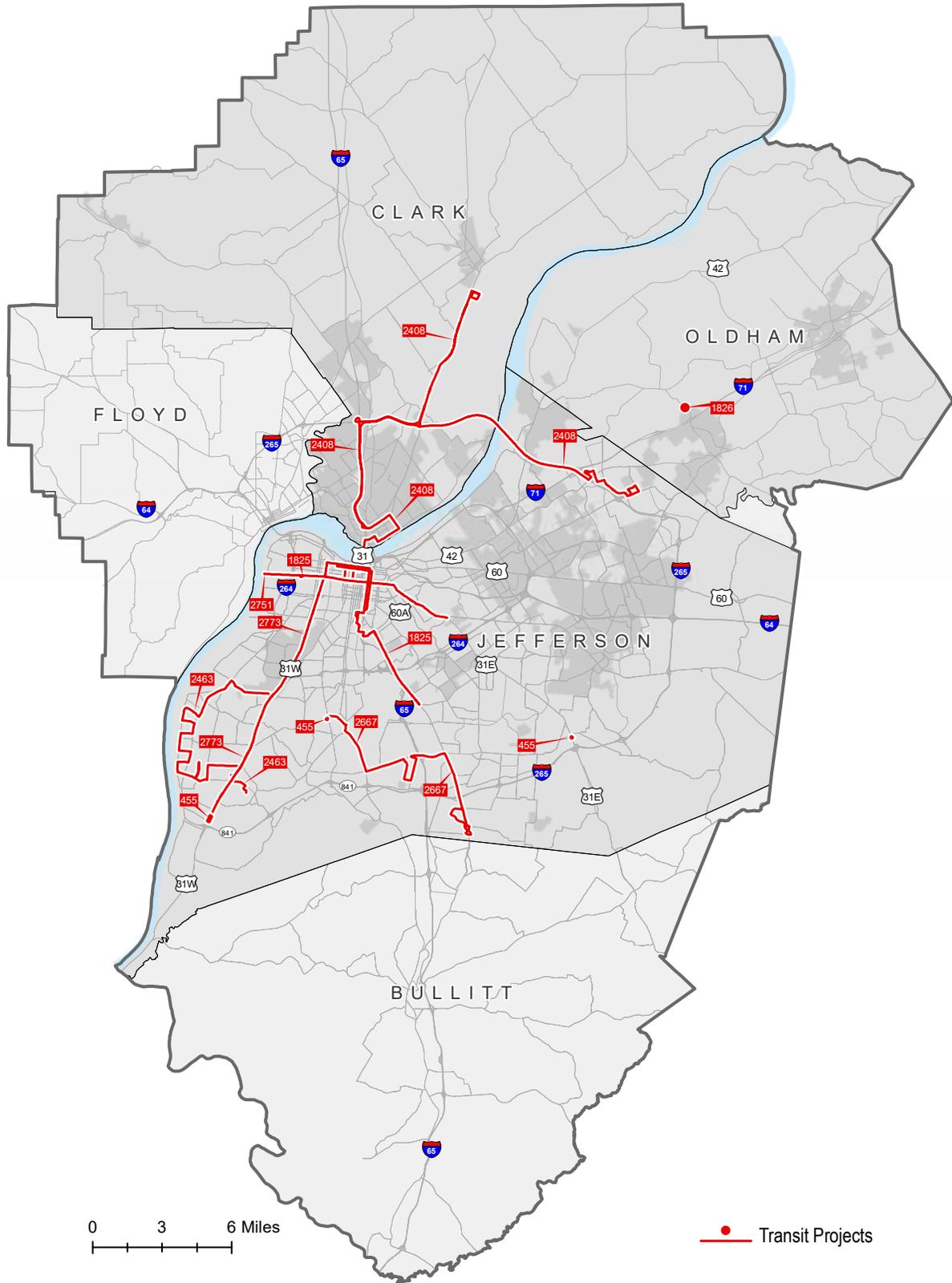


Figure 65: Regional Transit Projects MTP Project Details

PROJECT NAME		DESCRIPTION	COUNTY	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK	
Broadway Complete Street		A complete street retrofit of Broadway from Shawnee Park to Baxter Avenue to include fixed guide-way BRT, two-way cycle track and pedestrian safety improvements. The project scope should include the following: <ul style="list-style-type: none"> - Improved roadway design to increase transit speed, reliability and efficiency - Enhanced transit stations and rider amenities to improve the transit user experience - Enhanced bicycle and pedestrian access to frequent high capacity transit services - Operational plan including extension of BRT line southeast on Bardstown Road (non-fixed guideway)." 	Jefferson	Louisville Metro	\$140,000,000
2751		Improve connectivity for all modes; improve safety; promote social equity; and enhance neighborhoods.	2035	MEDIUM	
Dixie Bus Rapid Transit		Dixie Highway Bus Rapid Transit (BRT) will extend from Downtown to Valley Station in order to provide high capacity service along Dixie Highway Corridor. This corridor has some of the highest ridership among TARC's routes.	Jefferson	TARC	\$4,325,000
2773		Operating cost for the new Dixie Highway BRT service to support access to jobs and education, and support economic redevelopment along Dixie Highway.	2020	MEDIUM	
Outer Loop Circulator		The Outer Loop Circulator trips will complement and enhance the existing level of service and ridership on the connecting routes: Route 4 - 150 weekday trips, 3,500 average weekday boardings, 85,000 total monthly boardings; Route 6 - 61 weekday trips, 1,700 average weekday boardings, 40,000 total monthly boardings; Route 18 - 146 weekday trips, 7,000 average weekday boardings, 180,000 total monthly boardings; Route 45X - 10 weekday trips, 75 average weekday boardings, 2,000 total monthly boardings. Funding for service begins FY 2020.	Jefferson	TARC	\$1,389,000
2667		TARC will implement an Outer Loop circulator route to add an estimated 8 peak morning and 8 peak afternoon weekday trips along the corridor from Iroquois Park to Renaissance Business Center and Commerce Crossings via National Turnpike, Outer Loop, and Preston Highway. This new service will add connections to high frequency routes 4 and 18, local route 6, and express route 45X. TARC will work closely with area businesses to address their specific needs, shifts, and hours of operations.	2022	LOW	

INVESTMENTS

PROJECT NAME		DESCRIPTION	COUNTY	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK	
PARC and Ride		Construct and operate Park & Ride lots that would tie directly into Express or Limited Stop transit service on interstates and highways. These lots would serve as route transfer points and bus layover locations as needed.	Jefferson	TARC	
455		To improve mobility options through the implementation of alternate travel modes and improvement to existing alternate travel modes by increasing the number of ways that people can access express transit service. To reduce the demand placed on roadways and interstates by single occupant vehicles by moving commuter and functional trips to transit by improving the ways that people can access express transit service. To improve traffic flow on roadways and interstates by moving single occupant vehicle trips to transit and thus increase the people-carrying capacity of the roadway. To improve air quality by lowering the emissions per person by shifting people in single occupant vehicles to transit vehicles by increasing the number of passengers accessing service at Park & Ride lots.	2025	LOW	\$11,960,000
Riverport Circulator - Access to Jobs in Southwest Louisville		The Riverport Circulator Project will expand public transportation service in the Riverport employment center, and connect homes to jobs in the Southwest Metro Area, adding connections to arterial routes 19 and 63, crosstown route 29, express route 50X, local route 18-Dixie-Preston Hwy, and the proposed BRT service on Dixie Highway. Funding for service begins in FY 2018.	Jefferson	TARC	
2463	03717.00	The TARC Riverport Circulator project will significantly improve transit connectivity and increase people-moving capacity to this employment center. Trips made by bus to the southwest neighborhoods and Riverport businesses will be more convenient and attractive for all users, especially commuters, which will increase ridership while reducing vehicle miles traveled, saving energy and improving the air quality/reducing greenhouse gas emissions.	2020	MEDIUM	\$3,180,000
TARC Cross River Connectors		Implementation of 2 routes to improve cross river mobility over the Kennedy/Lincoln bridges and the Lewis and Clark Bridge to provide access to jobs between Louisville Metro and River Ridge Commerce Center in Southern Indiana. Funding for service begins in FY 2019.	Clark, Jefferson	TARC	
2408	1801625	To provide transit service to major destination points from western Louisville to River Ridge Commerce Center and from eastern Jefferson County to River Ridge Commerce Center.	2020	MEDIUM	\$3,000,000

PROJECT NAME		DESCRIPTION	COUNTY	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK	
TARC High Capacity Corridors		Provide increased frequency TARC service along two high capacity corridors: Broadway-Bardstown Road Corridor and the Dixie Highway-Preston Highway Corridor, increasing frequency from 15 minutes to 10 minutes.	Jefferson	TARC	\$3,774,000
1825		Dixie Highway-Preston Highway Corridor and Broadway-Bardstown Road Corridor serve as the major transportation corridors in Louisville. The two bus routes, Route 18 and Route 23 respectively, that serve these corridors have heavy passenger loads throughout the day and often experience overcrowding during peak periods. The purpose of the project is to provide additional bus service on these major routes.	2022	MEDIUM	
TARC Purchase Two (2) Extended Range Electric Buses		Purchase two (2) extended range full battery-electric transit buses, and two (2) depot chargers.	Jefferson	TARC	\$1,955,200
2668		TARC will replace two (2) diesel buses that are past their useful life. TARC's primary goal for the project is the replacement of high emission buses. TARC believes that zero-emission buses are the key to reducing maintenance costs and becoming more sustainable. A secondary goal is to compare the operating costs and characteristics of these extended range buses with TARC's existing fastcharge electric buses. A portion of the funds requested will provide one 50 kW depot charger for each bus. The depot chargers will be located in TARC's Union Station bus storage building, where charging will occur overnight.	2022	MEDIUM	
The Park and Ride at Apple Patch		Construction of a park and ride facility including a parking lot, shelter, playground, bike lockers, walkways, and a 1000' access road located on Apple Patch Way off of KY-329 near I-71 Exit 14 in Crestwood.	Oldham	Oldham Co.	\$2,357,299
1826	00468.10	A permanent parking facility will be built for Oldham County residents to use for parking their cars and bicycles while commuting to metro Jefferson County by TARC, carpool or vanpool. It will also provide a convenient alternative for one car families to drop off and pick-up commuters.	2020	LOW	

REGIONAL PROGRAMS

Figure 66: Regional Programs MTP Project Details

PROJECT NAME		DESCRIPTION	COUNTY	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK	
Bicycle & Pedestrian Education, Encouragement, Enforcement & Evaluation		Development of educational and awareness programs concerning bicycle and pedestrian issues. Provide education and training for cyclists, motorists, and city officials about laws governing cyclists' rights and responsibilities	Jefferson	Louisville Metro	\$1,950,000
337	00965.15	Bicycle and pedestrian projects may provide traffic congestion relief, improve air quality and provide safety for bicyclists and pedestrians. Project will increase awareness of bicycling and walking as an alternative to vehicle trips. This project is an essential component to meeting goals of increased biking and walking trips while decreasing related injuries and deaths.		MEDIUM	
Hazard Elimination Program for Existing Roads and Streets		The Indiana Local Technical Assistance Program (LTAP) Office under agreement with Indiana Department of Transportation (INDOT) operates a roadway safety assistance program titled Hazard Elimination Program for Existing Roads and Streets (HELPERS).	Clark, Floyd	INDOT	\$1,154,604
2660	1900554	The HELPERS program provides instruction to all local agencies on traffic safety best practices, provides advice regarding HSIP project eligibility requirements and maintains qualified listing of individuals trained to conduct Road Safety Audits. The HELPERS Program also provides crash data analysis support and advises rural roadway agencies with the goal of reducing the risk of fatal and serious injury crashes on local public roadways.	2020	MEDIUM	
Kentuckiana Air Education		Information/outreach campaign to educate public about air quality issues and encourage the public to make air-friendly choices.	Bullitt, Jefferson, Oldham	APCD	\$5,492,000
369		Reduce ozone levels in Louisville ozone maintenance area. Raise public awareness of connections between transportation and air quality and influence positive behavior.		LOW	
Kentuckiana Air Education		Kentuckiana Air Education (KAIRE): Air pollution prevention and awareness program.	Clark, Floyd	APCD	\$3,793,500
370	1600642	KAIRE works to encourage voluntary air quality changes through community involvement. The goal is to decrease the area's levels of ground-level ozone and fine particulates.		LOW	

PROJECT NAME		DESCRIPTION	COUNTY	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK	
KIPDA Regional Rideshare Program - Indiana		The KIPDA Regional Rideshare program provides ride-matching services, employer-based and regional ridesharing, vanpool subscription services, promotional activities to support ride-sharing, which includes carpooling, vanpooling, and bikepooling. This also includes program evaluation and administration.	Clark, Floyd	KIPDA	\$3,492,500
56	1401656	To reduce congestion, improve air quality, and promote sustainability.		HIGH	
KIPDA Regional Rideshare Program - Kentucky		The KIPDA Regional Rideshare Program provides ride-matching services, employer-based and regional ridesharing, vanpool subscription services, promotional activities to support ride-sharing, which includes carpooling, vanpooling, taking transit, walking, telecommuting, and bikepooling. This also includes program evaluation and administration.	Bullitt, Jefferson, Oldham	KIPDA	\$51,043,475
162	00384.00	To reduce congestion, improve air quality, and promote sustainability.		HIGH	
On-board Intelligent Transportation Systems		Replacement and expansion of Automatic Vehicle Location (AVL), on-board passenger information including next stop announcement, mobile surveillance and other Intelligent Transportation System (ITS) technologies.	Bullitt, Jefferson, Oldham	TARC	\$13,075,000
2787		Continual improvement of reliability, safety, and convenience of service for transit customers.	2040	LOW	

PROJECT NAME		DESCRIPTION	COUNTY	SPONSOR	PROJECT COST
KIPDA ID	STATE ID	PURPOSE & NEED	ESTIMATED COMPLETION	PERF. RANK	
Regional Connector		KYTC Highway Plan (June, 2018): Study new connection between I-65 in Bullitt County to I-64 in Shelby County to I-71 in Oldham County.	Bullitt, Oldham, Shelby	KYTC	\$2,000,000
2609	00564.00	The purpose of the 65-71 Regional Connector project is to: 1. Improve regional connectivity and mobility. 2. Improve accessibility to and within growing counties and communities. 3. Reduce congestion on existing routes by improving traffic flow on and between major arterials and interstates 4. Provide opportunities for economic development and support land use, development, and growth objectives.	2020	FURTHER REVIEW	
Section 5310 Program		TARC is the designated recipient of federal Section 5310 grant funds for the Louisville Urbanized Area (UZA). TARC distributes these funds to private nonprofit groups that are meeting the transportation needs of older adults and people with disabilities when normal transportation service is unavailable, insufficient, or inappropriate to meeting these needs.	Bullitt, Jefferson, Oldham	TARC	\$8,468,000
2291		Transit improvements for seniors and individuals with disabilities.		LOW	
TARC Fleet Replacement & Expansion		Annual replacement of fixed route and paratransit vehicles that have reached the end of their useful life with clean diesel, hybrid electric, full battery electric or other vehicles.	Bullitt, Clark, Floyd, Jefferson, Oldham	TARC	\$325,408,080
1315		Maintenance of the average age of TARC's fleet to maximize cost-effectiveness given the total cost of ownership and TARC useful life benchmarks.	2040	HIGH	
Urbanized Area Capital Funding for Transit		Annual federal formula funding allocations to TARC that provide revenue for vehicle maintenance, contracted service, facility rehabilitation, equipment, and for replacement of vehicles.	Bullitt, Clark, Floyd, Jefferson, Oldham	TARC	\$461,181,245
585		To improve mobility options by creating greater efficiency in transit service delivery by improving transit vehicles, equipment, and facilities.		HIGH	

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05

PERFORMANCE PLANNING & IMPACTS

IN THIS CHAPTER

Performance Measures and Targets

Environmental Justice Impact Review

Congestion Management Process Impact Review

ITS Architecture Review

Air Quality Analysis & Conformity

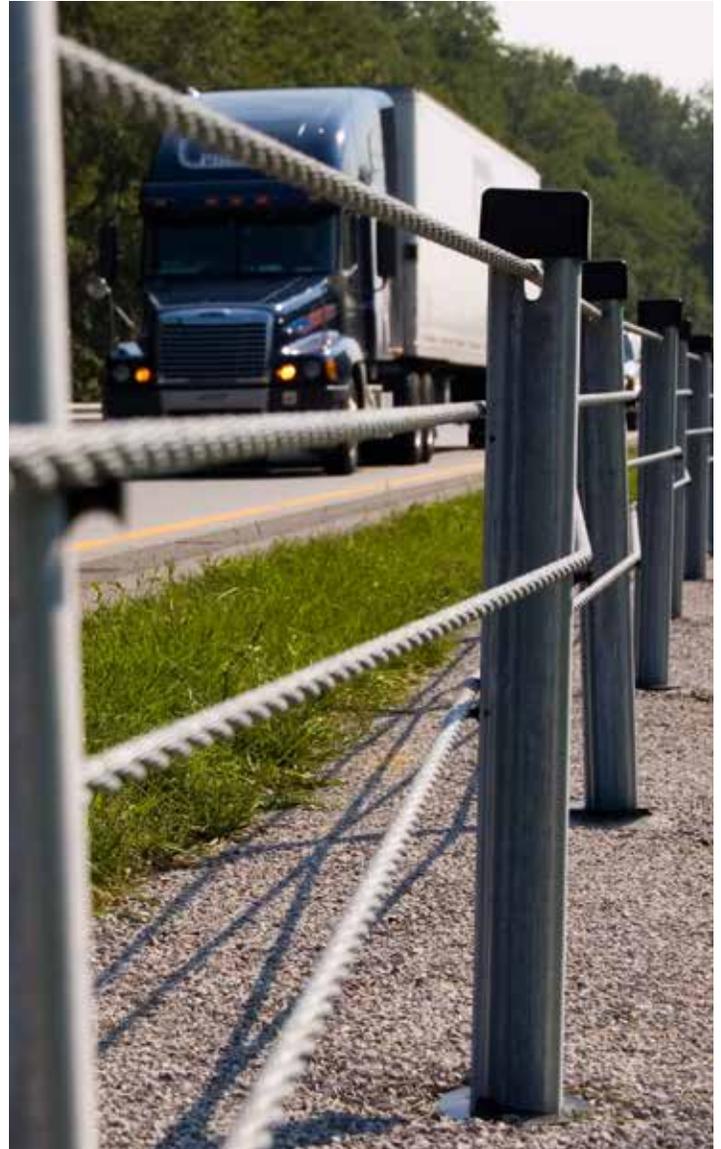
PERFORMANCE MEASURES & TARGETS

Performance-based planning is a strategic approach using data to support investment decisions that help to achieve performance goals. Performance-based programming refers to the application of performance management within the project selection process.

KIPDA's transportation planning process utilizes both the performance-based planning and programming approach. As outlined in KIPDA's [Performance Management Plan](#) (PMP), the MPO utilizes the framework established by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) by incorporating the National Performance Measures and Planning Factors into the KIPDA planning process. Federal legislation emphasizes performance-based transportation planning and requires states and MPOs to incorporate performance measures, objectives, and targets into their planning and programming processes.

The project development process for the MTP utilized data to identify areas where investments should be prioritized. KIPDA designed the process to connect a consistent set of data resources and performance measures to the evaluation and prioritization of projects in *Connecting Kentuckiana 2040*. Every project was tested against possible impacts derived from the performance measures, which carried into the project rankings. The rankings recognize anticipated impacts of the proposed projects at a planning level to help better understand how the MTP may support performance-based planning. As a project advances, and more information becomes known, greater expectations as to its impact may be realized.

This chapter examines the anticipated impacts of projects included in *Connecting Kentuckiana 2040* on the Goals, Objectives, and Performance Measures defined by the Transportation Policy Committee, as well as the National Performance Measures identified by the FHWA and the FTA.¹ Each section outlines the potential impact on performance measures with a list of projects and a corresponding map showing impact versus non-impact (more transparent) data sources.



¹ Group projects listed as line items in the Transportation Improvement Program (TIP) are not included in the anticipated impacts detailed in this chapter. All completed transportation projects will be assessed in KIPDA's Performance Management Plan bi-annual report.

SAFETY

Based on the evaluation of projects for *Connecting Kentuckiana 2040*, the following projects may contribute to meeting the targets in the Safety performance measures.¹

The exact effect of projects on reducing the number of fatalities, serious injuries, and crash rate cannot be determined in advance, but benefits can be generally anticipated from projects located within known high crash locations.

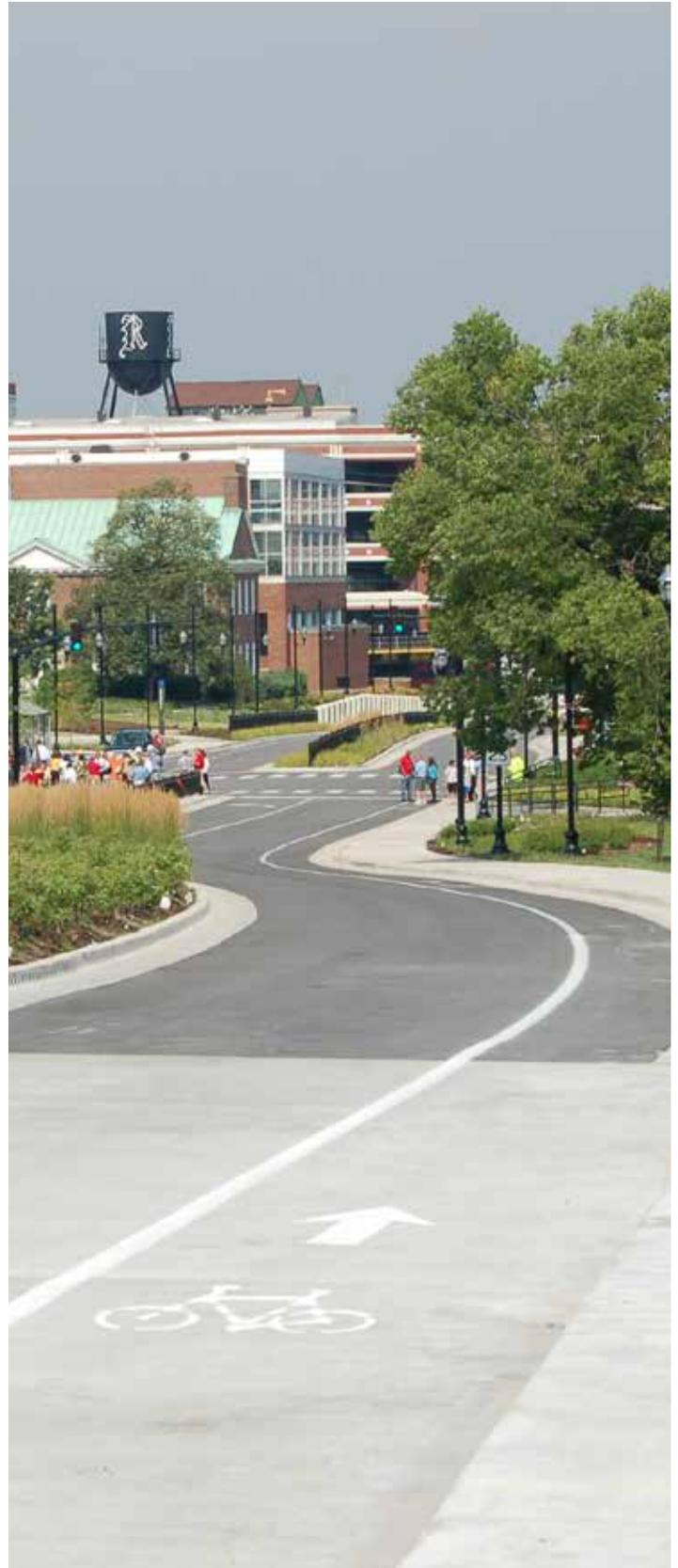
The projects below are anticipated to reduce crashes and/or crash severity at vehicular crash locations on roadway segments, intersections, interchanges, and interstate segments identified in the [Connecting Kentuckiana 2040 Crash Analysis](#).

These projects are recognized for potentially reducing crashes and/or crash severity at locations in Focus Areas or Safety and Congestion Areas of Concern in the evaluation process for prioritizing projects for the Plan.²

PERFORMANCE MEASURE

CRASH RATE

- Reduce the rate of crashes per 100 million vehicle miles traveled



¹ Bicycle and pedestrian safety performance measures are addressed in the Bicycle and Pedestrian section.

² Focus Areas are an analysis tool created by KIPDA staff showing geographic areas where high levels of congestion and high crash locations are in proximity relative to one another. More information is available at the [KIPDA Online Resource Center](#).

PERFORMANCE PLANNING & IMPACTS

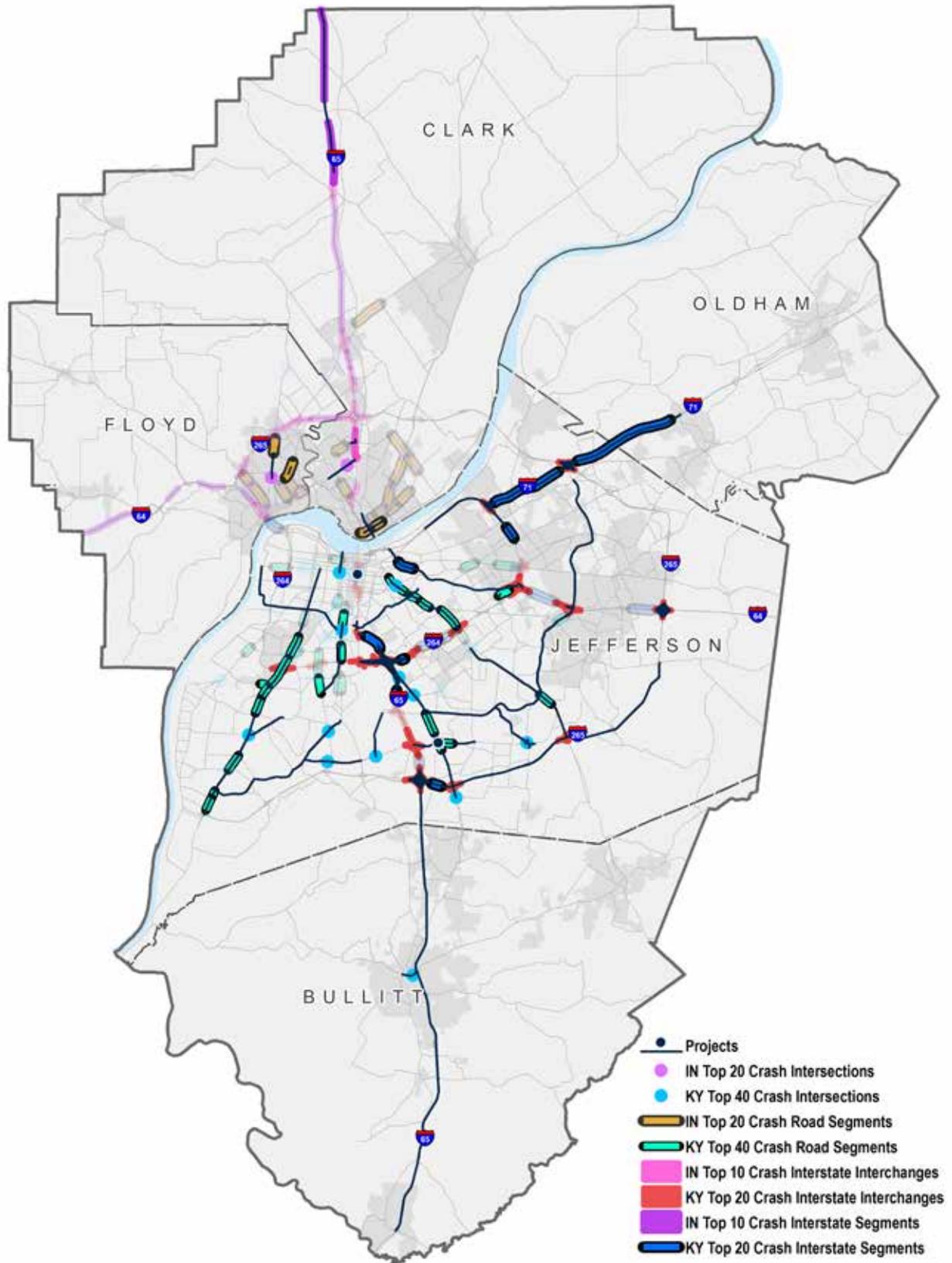
KIPDA ID	PROJECT NAME	High Crash Intersection	High Crash Roadway Segment	High Crash Interchange	High Crash Interstate Segment
2767	Bardstown Road Safety Study Implementation - Northern Phase	•	•		
2740	Bardstown Road Safety Study Implementation - Southern Phase	•	•		
2390	Charlestown Rd. (from Hedden Ct. to Genung Dr.)		•		
2759	Court Avenue Streetscape Improvements		•		
2232	Dixie TIGER project	•	•		
1915	Dutchmans Lane/Pkwy & Breckenridge Lane Intersection improvements		•		
289	Grade Lane	•			
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)	•			
1922	I-264			•	•
179	I-265			•	•
407	I-265			•	•
959	I-265			•	
389	I-64			•	•
397	I-64			•	
2616	I-65				•
2121	I-65/I-264 Interchange			•	
2601	I-65/I-265			•	
1480	I-71			•	
2152	I-71			•	•
2382	I-71			•	•
2602	I-71			•	
2611	I-71			•	•
2784	I-71/I-264			•	
436	KY 1065	•	•		
453	KY 1065	•			
2782	KY 1065	•			
435	KY 1065 from Third Street to National Turnpike	•			
386	KY 1747	•			
2607	KY 1747	•	•		
2766	KY 1747 (Fern Valley Rd/Hurstbourne Pkwy) Complete Street	•			
2214	KY 1931	•			
2114	KY 2050			•	
497	KY 44	•	•		
2780	KY 61	•			
357	KY 864	•			
465	KY 907	•			
481	KY 907	•			
2752	Lewis and Clark Road Diet	•			

continued on next page

KIPDA ID	PROJECT NAME	High Crash Intersection	High Crash Roadway Segment	High Crash Interchange	High Crash Interstate Segment
1936	Old Henry Road Extension			•	
2142	Olmsted Parkways Bicycle/Pedestrian Improvements - Eastern Parkway Rehabilitation	•			
1273	Olmsted Parkways Multi-Use Path System	•			
365	Outer Loop, Fegenbush Lane, and Beulah Church Intersection	•			
181	Reconstruct Existing Interchange from Northbound KY-1747 to I-64 Westbound			•	
2733	Reimagine 9th Street	•			
264	S. Brook Street	•			
2754	Spring Street Revitalization and Enhancement	•			
1799	University Corridor Fourth Street Intersection Improvements	•	•		
2779	US 31W		•		
1354	US-150 Premium Transportation Corridor - Section 2	•			
2738	Veteran's Parkway & I-65 North			•	
491	Widen I-65 from KY-61 to I-265			•	

Figure 67: Impacts on High Crash Locations

Source: KIPDA, 2019



TRANSIT

Transit performance measures monitor service quality and access, as well as transit facility maintenance. One goal of *Connecting Kentuckiana 2040* is to increase the availability and efficiency of person based multi-modal options, and the transit network is a major component of people's ability to move around the region. The measures come from both FTA regulations and measures adopted by KIPDA's TPC.

RIDERSHIP

Convenient, reliable, and comfortable transit service and infrastructure improves the perception of transit and increases the likelihood that people will choose to ride a bus rather than drive their own vehicle. Effort has been made in the project evaluation process to recognize transit service and facility improvements as contributions that assist riders accessing transit options. MTP projects identified as transit,

bicycle/pedestrian, or roadway projects that proposed adding transit service or a passenger facility (pedestrian, dedicated bicycle, or bus stop amenities) on an existing TARC bus route are anticipated to increase transit ridership.

PERFORMANCE MEASURE RIDERSHIP

- Increase the number of boardings on TARC buses



PERFORMANCE PLANNING & IMPACTS

KIPDA ID	PROJECT NAME
1965	12th Street Extension
1662	A.B. Sawyer Shared Use Path
2781	Applegate Lane Improvements
249	Arnoldtown Road
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1
2187	Blackiston Mill Road Phase I
2084	Bluegrass Commerce Park Bicycle/Pedestrian Trail Project Phase 2
2751	Broadway Complete Street
1808	Buckner Connector
2745	Byron Dr to Lombardy Dr Connection
1945	Cardinal Boulevard Extension
2737	Cedar St Extension
2759	Court Avenue Streetscape Improvements
188	CR 1006C/English Station Road
2773	Dixie Bus Rapid Transit
2232	Dixie TIGER project
1915	Dutchmans Lane/Pkwy & Breckenridge Lane intersection improvements
274	East Pages Lane
276	Ellingsworth Lane
281	Fairground Road
1330	Ferndale Road
2774	Galene Drive/Sprowl Road Collector Extension
289	Grade Lane
2770	Grant Line Rd. (Hausfeldt Ln. to Security Parkway)
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)
384	Hubbards Lane
1111	JCTC Downtown Campus Pedestrian and Bicyclist Improvements
2755	Jeff Boat Rail Spur Multi-Use Trail
256	KY 1065
436	KY 1065
2782	KY 1065
435	KY 1065 from Third Street to National Turnpike
484	KY 1447
154	KY 1450
443	KY 146
1372	KY 155
359	KY 1747
386	KY 1747

KIPDA ID	PROJECT NAME
2607	KY 1747
233	KY 1819
257	KY 1819
446	KY 1931
2147	KY 1931
2214	KY 1931
128	KY 1931\Greenwood Road
2016	KY 1932
2014	KY 2049
2114	KY 2050
1396	KY 2053
961	KY 2845
417	KY 44
497	KY 44
418	KY 53
2780	KY 61
357	KY 864
465	KY 907
481	KY 907
2766	KY1747 (Fern Valley Rd/Hurstbourne Pkwy) Complete Street
1357	KY-61 Premium Transportation Corridor Project
1634	Lagrange Road Bicycle & Pedestrian Improvements
1791	Lagrange Road Pedestrian Facilities Project
321	LaGrange Underpass West of LaGrange
1856	Louisville Loop Northeast Shared-Use Path System
2771	Louisville Loop Ohio River Levee Shared-Use Path System
1423	Louisville Loop Ohio River Valley Northeast Shared-Use Path System
2234	Louisville Loop Riverwalk Shared-Use Path System
1857	Louisville Loop Southern Shared-Use Path System
2388	Main Street & Story Avenue
309	Mount Tabor Road
449	Mud Lane
2769	New Cut Road Complete Street
2070	Northwest Mt. Washington Connector
327	Oldham County Bicycle & Pedestrian Trail
2142	Olmsted Parkways Bicycle/Pedestrian Improvements - Eastern Parkway Rehabilitation
1273	Olmsted Parkways Multi-Use Path System

continued on next page

KIPDA ID	PROJECT NAME
2667	Outer Loop Circulator
365	Outer Loop, Fegenbush Lane, and Beulah Church Intersection
455	PARC and Ride
1864	Park Hill Streetscape Improvements
2741	Progress Way Reconstruction
2153	Rangeland Road
2763	Reeds Lane Extension
2733	Reimagine 9th Street
2735	River Falls Mall: Ring Road Extension
2463	Riverport Circulator - Access to Jobs in Southwest Louisville
1425	South Louisville Loop Connector
2756	Spring St - Eastern Blvd Intersection
2757	Spring St Eastern to Dutch
2754	Spring Street Revitalization and Enhancement
2408	TARC Cross River Connectors
1825	TARC High Capacity Corridors
1826	The Park and Ride at Apple Patch
2753	Three Forks of Beargrass Creek Greenways
472	Tucker Station Road
1799	University Corridor Fourth Street Intersection Improvements
474	Urton Lane
273	US 31W
2779	US 31W
230	US 42
476	US 42
479	US 60
480	US 60
2610	US 60
1352	US 60 Premium Transportation Corridor Project - Section 1
1362	US 60 Premium Transportation Corridor Project - Section 2
1354	US-150 Premium Transportation Corridor - Section 2
1359	US-31 W Sidewalk and Pedestrian Improvements
1863	West Kentucky Street Project

AGE OF FLEET

The age of the transit fleet has a direct effect on the quality of service provided by a transit agency. Older vehicles are more likely to have maintenance issues, leading to delays or safety incidents.

The performance measures use the useful life benchmark (ULB) as the number of years a vehicle is expected to be in service. TARC has elected to use FTA's default ULB (14 years for buses and 8 years for non-revenue automobiles) in their Transit Asset Management Plan, which is incorporated into the MPO's process with these performance measures.

The following projects include plans to purchase new transit buses or auxiliary vehicles for transit operations, thereby reducing the percentage of transit vehicles in TARC's fleet that exceed the ULB.

PERFORMANCE MEASURE

- Reduce the percentage of non-revenue vehicles exceeding the useful life benchmark (ULB)
- Reduce the percentage of revenue vehicle exceeding the useful life benchmark (ULB)

KIPDA ID	PROJECT NAME
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1
2751	Broadway Complete Street
162	KIPDA Regional Rideshare Program
56	KIPDA Regional Rideshare Program
1357	KY-61 Premium Transportation Corridor Project
2291	Section 5310 Program
1315	TARC Fleet Replacement & Expansion
2668	TARC Purchase Two Extended Range Electric Buses
585	Urbanized Area Capital Funding for Transit
1352	US 60 Premium Transportation Corridor Project - Section 1
1362	US 60 Premium Transportation Corridor Project - Section 2
1354	US-150 Premium Transportation Corridor - Section 2

TRANSIT ACCESS TO SCHOOLS & CLUSTERS

The MPO performance measures for increasing transit service in areas with many community facilities, medical facilities, shopping locations, or schools encourage transit service to be implemented near activity centers that can draw increased ridership. Using Geographic Information Systems (GIS) analysis, KIPDA determined density clusters of land uses and facilities in proximity to each other. The clustering of this data provided a valuable resource for relating where transit trips might be most needed to anticipated transit service improvements.

For the project evaluations, transit access was defined as increased transit service on new or existing routes. The following projects may impact these performance measures because the location of the planned transit service falls within a cluster or near a school. The corresponding map indicates which clusters may see increased transit access.

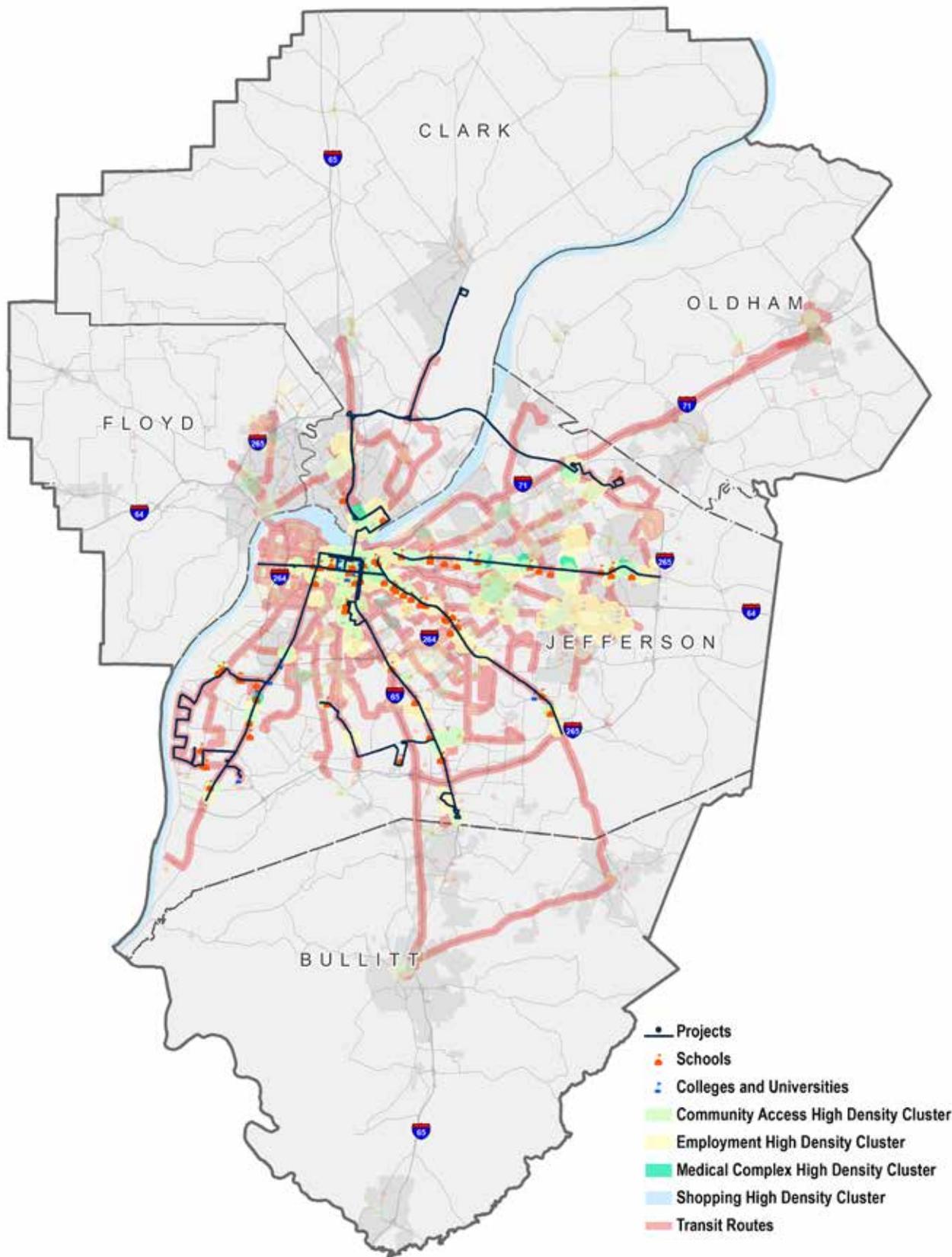
PERFORMANCE MEASURE

- Increase number of Community Access Clusters served by transit
- Increase number of High Density Medical Clusters served by transit
- Increase number of High Density Shopping Clusters served by transit
- Enhance transit access to schools

KIPDA ID	PROJECT NAME	Community Access Clusters	High Density Employment Clusters	High Density Medical Clusters	High Density Shopping Clusters	Schools
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1	•	•		•	•
2751	Broadway Complete Street	•	•	•	•	•
2773	Dixie Bus Rapid Transit	•	•	•	•	•
1357	KY-61 Premium Transportation Corridor Project	•	•		•	•
2667	Outer Loop Circulator	•	•		•	•
2463	Riverport Circulator - Access to Jobs in Southwest Louisville	•				•
2408	TARC Cross River Connectors	•	•	•	•	•
1825	TARC High Capacity Corridors	•	•	•	•	•
1352	US 60 Premium Transportation Corridor Project - Section 1	•	•	•	•	•
1362	US 60 Premium Transportation Corridor Project - Section 2	•	•	•	•	•
1354	US-150 Premium Transportation Corridor - Section 2	•	•			•

Figure 69: Impacts on Transit Access to Schools & Clusters

Source: KIPDA, 2019



HEADWAY TIME

Headway time is the time between buses arriving at a specific location. For examples, a bus arriving every 20 minutes at a bus stop would be a headway of 20 minutes.

This performance measure utilizes TARC’s designated Title VI routes to focus transit service improvements in vulnerable communities who may be more reliant on fast and convenient transit service. TARC designates Title VI routes as those with the majority of route distance traveling through Title VI areas, according to their analysis and policy.

The *Connecting Kentuckiana 2040* evaluation process considered increased transit service on new or existing routes on defined TARC Title VI route corridors as an impact for this criterion. Increased service is anticipated to reduce the average headway time for passengers on these routes.

PERFORMANCE MEASURE

- Reduce average headway time on TARC’s defined Title VI routes

KIPDA ID	PROJECT NAME
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1
2751	Broadway Complete Street
1357	KY-61 Premium Transportation Corridor Project
2463	Riverport Circulator - Access to Jobs in Southwest Louisville
1825	TARC High Capacity Corridors
1354	US-150 Premium Transportation Corridor - Section 2

PARK & RIDE LOTS

Park and ride lots enhance access to alternative commuting options instead of driving alone. These spaces are utilized by people who may drive to a transit line or walk or bike to a bus stop. Vanpools, carpools, and other ridesharing options also use park and ride lots, as these lots typically provide safer parking options and enhanced passenger seating and shelter. The project evaluation process captures the possible impacts to usage and access to TARC’s park and ride lots in two ways.

Usage, measured by the number of occupied lot spaces, is anticipated to increase with projects adding transit service to new/existing lots, building new park and ride lots, or improving existing park and ride lot amenities.

Dedicated bicycle or pedestrian access to park and ride lots is defined as separated bicycle lanes, sidewalks, or multi-use paths that connect to or are within ¼ mile of a park and ride lot.

The list of projects and map on the following pages show the projects that may increase the usage, pedestrian access, or dedicated bicycle access to park and ride lots in the region.

From the following list of proposed projects, the number of Park and Ride lots with pedestrian access may increase from 32 to 34 and the number of Park and Ride lots with dedicated bicycle access may increase from 5 to 20.

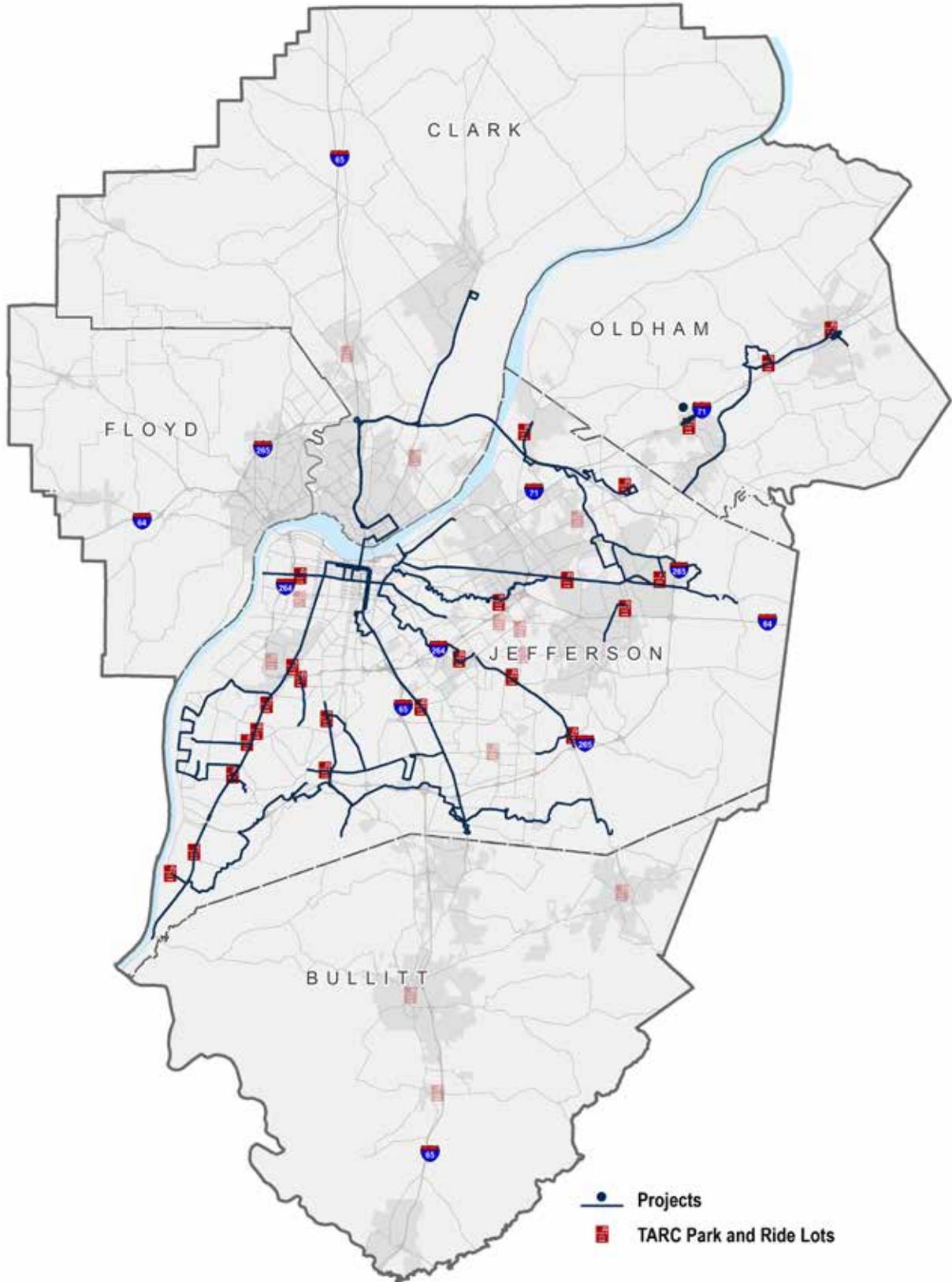
PERFORMANCE MEASURE

- Increase the number of Park and Ride lot spaces occupied during peak hours
- Increase the number of Park and Ride lot with pedestrian access
- Increase the number of Park and Ride lot with dedicated bicycle access

KIPDA ID	PROJECT NAME	Transit Access	Pedestrian Access	Dedicated Bicycle Access
2751	Broadway Complete Street	•		•
1808	Buckner Connector		•	•
188	CR 1006C/English Station Road		•	•
2773	Dixie Bus Rapid Transit	•		
2612	I-71		•	•
2024	I-71/KY 53 Interchange		•	•
256	KY 1065			•
2782	KY 1065		•	•
435	KY 1065 from Third Street to National Turnpike		•	•
233	KY 1819		•	•
446	KY 1931		•	•
128	KY 1931\Greenwood Road		•	•
418	KY 53			•
1357	KY-61 Premium Transportation Corridor Project	•	•	•
1856	Louisville Loop Northeast Shared-Use Path System		•	•
1857	Louisville Loop Southern Shared-Use Path System			•
2769	New Cut Road Complete Street		•	•
327	Oldham County Bicycle & Pedestrian Trail		•	•
2667	Outer Loop Circulator	•		
455	PARC and Ride	•		
2463	Riverport Circulator - Access to Jobs in Southwest Louisville	•		
2408	TARC Cross River Connectors	•		
1825	TARC High Capacity Corridors	•		
1826	The Park and Ride at Apple Patch		•	
2753	Three Forks of Beargrass Creek Greenways			•
273	US 31W		•	•
2779	US 31W		•	•
230	US 42		•	•
480	US 60		•	•
2610	US 60		•	•
1352	US 60 Premium Transportation Corridor Project - Section 1	•	•	•
1362	US 60 Premium Transportation Corridor Project - Section 2	•	•	•
1354	US-150 Premium Transportation Corridor - Section 2	•	•	•
1359	US-31 W Sidewalk and Pedestrian Improvements		•	

Figure 70: Impacts on Park & Ride Lots

Source: KIPDA, 2019



NON-MOTORIZED

Non-motorized access and trips play an important role when enhancing multi-modal connectivity. Non-motorized bicycle and pedestrian performance measures focus on increasing safety and system continuity for people who utilize bicycle and pedestrian facilities. The measures were created by the MPO and originate from the Goals and Objectives adopted by the TPC for *Connecting Kentuckiana 2040*.

BICYCLE & PEDESTRIAN SAFETY

Like projects in the Safety Performance Measure section, the project evaluation process for *Connecting Kentuckiana 2040* recognized projects introducing bicycle and/or pedestrian improvements at crash locations that involved a bicyclist or pedestrian with a motor vehicle, as identified in the [Connecting Kentuckiana 2040 Crash Analysis](#).

The projects listed are anticipated to reduce crashes and or crash severity involving bicyclists or pedestrians due to the location of crashes within the project limits or through outreach and education on bicycle and pedestrian safety.

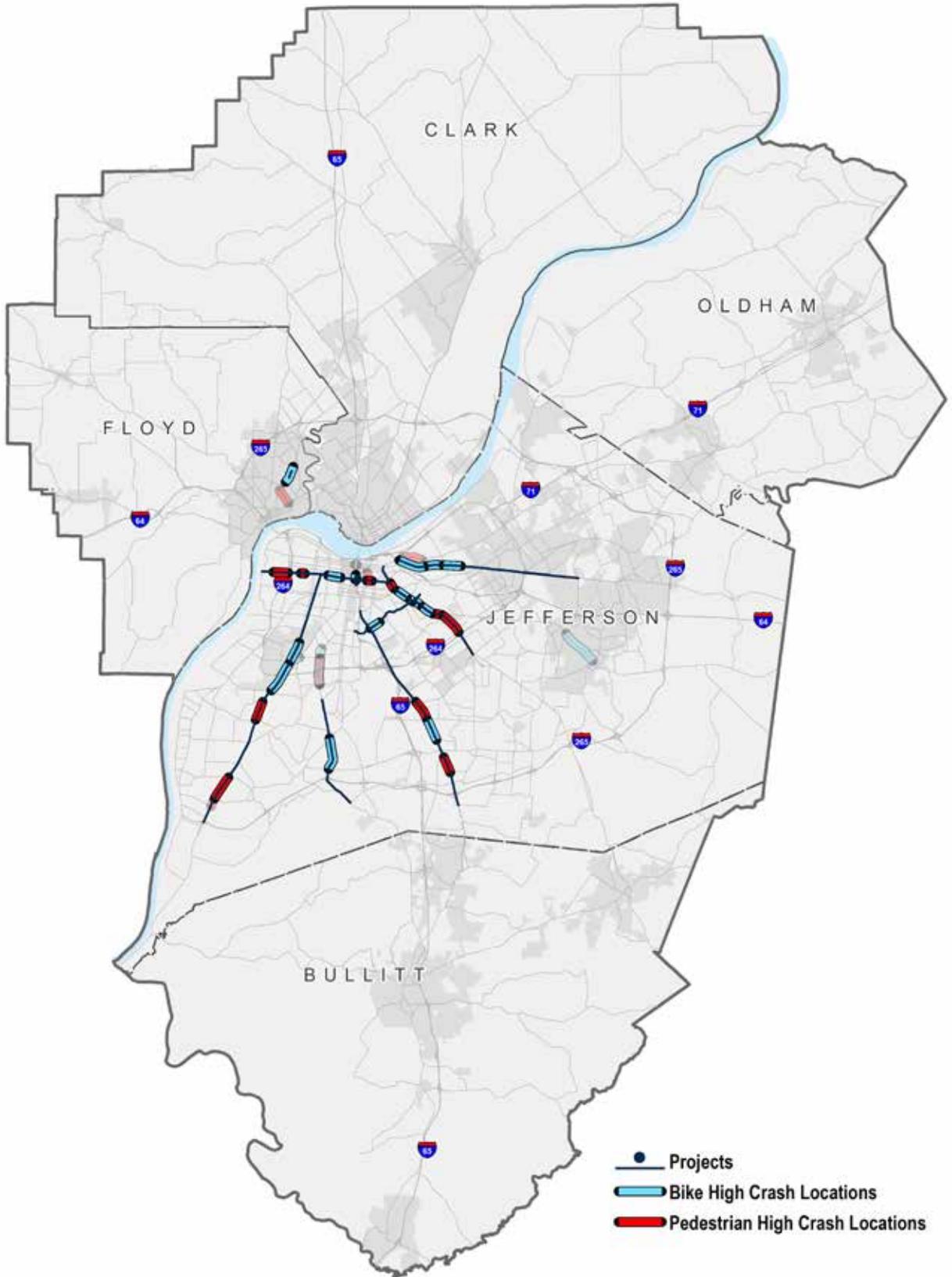
PERFORMANCE MEASURE

- Reduce number of crashes involving pedestrians
- Reduce number of crashes involving bicyclists

KIPDA ID	PROJECT NAME	Pedestrian Crashes	Bicyclist Crashes
2767	Bardstown Road Safety Study Implementation - Northern Phase	•	•
2740	Bardstown Road Safety Study Implementation - Southern Phase	•	•
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1	•	•
337	Bicycle & Pedestrian Education, Encouragement, Enforcement & Evaluation	•	•
2751	Broadway Complete Street	•	•
2390	Charlestown Rd. (from Hedden Ct. to Genung Dr.)		•
2232	Dixie TIGER project	•	
1111	JCTC Downtown Campus Pedestrian and Bicyclist Improvements	•	•
2780	KY 61	•	•
1357	KY-61 Premium Transportation Corridor Project	•	•
2769	New Cut Road Complete Street		•
2142	Olmsted Parkways Bicycle/Pedestrian Improvements - Eastern Parkway Rehabilitation		•
1352	US 60 Premium Transportation Corridor Project - Section 1		•
1359	US-31 W Sidewalk and Pedestrian Improvements	•	

Figure 71: Impacts on Bicycle & Pedestrian High Crash Locations

Source: KIPDA, 2019



BICYCLE & PEDESTRIAN NETWORK

Network continuity is critical for encouraging people to walk or bike to their destinations. The evaluation process utilized KIPDA’s gap analysis that located areas where there is a gap of 1 mile or less between existing pedestrian or dedicated bicycle facilities. The intention is to prioritize filling the gaps in the network.

Any dedicated bicycle or pedestrian facility added in a network gap is anticipated to improve the overall network connectivity. From the list of projects below, the miles of gaps should reduce to 132 miles on the pedestrian network and 23 miles on the bicycle network.

PERFORMANCE MEASURE

- Reduce gaps in the existing pedestrian network
- Reduce gaps in the existing bicycle network

KIPDA ID	PROJECT NAME	Pedestrian Facility Gaps	Dedicated Bicycle Facility Gaps
1662	A.B. Sawyer Shared Use Path	•	
1320	Applegate Lane	•	
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1	•	•
2187	Blackiston Mill Road Phase I	•	
2389	Blackiston Mill Road Phase II	•	
2761	Blackiston Mill Road Phase III	•	
2084	Bluegrass Commerce Park Bicycle/Pedestrian Trail Project Phase 2	•	
2751	Broadway Complete Street		•
2390	Charlestown Rd. (from Hedden Ct. to Genung Dr.)	•	
2128	Charlestown Road Corridor Complete Streets	•	
2747	Clark Road Extension	•	
2759	Court Avenue Streetscape Improvements		•
188	CR 1006C/English Station Road	•	
2232	Dixie TIGER project	•	
1915	Dutchmans Lane/Pkwy & Breckenridge Lane intersection improvements	•	
2392	East Main St. (from State St. to E. 5th St.)		•
2064	East Market Street Streetscape Improvements		•
274	East Pages Lane	•	
277	English Station Road	•	
281	Fairground Road	•	
1330	Ferndale Road	•	
1323	Flat Rock Road	•	
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)	•	
2024	I-71/KY 53 Interchange	•	
1111	JCTC Downtown Campus Pedestrian and Bicyclist Improvements		•
2786	Jtown to Parklands Multi-use Bicycle/Pedestrian Trail	•	

PERFORMANCE PLANNING & IMPACTS

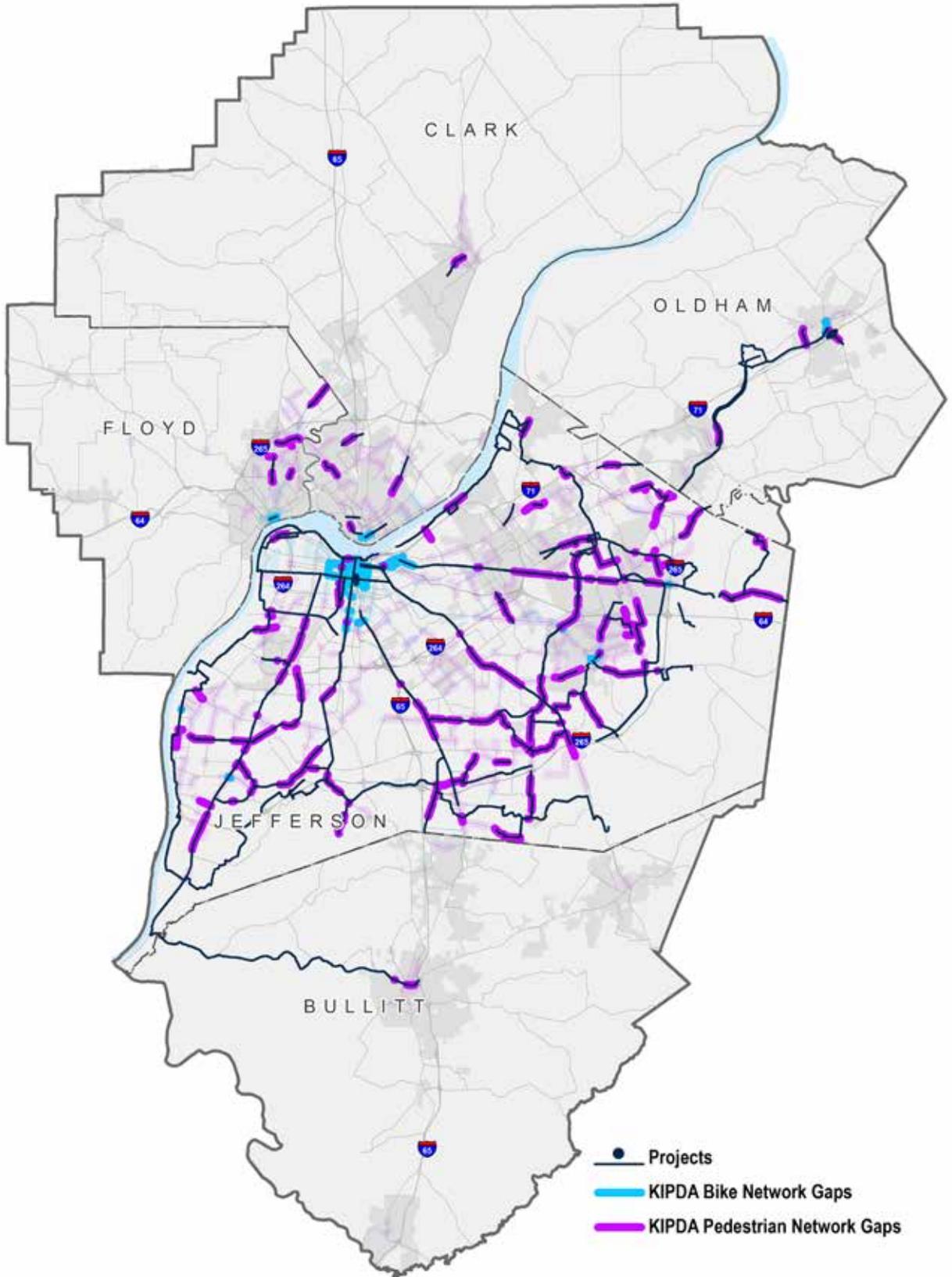
KIPDA ID	PROJECT NAME	Pedestrian Facility Gaps	Dedicated Bicycle Facility Gaps
256	KY 1065	•	
435	KY 1065 from Third Street to National Turnpike	•	
484	KY 1447	•	
154	KY 1450	•	
229	KY 1450	•	
428	KY 146	•	
443	KY 146	•	
1372	KY 155	•	
359	KY 1747	•	
386	KY 1747	•	
2607	KY 1747	•	
233	KY 1819	•	
257	KY 1819	•	
446	KY 1931	•	
2147	KY 1931	•	
2214	KY 1931	•	
128	KY 1931\Greenwood Road	•	
2016	KY 1932	•	
2014	KY 2049	•	
464	KY 2052	•	
1396	KY 2053	•	
412	KY 22	•	
1445	KY 22	•	
961	KY 2845	•	
494	KY 44	•	
497	KY 44	•	
418	KY 53	•	
2780	KY 61	•	
357	KY 864	•	
1879	KY 864	•	
269	KY 864 (Cedar Creek Road/Cooper Chapel Road)	•	
481	KY 907	•	
2766	KY1747 (Fern Valley Rd/Hurstbourne Pkwy) Complete Street	•	
1357	KY-61 Premium Transportation Corridor Project	•	
1634	Lagrange Road Bicycle & Pedestrian Improvements	•	
1791	Lagrange Road Pedestrian Facilities Project	•	
321	LaGrange Underpass West of LaGrange	•	
1856	Louisville Loop Northeast Shared-Use Path System	•	
2771	Louisville Loop Ohio River Levee Shared-Use Path System	•	
1423	Louisville Loop Ohio River Valley Northeast Shared-Use Path System	•	
2234	Louisville Loop Riverwalk Shared-Use Path System	•	•

continued on next page

KIPDA ID	PROJECT NAME	Pedestrian Facility Gaps	Dedicated Bicycle Facility Gaps
1857	Louisville Loop Southern Shared-Use Path System	•	
2388	Main Street & Story Avenue	•	
309	Mount Tabor Road	•	
2769	New Cut Road Complete Street	•	
1936	Old Henry Road Extension	•	
327	Oldham County Bicycle & Pedestrian Trail	•	•
1273	Olmsted Parkways Multi-Use Path System	•	
365	Outer Loop, Fegenbush Lane, and Beulah Church Intersection	•	
1864	Park Hill Streetscape Improvements	•	
2741	Progress Way Reconstruction	•	
2772	Reconstruction of South Clark Boulevard	•	
2733	Reimagine 9th Street		•
2540	River Road Multi-Modal Improvements - 3rd Street to 7th Street	•	
1425	South Louisville Loop Connector	•	•
2768	Stansifer Ave Improvements	•	
472	Tucker Station Road	•	
474	Urton Lane	•	
273	US 31W	•	
2779	US 31W	•	
230	US 42	•	
476	US 42	•	
479	US 60	•	
480	US 60	•	
2598	US 60	•	
2610	US 60	•	
2776	US 60	•	
1352	US 60 Premium Transportation Corridor Project - Section 1	•	•
1362	US 60 Premium Transportation Corridor Project - Section 2	•	
1354	US-150 Premium Transportation Corridor - Section 2	•	
1359	US-31 W Sidewalk and Pedestrian Improvements	•	
2081	Watterson Trail Bicycle/ Pedestrian Trail Project Phase 2	•	
1583	Watterson Trail Roadway and Pedestrian Streetscape Project Phase 2	•	
1324	Watterson Trail South	•	

Figure 72: Impacts on Bicycle & Pedestrian Facility Gaps

Source: KIPDA, 2019



BICYCLE & PEDESTRIAN ACCESS TO SCHOOLS & CLUSTERS

Improving bicycle and pedestrian facilities in an around high density land use clusters supports the expanded use of non-motorized transportation travel, improves multi-modal connectivity, and contributes to a safer transportation network. The MPO performance measures promote enhancing pedestrian and dedicated bicycle access to schools and high density clusters of community facilities, medical facilities, and shopping locations. Schools and high density cluster are major activity centers and continuous pedestrian and bicycle networks in these areas may encourage non-motorized travel with safer and more convenient facilities.

In the project evaluation process, any dedicated bicycle or pedestrian facility planned within $\frac{1}{4}$ mile of a school is anticipated to enhance multi-modal access to schools. Based on the following list of projects, the number of schools within $\frac{1}{4}$ mile of pedestrian facilities may increase from 288 to 307 and the number of schools with dedicated bicycle access may increase from 57 to 177.

Both improvements to existing bicycle or pedestrian facilities and building new facilities are expected to improve access to high density clusters.

PERFORMANCE MEASURE

- Enhance pedestrian and dedicated bicycle access to schools
- Enhance pedestrian access and dedicated bicycle facilities within Community Access Clusters
- Enhance pedestrian access and dedicated bicycle facilities within High Density Medical Clusters
- Enhance pedestrian access and dedicated bicycle facilities within High Density Shopping Clusters



PERFORMANCE PLANNING & IMPACTS

KIPDA ID	PROJECT NAME	Schools		Community Access Clusters		High Density Medical Clusters		High Density Shopping Clusters	
		Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access
1965	12th Street Extension	•	•	•	•				
1662	A.B. Sawyer Shared Use Path	•	•		•		•		•
2781	Applegate Lane Improvements			•	•			•	•
2767	Bardstown Road Safety Study Implementation - Northern Phase	•	•	•				•	
2740	Bardstown Road Safety Study Implementation - Southern Phase	•	•	•	•			•	•
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1	•	•	•	•		•	•	•
2187	Blackiston Mill Road Phase I			•				•	
2389	Blackiston Mill Road Phase II			•				•	
2761	Blackiston Mill Road Phase III			•				•	
2084	Bluegrass Commerce Park Bicycle/Pedestrian Trail Project Phase 2	•	•					•	•
2751	Broadway Complete Street	•	•	•	•	•	•	•	•
1808	Buckner Connector				•				
2745	Byron Dr to Lombardy Dr Connection	•							
1945	Cardinal Boulevard Extension	•	•	•	•				
2390	Charlestown Rd. (from Hedden Ct. to Genung Dr.)	•	•						
2128	Charlestown Road Corridor Complete Streets	•	•						
2747	Clark Road Extension	•							
2759	Court Avenue Streetscape Improvements	•	•	•	•		•	•	•
188	CR 1006C/English Station Road				•		•		•
2743	CSX Trail Bike/Ped Project	•	•	•	•			•	•
2232	Dixie TIGER project	•		•				•	
1915	Dutchmans Lane/Pkwy & Breckenridge Lane intersection improvements			•		•		•	
2392	East Main St. (from State St. to E. 5th St.)			•	•		•	•	•
2064	East Market Street Streetscape Improvements		•		•		•		•
277	English Station Road	•							

KIPDA ID	PROJECT NAME	Schools		Community Access Clusters		High Density Medical Clusters		High Density Shopping Clusters	
		Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access
281	Fairground Road	•							
1330	Ferndale Road	•		•					
2032	Floyd Central High School/Highland Hills Middle School Safe Routes to School Project	•	•						
286	Floyd Street		•		•		•		•
2774	Galene Drive/Sprowl Road Collector Extension	•	•	•	•			•	•
2082	Good Samaritan Bicycle and Pedestrian Trail Connector	•	•	•	•			•	•
2770	Grant Line Rd. (Hausfeldt Ln. to Security Parkway)	•	•				•		
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)				•		•		•
384	Hubbards Lane	•	•		•	•	•	•	•
2024	I-71/KY 53 Interchange				•	•	•		•
1111	JCTC Downtown Campus Pedestrian and Bicyclist Improvements	•	•	•	•	•	•	•	•
2755	Jeff Boat Rail Spur Multi-Use Trail	•	•		•				
2541	Jeffersonville 9th street/Clarksville Montgomery Ave Intermodal Connection			•	•	•	•		•
2786	Jtown to Parklands Multi-use Bicycle/Pedestrian Trail	•	•		•				•
2615	Kenwood Road	•		•					
1817	KY 1020	•	•		•				
256	KY 1065				•				
436	KY 1065	•	•	•	•			•	•
453	KY 1065	•	•	•	•			•	•
435	KY 1065 from Third Street to National Turnpike	•	•						
2778	KY 1408	•	•		•				
154	KY 1450	•		•				•	
229	KY 1450	•	•		•				
2758	KY 1450 Blue Lick Rd. Widening			•					
427	KY 146	•	•		•				
428	KY 146	•	•	•	•				
1372	KY 155	•	•		•				•

KIPDA ID	PROJECT NAME	Schools		Community Access Clusters		High Density Medical Clusters		High Density Shopping Clusters	
		Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access
1581	KY 155 (Taylorsville Road) Streetscape Project	•		•				•	
359	KY 1747			•	•	•	•	•	•
386	KY 1747	•	•		•				•
2607	KY 1747	•		•				•	
2384	KY 1747/US 60			•		•		•	
233	KY 1819				•				•
257	KY 1819	•	•		•				•
446	KY 1931				•	•	•		•
2147	KY 1931	•	•				•		
2214	KY 1931	•	•		•		•		•
128	KY 1931\Greenwood Road	•	•		•				•
213	KY 1932	•		•				•	
2016	KY 1932	•	•	•	•	•	•	•	•
2014	KY 2049	•	•	•	•		•	•	•
2114	KY 2050	•	•	•	•	•	•	•	•
1396	KY 2053			•	•			•	•
412	KY 22				•		•		•
414	KY 22	•	•		•				
1445	KY 22				•		•		•
1488	KY 22	•							
961	KY 2845				•				•
2777	KY 362	•	•						
147	KY 393	•	•	•	•				
417	KY 44	•		•				•	
494	KY 44	•	•	•	•				•
497	KY 44			•				•	
2613	KY 44	•	•	•					
418	KY 53				•	•	•		•
2780	KY 61	•	•	•	•			•	•
357	KY 864	•	•						
465	KY 907	•	•		•				
481	KY 907	•	•	•	•				
2766	KY1747 (Fern Valley Rd/Hurstbourne Pkwy) Complete Street	•	•	•	•	•	•	•	•

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KIPDA ID	PROJECT NAME	Schools		Community Access Clusters		High Density Medical Clusters		High Density Shopping Clusters	
		Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access
1357	KY-61 Premium Transportation Corridor Project	•	•	•	•		•	•	•
2744	L&I Railroad Intersections: Montgomery Ave and S Clark				•	•	•		•
1634	Lagrange Road Bicycle & Pedestrian Improvements	•	•	•	•		•		•
1791	Lagrange Road Pedestrian Facilities Project	•		•				•	
321	LaGrange Underpass West of LaGrange				•		•		•
2752	Lewis and Clark Road Diet			•				•	
1856	Louisville Loop Northeast Shared-Use Path System	•	•	•	•	•	•	•	•
2771	Louisville Loop Ohio River Levee Shared-Use Path System	•	•	•	•				
1423	Louisville Loop Ohio River Valley Northeast Shared-Use Path System	•	•	•	•		•		•
2234	Louisville Loop Riverwalk Shared-Use Path System	•	•	•	•		•	•	•
1857	Louisville Loop Southern Shared-Use Path System	•	•	•	•				•
2388	Main Street & Story Avenue	•		•					
2760	Market Street Revitalization Project	•		•				•	
2764	Marriott Drive Improvements				•	•	•		•
1823	McNeely Lake Park Road and Shared Use Path System	•	•						
309	Mount Tabor Road	•				•			
2769	New Cut Road Complete Street	•	•	•	•		•		
2762	Ohio River Greenway Extension				•		•		•
198	Old Henry Road				•				
327	Oldham County Bicycle & Pedestrian Trail	•	•	•	•	•	•	•	•
2142	Olmsted Parkways Bicycle/ Pedestrian Improvements - Eastern Parkway Rehabilitation	•	•		•		•		•
1273	Olmsted Parkways Multi-Use Path System	•	•	•	•		•		

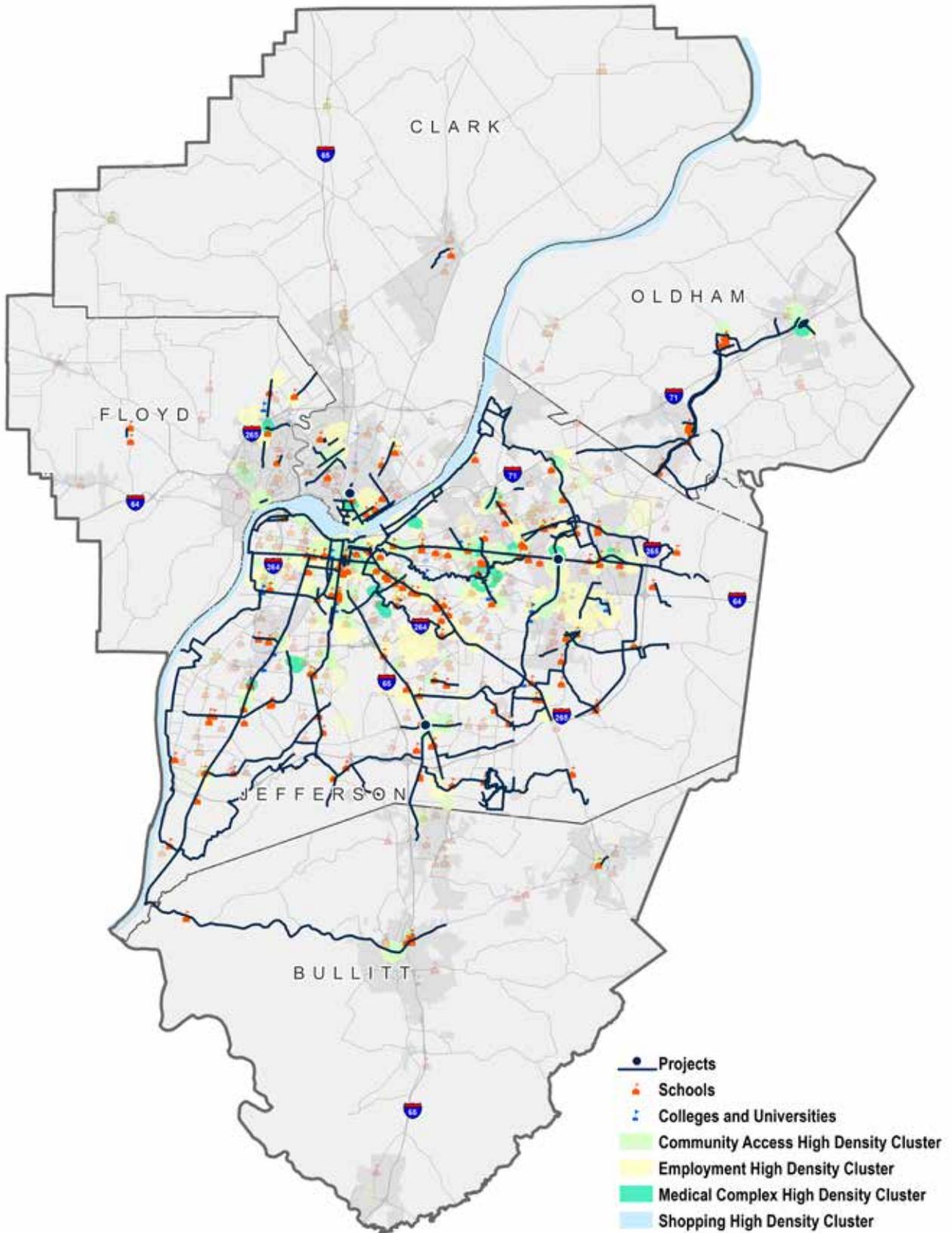
PERFORMANCE PLANNING & IMPACTS

KIPDA ID	PROJECT NAME	Schools		Community Access Clusters		High Density Medical Clusters		High Density Shopping Clusters	
		Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access
365	Outer Loop, Fegenbush Lane, and Beulah Church Intersection	•	•						
1864	Park Hill Streetscape Improvements	•		•				•	
2153	Rangeland Road		•		•				•
2772	Reconstruction of South Clark Boulevard				•		•		•
2733	Reimagine 9th Street	•	•	•	•		•	•	•
2735	River Falls Mall: Ring Road Extension				•				•
163	River Road	•	•	•	•		•		•
2540	River Road Multi-Modal Improvements - 3rd Street to 7th Street			•	•		•	•	•
2393	Riverside Drive				•		•		•
2749	Smyser Ave Relocation				•		•		•
1425	South Louisville Loop Connector	•	•	•	•		•		•
2756	Spring St - Eastern Blvd Intersection	•				•			
2757	Spring St Eastern to Dutch	•	•		•		•		•
2754	Spring Street Revitalization and Enhancement	•	•	•	•	•	•	•	•
2768	Stansifer Ave Improvements	•	•		•	•	•		•
2753	Three Forks of Beargrass Creek Greenways	•	•	•	•	•	•	•	•
1799	University Corridor Fourth Street Intersection Improvements	•	•	•	•				
474	Urton Lane	•	•		•		•		•
273	US 31W	•	•		•				
2779	US 31W	•	•		•				•
476	US 42			•	•	•	•	•	•
479	US 60	•	•	•	•		•	•	•
480	US 60	•	•	•	•	•	•	•	•
2610	US 60	•	•	•	•		•	•	•
1352	US 60 Premium Transportation Corridor Project - Section 1	•	•	•	•	•	•	•	•
1362	US 60 Premium Transportation Corridor Project - Section 2	•	•	•	•	•	•	•	•

KIPDA ID	PROJECT NAME	Schools		Community Access Clusters		High Density Medical Clusters		High Density Shopping Clusters	
		Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access	Pedestrian Access	Bicycle Access
1354	US-150 Premium Transportation Corridor - Section 2	•	•		•				
1359	US-31 W Sidewalk and Pedestrian Improvements	•		•				•	
2081	Watterson Trail Bicycle/ Pedestrian Trail Project Phase 2				•				•
1582	Watterson Trail Pedestrian and Streetscape Project Phase 1	•		•				•	
1583	Watterson Trail Roadway and Pedestrian Streetscape Project Phase 2	•		•				•	
1324	Watterson Trail South	•							
1863	West Kentucky Street Project	•	•	•	•		•		•

Figure 73: Impacts on Bicycle & Pedestrian Access to Schools & Clusters

Source: KIPDA, 2019



ECONOMIC IMPACT

Connecting Kentuckiana 2040 supports multi-modal access to current and future employment areas. Improving employee mobility options contributes not only to attracting and retaining employees, but also to attracting future employers that may locate in the area, in part, because of enhanced mobility of their future work force.

For the project evaluation process, economic impact was determined based on a project's contribution to improved transit service or pedestrian facilities within or dedicated bicycle facilities in or within a mile of High Density Employment Clusters or major employers. This score was multiplied by the need of the improvement as determined by forecasted socioeconomic growth in the employment sector at the moderate to significant level in Transportation Analysis Districts (TADs).¹

PERFORMANCE MEASURE

- Enhance transit access leading to High Density Employment Clusters
- Enhance pedestrian facilities within High Density Employment Clusters
- Enhance dedicated bicycle facilities leading to and within High Density Employment Clusters
- Enhance pedestrian facilities within areas of moderate to significant employment growth
- Enhance dedicated bicycle facilities leading to and within areas of moderate to significant employment growth



¹ Transportation Analysis Districts (TADs) are defined spatial units used for analyzing traffic-related data. There are 41 TADs in the MPO.

PERFORMANCE PLANNING & IMPACTS

KIPDA ID	PROJECT NAME
1662	A.B. Sawyer Shared Use Path
2781	Applegate Lane Improvements
2767	Bardstown Road Safety Study Implementation - Northern Phase
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1
2187	Blackiston Mill Road Phase I
2389	Blackiston Mill Road Phase II
2761	Blackiston Mill Road Phase III
2751	Broadway Complete Street
2745	Byron Dr to Lombardy Dr Connection
2737	Cedar St Extension
2736	Cedar St Reconstruction
2390	Charlestown Rd. (from Hedden Ct. to Genung Dr.)
2759	Court Avenue Streetscape Improvements
188	CR 1006C/English Station Road
2743	CSX Trail Bike/Ped Project
2773	Dixie Bus Rapid Transit
2232	Dixie TIGER project
2392	East Main St. (from State St. to E. 5th St.)
2064	East Market Street Streetscape Improvements
276	Ellingsworth Lane
1330	Ferndale Road
286	Floyd Street
289	Grade Lane
2770	Grant Line Rd. (Hausfeldt Ln. to Security Parkway)
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)
2189	Greenway Connector
2024	I-71/KY 53 Interchange
1111	JCTC Downtown Campus Pedestrian and Bicyclist Improvements
2755	Jeff Boat Rail Spur Multi-Use Trail
2541	Jeffersonville 9th street/Clarksville Montgomery Ave intermodal connection
2786	Jtown to Parklands Multi-use Bicycle/Pedestrian Trail
867	K & I Railroad Bridge
162	KIPDA Regional Rideshare Program
56	KIPDA Regional Rideshare Program
453	KY 1065
436	KY 1065
435	KY 1065
256	KY 1065
2782	KY 1065

KIPDA ID	PROJECT NAME
484	KY 1447
154	KY 1450
229	KY 1450
443	KY 146
386	KY 1747
359	KY 1747
2384	KY 1747/US 60
233	KY 1819
2214	KY 1931
2147	KY 1931
128	KY 1931\Greenwood Road
2016	KY 1932
213	KY 1932
2114	KY 2050
1396	KY 2053
412	KY 22
1445	KY 22
2156	KY 2251
1790	KY 245
961	KY 2845
497	KY 44
494	KY 44
417	KY 44
2237	KY 44 Sidewalks West of Shepherdsville
418	KY 53
2780	KY 61
357	KY 864
481	KY 907
465	KY 907
1357	KY-61 Premium Transportation Corridor Project
2766	KY1747 (Fern Valley Rd/Hurstbourne Pkwy) Complete Street
1634	Lagrange Road Bicycle & Pedestrian Improvements
321	LaGrange Underpass West of LaGrange
2752	Lewis and Clark Road Diet
1856	Louisville Loop Northeast Shared-Use Path System
2771	Louisville Loop Ohio River Levee Shared-Use Path System
1423	Louisville Loop Ohio River Valley Northeast Shared-Use Path System
2234	Louisville Loop Riverwalk Shared-Use Path System
1857	Louisville Loop Southern Shared-Use Path System

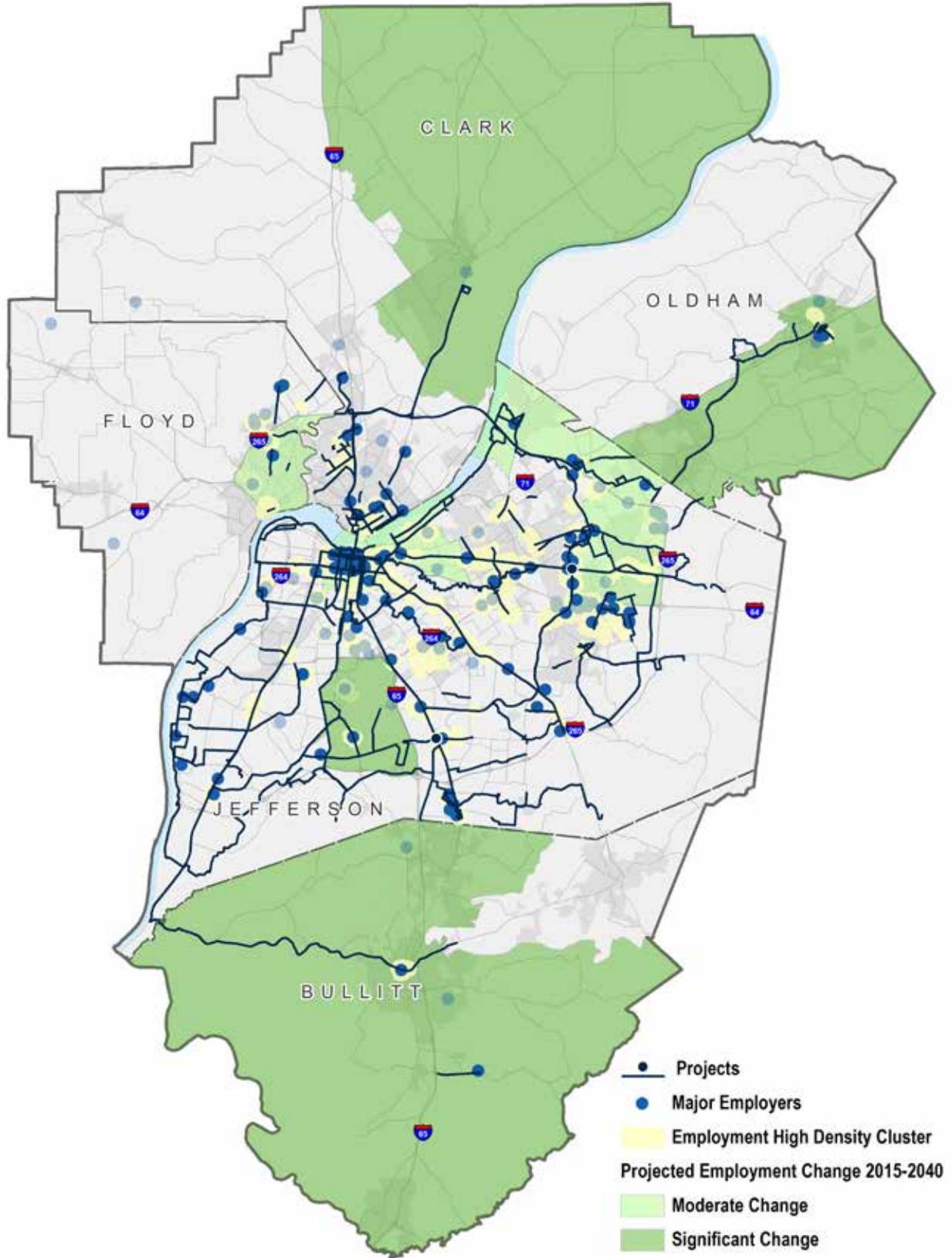
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KIPDA ID	PROJECT NAME
2388	Main Street & Story Avenue
2760	Market Street Revitalization Project
2764	Marriott Drive Improvements
309	Mount Tabor Road
2769	New Cut Road Complete Street
2750	North Clarksville Multi-Use Trail
2762	Ohio River Greenway Extension
1936	Old Henry Road Extension
327	Oldham County Bicycle & Pedestrian Trail
2142	Olmsted Parkways Bicycle/Pedestrian Improvements - Eastern Parkway Rehabilitation
1273	Olmsted Parkways Multi-Use Path System
2667	Outer Loop Circulator
365	Outer Loop, Fegenbush Lane, and Beulah Church Intersection
1864	Park Hill Streetscape Improvements
2741	Progress Way Reconstruction
2153	Rangeland Road
2772	Reconstruction of South Clark Boulevard
2733	Reimagine 9th Street
2735	River Falls Mall: Ring Road Extension
163	River Road
2540	River Road Multi-Modal Improvements - 3rd Street to 7th Street
2463	Riverport Circulator - Access to Jobs in Southwest Louisville
2393	Riverside Drive
2739	Sam Gwin Extension
2749	Smyser Ave Relocation
1425	South Louisville Loop Connector
2757	Spring St Eastern to Dutch
2754	Spring Street Revitalization and Enhancement
2768	Stansifer Ave Improvements
2408	TARC Cross River Connectors
1825	TARC High Capacity Corridors
2753	Three Forks of Beargrass Creek Greenways
472	Tucker Station Road
474	Urton Lane
2779	US 31W
2386	US 31W
476	US 42
230	US 42
479	US 60

KIPDA ID	PROJECT NAME
480	US 60
2610	US 60
1352	US 60 Premium Transportation Corridor Project - Section 1
1362	US 60 Premium Transportation Corridor Project - Section 2
1354	US-150 Premium Transportation Corridor - Section 2
2081	Watterson Trail Bicycle/ Pedestrian Trail Project Phase 2
1863	West Kentucky Street Project

Figure 74: Economic Impact

Source: KIPDA, 2019



MOTOR VEHICLE ACCESS

Ensuring adequate motor vehicle access on roadways plays an important role in the function of the transportation system. Recognizing the important mobility, safety, and environmental elements associated with reducing significant congestion, the MPO has adopted performance measures for congestion management and mitigation.

For the *Connecting Kentuckiana 2040* update, projects were evaluated on their anticipated impact on improving congestion, defined as interstates, arterials or collectors with a Level of Service D or worse.

CONGESTION

KIPDA used congestion analysis data from 2016 to evaluate roadway segments where the Level of Service was D, E, or F. The data shows the results of comparing the number of vehicles on a roadway over a 24-hour period to the vehicular capacity of the roadway. Both current congestion and forecast congestion were considered in the evaluation. Forecast congestion, or “No-Build” congestion, estimates the number of vehicles on the roadway in 2040 compared to today’s existing infrastructure and the improvements that are anticipated in the next few years. The “No Build” scenario helps to better understand where future congestion issues may exist with only currently funded projects built.

Proposed projects considering modifications to the roadway geometry, the addition of turn lanes, or the addition of travel lanes and located on congested roadways were anticipated to help relieve congestion. Considerations for congestion reductions were limited to roadway, interstate, or interchange projects. If the projects below are built, the anticipated target change is 41.5% of interstate and freeway miles at LOS D, E, or F and 49.7% of arterial roadway miles at LOS D, E, or F.

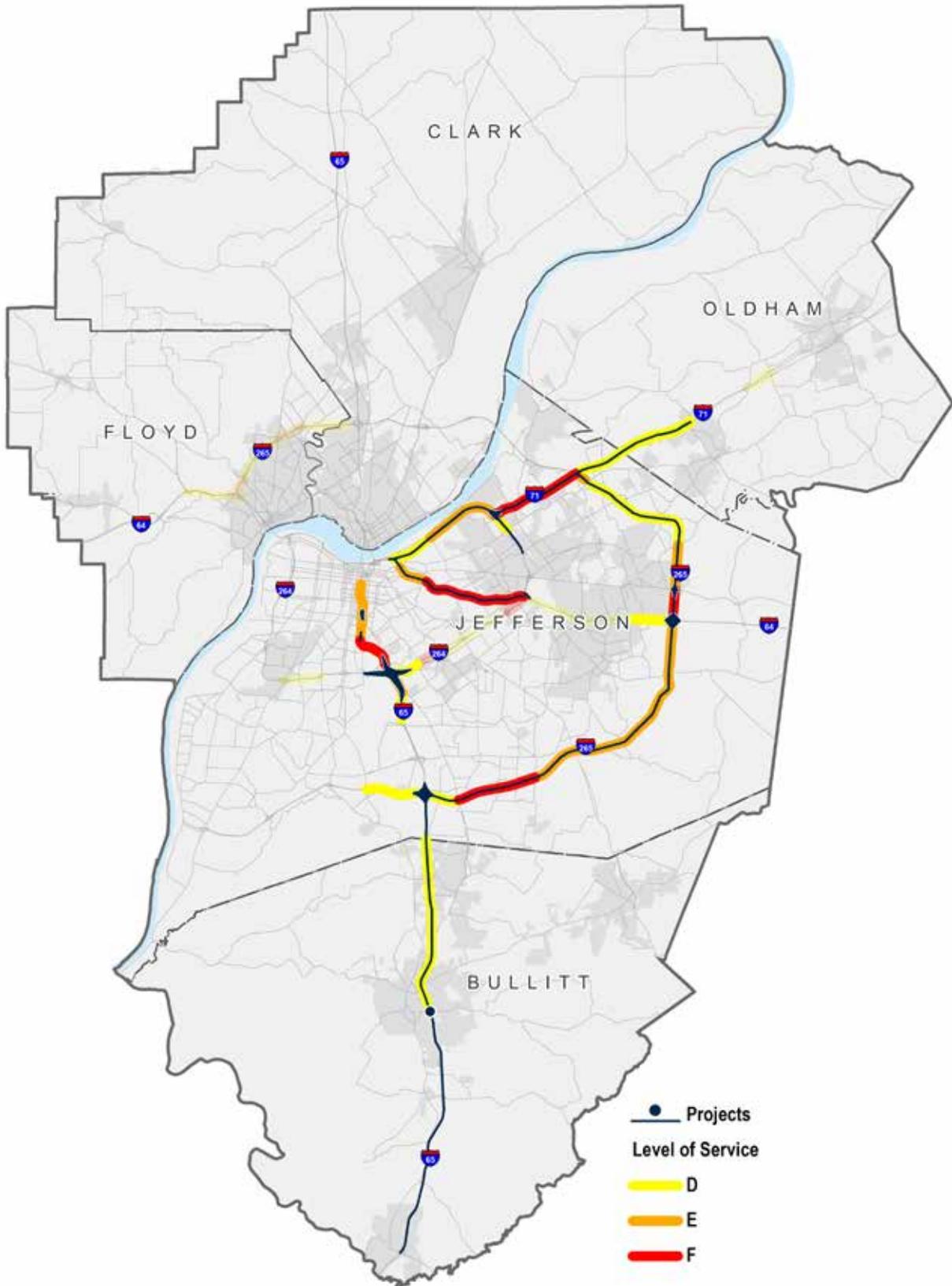
PERFORMANCE MEASURE

- Maintain or improve the level of service on Interstates at LOS D or worse
- Maintain or improve the level of service on arterials at LOS D or worse

KIPDA ID	PROJECT NAME
1478	Addition of Auxiliary Lanes on I-71
260	Blowing Blvd/Christian Way
1922	I-264
179	I-265
407	I-265
958	I-265
959	I-265
2742	I-265/US 60
389	I-64
397	I-64
2121	I-65/I-264 Interchange
2601	I-65/I-265
2193	I-65/KY 480 Interchange
2152	I-71
2602	I-71
2611	I-71
2784	I-71/I-264
491	Widen I-65 from KY-61 to I-265

Figure 75: Impacts on Interstate Congestion

Source: KIPDA, 2019

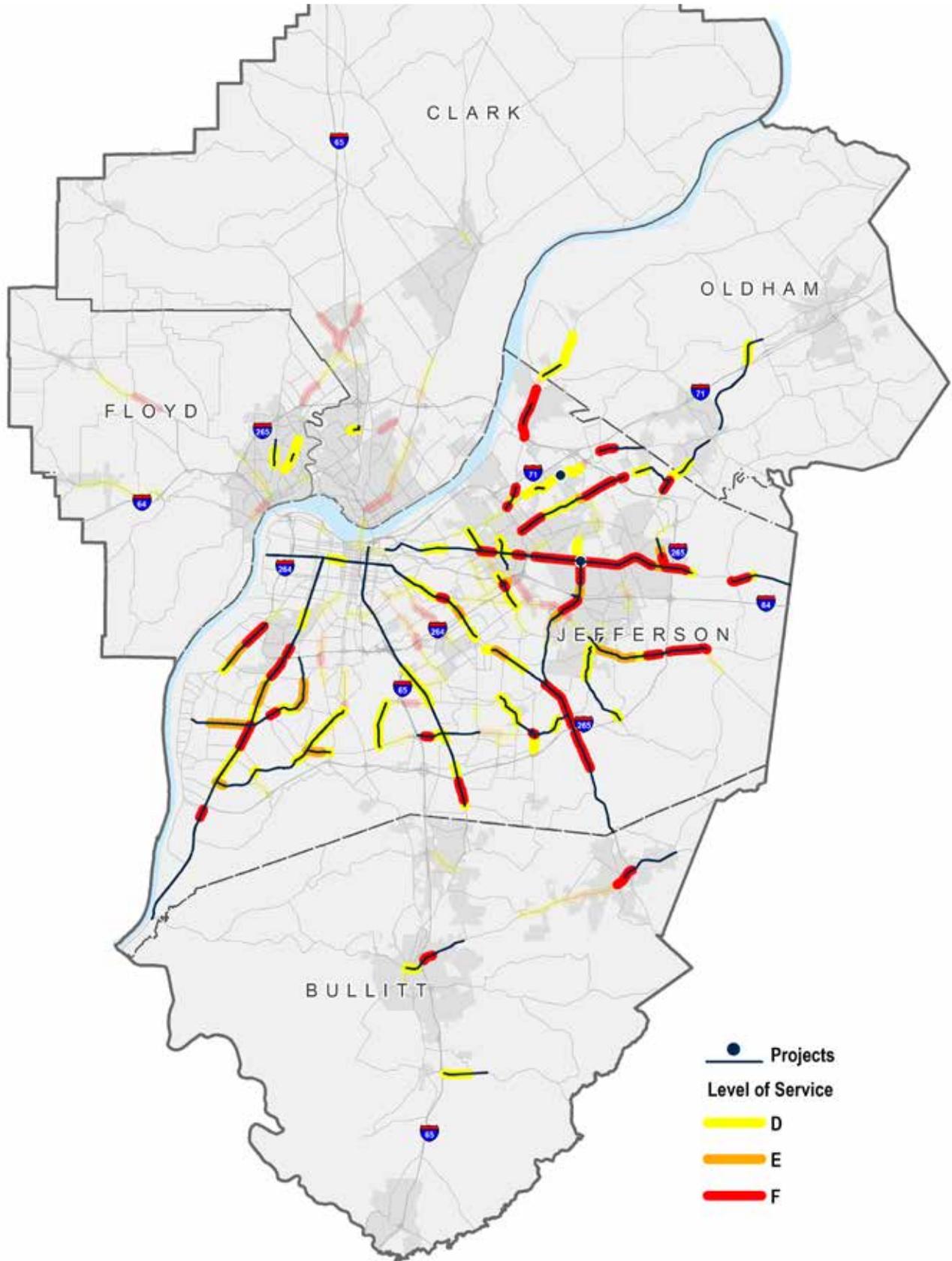


KIPDA ID	PROJECT NAME
2767	Bardstown Road Safety Study Implementation - Northern Phase
2740	Bardstown Road Safety Study Implementation - Southern Phase
2390	Charlestown Rd. (from Hedden Ct. to Genung Dr.)
2669	Connection 21
188	CR 1006C/English Station Road
2232	Dixie TIGER project
1915	Dutchmans Lane/Pkwy & Breckenridge Lane intersection improvements
289	Grade Lane
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)
384	Hubbards Lane
2152	I-71
2748	Intelligent Transportation Systems - Priority Corridors
256	KY 1065
436	KY 1065
435	KY 1065 from Third Street to National Turnpike
484	KY 1447
427	KY 146
428	KY 146
443	KY 146
956	KY 155
1372	KY 155
2371	KY 155
1581	KY 155 (Taylorsville Road) Streetscape Project
359	KY 1747
386	KY 1747
2607	KY 1747
2384	KY 1747/US 60
257	KY 1819
446	KY 1931
2147	KY 1931
2214	KY 1931
128	KY 1931\Greenwood Road
213	KY 1932
2016	KY 1932
412	KY 22
1445	KY 22
1446	KY 22
1790	KY 245
417	KY 44

KIPDA ID	PROJECT NAME
493	KY 44
497	KY 44
2613	KY 44
2780	KY 61
357	KY 864
465	KY 907
481	KY 907
365	Outer Loop, Fegenbush Lane, and Beulah Church Intersection
181	Reconstruct Existing Interchange from Northbound KY-1747 to I-64 Westbound
273	US 31W
2779	US 31W
230	US 42
476	US 42
1271	US 42
479	US 60
480	US 60
2598	US 60
2610	US 60
2776	US 60
2738	Veteran's Parkway & I-65 North
1583	Watterson Trail Roadway and Pedestrian Streetscape Project Phase 2

Figure 76: Impacts on Arterial Congestion

Source: KIPDA, 2019



ROADWAY MAINTENANCE

Keeping the roadway system in a state of good repair is an important goal for the region. The FHWA performance measures for asset management focus on pavement condition and bridge condition.

PAVEMENT CONDITION

Data collected by KYTC and INDOT for pavement condition on Interstates and non-Interstate National Highway System (NHS) roadways was used in the project evaluation process to determine locations of “Poor” or “Borderline” pavement conditions. The “Poor” condition categories were identified by the states and the “Borderline” category was created by the MPO to help ensure pavement does not degrade into “Poor” condition.

Projects anticipated to rehabilitate the roadway during construction received credit if the project location impacted “Poor” or “Borderline” pavements in the data.

With the following list of projects, 59.1% of interstate miles of Borderline or Poor pavements may be improved and 92.6% of non-Interstate NHS roadway miles of Borderline or Poor pavements may be improved.

PERFORMANCE MEASURE PAVEMENT CONDITION

- Increase the percent of pavements classified in “Good” condition and decrease the percent of pavements in “Poor” condition on Interstates
- Increase the percent of pavements classified in “Good” condition and decrease the percent of pavements in “Poor” condition on non-Interstate NHS



PERFORMANCE PLANNING & IMPACTS

KIPDA ID	PROJECT NAME	Improve pavements in Borderline or Poor condition		
		Interstates	Non-Interstate NHS	Non-NHS roadways in State Inventories
249	Arnoldtown Road			•
2767	Bardstown Road Safety Study Implementation - Northern Phase		•	
381	Buechel Bank Road			•
271	Cooper Chapel Road Phase 2			•
2232	Dixie TIGER project		•	
1915	Dutchmans Lane/Pkwy & Breckenridge Lane intersection improvements			•
1330	Ferndale Road			•
1323	Flat Rock Road	•		
2150	Floyd Street Roundabout, Cardinal Blvd, Brandies Arthur Street Intersection and other Belknap Campus Improvements			•
289	Grade Lane			•
1922	I-264	•		
2025	I-264	•		
958	I-265	•		
959	I-265	•		
2742	I-265/US 60	•		
389	I-64	•		
390	I-64			•
2533	I-64 Sherman Minton Corridor Maintenance	•		
2333	I-65	•		
392	I-65 / KY 61	•		
2601	I-65/I-265	•		
2193	I-65/KY 480 Interchange	•		
2785	I-65/KY-1526			•
2152	I-71	•		
2612	I-71			•
256	KY 1065			•
436	KY 1065			•
453	KY 1065			•
435	KY 1065 from Third Street to National Turnpike			•
2778	KY 1408			•
154	KY 1450			•
229	KY 1450			•
2020	KY 1450			•
2758	KY 1450 Blue Lick Rd. Widening			•
428	KY 146			•
443	KY 146			•
1493	KY 1494			•

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KIPDA ID	PROJECT NAME	Improve pavements in Borderline or Poor condition		
		Interstates	Non-Interstate NHS	Non-NHS roadways in State Inventories
411	KY 1531			•
1372	KY 155		•	
359	KY 1747		•	
386	KY 1747		•	
2607	KY 1747		•	
2384	KY 1747/US 60		•	
446	KY 1931			•
2147	KY 1931			•
2214	KY 1931			•
128	KY 1931\Greenwood Road			•
213	KY 1932			•
2016	KY 1932			•
2014	KY 2049			•
2114	KY 2050			•
1396	KY 2053			•
2148	KY 2053			•
412	KY 22			•
1489	KY 22			•
1877	KY 329			•
2777	KY 362			•
147	KY 393			•
417	KY 44			•
493	KY 44			•
494	KY 44			•
497	KY 44			•
1925	KY 44			•
1926	KY 44			•
2379	KY 44			•
2613	KY 44			•
2115	KY 44 Bridge			•
1816	KY 480			•
1726	KY 524			•
2605	KY 53			•
2780	KY 61			•
357	KY 864			•
1879	KY 864			•
269	KY 864 (Cedar Creek Road/Cooper Chapel Road)			•
465	KY 907			•
481	KY 907			•
2017	KY 907			•

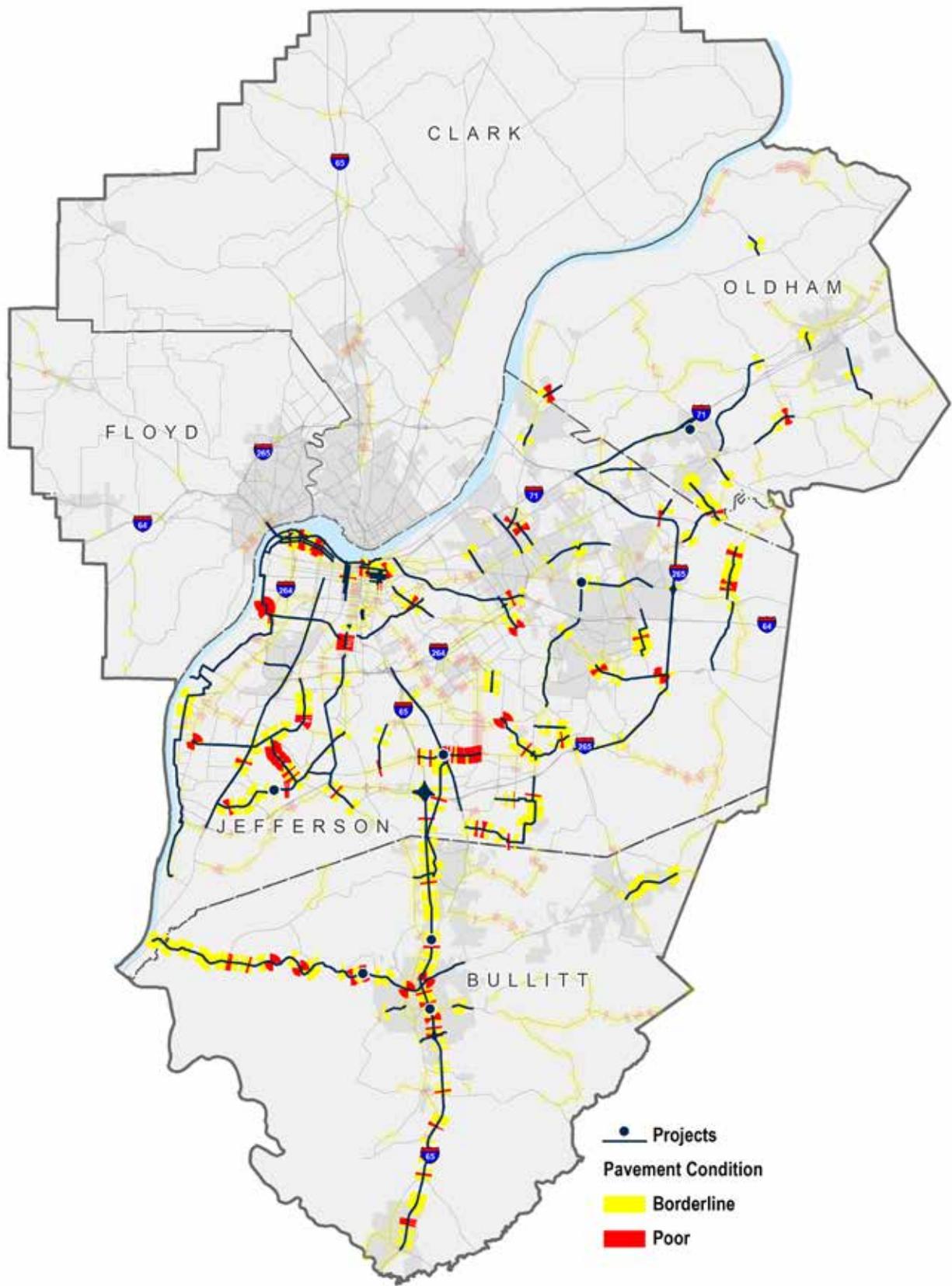
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PERFORMANCE PLANNING & IMPACTS

KIPDA ID	PROJECT NAME	Improve pavements in Borderline or Poor condition		
		Interstates	Non-Interstate NHS	Non-NHS roadways in State Inventories
1634	Lagrange Road Bicycle & Pedestrian Improvements			•
321	LaGrange Underpass West of LaGrange			•
2771	Louisville Loop Ohio River Levee Shared-Use Path System			•
2234	Louisville Loop Riverwalk Shared-Use Path System			•
2388	Main Street & Story Avenue		•	
2769	New Cut Road Complete Street			•
1936	Old Henry Road Extension		•	
2142	Olmsted Parkways Bicycle/Pedestrian Improvements - Eastern Parkway Rehabilitation			•
1273	Olmsted Parkways Multi-Use Path System			•
1809	One-Way Street Conversion to Two-Way Phase 1			•
1810	One-Way Street Conversion to Two-Way Phase 2		•	
365	Outer Loop, Fegenbush Lane, and Beulah Church Intersection			•
1332	Portland Neighborhood One-Way Arterial Conversion			•
2733	Reimagine 9th Street		•	
472	Tucker Station Road			•
1799	University Corridor Fourth Street Intersection Improvements			•
2779	US 31W		•	
230	US 42			•
476	US 42		•	
1271	US 42			•
479	US 60		•	
491	Widen I-65 from KY-61 to I-265	•		

Figure 77: Impacts on Pavement Condition

Source: KIPDA, 2019



BRIDGE CONDITION

Bridge condition and deck area from the National Bridge Inventory were used to determine “Poor” condition bridges on the National Highway System (NHS) and on other functionally classified roads for evaluating proposed projects.

Projects including bridge repair work or roadway improvement in the description and a “Poor” condition bridge within the project area received credit for bridge condition improvement in the *Connecting Kentuckiana 2040* evaluation process.

The following projects may improve the condition of bridges that are identified as “Poor” condition and that carry the NHS and non-NHS roadways in the region to help reach the targets set in the Performance Management Plan.

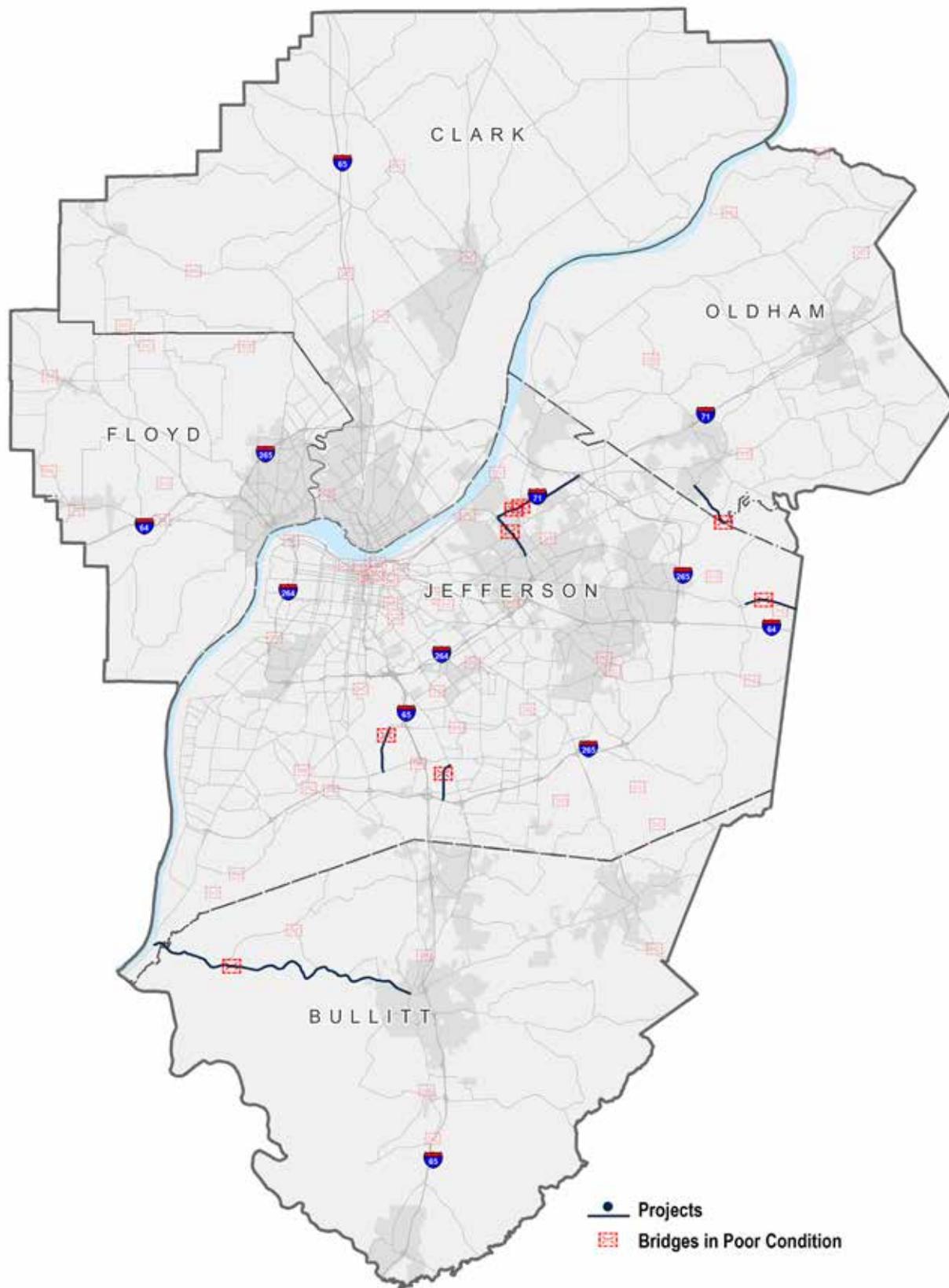
PERFORMANCE MEASURE BRIDGE CONDITION

- Increase the percent of deck area in “Good” condition and decrease the percent of deck area in “Poor” condition on bridges carrying the NHS
- Increase the percent of deck area in “Good” condition and decrease the percent of deck area in “Poor” condition on bridges on functionally classified roads

KIPDA ID	PROJECT NAME
154	KY 1450
289	Grade Lane
494	KY 44
1922	I-264
2611	I-71
2776	US 60
2777	KY 362

Figure 78: Impacts on Bridge Condition

Source: KIPDA, 2019



FREIGHT MOVEMENT

Freight is a significant user of the roadway system and a crucial part of economic development as the logistics industry continues to grow. The KIPDA Freight Network, revised in April 2018, is a core planning tool to target investment on roadways most utilized by freight traffic or important for first and last mile connections for freight vehicles. The MPO-devised performance measures for Freight Movement rely on the KIPDA Freight Network to measure progress.

LEVEL OF SERVICE ON THE FREIGHT NETWORK

The MPO has adopted performance measures for freight movement. For the *Connecting Kentuckiana 2040* update, projects were evaluated on their anticipated impact on improving congestion, defined a Level of Service D or worse, on the KIPDA Freight Network.

The following list and map show projects that may improve congestion on the KIPDA Freight Network or may reduce impedances on the network.

PERFORMANCE MEASURE

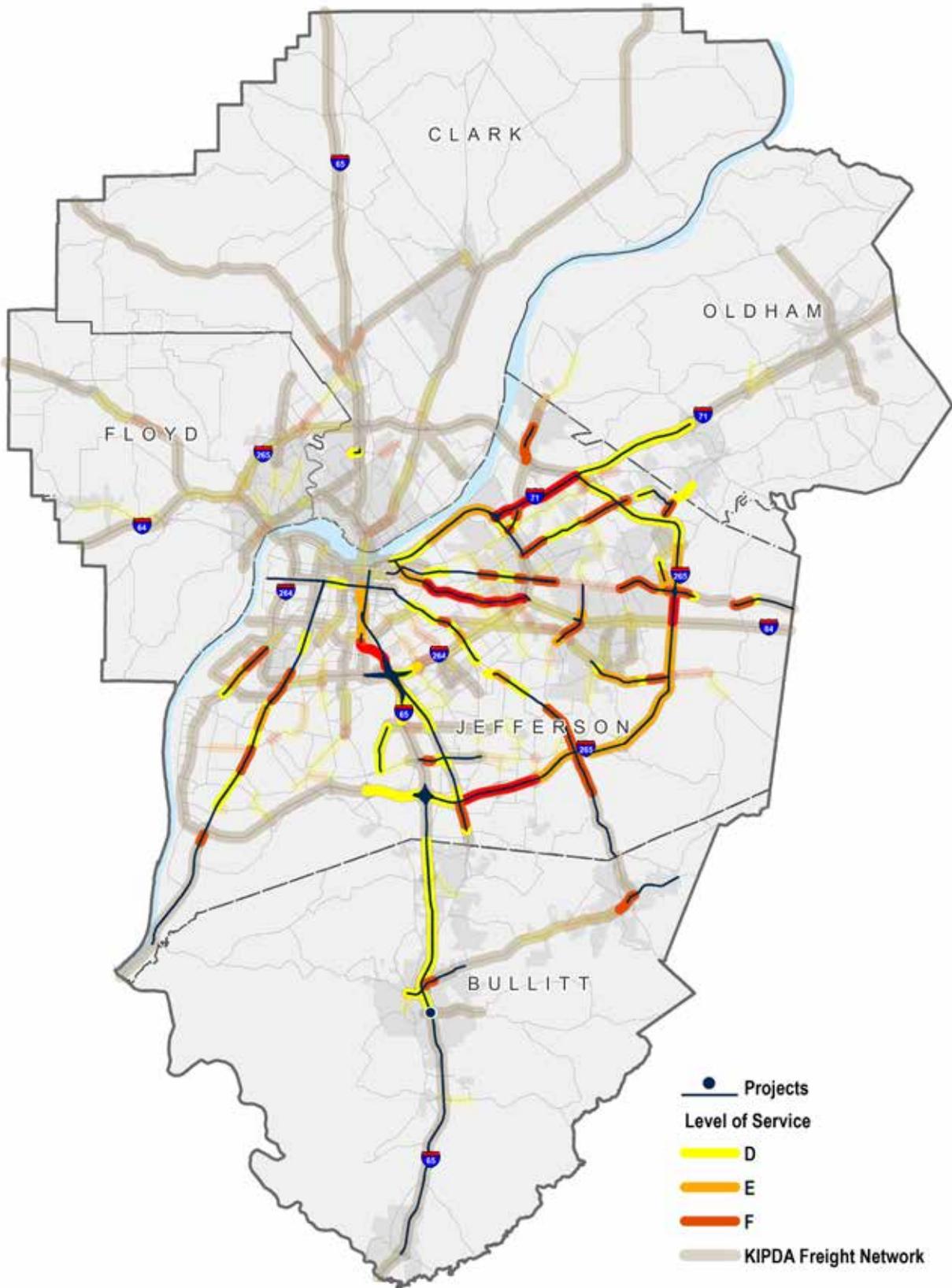
- Maintain or improve roadways on the KIPDA Freight Network that are LOS D or worse
- Reduce the number of locations on the KIPDA Freight Network within 1 mile of Freight Clusters where roadway geometry and/or restrictions impede freight movement



KIPDA ID	PROJECT NAME
1478	Addition of auxiliary lanes on I-71
2669	Connection 21
188	CR 1006C/English Station Road
2232	Dixie TIGER project
289	Grade Lane
1922	I-264
407	I-265
958	I-265
959	I-265
2742	I-265/US 60
389	I-64
397	I-64
2121	I-65/I-264 Interchange
2601	I-65/I-265
2193	I-65/KY 480 Interchange
2152	I-71
2602	I-71
2611	I-71
2784	I-71/I-264
2748	Intelligent Transportation Systems - Priority Corridors
436	KY 1065
484	KY 1447
443	KY 146
1372	KY 155
2607	KY 1747
417	KY 44
493	KY 44
497	KY 44
2613	KY 44
2780	KY 61
181	Reconstruct Existing Interchange from Northbound KY-1747 to I-64 Westbound
273	US 31W
230	US 42
476	US 42
2598	US 60
2776	US 60
2738	Veteran's Parkway & I-65 North
491	Widen I-65 from KY-61 to I-265

Figure 79: Impacts to Level of Service on the KIPDA Freight Network

Source: KIPDA, 2019



IMPEDENCES ON THE FREIGHT NETWORK

The ability to move freight is impacted by barriers that may impede access to specific destinations. Therefore, another MPO performance measure focuses on the locations on the KIPDA Freight Network where impedences, such as bridges with low-clearance restrictions or railroad crossing capacity concerns, restricts freight traffic. These locations were a product of the [Regional Freight Mobility Study](#).

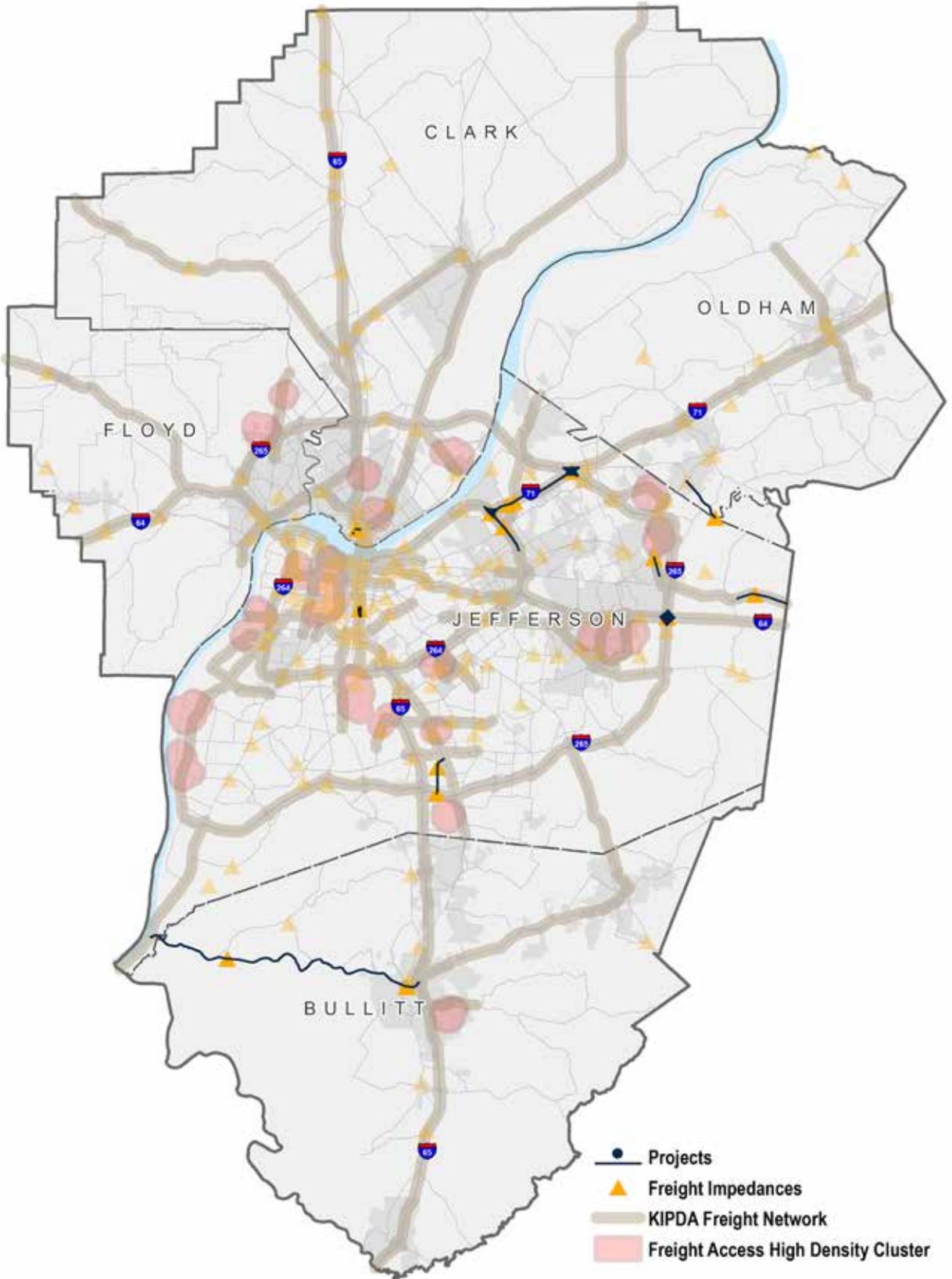
The following list and map show the proposed projects that are anticipated to alleviate the freight impedences at the specified locations on the map.



KIPDA ID	PROJECT NAME
188	CR 1006C/English Station Road
1922	I-264
179	I-265
1480	I-71
2611	I-71
2784	I-71/I-264
154	KY 1450
2777	KY 362
147	KY 393
494	KY 44
497	KY 44
2744	L&I Railroad Intersections: Montgomery Ave and S Clark
2776	US 60

Figure 80: Impacts to Impedences on the KIPDA Freight Network

Source: KIPDA, 2019



ENVIRONMENTAL JUSTICE IMPACT REVIEW

When considering project impacts in the KIPDA Environmental Justice Study Areas, the intention of the transportation planning process is to reduce disproportionately high and adverse project impacts that may become barriers to low-income and minority populations and to include opportunities for improved travel and connectivity where possible. The methodology for creating the Study Areas is available in the [Environmental Justice Resource Document](#).

Based on the evaluation of projects for *Connecting Kentuckiana 2040*, the projects listed below are located completely within, go through or enter KIPDA Environmental Justice Study Areas. Projects labeled with a dot on the following table have a non-motorized component that may improve mobility in these areas.

KIPDA ID	PROJECT NAME	PROJECT TYPE	
1965	12th Street Extension	Roadway - Project	
1425	3rd Street / New Cut / Manslick Road Bicycle & Pedestrian Facilities Improvements - South Louisville Loop Connector	Bike & Pedestrian - Project	
2746	403/62 Connector	Roadway - Project	•
1320	Applegate Lane	Roadway - Project	
2734	Appleleaf Ln Reconstruction	Roadway - Project	
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1	Roadway - Project	•
965	Bethany Road	Roadway - Project	
258	Blowing Tree Boulevard	Roadway - Project	
2751	Broadway Complete Streets	Bike & Pedestrian - Project	
381	Buechel Bank Road	Roadway - Project	
1945	Cardinal Boulevard Extension	Roadway - Project	
2737	Cedar Street Extension	Roadway - Project	•
2736	Cedar Street Reconstruction	Roadway - Project	•
2747	Clark Road Extension	Roadway - Project	•
2199	CNG Fueling Station	Roadway - Project	
2669	Connection 21	Roadway - Project	
2759	Court Avenue Streetscape Improvements	Roadway - Project	•
2773	Dixie Bus Rapid Transit	Transit - Roadway	
2232	Dixie TIGER Project	Roadway - Project	•
2392	East Main St. (from State St. to E. 5th St.)	Roadway - Project	•
2064	East Market Street Streetscape Improvements	Roadway - Project	
281	Fairground Road	Roadway - Project	
2150	Floyd Street Roundabout, Cardinal Blvd, Brandies Arthur Street Intersection and other Belknap Campus Improvements	Roadway - Project	
289	Grade Lane	Roadway - Project	•
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)	Roadway - Project	•

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PERFORMANCE PLANNING & IMPACTS

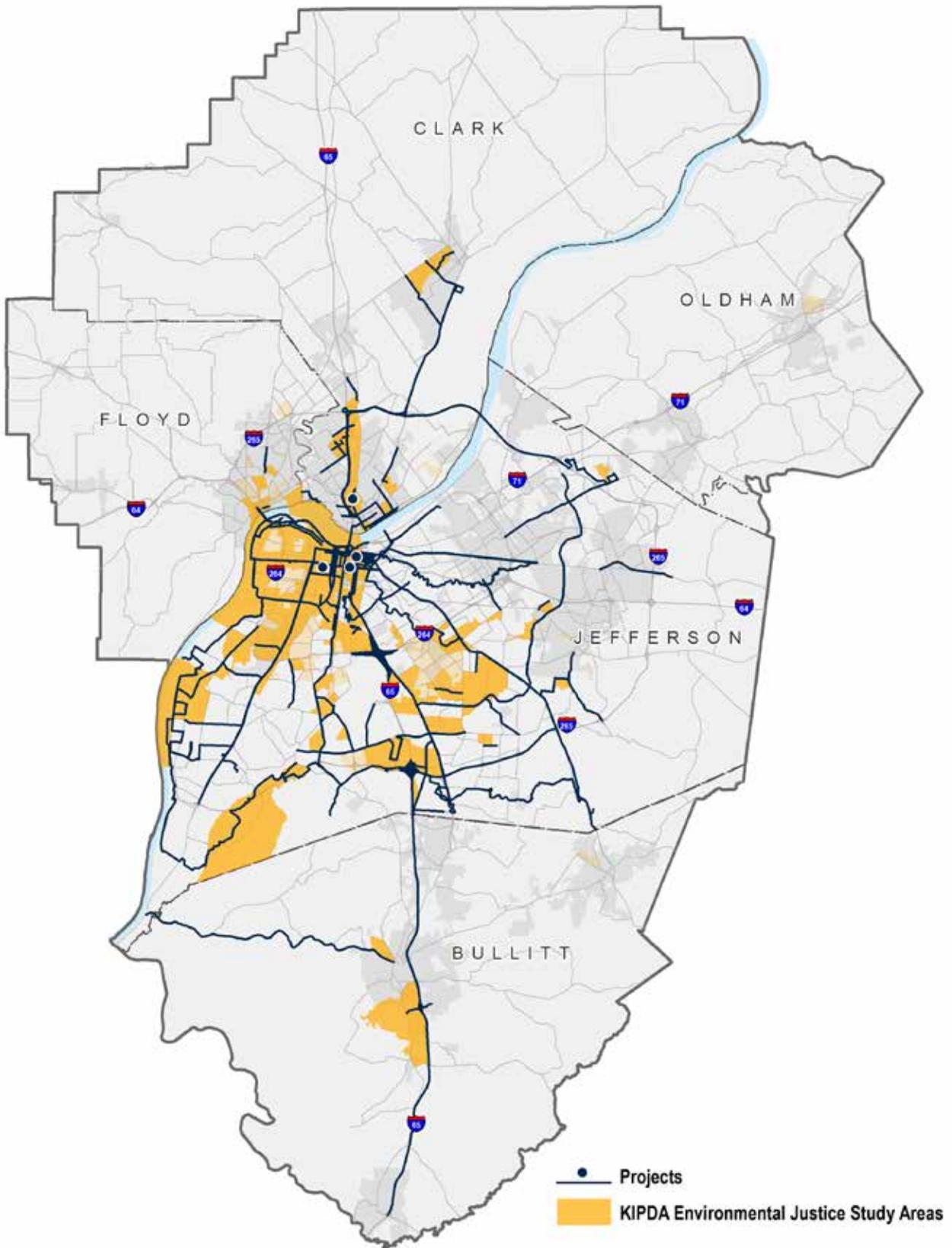
KIPDA ID	PROJECT NAME	PROJECT TYPE	
2596	I- 64 Bridge Painting	Interstate/Interchange - Project	
224	I- 65	Interstate/Interchange - Project	
2025	I-264	Interstate/Interchange - Project	
407	I-265	Interstate/Interchange - Project	
2533	I-64 Sherman Minton Corridor Maintenance	Interstate/Interchange - Project	
2333	I-65	Interstate/Interchange - Project	
2765	I-65 Barrier Wall MP 116 to MP 118	Roadway - Project	
2121	I-65/I-264 Interchange	Interstate/Interchange - Project	
2601	I-65/I-265	Interstate/Interchange - Project	
2748	Intelligent Transportation Systems - Priority Corridors	Roadway - Project	
1111	JCTC Downtown Campus Pedestrian and Bicyclist Improvements	Bike & Pedestrian - Project	
2755	Jeff Boat Rail Spur Multi-Use Trail	Bike & Pedestrian - Project	•
2541	Jeffersonville 9th street/Clarksville Montgomery Ave intermodal connection	Bike & Pedestrian - Project	
435	KY 1065	Roadway - Project	
436	KY 1065	Roadway - Project	•
2782	KY 1065	Roadway - Project	•
154	KY 1450	Roadway - Project	
229	KY 1450	Roadway - Project	
386	KY 1747	Roadway - Project	•
257	KY 1819	Roadway - Project	•
1819	KY 1819	Roadway - Project	
446	KY 1931	Roadway - Project	•
128	KY 1931/Greenwood Road	Roadway - Project	•
2016	KY 1932	Roadway - Project	•
2014	KY 2049	Roadway - Project	•
961	KY 2845	Roadway - Project	•
494	KY 44	Roadway - Project	
2780	KY 61	Roadway - Project	•
2606	KY 841/Renaissance Park	Interstate/Interchange - Project	
357	KY 864	Roadway - Project	•
465	KY 907	Roadway - Project	•
2766	KY1747 (Fern Valley Rd/Hurstbourne Pkwy) Complete Street	Bike & Pedestrian - Project	•
1357	KY-61 Premium Transportation Corridor Project	Roadway - Project	•
2752	Lewis and Clark Road Diet	Roadway - Project	•
2771	Louisville Loop Ohio River Levee Shared-Use Path System	Bike & Pedestrian - Project	
2234	Louisville Loop Riverwalk Shared-Use Path System	Bike & Pedestrian - Project	
1857	Louisville Loop Southern Shared-Use Path System	Bike & Pedestrian - Project	
2760	Market Street Revitalization Project	Roadway - Project	•
449	Mud Lane	Roadway - Project	•
2769	New Cut Road Complete Street	Roadway - Project	•
2762	Ohio River Greenway Extension	Bike & Pedestrian - Project	

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KIPDA ID	PROJECT NAME	PROJECT TYPE
2142	Olmsted Parkways Bicycle/Pedestrian Improvements - Eastern Parkway Rehabilitation	Bike & Pedestrian - Project
1273	Olmsted Parkways Multi-Use Path System	Bike & Pedestrian - Project
1809	One-Way Street Conversion to Two-Way Phase 1	Roadway - Project
1810	One-Way Street Conversion to Two-Way Phase 2	Roadway - Project
2667	Outer Loop Circulator	Transit - Project
1864	Park Hill Streetscape Improvements	Bike & Pedestrian - Project
1332	Portland Neighborhood One Way Arterial Conversion	Roadway - Project
2741	Progress Way Reconstruction	Roadway - Project
2153	Rangeland Road	Roadway - Project
2763	Reeds Lane Extension	Roadway - Project
2733	Re-imagine 9th St	Roadway - Project
2735	River Falls mall Ring Road Extension	Roadway - Project
1338	River Road Extension	Roadway - Project
2540	River Road Multi-Modal Improvements - 3rd Street to 7th Street	Bike & Pedestrian - Project
2463	Riverport Circulator Access to Jobs in Southwest Louisville	Transit - Project
264	S. Brook Street	Interstate/Interchange - Project
2739	Sam Gwin Extension	Roadway - Project
2756	Spring St - Eastern Blvd Intersection	Roadway - Project
2757	Spring St Eastern to Dutch	Roadway - Project
2754	Spring Street Revitalization and Enhancement	Roadway - Project
2768	Stanisfer Ave Improvements	Bike & Pedestrian - Project
2408	TARC Cross River Connectors	Transit - Project
1825	TARC High Capacity Corridors	Transit - Project
2753	Three Forks of Beargrass Creek Greenways	Bike & Pedestrian - Project
1799	University Corridor Fourth Street Intersection Improvements	Roadway - Project
1354	US-150 Premium Transportation Corridor - Section 2	Roadway - Project
1359	US-31 W Sidewalk and Pedestrian Improvements	Bike & Pedestrian - Project
2738	Veteran's Parkway & I-65 North	Roadway - Project
1863	West Kentucky Street Project	Bike & Pedestrian - Project
491	Widen I-65 from KY-61 to I-265	Interstate/Interchange - Project

Figure 81: Impacts to KIPDA Environmental Justice Study Areas

Source: KIPDA, 2019



CONGESTION MANAGEMENT PROCESS IMPACT REVIEW

An efficient transportation system is reflected by the ability to travel with minimum delays. Factors influencing delay are the capacity of the system, operational characteristics, and the amount of demand during a given period of time. Congestion management is the utilization of strategies to improve transportation system performance reliability by reducing the adverse impacts of congestion on the movement of people and goods where possible and desired. The [Congestion Management Process \(CMP\)](#) provides a means for both contributing to congestion mitigation on a defined network and analyzing the effect of strategies toward enhancing transportation system efficiency. Implementation of Transportation Systems Management and Operations (TSMO) strategies, such as technology, bicycle, pedestrian, and transit investments, often introduces an efficient means of reducing or managing congestion.

For the evaluation process, projects were reviewed for elements that included TSMO strategies such as transit, pedestrian, bicycle, or other similar strategies where they do not already exist and on or within a half mile of the CMP roadway network.

Of the 159 projects located on the CMP network, 152, or 95.6%, are primarily or include bicycle, pedestrian, or transit elements. Per the CMP, subsequent analyses will include a review of MTP projects relative to the CMP network, existence of bicycle, pedestrian, and transit amenities and opportunities that may be available to enhance MTP projects to expand their scope to include non-motorized and transit strategies.

KIPDA ID	PROJECT NAME
2746	403/62 Connector
1662	A.B. Sawyer Shared Use Path
2781	Applegate Lane Improvements
2767	Bardstown Road Safety Study Implementation North
2740	Bardstown Road Safety Study Implementation South
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1
2187	Blackiston Mill Road Phase I
2389	Blackiston Mill Road Phase II
2761	Blackiston Mill Road Phase III
260	Blowing Blvd/Christian Way
258	Blowing Tree Blvd
2084	Bluegrass Commerce Park Bicycle/Pedestrian Trail Project Phase 2
2751	Broadway Complete Street
1808	Buckner Connector
381	Buechel Bank Road
2736	Cedar St Reconstruction
2390	Charlestown Rd. (from Hedden Ct. to Genung Dr.)
2128	Charlestown Road Corridor Complete Streets

KIPDA ID	PROJECT NAME
2747	Clark Road Extension
2669	Connection 21
2759	Court Avenue Streetscape Improvements
188	CR 1006C/English Station Road
2743	CSX Trail Bike/Ped Project
2773	Dixie Bus Rapid Transit
2232	Dixie TIGER project
1915	Dutchmans Lane/Pkwy & Breckenridge Lane intersection improvements
2392	East Main St. (from State St. to E. 5th St.)
2064	East Market Street Streetscape Improvements
274	East Pages Lane
276	Ellingsworth Lane
281	Fairground Road
1330	Ferndale Road
1323	Flat Rock Road
286	Floyd Street
2774	Galene Drive/Sprowl Road Collector Extension
2082	Good Samaritan Bicycle and Pedestrian Trail Connector

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PERFORMANCE PLANNING & IMPACTS

KIPDA ID	PROJECT NAME
289	Grade Lane
2770	Grant Line Rd. (Hausfeldt Ln. to Security Parkway)
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)
2119	Heavy Haul Transportation Corridor
384	Hubbards Lane
1514	I-265 Rehl Road
224	I-65
2616	I-65
2785	I-65/KY-1526
2152	I-71
2612	I-71
2024	I-71/KY 53 Interchange
2748	Intelligent Transportation Systems - Priority Corridors
1111	JCTC Downtown Campus Pedestrian and Bicyclist Improvements
2755	Jeff Boat Rail Spur Multi-Use Trail
2541	Jeffersonville 9th street/Clarksville Montgomery Ave intermodal connection
2732	Joseph Drive Extension
2786	Jtown to Parklands Multi-use Bicycle/Pedestrian Trail
2615	Kenwood Road
1817	KY 1020
256	KY 1065
435	KY 1065
436	KY 1065
2782	KY 1065
2778	KY 1408
484	KY 1447
2758	KY 1450 Blue Lick Rd. Widening
427	KY 146
428	KY 146
443	KY 146
956	KY 155
1372	KY 155
1581	KY 155 (Taylorsville Road) Streetscape Project
2607	KY 1747
359	KY 1747
386	KY 1747
2384	KY 1747/US 60
233	KY 1819
257	KY 1819
2214	KY 1931

KIPDA ID	PROJECT NAME
128	KY 1931\Greenwood Road
213	KY 1932
2016	KY 1932
2014	KY 2049
2114	KY 2050
464	KY 2052
1396	KY 2053
412	KY 22
414	KY 22
1488	KY 22
1790	KY 245
2777	KY 362
417	KY 44
494	KY 44
497	KY 44
2613	KY 44
418	KY 53
2780	KY 61
2606	KY 841/Renaissance Park
357	KY 864
1879	KY 864
465	KY 907
481	KY 907
2766	KY1747 (Fern Valley Rd/Hurstbourne Pkwy) Complete Street
1357	KY-61 Premium Transportation Corridor Project
2744	L&I Railroad Intersections: Montgomery Ave and S Clark
1634	Lagrange Road Bicycle & Pedestrian Improvements
321	LaGrange Underpass West of LaGrange
2752	Lewis and Clark Road Diet
1012	Lewis and Clark Trail
2103	Little Indian Creek Trail
1856	Louisville Loop Northeast Shared-Use Path System
2771	Louisville Loop Ohio River Levee Shared-Use Path System
1423	Louisville Loop Ohio River Valley Northeast Shared-Use Path System
2234	Louisville Loop Riverwalk Shared-Use Path System
1857	Louisville Loop Southern Shared-Use Path System
2388	Main Street & Story Avenue
2764	Marriott Drive Improvements

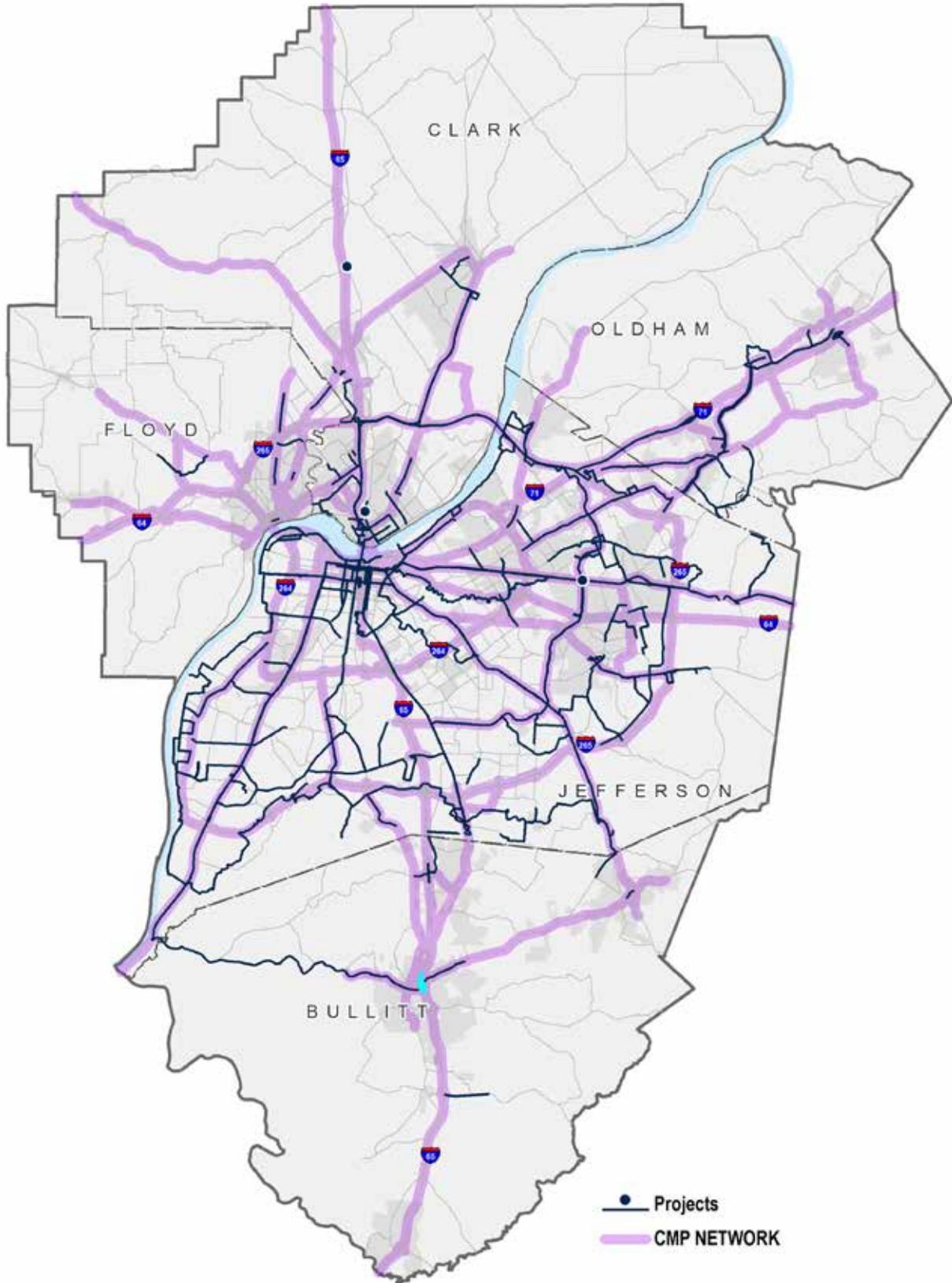
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KIPDA ID	PROJECT NAME
309	Mount Tabor Road
449	Mud Lane
2769	New Cut Road Complete Street
2750	North Clarksville Multi-Use Trail
2070	Northwest Mt. Washington Connector
1325	Old Heady Road
198	Old Henry Road
542	Old Vincennes Road Reconstruction Phase 3
327	Oldham County Bicycle & Pedestrian Trail
2142	Olmsted Parkways Bicycle/Pedestrian Improvements - Eastern Parkway Rehabilitation
1273	Olmsted Parkways Multi-Use Path System
1809	One-Way Street Conversion to Two-Way Phase 1
1810	One-Way Street Conversion to Two-Way Phase 2
2667	Outer Loop Circulator
1864	Park Hill Streetscape Improvements
2608	Plantside Drive
1332	Portland Neighborhood One-Way Arterial Conversion
181	Reconstruct Existing Interchange from Northbound KY-1747 to I-64 Westbound
2772	Reconstruction of South Clark Boulevard
2763	Reeds Lane Extension
2733	Reimagine 9th Street
163	River Road
2540	River Road Multi-Modal Improvements - 3rd Street to 7th Street
2463	Riverport Circulator - Access to Jobs in Southwest Louisville
2393	Riverside Drive
264	S. Brook Street
2739	Sam Gwin Extension
2749	Smyser Ave Relocation
1425	South Louisville Loop Connector
2756	Spring St - Eastern Blvd Intersection
2757	Spring St Eastern to Dutch
2754	Spring Street Revitalization and Enhancement
2768	Stansifer Ave Improvements
2408	TARC Cross River Connectors
1825	TARC High Capacity Corridors
2753	Three Forks of Beargrass Creek Greenways
472	Tucker Station Road
474	Urton Lane

KIPDA ID	PROJECT NAME
273	US 31W
2779	US 31W
230	US 42
476	US 42
479	US 60
480	US 60
2598	US 60
2610	US 60
2776	US 60
1352	US 60 Premium Transportation Corridor Project - Section 1
1362	US 60 Premium Transportation Corridor Project - Section 2
1354	US-150 Premium Transportation Corridor - Section 2
1359	US-31 W Sidewalk and Pedestrian Improvements
2738	Veteran's Parkway & I-65 North
1582	Watterson Trail Pedestrian and Streetscape Project Phase 1
1583	Watterson Trail Roadway and Pedestrian Streetscape Project Phase 2
1324	Watterson Trail South
1863	West Kentucky Street Project

Figure 82: Impacts to Congestion Management Process (CMP) Network

Source: KIPDA, 2019



ITS ARCHITECTURE IMPACT REVIEW

Technology is increasingly utilized to manage traffic, inform travelers, respond to roadway emergencies, and gather data to drive investment decisions. Intelligent Transportation Systems (ITS) projects in *Connecting Kentuckiana 2040* are included in KIPDA's [Regional ITS Architecture](#). The ITS Architecture is a roadmap for transportation systems integration in the MPA for the next 20 years and provides a starting point for project definition.

The following projects were recognized in the *Connecting Kentuckiana 2040* evaluation process for ITS components that aligned with the Regional ITS Architecture.

KIPDA ID	PROJECT NAME
2669	Connection 21
2232	Dixie TIGER project
2392	East Main St. (from State St. to E. 5th St.)
2770	Grant Line Rd. (Hausfeldt Ln. to Security Parkway)
1586	Grant Line Rd. South (Daisy Lane to McDonald Lane)
2748	Intelligent Transportation Systems - Priority Corridors
2787	On-board Intelligent Transportation Systems
309	Mount Tabor Road
2733	Reimagine 9th Street
2668	TARC Purchase Two Extended Range Electric Buses

AIR QUALITY ANALYSIS & CONFORMITY

STATUS

The presence of high levels of ground-level ozone and fine particulates, specifically PM2.5, have plagued the region for decades and meeting the National Ambient Air Quality Standards (NAAQS) have traditionally been an issue for the region. While air quality has steadily and significantly improved over the years, the national standards that must be met have consistently been strengthened. On-road mobile emissions are significant contributors to this problem; therefore, estimates of these pollutants and their precursors play a significant part in the regional transportation planning process.

Presently, the KIPDA region is designated as a non-attainment area under the most recent Ozone Standard, which was established in 2015. Non-attainment areas are established when any of the air quality monitors in a region show a violation of the EPA-established standards. The region was officially designated as non-

attainment under this standard in November 2017. EPA designated the entirety of Clark, Floyd, Jefferson, Bullitt, and Oldham Counties as the ozone non-attainment area, which is consistent with past precedent.

The KIPDA Region has been designated as being in attainment of the current PM2.5 Standard, which was established in 2012. All previous PM2.5 standards have now been revoked.

The graph shown below shows the Design Value for ground-level ozone in the KIPDA Region and the recent ozone standards. As required by EPA, a Design Value is determined from data from the monitors that are deployed regionwide. More specifically, the Design Values shown on this graph reflect the three-year rolling average of the day with the fourth highest monitored reading each year. The series of readings considered for this calculation is the highest 8-hour concentration over the course of each day.

Figure 83: Design Value, Ground-Level O-Zone

Source: Louisville Metro Air Pollution Control District



When a design value exceeds a standard, an area can be declared non-attainment of that standard. As the graph indicates, the local Design Values continue to trend downward as the standards are reviewed and strengthened periodically at a similar rate.

TRANSPORTATION CONFORMITY

Transportation conformity is the established process that links transportation planning and air quality planning. For a transportation project to be eligible to receive federal funding in non-attainment areas, a project must be included in a conforming Metropolitan Transportation Plan (MTP).

Due to the KIPDA Region being designated a non-attainment area under the 2015 Ozone Standard, KIPDA must show that *Connecting Kentuckiana 2040* conforms to the standard by estimating and analyzing future levels of regional on-road mobile emissions. This process is performed through a multi-step, multi-agency process. This process is established in a Memorandum of Understanding (MOU) between KIPDA and its air quality planning partners. The air quality planning partners include the air quality and transportation agencies at the local, state, and federal levels, which serve the KIPDA Region.

REGIONAL EMISSIONS ANALYSIS

The first step in the regional emissions analysis involves the creation of future year scenarios in KIPDA’s Regional Travel Demand Forecasting Model. These model scenarios include all projects that are expected to be open to the public by the year of the scenario, paired with land use assumptions in the form of population, household, and employment characteristics for the same year. The Interagency Consultation (IAC) Group, a group that includes KIPDA’s air quality planning partners, reviews and approves the planning assumptions used to model the projects.

The regional emission estimates of the ozone precursors were calculated using MOVES 2014b, the model currently required by EPA. Key output from the KIPDA Regional Travel Demand Forecasting Model, including VMT and speed outputs, are among the inputs to the MOVES model. The MOVES Model also incorporates additional parameters including detailed information on the fleet of vehicles

registered in the region, the fuels used, local weather/ climate conditions, among others. In the KIPDA Region, the established practice is for the Louisville Metro Air Pollution Control District (LMAPCD) to perform the emission modeling. LMAPCD provides the output of the MOVES Model, in the form of estimates of regional emissions of the ozone precursors, Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NOx) to KIPDA.

The regional emissions estimates of the ozone precursors are then compared to budgets for the precursors that are established in the State Implementation Plan (SIP). With the Ozone non-attainment area in this region encompassing a bi-state area, the budgets are bi-state budgets that are agreed upon by the state and federal air quality planning partners. Currently, the only budgets utilized are Year 2020 Budgets. For the MTP to be a conforming MTP, regional emission estimates from all scenarios modeled for the Year 2020 or later must be no greater than the budgets established in the SIP for 2020.

The table below shows the budgets established in the SIP for regional emissions of VOCs and NOx. With ozone being exclusively a summertime problem, the budgets and estimates represented in the table are estimates for a summer weekday, in kilograms per day. The years shown represent the five analysis years that have been modeled in this regional emissions analysis. Estimates for all five analysis years show regional emissions that are less than the budgets for each of the ozone precursors. Since neither of the budgets are exceeded, *Connecting Kentuckiana 2040* can be considered a conforming MTP.

Figure 84: Regional Budgets

Source: Louisville Metro Air Pollution Control District

	VOCs	NOx
Budget	20,793	26,726
2020	12,719	26,443
2025	9,441	16,501
2030	6,916	11,744
2035	5,434	9,400
2040	4,834	8,897

Each time *Connecting Kentuckiana 2040* is amended in the future, transportation conformity must be demonstrated again, and a similar process to the one described above will be undertaken.

For further information, including the detailed Conformity Report for the *Connecting Kentuckiana 2040* MTP Update, see Appendix I.

CMAQ ELIGIBILITY

The Congestion Mitigation/Air Quality (CMAQ) Program provides federal funding for projects that contribute to improving air quality in non-attainment or maintenance areas. The KIPDA Region has been eligible to receive funding through the CMAQ Program for many years and numerous projects have been funded with CMAQ funds. The region's current non-attainment status ensures that the region will remain eligible to receive CMAQ Funding.

Each state manages the Federal CMAQ dollars differently. Indiana sub-allocates a portion of the CMAQ dollars in Indiana to the urban areas across the state, such as KIPDA, that are non-attainment or maintenance areas. KIPDA initiates calls for potential CMAQ projects in Clark and Floyd Counties, and then works cooperatively with the local agencies in those counties to prioritize and award the CMAQ funding in the region. In Kentucky, CMAQ projects are awarded exclusively at the state level by KYTC. KYTC requests that potential CMAQ projects be submitted to MPOs. Those projects are then prioritized at the regional level but are awarded at the state level.

While the prioritization and award of CMAQ projects and dollars is primarily a function related to the administration of the Transportation Improvement Program (TIP), air quality improving projects were prioritized in the development of *Connecting Kentuckiana 2040*. Applicant projects that were thought to be CMAQ-eligible and among the project types established in the Clean Air Act that reduce on-road mobile emissions received points within the *Connecting Kentuckiana 2040* project scoring and ranking structure. These projects include those projects that have potential to improve the air quality through investments in improved public transit, in traffic flow improvements that do not significantly increase capacity for single-occupancy vehicles, and in bicycle and pedestrian improvements, among others.

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APPENDICES

IN THIS CHAPTER

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Appendix B: Public Participation Comments

Appendix C: Performance Measures & Targets

Appendix D: Project Evaluation Form

Appendix E: Environmental Consultation & Comments

Appendix F: LSIORB Project Funding

Appendix G: Candidates for Group Projects

Appendix H: Comprehensive List of Metropolitan Transportation Plan Projects

Appendix I: Air Quality Technical Memo & IAC Minutes

Appendix J: Metropolitan Transportation Plan Amendment Policy

Appendix K: Supplemental Reports

APPENDIX A: ACRONYMS

AADT	Average Annual Daily Traffic	GIS	Geographic Information System
ADA	Americans with Disabilities Act	GPS	Global Positioning System
ADD	Area Development District	HPMS	Highway Performance Monitoring System
AI	Artificial Intelligence	HSIP	Highway Safety Improvement Program
AV	Automated Vehicle	INDOT	Indiana Department of Transportation
BRT	Bus Rapid Transit	IM	Incident Management
CAV	Connected and Automated Vehicle	IMP	Interstate Management Program
CBD	Central Business District	IoT	Internet of Things
CHSTP	Coordinated Human Services Transportation Plan	IRI	International Roughness Index
CMAQ	Congestion Mitigation and Air Quality	ITS	Intelligent Transportation Systems
CMP	Congestion Management Process	KIPDA	Kentuckiana Regional Planning & Development Agency
CO	Carbon Monoxide	KYTC	Kentucky Transportation Cabinet
CO2	Carbon Dioxide	LOS	Level of Service
CV	Connected Vehicle	LPA	Locally Preferred Alternative
DMS	Dynamic Message Sign	LRP	Long-Range Plan
EJ	Environmental Justice	MOVES	Motor Vehicle Emissions Simulator Model
EPA	Environmental Protection Agency	MPH	Miles per Hour
ESL	English as a Second Language	MPA	Metropolitan Planning Area
EV	Electric Vehicle	MPO	Metropolitan Planning Organization
FAA	Federal Aviation Administration	MSA	Metropolitan Statistical Area
FAST Act	Fixing America's Surface Transportation Act	NAAQS	National Ambient Air Quality Standards
FHWA	Federal Highway Administration	NCHRP	National Cooperative Highway Research Program
FRA	Federal Railroad Administration	NEPA	National Environmental Policy Act
FTA	Federal Transit Administration	NHS	National Highway System
GHG	Greenhouse Gases		

NLT	Natural Lands Trust	TSMO	Transportation System Management and Operations
NO_x	Oxides of Nitrogen (Air Quality)	TTI	Travel Time Index
NTD	National Transit Database	UPWP	Unified Planning Work Program (of KIPDA)
O₃	Ozone (Air Quality)	U.S. DOT	United States Department of Transportation
PM_{2.5}	Particulate Matter finer than 2.5 micrometers (Air Quality)	U.S. EDA	United States Economic Development Administration
PMS	Pavement Management System	U.S. EPA	United States Environmental Protection Agency
PSR	Pavement Service Rating	V-2-I	Vehicle-to-Infrastructure
RMS	Roadway Management System	V-2-V	Vehicle-to-Vehicle
ROW	Right-of-Way	V/C	Volume to Capacity Ratio
RTMC	Regional Traffic Management Center	VMS	Variable Message Sign
RWIS	Road Weather Information Systems	VMT	Vehicle Miles Traveled
SDI	Surface Distress Index	VOC	Volatile Organic Compounds (Air Quality)
SHSP	Strategic Highway Safety Plan	Y-O-E	Year of Expenditure
SIP	State Implementation Plan (Air Quality)	UZA	Census Defined Urbanized Area
SOV	Single-Occupant Vehicle		
STIP	State Transportation Improvement Program		
STP	Surface Transportation Program (Highway Funding)		
TAP	Transportation Alternatives Program		
TAZ	Traffic Analysis Zone		
TBD	To Be Determined		
TDM	Transportation Demand Management		
TIP	Transportation Improvement Program		
TMA	Transportation Management Association		
TMC	Traffic Management Center		

APPENDIX B: PUBLIC PARTICIPATION

KIPDA followed the guidelines in the [Participation Plan](#) for collecting public feedback. The 30-day public comment period began on January 8, 2020 and lasted through February 7, 2020.

NOTIFICATIONS

Multiple avenues were utilized to create greater awareness of the involvement opportunity and to collect comments. Notifications for public involvement included:

- Advertising in area newspapers, including the Courier Journal, the News & Tribune, the Louisville Defender, alDía en América, the Pioneer News, and the Oldham Era
- Social media advertising

OPPORTUNITIES TO COMMENT

KIPDA staff developed a Public Comment App that allowed for online access to submit comments to the agency. The app was shared on social media and through the KIPDA website.

KIPDA held eight public meetings in the five-county region to provide in-person access to review and comment on the draft *Connecting Kentuckiana 2040* MTP.

- January 8, 2020, 5:00 p.m. – 7:00 p.m.
New Albany Floyd County Library
180 W Spring St.
New Albany, IN 47150
- January 14, 2020, 5:00 p.m. – 7:00 p.m.
Northeast Regional Library
15 Bellevoir Circle
Louisville, KY 40223
- January 15, 2020, 5:00 p.m. – 7:00 p.m.
TARC Union Station
1000 W. Broadway
Louisville, KY 40203

- January 22, 2020, 5:00 p.m. – 7:00 p.m.
John Black Community Center
1551 N. Hwy 393
La Grange, KY 40031
- January 23, 2020, 5:00 p.m. – 7:00 p.m.
Clarksville Council Chambers
2000 Broadway Street
Clarksville, IN 47129
- January 28, 2020, 5:00 p.m. – 7:00 p.m.
Portland Library
3305 Northwestern Pkwy
Louisville, KY 40212
- January 29, 2020, 5:00 p.m. – 7:00 p.m.
Shepherdsville City Hall
634 Conestoga
Shepherdsville, KY 40165
- February 5, 2020, 5:00 p.m. – 7:00 p.m.
Southwest Regional Library
9725 Dixie Highway
Louisville, KY 40272

Copies of the draft MTP were also distributed to all public libraries in the five-county region. Comments were also received via email to kipda.trans@kipda.org.

PUBLIC COMMENT REVIEW

260 comments were submitted to KIPDA for the MTP through the online portal, email, and from the eight public meetings held.

As defined in KIPDA's [Participation Plan](#), KIPDA staff hosted the Transportation Policy Committee Public Comment Review Working Group on February 18, 2020 for Transportation Technical Coordinating Committee (TTCC) members and Transportation Policy Committee

(TPC) members to carefully review and discuss the comments. All TTCC and TPC members were provided all public comments and all were invited to participate.

The Working Group was pleased to see so many comments and recognized the contribution the public has made in enhancing the region’s mobility. The Working Group, which was provided the comments in advance, concluded after discussion that the public input was helpful and should be carefully considered as plans and projects advance. The Working Group also agreed that the submitted comments do not introduce issues that would delay the TPC’s consideration of the draft *Connecting Kentuckiana 2040* MTP as submitted to the February 27, 2020 TPC meeting.

The TPC Working Group developed the following summary from the public comments and discussed how comments were considered and will continue to be considered moving forward.

As part of the discussion of all the submitted comments, the Working Group noted the following related to some of the items that were mentioned repeatedly in the public comments:

- **Louisville Loop** – There was notable support for completing the Louisville Loop shared-use path network.
- **Bike Facilities** – Comments supported the expansion of bicycle infrastructure with an emphasis on dedicated bicycle lanes. Comments also included the need to enhance connectivity of the bicycle network. Cyclist safety was also raised in the public comments.
- **Pedestrian Facilities** – Similar to the Bike Facilities, there was support for expansion of the pedestrian network, improving pedestrian connectivity, and providing safe pedestrian options.
- **Transit** – Transit enhancement and expansion was mentioned in the comments. The inclusion of dedicated transit lanes was also noted.
- **Project Priority and Implementation** – Comments addressed the priority of project funding relative to mode and use of resources. Comments also discussed advancing project implementation in a timelier manner.
- **Expansion** – Comments were made suggesting the expansion of the roadway system is not warranted. There were also comments stating that expansion projects are needed.

- **Low-income areas** – Comments suggested that investments be prioritized in low income areas with additional consideration given to pedestrian expansion and enhancements.

The Working Group asked that the comments be categorized by mode. The number of comments related to a particular mode does not indicate support, or lack of support, for a transportation mode. This information is shown in the public comments and summarized here:

Mode or Plan Element	Number of times each mode or plan element was the primary topic of a public comment:		
	TIP	MTP	Total
Programs	0	2	2
Roadway	5	70	75
Bike/Ped	36	139	175
Transit	5	29	34
Interstate/ Interchange	6	18	24
Schedule/Funding	14	40	54
Other	6	21	27

The working group asked that the public be made aware of the following:

- The public can stay apprised of the status of projects by regularly viewing the [Transportation Improvement Program \(TIP\)](#) on KIPDA’s website. The TIP is a living document that outlines the year in which Federal funds can be authorized for each project phase.
- The MTP does not constrain future potential improvement projects to current funding category eligibility limitations. Being fiscally reasonable is a comparison of anticipated project and program costs compared to planning level estimated federal funding availability. Federal funding eligibility is likely to vary over the planning horizon and the MTP assumes future funding will be flexible to cover the identified project types. The TIP must and does consider eligibility limitations on currently available funding categories. Funding is discussed further in Chapter 5 of *Connecting Kentuckiana 2040*.

Project sponsors have been made aware of all project-specific comments and have and will continue to be encouraged to consider these comments as projects are developed.

Planning is continuous; the TPC will continue to use the public comments to inform all planning activities including the next MTP. *Connecting Kentuckiana 2040* was heavily influenced by the public input received during the development of and over the life of the previous MTP. Examples of how public involvement was incorporated into the *Connecting Kentuckiana 2040* MTP planning process and again in future planning efforts include:

- Public comment was used by the TPC to help inform the development of the *Connecting Kentuckiana 2040* Goals and Objectives

- The public comment was geo-coded and provided to sponsors when identifying possible projects and programs for inclusion in *Connecting Kentuckiana 2040*.
- *Connecting Kentuckiana 2040* incorporated public comments into the project review, evaluation, and ranking process by recognizing a project’s contribution to addressing public comments.

Note: Typographical errors were identified through the public comment period. KIPDA staff will correct these minor errors before posting the document as final.

LIST OF PUBLIC COMMENTS RECEIVED

GENERAL COMMENTS

Public Comment App	Intersection of Hwy 150 onto I64 East bound. When are you going to recognize this as a critical problem?
Public Comment App	<p>KIPDA,</p> <p>I vehemently object to building the proposed additional roads and wider roads at the periphery of our currently developed land area. We should refuse building additional roadways into these areas, as they induce development into their land areas, which cause the construction of all other types of infrastructure (sewer, other roads, sidewalks, electric and gas utilities, etc). The land development pattern that will be constructed along these new/wider roads does not produce enough tax revenue to support the long-term maintenance of all of these pieces of infrastructure. As a result, the tax revenue of our entire community will get stretched even more thin to support more far flung development - caused by this MTP's planned road widening and expansion projects at our city's edge cause. We already lack the money to pay for and maintain the infrastructure we have. How are we supposed to pay for more? This plan continues to overburden our future generations with financial and environmental liabilities we will be unable to pay.</p> <p>Our community cannot afford more acres of developed land to maintain. We must understand that our decisions to build new and wider roads induce growth outward. We can induce growth within our CURRENT area of development by focusing on excellent maintenance of our existing roadway network - and making the current roadways conducive more to walking, biking, and public transit than to driving in a car.</p> <p>I am disappointed by the underwhelming goals for our dedicated bike network and pedestrian walkway network. Those goals are paltry.</p> <p>There are some good projects in this plan - including the redo of Main/Story intersection, more Louisville Loop, two-waying streets downtown and in Portland, the Bardstown Road project, and Beargrass Creek efforts. But, the money being applied to these projects is small fry in comparison to the damage the community will suffer as a result of the road additions and widening proposed in Oldham County, Bullitt County, and eastern Jefferson County.</p> <p>Outward growth is not a predetermined or predestined outcome - roads enable this growth. In the same way, if we choose we don't want this outward growth, we can choose not to grow or expand these roads. And that is exactly what we need to do. For our pocketbook and for our planet's health. We cannot have more car traffic - it is a huge cause of carbon emissions. We need to shift away from a land-development pattern where the only way to get around is in a car.</p>

Public Comment App	<p>US-60 improvements are desperately needed in the Middletown, KY area. Commercial and residential development have created a traffic nightmare. US-60 afternoon traffic starts at 2pm and doesn't subside until 7pm. The US-60 and I-265 interchange was outdated 10 years ago. Please expedite that project. We need an interchange similar to the US-60/I-264 configuration which eliminates left hand turns.</p> <p>The Louisville Loop shared use path seems to have stalled in eastern Jefferson County. We haven't seen any progress or even update information for the Middletown-Eastwood Connector or the continuation of the loop north of US-60. Please make that a priority and please update the public on the project status.</p> <p>Thank you.</p>
Public Comment App	<p>LIGHT RAIL is essential for a vibrant successful 20 year regional transportation plan.</p> <p>Louisville got Two bridges, we can get light rail if the community aspires to that goal.</p> <p>Saint Louis, Dallas, Atlanta, DC have built their light rail infrastructure over the past 30 years.</p> <p>Chicago has improved its EL over the past 40 years (eg extension to O'Hare).</p> <p>Amazon would not CONSIDER going to a city without a transportation system other than cars.</p> <p>Consider the apartment development along Factory Lane. How are these people supposed to get downtown. The freeway system is already at rush hour capacity.</p> <p>Light rail would markedly enhance Louisville future (eg 20-50 year and beyond) economy.</p> <p>Louisville, Lexington, Cincinnati, Indianapolis, Nashville, St Louis SADLY lack convenient, relaxing intercity transportation, typified by the high speed rail model prevalent in Europe.</p>
Public Comment App	<p>The current plan IGNORES pedestrians. Every day each of us is a pedestrian unless we are in a motorized wheelchair. This plan is inadequate to ignore pedestrians. Maybe KTC is wanting to lessen Kentucky's population by increasing pedestrian deaths which have been on the increase in the last several years. What is the number of pedestrians that must die before KTC considers making mobility safer for pedestrians?</p> <p>I would like a response to my question.</p>
Public Comment App	<p>Additional interstate lanes have never reduced congestion when in a congested environment. Every city in the US can attest to that fact. Additional interstate lanes induce more trips, resulting in the same level of congestion. Reducing congestion on the major roads is achieved by changing trips to alternate forms of transportation including inherently dense modes such as bus and train.</p> <p>All modes of transportation need to be the priority. People will walk, bike, e-bike, and scooter, when given a safe travel path without the fear of getting hit by a vehicle.</p>
Email	<p>Hello KIPDA,</p> <p>I appreciate that the MTP 20-year plan acknowledges climate change and that transportation has a big role in reducing GHG emissions. As those conversations continue, how possible is it going to be to change this plan along the way to include new ideas?</p> <p>While the plan brings up many examples of ways to work on this issue (encouraging ride sharing, bikes, more alluring transit), I'm confused about how the projects will be accomplished. It looks like projects can be undertaken by different groups in the community (unless I'm wrong). Is there a way to ensure these ones get done?</p> <p>In the Performance Management Plan, environmental sustainability is one of the federal requirements, but I don't see any metrics/specifics listed anywhere on the MTP itself to measure that air pollution/GHG emissions are actually decreasing. I realize there's a lot that could be said there, but it's irritating to be redirected so many times to other documents and sites. It would be nice to have a brief summary on the MTP itself. I see that KIPDA is planning to do its own air quality analysis and update it every four years...is that happening this year, or going to be completed and added in 2024?</p> <p>Thank you!</p>
Public Meeting	<p>Would like to see access to Broadway from Lewis and Clark for economic growth to hotel/motels that are on Broadway. (Clark County Public Meeting)</p>
Public Meeting	<p>More transportation options are needed between where people live and where jobs are. Also better and more affordable connections are needed for getting to and from transit stops. More affordable transportation options are needed for those a fixed income. (Public Meeting at TARC)</p>

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Public Meeting	Only 3% of funding goes to transit, would like to see more investment of funds in transit. (Public meeting at TARC)
Public Meeting	Please change stoplight cycles on Westport Rd. and Hurstbourne Lane so that left turns in opposing lanes go at same time. Review from current system where one lane goes opposing, while the other opposite lanes wait. Time consuming and not practical. Also change all others with same issue. (Public Meeting at Northeast Regional Library)
Public Meeting	Priorities-1) Maintenance of existing infrastructure. 2) Improvement of pedestrian and bicycle safety. 3) Selected improvements at bottlenecks/planning of land use to align with transportations (concurrent development). 4) Innovative/best practices. (Public Meeting FLOYD County)
Public Meeting	Shift schedule one express bus to Lyndon- eight hours exactly right now. Add more buses to be more convenient. Bike lanes in Lyndon. Safe and accessible 1st step for TARC to expand revenue. Change perception that TARC is safe. Protected, separated bike lanes will increase magnitude of riders. Prefer to have sharrow over narrow bike lanes that cars don't move over for. (Public Meeting at TARC)

PROJECT-SPECIFIC COMMENTS

Please refer to Appendix H for additional project details.

KIPDA ID	Project Name	Agency	Comments
147	KY 393	KYTC	Please do not leave this project incomplete. The underpass is desperately needed.
			This needs to be done to finish the portion that was already built south of the RR.
			This project should be completed asap, because of the unsafe rail crossing. Especially at peak school hours.
179	I-265	KYTC	The tight cloverleaf at this interchange is dangerous. But surely the project cost could be reduced from \$38M.
181	Reconstruction Existing Interchange from Northbound KY 1747 to I-64	KYTC	Is this really necessary and worth \$83 million?
198	Old Henry Road	KYTC	I thought this project was stopped because of a historic site.?????
213	KY 1932	KYTC	A bike lane or a parallel multi-use path would be helpful. More car lanes are not needed.
			I object to this project if it in any way will widen the road for the purpose of additional car travel lanes.
			Make a separated bike lane for suburban workers. Many do not want to drive!
224	I- 65	Louisville Metro	Instead of spending \$12 million on a redesign - let's get rid of this ramp option completely. We can restore MANY acres of land to the urban fabric and rely on other ramps.
			Let's rephrase this. Complete and improve pedestrian and bicycle safety and facilities near the I-65 exit to Brook Street. The project will consider improvements to the ramp."
233	KY 1819	KYTC	Improve bike/ped from existing Moser Rd to Watterson Trl/Bluegrass Pkwy intersection Moser's sidewalk stop approx. 800ft from Watterson Trl.
			Improve intersection at Moser and Watterson trail. Fantastic candidate for a traffic circle. Pretty please.
258	Blowing Tree Boulevard	Louisville Metro	There are very few side streets here, so a center turn lane does not appear to be necessary. Instead, ensure continuous sidewalks on both sides and consider bike lanes.
260	Bowling Boulevard/ Christian Way	Louisville Metro	Adding more lanes will only add more cars. We should add bike lanes and a bus line
			Create a protected bike lane
			Should be 3 lanes (3rd is center turn). Five lanes is excessive and would induce too much traffic through city of Hurstbourne.
			This requires a bridge over I-264. Bridge cost could be reduced by making it a non-motorized shared-use path only.

KIPDA ID	Project Name	Agency	Comments
265	Bunsen Boulevard/ Christian Way	Louisville Metro	Adding more capacity will result in more traffic. We should prioritize alternate means of transport like busses and bike lanes
			It would be better to change it to three lanes, plus a two-way protected bike path.
359	KY 1747	KYTC	??? Hurstbourne is 6 or 7 lanes at Linn Station Road!
384	Hubbards Lane	Louisville Metro	I also think widening would be counterproductive here. People already go very fast and it is a scary street to cross when walking by myself or with a stroller. Please prioritize the bike path and reprioritize the turn lane.
			I strongly object to widening Hubbards Lane! Instead, plant trees along the street, improve connectivity for use of the broader street network surrounding this area, and make it safer to get places on bike (protected lanes!)
			Please prioritize the bike path. This road has no shoulder. This road is dangerous to bike especially where it crosses the tracks. There is a concrete curb at the center line. Cars force themselves between the curb and the cyclists. There's no room
			Restrict left turns into Beechwood Village from Hubbards at Blenheim and you will fix most of the backup issues for southbound traffic
			Yes to the bike lanes - a protected 2-way cycle track. There should be a connection to the proposed Beargrass Creek paths (2753) at Brown Park.
389	I- 64	KYTC	Charge the One Park developers to rebuild the Cochran Hill tunnel exit, which they will be overloading; As it is, traffic backs up onto I-64. More load increases the likelihood of an accident where someone will be killed.
			It looks like your plan is to run commuter traffic through the Cherokee and Seneca parks so the big money can get their tower at Lexington and Grinstead. SHAME on you.
			What are the "improvements" you mention here? I suggest turning this section of I-64 into a street. This section needn't be an interstate! Do NOT widen it.
390	I- 64	KYTC	Why would this be needed? There are already roads there.
412	KY 22	KYTC	Start this segment now!
			The project should accommodate bicycle and pedestrian travel, not merely "consider" it!
414	KY 22	KYTC	This project should also address the sight distance at Haunz Lane.
			This segment should be given priority instead of Abbott Ln to Centerfield Dr. Because of unsafe conditions and congestion in Crestwood.
			This should be a priority and include the intersection improvements at Clore Ln.
			We need separated bike/transit lane to make it actually feasible to bike when cars are speeding.
428	KY 146	KYTC	Continuous turning lanes should be included in this project to accommodate business and school access. Especially at Colonel Dr.

KIPDA ID	Project Name	Agency	Comments
446	KY 1931	KYTC	The project should do more than "consider" accommodations for bicyclists and pedestrians. There should be continuous sidewalks on both sides of the road and either bike lanes, a cycle track, or a separated multi-use path.
474	Urton Lane	Louisville Metro	<p>Project 2608 (Plantside Drive extension) should be merged with this project between a point about 0.5 mile north of Rehl Road and a point just south of the Norfolk Southern Railway.</p> <p>We need to have smart development here to account for the amount of seniors living in this area. Pretty soon, they are going to age out of driving their own vehicle and will need access to transit services. Density and planning for this will reduce traffic</p>
476	US 42	KYTC	<p>Adding lanes will only add more cars. We need to have fewer cars not more. Bike lanes and more buses will do more good than more lanes</p> <p>Bicycle lanes are a necessity on this route. It is currently unsafe. The neighborhood grocery and most retail space (drug stores, restaurants) are on this route</p> <p>Improve sidewalks and consider a two-way protected bicycle track. Additional traffic lanes will just induce more traffic and congestion will return.</p>
480	US 60	KYTC	<p>Forget the added traffic lane. That would just induce more traffic and congestion would return. Put in a protected two-way bicycle track and/or a dedicated bus lanes instead. Either would reduce traffic. Both would reduce it more.</p> <p>If you build biking facilities, make them WONDERFUL - protected and pleasant for riding. And, don't widen the street for more car lanes - the principle of induced demand proves it will just attract more cars and encourage driving.</p> <p>Please prioritize the bike path over the extra lane. Even if it's congested, cars can safely use this road, bikes can't. This is especially true at cloverleaf with I-264. I live in Lyndon and can't access any of the retail services due to the danger</p> <p>This would road would be ideal for a dedicated bus lane to the downtown area. Decreased travel time will encourage riders</p>
484	KY 1447	KYTC	We need transit lanes on this road for Ford commuters. A neighborhood transit station would be great for central access to airport and downtown.
491	I- 65	KYTC	Adding more capacity will add more cars and result in the same congestion. The more we encourage expansion, the more expansion we'll get. We should build up, not out
958	I-265	KYTC	<p>A big waste of money. Widening would increase congestion by inducing more traffic.</p> <p>Strongly object to widening this interstate. Widening a roadway increase VMTs, which we need to decrease to fight climate change. It is also irresponsible spending because it will not solve congestion (i.e. induced demand will just attract more traffic)</p>
959	I-265	KYTC	Don't widen our interstates. It only serves to encourage more driving and will saddle our community with more maintenance obligations. We need to invest in carbon-reducing transportation - not infrastructure that encourages driving.
1188	Luther Lockett Collector	Oldham Co.	This should be completed to eliminate prison traffic from neighborhoods.
1271	US 42	KYTC	US-42 should be widened all the way to KY-1793.
1273	Olmsted Parkways Multi-Use Path System	Louisville Metro	Great project! Should be a high priority.

KIPDA ID	Project Name	Agency	Comments
1332	Portland Neighborhood Transportation Plan	Louisville Metro	<p>Highly support the conversion from one-way to two way.</p> <hr/> <p>We need transit connecting Portland to suburbs in a fast manor. Portland deserves to have a transit station</p>
1338	River Road Extension	Louisville Metro	<p>Fully support this project. Would suggest getting it done sooner than 2024.</p>
1352	US 60 Premium Transportation Corridor Project - Section 1	Louisville Metro	<p>Bike lanes and traffic speed limiting here would be great. As well as sidewalks that actually connect down shelbyville rd without hopping through unoccupied car dealerships.</p> <hr/> <p>I crossed this road running with my toddler in a stroller (to get to the park behind best buy) and had a woman in a car follow me warning me about how many pedestrians had recently been hit. Please make this road safe for people and not a superhighway</p> <hr/> <p>Make Shelbyville Road similar to Frankfort Avenue experience with protected bike lane and transit lane that would make speeds COMPARABLE OR BETTER than using a single occupancy vehicle</p> <hr/> <p>Tremendous opportunity to make a multi-modal road with lanes and space dedicated to pedestrian, bikes, e-bikes, and scooters. The density of people and businesses is a perfect place for this type of investment</p>
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1	Louisville Metro	<p>Address pedestrian safety Broadway and Baxter. Connect the Baxter sectionTo Jefferson and NuLu using connectivity and two way over one way.</p> <hr/> <p>Bardstown Road FIRST, sooner, curb bumpouts, Road Diet, 24 hr parking</p> <hr/> <p>Bardstown Road FIRST, sooner, curb bumpouts, Road Diet, 24 hr parking</p> <hr/> <p>Bike lanes instead of parking on one side?</p> <hr/> <p>Bus transit to downtown.</p> <hr/> <p>Crosswalks better designated for drivers to easily see. Like the idea of bump outs.</p> <hr/> <p>Ditch the lane lights! Add more midlane cross blocks and improve sidewalk quality. This is not safe for people walking. Prioritize this project and get it done sooner.</p> <hr/> <p>Expidte the project to save lives. Would love a beeline bus designated from several stops on Bardstown Rd to Downtown and Nulu</p> <hr/> <p>Get rid of all ping pong lites. Allow parking on both sides of the street with no strictionl. 2 lanes of traffic with 1 center turn lane</p> <hr/> <p>Great plan. Let's get it done.</p> <hr/> <p>High vis crosswalks, bumpouts, bike lanes, improve lighting</p> <hr/> <p>If drivers are still not warming up to bike lanes, then we need to increase TARC ridership and get more 17, 23, and 40 buses to remove cars off the road and alleviate the traffic and parking issues.</p> <hr/> <p>Include the roads connecting to Frankfort and Lexington</p> <hr/> <p>Kill ping pong lights. Express bus line to connect with Bardstown Rd, NULU and downtown. Extend island and make pedestrian safe middle zone.</p> <hr/> <p>Let make this happen...sooner, rather than later! Thanks</p>

KIPDA ID	Project Name	Agency	Comments
1353	Baxter/Bardstown Premium Transportation Corridor - Section 1 (continued)	Louisville Metro	Let's make this happen. This area needs improved infrastructure for non-motorized users... too many pedestrian and cyclist collision with vehicles.
			More crosswalks, better sidewalk lighting, dedicate bike lane, connect us to other corridors, stop parking ban/4 lanes
			One lane each direction, Left hand turn lanes at major intersections and street parking on both sides
			One lane each direction, turn lanes at major intersections, street parking that allows for the formation of safe cycling lanes. Please look at cycling lanes in Europe that are separated by cobblestones or varied heights to keep everyone safe.
			Pedestrian safety and accommodation of public transit. Too much focus on cars
			PEOPLE first design. Dedicated bike lanes. Bumpouts, high vis crosswalks, trees to cover the roadway and clean the air. Everyone pays for parking, and lighting that creates a mood and makes it safe for PEOPLE at any time.
			Please remove the dangerous and confusing lane switch lights. This safety plan needs to be implemented as soon as possible.
			Prioritize Bardstown Road section. Better identify TARC stops.
			Remove all on street parking and have 1) dedicated bus/emergency vehicle lane and 2) concrete/bollard protected bike/scooter/slow mobility lanes.
			The sooner the better to implement the safety plan. This is a busy and dangerous area.
			The majority of all pedestrian strikes occurred in this section of the Bardstown Road corridor. We can't wait until 2030. There is the potential for an additional 90 (9 per year) pedestrian strikes if we wait another 10 years.
			This has to be a priority with all of the visitors and residents in this densely populated area.
Why does Bardstown Road only turn into 8 lanes once it gets to the minority neighborhoods? There is nothing walkable about Beuchel! Most transit is a football field away from the store because of the parking lot! Elderly people can't get out of their home			
yes to complete streets! And please improve pedestrian and cyclist connectivity to NuLu and Butchertown. High priority			
1357	KY 61 Premium Transportation Corridor Project	Louisville Metro	Preston Highway VERY much needs complete street improvements over anything else listed in this description.
1362	US 60 Premium Transportation Corridor Project - Section 2	Louisville Metro	Please add bike paths. This road is a real danger to us
			The study needs to take all transportation modes into account: ped, bike, transit, and maybe cars, too.
1425	South Louisville Loop Connector	Louisville Metro	Bike lanes are the most useful along arteries that don't have smaller streets that run parallel. This route has those. Shift these funds to other projects
1478	I- 71	KYTC	Don't widen I-71! Instead, make this interstate a boulevard that is at grade - or leave it alone and spend the money elsewhere.
1488	KY 22	KYTC	All businesses are on KY-146 between Pryor Ave and KY-329 Bypass. That section should be widened.

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KIPDA ID	Project Name	Agency	Comments
1489	KY 22	KYTC	This project should be pushed out to a future date. Priority should be given to Murphy Ln to KY329.
1514	I-265 Rehl Road	Louisville Metro	Is this really necessary?
1634	LaGrange Road Bicycle & Pedestrian Improvements	Louisville Metro	Bike lane width needs to be 5 feet. Otherwise, great project.
1662	A.B. Sawyer Shared Use Path	Louisville Metro	Goos project. The path needs to connect to bike lanes or other multi-use paths at each end.
1726	KY 524	KYTC	Fix hillside from the road to the creek.
			This section is constantly a dangerous road and should be fixed to eliminate the undermining of the road by rain water.
1791	LaGrange Road Pedestrian Facilities Project	Louisville Metro	Sidewalks are great, bike lanes are a must. This is a dangerous route for bikes. There is no shoulder and the east bound lane has a steep drop into a ditch. There is no safety buffer for bicycles
1809	One-Way Street Conversion to Two-Way Phase 1	Louisville Metro	All of these streets were designed before cars were invented! Pick up trucks from tourists take up two or three regular spots and are keeping customers from parking at businesses! What's the point of having parking lots on the sides of our roads?
			Convert all the one-way streets to two-way!
			I would prefer protected bike lanes to two-way streets
			Let's put bike lanes on these streets AND do two way conversions - use parking space for bike lanes
			Yes! Convert these streets to two-way and replace signals with stop signs. And, do more roads than just the identified ones here. We need more two-ways in the Shelby Park an Smoketown neighborhood, for example.
1810	One-Way Street Conversion to Two-Way Phase 2	Louisville Metro	Convert all the one-way streets to two-way!
1825	TARC High Capacity Corridors	TARC	This would be a good corridor for a dedicated bus lane. Decreased travel times will increase riders
			We need covered bus stations with rapid service to match foot traffic! Most business are active until very late at night
1856	Louisville Loop Northeast Shared-Use Path System	Louisville Metro	Multi-use pedestrian paths will generate investment and tremendous use assuming that the car/pedestrian crossings can be managed effectively. If cars remain the priority at the intersections, little will be gained.
			This should be a high priority. Property and easement acquisition needs to be already underway.
1864	Park Hill Streetscape Improvements	Louisville Metro	We need to develop the parking lots caused by Urban Renewal. Allowing for transit over cars will help attract new investment for the many seniors who are getting too old to drive!

KIPDA ID	Project Name	Agency	Comments
1915	Dutchmans & Breckenridge Lane Intersection Improvements	Louisville Metro	Added lanes would not help. Maybe barriers to force earlier lane selection would reduce congestion and accidents.
			I'm not sure how more lanes help here. Half the problem with this intersection is people being in the wrong lane, waiting until the last minute to change. That and people trying to fundraise, walking through cars, preventing movement when the light turns.
1936	Old Henry Road	KYTC	With new homes going up in the Oldham section of Fox Run and the 400+ units Ball Homes is building on Factory Lane, Old Henry will be seeing an ever increasing amount of traffic in the coming years. Make this project a priority.
1965	12th Street Extension	Louisville Metro	It would be best to make the extension for pedestrians and bicycles only.
2014	KY 2049	KYTC	The project should do more than "consider" pedestrian facilities; there need to be continuous sidewalks on both sides. Bike lanes if there is room. No additional car lanes!
2016	KY 1932	KYTC	A bike lane would be an improvement. More car lanes would not; they would just induce even more traffic and the congestion would resume. Maybe TARC could increase service along this segment: A circulator bus linking to routes 19, 40, and 62.
			Don't widen this street! Don't spend \$27M on a project that will only encourage more driving and saddle us with maintenance obligations.
			Please don't add more lanes. This road is filled with lanes and is congested enough. I would love to be able to bike safely from my house on alton to any of the stores here, but this stretch already encourages fast driving and wild lane changes for cars
2024	I- 71	KYTC	The KY-53 bridge should be widened to include bike/ped accommodations.
2064	East Market Street Streetscape Improvements	Louisville Metro	The bike lanes needs to be further from parked cars to reduce the chance of dooring. It also should be wider; either eliminate a car lane or minimize parallel parking.
			YES! Please implement this project to make pedestrian and bike movement. Suggest the bike lane could be on both sides of the street and reduce number of car lanes further.
2103	Little Indian Creek Trail - Phase 1	Floyd Co.	Wow!! What a waste of taxpayers dollars. There are two huge schools that you can hike around for exercise. This is the rural area! Not a city
2114	KY 2050	KYTC	Bike lanes will encourage non-car travel by connecting 2 retail centers (Crossgate & Westport Village) with surrounding residential areas
			Needs continuous sidewalks on both sides. Bike lanes (or a two-way cycletrack) would reduce congestion. A center turning lane is not really needed here.
2121	I- 65	KYTC	\$145 million dollars?! How about instead we make I-264 a boulevard and get rid of this interstate all together. Then we don't need to rebuild this interchange in such an expensive fashion.
			This is an expensive solution looking for a problem. Please scrap this project!
			We need a transit station that connects to each neighborhood in Louisville via neighborhood stations. EVERYBODY needs to be able to go the airport.

KIPDA ID	Project Name	Agency	Comments
2142	Olmsted Parkways Bicycle/Pedestrian Improvements	Lou. Metro Parks	A great project to pursue. And when done, use the same ideas on Lexington Rd, Frankfort Ave, Southern Parkway, and many others.
			Please accelerate the implementation of this project. Would like to see protected bike facilities the entire length, road redesign to slow car speeds, and many more crossing opportunities for people on foot.
			Protected bike lanes and a parallel road down I-65 for college students biking to class! Currently many have to dart into traffic to make it to class without a car!
			Traffic circles to avoid collisions with turning cars!
2152	I- 71	KYTC	Don't widen our interstates! We don't want more vehicle miles traveled. We don't want more carbon emissions. We don't want more development at the edge of the county. We don't want more maintenance burdens in the years to come.
2234	Louisville Loop Riverwalk Shared-Use Path System	Louisville Metro	Connect K & I bridge to New Albany. Sherman Minton has no bike facilities and walking on it will be dangerous. There is a way to be a mirror to the Big 4 Bridge in the West End, which would be amazing for economic development
			This project deserves top priority. Would suggest extending this project to also include a pedestrian crossing at the K&I bridge
2388	Main Street/Story Avenue Intersection	Louisville Metro	A conversion to 2-way needs to be done in connection with this.
			Convert to a standard 4-way intersection. Or put in a traffic circle if there is room.
			Yes! Critical to better connecting Nulu with Clifton and the Highlands. And, crucial for better and safer connections for walking and cycling.
2408	TARC Cross River Connectors	TARC	Bike lanes on 2nd street bridge connecting to Ohio River Greenway
			Bike lanes on the 2nd street bridge will be useful
			On the 2nd Street Bridge, instead (a) install protected bike lanes (b) implement a toll for cars equal to the new bridge
2533	I-64 Sherman Minton Corridor Maintenance	INDOT	CONNECT THE K & I BRIDGE TO NEW ALBANY! IT IS WHAT THE TOWN WAS BUILT AROUND!
			Suggest reevaluating the need for 6 car lanes. Instead, what if we took the upper deck of this bridge and converted it into a park that provides walking and bike access. Then, the lower deck is for cars.
2602	I- 71	KYTC	Back ups don't seem to be caused by narrow or lack of lanes. They appear to result from an inefficient interchange with I-264
			STRONGLY Object to widening I-71. Instead, how about we bring I-71 down and turn it into a boulevard?
2606	KY 841/ Renaissance Park	KYTC	Is this really necessary?
2608	Plantside Drive	KYTC	This project is in conflict with the proposed Urton Lane extension (474). The two projects should be merged between a point about 0.5 mile north of Rehl Road and a point just south of the Norfolk Southern Railway, where a bridge has already been started.
2614	Commerce Parkway Widening	Oldham Co.	Future development requires this widening.
			Increase demand because of new ramps and commercial and industrial development should indicate that this should be done sooner.

KIPDA ID	Project Name	Agency	Comments
2615	Kenwood Road	Oldham Co.	Traffic congestion in downtown Crestwood is horrible. Please build this road.
2669	Connection 21 - Signal System Upgrade and Research	Louisville Metro	An integrated transportation system would allow traffic control staff to dynamically adjust traffic lights to relieve congestion.
2740	Bardstown Road Safety Study Implementation - Southern Phase	Louisville Metro	<p>Add mid-block crosswalks and cue bump outs</p> <p>Address Baxter Broadway pedestrian access at the cemeteries.</p> <p>Address crosswalks and amplify design. Amplify and respect bus stops which are routinely used as parking spots.</p> <p>Bardstown has to be a priority. Too many cars, pollution going through our neighborhood. It's not safe. We need option D although it is missing a bike line, which is needed. More crosswalks needed too-it's unsafe to cross and the existing ones are not OK</p> <p>Bardstown Road should include a bike lane. If not, the plan MUST include and excellent alternative of connected, protected bike lanes on adjacent streets all along the corridor. Not acceptable to not address biking facilities at all.</p> <p>Crosswalks</p> <p>Crosswalks better designated for drivers to easily see. Like the idea of bump outs.</p> <p>Curb bump outs</p> <p>Curb bump outs and lighted cross walks are needed. I would like to see a dedicate bike lane and if that's not possible, then a strong alternative route that is clearly protected and marked and promoted.</p> <p>Curb bumpouts, ROAD DIET, high vis crosswalks. PEOPLE First!!</p> <p>Great idea. Prioritize the "Northern " and Bardstown/Baxter part of this project first. The greatest threat to pedestrians is in those areas.</p> <p>Improve pedestrian safety. Add signed to middle of crosswalks reminding drivers it's state law to stop for pedestrians.</p> <p>Invest in making Bardstown Rd more pedestrian friendly. More crosswalks and bump outs. This will bring visitors back to walking and supporting the businesses.</p> <p>Investment in complete street infrastructure. Bardstown Road is dying because it is a passthrough corridor. The streets are less walkable for the surrounding neighborhoods as a result. Calm traffic and invest in multimodal transportation.</p> <p>Let's make Bardstown Road a priority! More mid-block crosswalks. Add more curb bump-outs.</p> <p>Make Bardstown rd a priority. Slow traffic. Get rid of ping pong lights</p> <p>More parking</p> <p>Pedestrian safety should be a priority. Traffic needs to be better organized.</p> <p>Pedestrian safety, organized traffic</p> <p>Pedestrian safety.</p> <p>Pedestrian strike along this corridor is a public safety issue. Improvements in the Bardstown Road Safety Study are a good start. Please move up the timeline.</p> <p>Please add curb bump-outs at Douglass Loop.</p>

KIPDA ID	Project Name	Agency	Comments
2740	Bardstown Road Safety Study Implementation - Southern Phase (continued)	Louisville Metro	<p>Please implement this safety plan. We must prioritize pedestrians safely and improve crosswalks. The road is also too wide.</p> <p>Remove all on street parking and have 1) dedicated bus/emergency vehicle lane and 2) concrete/bollard protected bike/scooter/slow mobility lanes.</p> <p>Slow down traffic by making it 2 lanes with permanent parking on outside lanes.</p> <p>Slow traffic for pedestrian safety</p> <p>Slow traffic for pedestrian safety full time street parking to help local businesses</p> <p>Some of the spaces between buidlings south of the Kroger store are very narrow and hard to enter.</p> <p>The area around Assumption can be very harrowing at peak school hours; it may merit special study.</p> <p>The greates ROI would be to concentrate on Bardstown Rd/Baxter Ave where the marjority of pedestrian strikes happen. This section should be the final phase with Baxter to Bardstown being the first part.</p> <p>There should be yellow State Law crosswalk panels in the middle of painted crosswalks where there isn't a pedestrian traffic light. There are too many speeding cars heading to the Watterson, making it unsafe and difficult to cross.</p> <p>This is too important of an area to Louisville not to get priority.</p> <p>This safety plan is critical and the sooner the better. Please prioritize pedestrians safely and improve crosswalks.</p> <p>Traffic is at times very dangerous due to speeding and erratic lane changes. It is crucial for something to be done to improve safety for all.</p> <p>We need to slow traffic down and encourage drivers that are passing through to downtown to use adjacent interstates. Bardstown road. Curb bumpouts and lane reduction is a good start. We need this much sooner than the current timeline.</p> <p>We needed this project yesterday. A road diet is needed, crosswalks with bumpouts to give pedestrians a chance. We need trees to give the planet a chance, and allow our children to live in our community.</p>
2748	Intelligent Transportation Systems - Priority Corridors	Louisville Metro	<p>Yes! Maybe project 2669 should be merged into this one.</p>
2753	Three Forks of Beargrass Creek Greenways	Louisville Metro	<p>I love this idea! And, would prioritize this idea over every single interstate project in this plan. Do this first.</p> <p>Let's make this the top priority!</p> <p>Love this and it's better than every highway plan proposed here.</p> <p>Poor residents can't drive! We need a way to get under I 264 to zoo and downtown!</p> <p>Residents need choices in how to get downtown! Elderly residents will soon be too old to drive!</p> <p>This is a great way to connect neighborhoods with safe alternate transport</p> <p>THIS! This is what makes great cities. Easy access to walking/biking near natural resources. It will also connect a lot of neighborhoods together and to the louisville loop. This is an amazing idea.</p> <p>We need a way for minority residents in Beuchel and Hikes Point to cross I-264 to access jobs and amenities with no vehicle. Many apartments in danger of flooding because they were built too close. Greenway design will allow for flood control!</p>

KIPDA ID	Project Name	Agency	Comments
2766	KY 1747 (Fern Valley Road/Hurstbourne Parkway) Complete Street	Louisville Metro	Due to the heavy, fast traffic, a parallel multi-use path would be best. Next best is continuous sidewalks and a protected bicycle track.
2767	Bardstown Road Safety Study Implementation - Northern Phase	Louisville Metro	<p>100% support a redesign of this road that slows the speed of cars. This project needs to be accelerated - 2030 is an unacceptable timeline and should happen much, much sooner.</p> <p>24 hr parking, sidewalk lighting, sooner, high vis crosswalks - Bardstown Road FIRST</p> <p>24 hr parking, sidewalk lighting, sooner, high vis crosswalks - Bardstown Road FIRST</p> <p>Add mid-block crosswalks</p> <p>Crosswalks - add more, lighting to make them more visible</p> <p>Crosswalks better designated for drivers to easily see. Like the idea of bump outs.</p> <p>Design WITH PEOPLE, not cars as the priority. I would be happy if they closed the roadway to cars, brought back streetcars, with dedicated bike/scooter lanes, trees for as far as the eye can see. PEOPLE first!</p> <p>Full time parking both sides. One designated, left turn lane. Get rid of the ping ping lights. Free parking.</p> <p>Full time parking on both sides with designated turn-lanes.</p> <p>I would like to have all the crosswalks painted out with overhead lights, signs and possible 3D effect.</p> <p>It is unacceptable to deem it too dangerous to bicycles. This study suggest alternative routes for bikes, but this routes are not interconnected and thus they are useless. Leaving cyclists no alternative.</p> <p>More crisswalks are needed! Better lighting up and down Bardstown Rd.</p> <p>One lane each direction, Left hand turn lanes at major intersections and street parking on both sides</p> <p>One lane each direction, Left hand turn lanes at major intersections and street parking on both sides</p> <p>One lane each direction, turn lanes at major intersections, street parking that allows for safe bike lanes, mid block crosswalks, increased police coverage, give tickets for jaywalking and for not stopping for pedestrians.</p> <p>One lane of traffic in each direction with turn lanes at intersections. Curb bumpouts and safer and more crosswalks</p> <p>PEOPLE FIRST! Curb bumpouts, high vis crosswalks, Road DIET!!!</p> <p>Please complete this project before 2030! We need to improve safety now to make Bardstown Rd a desirable destination for residentia and visitors!!</p> <p>Please consider modifying the section of Bardstown road with the flip lanes. During rush hour the velocity and volume of traffic is dangerous to pedestrians and bicyclists.</p> <p>Please implement more curb bumps and curb extension. We also desperately need 24hr parking.</p> <p>Please invest in Bardstown Rd. Make changes to make it more walkable to support the businesses which make the Highlands unique. Sidewalk lighting, more mid block crosswalks, parking on both sides of street.</p> <p>Please invest in this densely populated area.</p> <p>Please make more crosswalks with flashing yellow lights when the pedestrian presses the button. Look at the solar power crosswalk beacons they have been installing in Tampa Bay Area.</p>

KIPDA ID	Project Name	Agency	Comments
2767	Bardstown Road Safety Study Implementation - Northern Phase (continued)	Louisville Metro	<p>Please make this portion priority number one. Plus sidewalk lighting and more visible crosswalks.</p> <p>Please reduce to one lane of traffic in each direction to allow 24-hour parking along this section of Bardstown Road. Include turning lanes at major intersections. Also, we need to add crosswalks and add signage reminding drivers to stop for peds.</p> <p>Round a bout at Eastern and at Broadway</p> <p>There should be yellow State Law crosswalk panels in the middle of painted crosswalks where there isn't a pedestrian traffic light. There are too many speeding cars heading to the Watterson, making it unsafe and difficult to cross.</p> <p>This is an absolute no-brainer. One of the highest concentration of vehicle, bicycle and pedestrian crashes in the state. Let's fast track this one!</p> <p>This plan addresses many of the needs of the non-motorized users. Local businesses will also benefit from improved parking.</p> <p>Too many pedestrian strikes and vehicle accidents. Public safety issue - act now!</p> <p>We need better sidewalk and crosswalk lighting and more crosswalks. This all needs to happen ASAP.</p> <p>We need crosswalks and a road diet on this stretch</p> <p>We need to light and paint the crosswalks at Edenside Ave and Lucia. A 3D paing effect would be excellent. No one every stops at these and it's like playing frogger crossing 4 lanes of traffic.</p> <p>WOULD be a great neighborhood to walk</p> <p>Would like to see slower traffic, curb bumpouts. Crosswalks should be clearer. 24 hour parking.</p> <p>Would like to see the ping pong lights go away. Would like to see curb bump outs at all the crosswalks, Edenside and Lucia. Would like to add mid block crosswalks. This should be the first phase of the project.</p>
2769	New Cut Road Complete Street	Louisville Metro	So what changes will the project make?
2771	Louisville Loop Ohio River Levee Shared-Use Path System	Louisville Metro	<p>Parts of this path already exist. But they need to be repaired and connected to the part that used to be the Riverwalk. There also should be connecting paths from main roads and neighborhoods.</p> <p>We should prioritize connecting residential areas to retail and industrial areas. Encouraging everyday walking and biking will pay higher dividends</p> <p>Yes!</p>
2777	KY 362	KYTC	This project should also include significant storm water management improvements.
2784	I- 71 / I-264	KYTC	<p>The on/off ramps from the left at this intersection cause much of the congestion and should be removed or modified</p> <p>We need a tunnel to create greenspace and connect the neighborhoods</p>
2786	Jeffersontown to Parklands Multi-use Bicycle/Pedestrian Trail	Jeffersontown	Do this NOW! SO MUCH NEEDLESS TRAFFIC (AND DEER COLLISION). If a parent dies, how can the family afford their mortgage?!

The following comments were submitted by the Kentucky Transportation Cabinet as part of the Public Comment Period:

1. Page ii (before Table of Contents), requesting review of TPC and TTCC committee membership to more accurately represent populations within the MPO Area.
2. Page 9, request consideration of adding the following item: Efficient and Timely Execution of Projects.
3. Page 12, Where any of the different data sources listed used to help validate/calibrate the data used to project data through the model?
4. Page 14, Add a sub-title header "Jefferson County, KY Comprehensive Plan" mid-way down first column.
5. Page 14-15, Under POPULATION and in Figure 1, please restate the data sources for the projected population data. One example, Oldham County expected growth increase of 57% seems high and would benefit from a secondary validating data source or at least more historical data.
6. Page 16 & all Figure Maps, Please add a North Arrow to all the Figure Legends throughout the document.
7. Page 18, A % Change in previous historic data shown in Figure 4 would help validate the anticipated household increases noted. One example, Oldham County expecting a 70% increase in households by 2040 seems high at first view.
8. Page 21, Adding Employment historical data or stating secondary data sources would help confirm the significant employment forecasted. One example, Bullitt County notes a 191% increase in employment. This information would validate at least further discussion as to how this data was derived.
9. Page 24, Request re-writing the second and third paragraphs under, "ENVIRONMENTAL JUSTICE POPULATIONS." Re-state third sentence under "PROJECT TYPE ANALYSIS."
10. Page 30, Under "EXISTING CONGESTION & STATE OF THE SYSTEM," within the second paragraph, draft states, "The age of the traffic counts varied, with the most recent counts from 2016." Is 2016 the most recent available traffic data or is this a typo? Thought traffic data was continually updated.
11. Page 52, re-write in present tense as part of Final approved MTP.
12. Page 70-74, KYTC is still concerned with identifying monetary caps in the Grouped projects category. These defined monetary limits impede the purpose and intent of the separately identified Grouped Project category as defined in the Code of Federal Regulation (CFR) to expedite implementation of these air quality exempt projects. These projects should be allowed to proceed administratively, while simultaneously making the public aware of these needed improvements.
13. Page 235, Any more data more recent than 2016 for congestion analysis?
14. Page 245, Figure 7B: Image is blurry and hard to identify bridges. My copy appears to show 8 bridges in this Figure, while the list of bridges on page 244 only lists 7 bridges.
15. Page 249, under "IMPEDENCE ON THE FREIGHT NETWORK," add the date of the "Regional Freight Mobility Study" within this document.
16. Page 251, under "ENVIRONMENTAL JUSTICE IMPACT REVIEW," add an "asterisk" or column header above the "dots" within the Project listing table. The last sentence of the last paragraph could be separated from the last paragraph with "NOTE:". Then state "Projects labeled with an "asterisk" (or dot at the end of each row) on the following table have a non-motorized component that may improve mobility in these areas."
17. Page 255-257, under "CONGESTION MANAGEMENT PROESS IMPACT REVIEW," in the last paragraph, re-check the number of projects listed as "159" with the number of projects listed in the table below.
18. Page 260, under "AIR QUALITY ANALYSIS & CONFORMITY," define PM2.5 as particulate matter and discuss what 2.5 represents to the general public.
19. Page 261, under "REGIONAL EMISSIONS ANALYSIS," Define MOVES as motor vehicle emissions simulator model.
20. Page A-266-267, under "APPENDIX A: ACRONYMS," A. change KYTC abbreviation to mean, "Kentucky Transportation Cabinet." B. Add "TBD - To Be Determined" as it is mentioned throughout Performance Measures Appendix C and not specifically defined as such. This will help the primarily non-English speaking public who may not be familiar with this acronym. C. Add MOVES - Motor Vehicle Emissions Simulator Model
21. Page A-270, under "APPENDIX C: PERFORMANCE MEASURES & TARGETS," within Baseline bullet define "TBD" as "To Be Determined." Also noted above in Item #20.B.
22. Page A-278-280, under "APPENDIX D: PROJECT EVALUATION FORM," font is too small for 20/20 vision. Enlarge font to 11-12 points and reformat if necessary to become legible. May require additional pages to show all questions.

23. Page A-286-293, under “APPENDIX G: CANDIDATES FOR GROUP PROJECTS,” not sure why this is listed, especially when noted “The projects are not included in the MTP, because they can be added to the TIP through the group project process when funding is identified.” Confusing to add in the MTP.

24. Page A-402, under “APPENDIX J: AMENDMENT POLICY,” not sure why stating at end of first paragraph, “Please note, “Connecting Kentuckians 2040” will not accept administrative modifications,” when specific Group Projects listed under Appendix G could require an administrative modification if subject to change.

25. Page A-402, under “APPENDIX J: AMENDMENT POLICY,” why does it seem that the first paragraph and the paragraph under sub-category, “EXISTING PROJECTS,” after the 10 step listing, is in direct conflict with each other? It appears that the second paragraph noted, limits the flexibility in adding much needed projects to the Louisville MPO Area such as TIGER/INFRA Grants where these projects have a short window of opportunity to receive federal funds. KYTC would support a process that allows this region to receive such funding.

Page Number: 8-9

Comment Location: Introduction, Connecting Kentuckiana 2040 Update Section and Key Planning Factors Section

Comment: CK2040 MTP does not include a principle or goal that mirrors the state and federal goal to “Reduce Project Delivery Delays” ref. 23 USC 150 (b). KIPDA should consider adding this to be consistent with state and federal goals.

Page Number: 12

Comment Location: Trends, Forecasts & Forces, Socioeconomic Forces

Comment: Consider a sentence at beginning explaining what a socioeconomic forecast is.

Page Number: 14

Comment Location: First Paragraph under ‘Oldham County, KY Comprehensive Plan’

Comment: The last sentence “(something about economic development, community involvement, well-planned and coordinated roadways, multi-modal transportations, and preserve natural and cultural resources)” appears to still be in the drafting phase and should be finalized.

Page Number: 16, 17, 19, 22, 23

Comment Location: Map Legends

Comment: The first indicator (white on all the maps) is for 0% change and under, but has awkward numbers (i.e. p16 ‘-916 – 0 persons’ and p17 ‘-47-0’ persons). Is there a way to make this a smoother phrase, such as ‘0% or under’ on the legend?

Page Number: 24

Comment Location: Trends, Forecasts & Forces, Environmental Justice

Comment: Consider a sentence at beginning explaining what Environmental Justice is.

Page Number: 27

Comment Location: Second Paragraph under ‘KIPDA FREIGHT NETWORK’

Comment: In the first sentence, change ‘s tate freight networks’ to ‘state freight networks’.

Page Number: 33-39

Comment Location: Trends, Forecasts & Forces, Transportation

Comment: Consider including Bikeshare, Uber, Lyft, Taxi, Bird Scooters in the other modal transportation inventory discussion along with the other more traditional modes like Bike/Pedestrian, Transit and Rideshare. Investments in these other modes have been made and will continue to be made. They are part of the trends and contribute to the MPO Goals & Performance Measures.

Page Number: 53

Comment Location: Plan Development, Vision Statement & Goals

Comment: The vision statement is very hard to read because it is overlaid over a photograph. Consider changing contrast here.

Page Number: 53

Comment Location: Plan Development, Vision Statement & Goals

Comment: Partner agencies have Goals & Objectives independent of the MPO and often bring their own funding to the program. It might be beneficial to enhance the vision statement to include something like: “KIPDA recognizes that member agencies may have their own Goals & Objectives independent of those adopted by the MPO. That said, The MPO is committed to supporting and advancing projects that best serve both of those interests”.

Page Number: 57

Comment Location: Plan Development, Project Development

Comment: Page 57 describes KIPDA's process for adding a project into Connecting Kentuckiana 2040 MTP. It seems to be described as both a Project Development Process and a Project Application Process. Would KIPDA consider calling this just the Project Application Process only? The discussion is a bit hard to follow because of the use of both names. Also, Project Development is the term commonly used to describe the combined planning, design, right of way and utility phases of transportation infrastructure projects.

Page Number: 63

Comment Location: Blue Quote Box for 23 CFR 450.324

Comment: The last line has no spaces, making it hard to parse.

Page Number: 67 -198, Investments Section

Comment Location: All KYTC Project IDs

Comment: Do not agree with the way KYTC projects are shown. KYTC project IDs begin with 5-xxx.xx. The projects IDs are shown in the MTP as 00xxx.xx. The KYTC numbers are prescribed by legislation and should be accurately shown.

Page Number: 67 -198, Investments Section

Comment Location: Missing from Investments Section - KYTC Projects that did not get entered into KIPDA's project portal by the Spring 2019 deadline.

Comment: The time given to sponsors to develop and input their 20 year project plans (5 weeks only) was not sufficient. KYTC was unable to develop and input a complete 20 year schedule of projects for this MTP update. For context, it takes KYTC approximately 18 to 24 months to develop a six year plan schedule which is done every 2 years. The last time KYTC prepared a 20 year plan for the KIPDA region was 1999. KYTC does not maintain a project specific 20 year plan so needed considerable time to generate a 20 year project schedule which is not complete.

The number of projects outstanding will need to be determined and added by amendment at the earliest possible date once this CK 2040 MTP is finalized. Missing projects may impact fiscal constraint and/or air quality determinations.

Future initiatives like this must be coordinated well in advance with KYTC and INDOT as their input represents the bulk of the MTP project program. Reasonable schedules for delivery of this project information to KIPDA will need to be agreed upon prior to issuing another major MTP Update call for projects to ensure smooth development of future MTP updates.

Page Number: 70-73

Comment Location: Investments, Group Project Categories, Group Category Descriptions

Comment: The project cost caps proposed for each group category will place unnecessary limitations on the KIPDA MPO's ability to bring funding into the region. Note that a key goal for KYTC is to exhaust all sources of Federal funding that are available every year. This sometimes means that funds made available late in a fiscal year must be allocated quickly. Project cost caps trigger a slow moving amendment and funding authorization process which may make KYTC look elsewhere in the state, a place without such limitations, to use these monies. Also, the newer, fast moving federal grant programs like BUILD and INFRA, require project sponsors move quickly to construction. Waiting 4 to 6 months for an amendment before starting work is not an option on these projects. Sometimes, state funds originally allocated for other projects must be pulled to cover the starting phases of projects waiting to be amended. KIPDA should consider lifting cost caps on Group Category Descriptions.

Page Number: 74

Comment Location: Investments, Financial Plan, Comparison of Costs & Resources

Comment: This section is a demonstration to show that \$7B in public resources is sufficient to support almost \$7B in identified transportation projects over the next 20 years. It seems readers might be interested in the details of how this was arrived at. Would KIPDA consider including a more detailed presentation of the demonstration of fiscal reasonableness, say, as an appendix?

Page Number: 80

Comment Location: Purpose and Need for project with KIPDA ID 2193 and State ID 391.30

Comment: In CHAF need, in the first sentence, 'AM peak' is misspelled as 'AM peal'.

Page Number: 83

Comment Location: Purpose and Need for project with KIDPA ID/State ID KY 44

Comment: 'Section 1-1' in the first sentence should be corrected to 'Section 1'.

APPENDICES

Page Number: 83

Comment Location: Purpose and Need for project with KIPDA ID 493 and State ID 347.50

Comment: In the CHAF Need, the phrase "KY 44's intersection with US 31E has a current overall LOS of C and a projected 2033 overall LOS of F. Crash data reveals 252 crashes along the subject section of KY 44 over the last ten years, including 122 rear end collisions, 50 angle collisions and 42" is repeated twice. Remove one of these.

Page Number: 97

Comment Location: Purpose and Need of project with KIPDA ID 2737 and State ID N/A.

Comment: In the first sentence, 'truncates' should be 'truncated'.

Page Number: 98

Comment Location: Purpose and Need of project with KIPDA ID 525 and State ID N/A.

Comment: In the first sentence, 'floodinig' should be changed to 'flooding'.

Page Number: 102

Comment Location: Purpose and Need of project with KIPDA ID 2735 and State ID N/A.

Comment: In the first sentence, 'will' is repeated twice. Remove one.

Page Number: 103

Comment Location: Purpose and Need of project with KIPDA ID 539 and State ID 0400935.

Comment: In the second sentence, change 'residentail' to 'residential'.

Page Number: 105

Comment Location: Purpose and Need of project with KIPDA ID 2738 and State ID N/A.

Comment: In the second sentence, 'top' is repeated twice. Remove one.

Page Number: 118

Comment Location: Purpose and Need of project with KIPDA ID 1111 and State ID N/A.

Comment: In the sentence "Adequate lighting is essential as well as other safety mechanisms, like security call boxes with emergency connections to 911 and Metrosafe are essential", the last two words 'are essential' are redundant and should be removed.

Page Number: 119

Comment Location: Purpose and Need of project with KIPDA ID 2786 and State ID N/A.

Comment: In the third sentence, change 'coming' to 'becoming' so it makes sense.

Page Number: 123

Comment Location: Purpose and Need of project with KIPDA ID 1864 and State ID N/A.

Comment: In the fifth sentence, 'Streetscapes' is repeated twice. Remove one.

Page Number: 124

Comment Location: Purpose and Need of project with KIPDA ID/State ID of 'River Road Multi-Modal Improvements – 3rd Street to 7th Street'.

Comment: Last sentence of the first paragraph has 'the' twice in a row.

Page Number: 136

Comment Location: Purpose and Need of project with KIPDA ID 1922 and State ID 00804.00.

Comment: Westport Road is incorrectly identified as KY 447. It is KY 1447.

Page Number: 136

Comment Location: Purpose and Need of project with KIPDA ID 179 and State ID 5-549/549.01.

Comment: The last sentence in Purpose & Need identifies I-264 From: MP 17.700 To: MP19.600. This project is not on I-264, it should read I-64.

Page Number: 138

Comment Location: Purpose and Need of project with KIPDA ID 181 and State ID 52.00.

Comment: In the first sentence of the last paragraph, 'driver safety' is misspelled as 'drive safety'.

Page Number: 141

Comment Location: Purpose and Need of project with KIPDA ID 1320 and State ID N/A.

Comment: "Reconstruct Applegate Lane from from 2 to 3 lanes (3rd lane will be a center turn lane) Smyrna Parkway to Pennsylvania Run Road" needs to have its errors corrected.

Page Number: 152

Comment Location: Purpose and Need of project with KIPDA ID 411 and State ID N/A.

Comment: In the last sentence, along is not needed in "With the added traffic along Johnson Road, the better alignment in various locations along and added shoulders will increase safety amount the traveling project", 'along' is not needed and 'amount' should be changed to 'among'.

Page Number: 156

Comment Location: Purpose and Need of project with KIPDA ID 1819 and State ID 8203.00.

Comment: In the second sentence, 'exists' should be changed to 'exist'. The last sentence cuts off mid-word and should be completed.

Page Number: 160

Comment Location: Purpose and Need of project with KIPDA ID 2148 and State ID 8205.00.

Comment: In the first sentence, "adn3) Air quality" should be changed to "and 3) Air quality".

Page Number: 188

Comment Location: Purpose and Need of project with KIPDA ID 147 and State ID 234.00.

Comment: In the second sentence, 'safetyfor' should be changed to 'safety for'.

Page Number: 190

Comment Location: Purpose and Need of project with KIPDA ID 1271 and State ID 441.01.

Comment: In the last sentence, "rear end" should be changed to "rear ends".

Page Number: 253

Comment Location: Third Paragraph under Congestion Management Process Impact Review

Comment: The "are or" and second "of" in "Of the 159 of project located on the CMP network, 152, or 95.6% are or include bicycle, pedestrian, or transit elements" are grammatical errors and should be removed.

Page Number: A-270

Comment Location: "Increase by 10% by 2040 to 4 lots" under Target

Comment: It says an increase of 10%, but an increase of 3 (the baseline number) to 4 is 33%.

Page Number: A-280

Comment Location: Appendix E: Environmental Consultation

Comment: Title has a misspelled word "ENIVRONMENTAL". The word is also misspelled in the CONTENTS page 2 at the beginning of the MTP document.

Page Number: A-366 to A373

Comment Location: Appendix G: Candidates for Group Projects

Comment: It is unclear what the benefits are for removing these projects that were proposed by sponsors to be included in the KIPDA MTP. The projects are clearly identified and are expected to be complete within the 20 year life of the MTP. Removing them may jeopardize their ability to move forward efficiently once funding is identified especially if the cost of these projects increase to a level that they exceed those currently allowed for "grouped" projects. Propose that KIPDA either remove Group Project cost limits or leave these projects in the MTP with additional narrative in Appendix G to explain what the benefits are for removing such projects.

Page Number: A-470

Comment Location: Bulleted list at beginning of page.

Comment: One of the bullet points is blank.

Page Number: A-475

Comment Location: First paragraph.

Comment: "baseyear" should be "base year".

Page Number: A-479 to A-481

Comment Location: Appendix I; Air Quality Technical Memo & IAC Minutes

Comment: Comments that I made during the IAC Meeting Conference Call did not appear to get added to the meeting minutes as I requested on 9/27/19.

From: Hall, Tom B (KYTC-D05)
Sent: Friday, September 27, 2019 8:25 AM
To: Andy Rush <andy.rush@kipda.org>
Cc: Lovell, Tracy A (KYTC-D05) <Tracy.Lovell@ky.gov>; Bullock, Matt A (KYTC-D05) <Matt.Bullock@ky.gov>; Hickerson, Judi L (KYTC-D05) <Judi.Hickerson@ky.gov>; Niehoff, Brennan T (KYTC-D05) <brennan.niehoff@ky.gov>
Subject: RE: KIPDA IAC Meeting Minutes - Connecting Kentuckiana MTP Update

Andy,

I made a comment during the conference call which I think should be reflected in the conference call minutes.

I stated that the MPO offered a window of time for sponsors to input projects for inclusion Connecting Kentuckiana MTP that was not a sufficient in length for KYTC to develop a 20 year project plan and then input those projects into the KIPDA database. I think the last time KYTC was asked to provide this type of project specific 20 year plan to the MPO was around 1999. Significant outside resources were used, but we were unsuccessful identifying all of the projects in time to meet KIPDA's deadline. As a result, KYTC's portion of the CK MTP project list discussed during the conference call is somewhat underrepresented.

KYTC's approach will be to identify those remaining projects and then insert them into the CK MTP through the first available amendment process. We anticipate will be in the Spring or Summer of 2020.

Thanks,

Tom Hall

D5 Planning Supervisor

KYTC

From: Andy Rush <andy.rush@kipda.org>
Sent: Thursday, September 26, 2019 10:34 AM
To: Larry Chaney <larry.chaney@kipda.org>; Bernadette.dupont@dot.gov; eric.rothmel@dot.gov; joyce.newland@dot.gov; erica.tait@dot.gov; Harrod, Justin D (KYTC) <Justin.Harrod@ky.gov>; jaymitchell@indot.in.gov; fbaukert@indot.in.gov; Emmanuel Nsonwu <ensonwu@indot.in.gov>; jude@indot.in.gov; sheckler.kelly@epa.gov; myers.dianna@epa.gov; Hall, Tom B (KYTC-D05) <Tom.Hall@ky.gov>; Cordes, Ben (EEC) <Ben.Cordes@ky.gov>; Bowman, Anna (EEC) <Anna.Bowman@ky.gov>; Whisman, Ashlee M (EEC) <Ashlee.Whisman@ky.gov>; craig.butler@louisvilleky.gov; michelle.king@louisvilleky.gov; sseals@idem.in.gov; aviance.webb@dot.gov; cecilia.crenshaw@dot.gov; Perez, Eric M (KYTC) <Eric.Perez@ky.gov>; lbuckel@indot.in.gov; bfischvogt@indot.in.gov; Higdon, Tonya M (KYTC) <Tonya.Higdon@ky.gov>; Bullock, Matt A (KYTC-D05) <Matt.Bullock@ky.gov>; maietta.anthony@epa.gov; blakley.pamela@epa.gov; frisco@ridetarc.org; Aida Copic <acopic@ridetarc.org>; Amanda Deatherage <amanda.deatherage@kipda.org>; David Burton <david.burton@kipda.org>; Elizabeth Farc <elizabeth.farc@kipda.org>; Nick Vail <nick.vail@kipda.org>; Randy Simon <randy.simon@kipda.org>; Sarah Baer <sarah.baer@kipda.org>; tammy.markert@louisvilleky.gov; dirk.gowin@louisvilleky.gov; Hickerson, Judi L (KYTC-D05) <Judi.Hickerson@ky.gov>; Priddy, Jeremy <jpriddy@ridetarc.org>; John.Ballantyne@dot.gov
Subject: KIPDA IAC Meeting Minutes - Connecting Kentuckiana MTP Update

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

KIPDA IAC Members:

The meeting minutes from Tuesday afternoon's conference call are attached. Thank you for your participation in this process, and a special thanks to those that joined us on the call. Please let KIPDA Staff know if you have any questions.

Andy Rush

Page Number: A-482 to A-483

Comment Location: Appendix J: Amendment Policy

Comment: A well planned MTP should certainly reflect an MPO region's 20 plan for transportation improvements. It should also respect that transportation needs and opportunities change often and sometimes rapidly. This amendment policy, as written, doesn't appear to provide the needed flexibility to add or modify projects to position them for funding.

One example. SLO funding opportunities, which come up quickly, will not be granted to projects not already in the MTP. If a sponsor would like add to their existing MTP scope or even add a new project to capitalize on available SLO, the amendment process delay will likely cause them to miss the NOFA.

Another Example. Fast moving BUILD and INFRA grants have fast moving timelines and very specific criteria to qualify for funds. Sometimes we have to modify their scope or combine them with other projects to make them good candidates for these grants. A slow moving amendment process could delay changes to a project's scope and that delay might make the project miss the window to apply for funding.

Would KIPDA consider adding language to the Amendment Policy that recognizes there are certain situations where the MPO will need to act quickly in coordination with sponsors to position projects for funding? These are opportunities to bring significant additional investment to the region. But, they require flexibility and cooperation.

APPENDIX C: PERFORMANCE MEASURES & TARGETS

Performance measures, baselines, and targets are listed by topic in the appendix. The tables include both federally required and MPO-developed performance measures.

These performance measures are listed in tabular format and each line item includes the following:

- Who requires the performance measure: FHWA, FTA, or the MPO
- Performance Measure
- Baseline (if available, will be listed as “TBD” if it is still in development)
- Target
 - Federal Measures: as required by FHWA or FTA
 - MPO-developed Measures: will list the goal and the time frame to be completed

The following are the performance measures set forth by the KIPDA Transportation Policy Committee (TPC), which have been categorized into several sections and subsections:

- Safety
- Transit
 - Ridership
 - Age of Fleet
 - Transit Access to Clusters and Schools
 - Headway Time
 - Park and Ride Lots and Rideshare
 - TARC Facilities
- Non-Motorized
 - Bicycle and Pedestrian Safety
 - Bicycle and Pedestrian Network
 - Bicycle and Pedestrian Access to Schools and Clusters
- Economic Impact
- Motor Vehicle Access
 - Level of Travel Time Reliability
 - Congestion
- Roadway Maintenance
 - Pavement Condition
 - Bridge Condition
- Freight Movement
- Air Quality

REQUIRED BY:	PERFORMANCE MEASURE	BASELINE	TARGET
SAFETY			
FHWA	Number of Fatalities	125.8 Fatalities (2013-2017 5-year rolling average)	133.7 Fatalities (2015-2019 5-year rolling average)
FHWA	Fatality Rate	1.14 Fatalities per 100 million VMT (2013-2017 5-year rolling average)	1.18 Fatalities per 100 million VMT (2015-2019 5-year rolling average)
FHWA	Number of Serious Injuries	877.7 Serious Injuries (2013-2017 5-year rolling average)	766.0 Serious Injuries (2015-2019 5-year rolling average)
FHWA	Serious Injury Rate	7.93 Serious Injuries per 100 million VMT (2013-2017 5-year rolling average)	6.74 Serious Injuries per 100 million VMT (2015-2019 5-year rolling average)
FHWA	Number of Non-Motorized Fatalities and Serious Injuries	104.0 Non-Motorized Fatalities and Serious Injuries (2013-2017 5-year rolling average)	114.5 Non-Motorized Fatalities and Serious Injuries (2015-2019 5-year rolling average)
MPO	Crash Rate	399.0 Crashes per 100 million VMT (2012-2016 5-year rolling average)	Reduce by 20% by 2040 to 319 crashes per 100 million VMT
TRANSIT			
MPO	Transit Ridership	11,811,902 Boardings on TARC buses during FY 2017	Increase by 20% by 2040 to 14,174,282 boardings
FTA	Percent of non-revenue vehicles exceeding the useful life benchmark (ULB)	53% of TARC's non-revenue vehicle fleet (equipment) above the ULB	≤ 10% of non-revenue service vehicles exceed default ULB of 8 years
	Percent of revenue vehicles exceeding the useful life benchmark (ULB)	34% of TARC's revenue bus fleet (rolling stock) above the ULB	≤ 10% of bus fleet exceeds ULB of 15 years/600K miles
		47% of TARC's revenue cutaway bus fleet (rolling stock) above the ULB	≤ 5% of cutaway bus fleet exceeds ULB of 10 years/300K miles

REQUIRED BY:	PERFORMANCE MEASURE	BASELINE	TARGET
MPO	Community Access Clusters served by transit	91.03% of land area within these clusters are within ¼ mile of a transit route	Increase to 100% by 2040
	High Density Medical Clusters served by transit	100% of land area within these clusters are within ¼ mile of a transit route	Maintain at current levels in 2040
	High Density Shopping Clusters served by transit	100% of land area within these clusters area within ¼ mile of a transit route	Maintain at current levels in 2040
	High Density Housing Clusters served by transit	TBD of land area within these clusters are within ¼ mile of a transit route	Increase by 20% by 2040
MPO	Enhance transit access to schools	230 Schools are within ¼ mile of a transit route	Increase by 20% by 2040 to 276 schools
MPO	Reduce average headway time on TARC's defined Title VI routes	1:04 Average weekday headway time on TARC Title VI Routes	Reduce by 40% by 2040 to 0:38 average weekday headway time
MPO	Number of Park and Ride lot spaces occupied during peak hours	TBD # of Park and Ride lot spaces that are occupied during weekday business hours	Increase by 40% by 2040
MPO	Number of Park and Ride lots with pedestrian access	24 Park and Ride lots have pedestrian access	Increase by 20% by 2040 to 29 lots
	Number of Park and Ride lots with dedicated bicycle access	3 Park and Ride lots have dedicated bicycle access	Increase by 10% by 2040 to 4 lots
MPO	Number of commuters in the Ticket to Ride program	1,377 Active commuters in the Ticket to Ride program	5,000 commuters in the Ticket to Ride program by 2040
FTA	Percent of facilities rated under 3.0 on the TERM scale	0% of facilities within an asset class, rated below condition 3 on the TERM scale (partial inventory)	<p>≤ 10% of facilities rated under 3.0 on the TERM scale</p> <p>Each On-Route Bus Charging Station > 3.0 on the TERM scale</p> <p>USTA Emergency Power Station at ≥ 95% availability</p>

REQUIRED BY:	PERFORMANCE MEASURE	BASELINE	TARGET
NON-MOTORIZED			
MPO	Reduce number of crashes involving pedestrians	555.2 Crashes involving pedestrians (2012-2016 5-year rolling average)	Reduce by 20% by 2040 to 444 crashes involving pedestrians
	Reduce number of crashes involving bicyclists	238.0 Crashes involving bicyclists (2012-2016 5-year rolling average)	Reduce by 20% by 2040 to 190 crashes involving bicyclists
MPO	Reduce gaps in the existing pedestrian network	212.0 Miles of gaps in the pedestrian network (within 1 mile of existing facilities on the same roadway)	Reduce by 20% by 2040 to 169.6 miles of gaps in the pedestrian network
	Reduce gaps in the existing bicycle network	40.0 Miles of gaps in the bicycle network (within 1 mile of existing facilities on the same roadway)	Reduce by 20% by 2040 to 32.0 miles of gaps in the bicycle network
MPO	Enhance pedestrian access to schools	291 Schools are located within ¼ mile of pedestrian facilities	Increase by 20% by 2040 to 349 schools
	Enhance dedicated bicycle access to schools	71 Schools are located within ¼ mile of dedicated bicycle facilities	Increase by 20% by 2040 to 85 schools
MPO	Enhance pedestrian access within Community Access Clusters	296.8 Miles of pedestrian facilities inside these clusters	Increase by 10% by 2040 to 326.5 miles of pedestrian facilities
	Enhance dedicated bicycle facilities leading to and within Community Access Clusters	129.1 Miles of dedicated bicycle facilities inside these clusters and within 1 mile of the boundary	Increase by 10% by 2040 to 142.0 miles of bicycle facilities
MPO	Enhance pedestrian access within High Density Medical Clusters	73.4 Miles of pedestrian facilities inside these clusters	Increase by 10% by 2040 to 80.7 miles of pedestrian facilities
	Enhance dedicated bicycle access leading to and within High Density Medical Clusters	64.4 Miles of dedicated bicycle facilities inside these clusters and within 1 mile of the boundary	Increase by 10% by 2040 to 70.8 miles of bicycle facilities
MPO	Enhance pedestrian access within High Density Shopping Clusters	142.9 Miles of pedestrian facilities inside these clusters	Increase by 10% by 2040 to 157.2 miles of pedestrian facilities
	Enhance dedicated bicycle access leading to and within High Density Shopping Clusters	78.9 Miles of dedicated bicycle facilities inside these clusters and within 1 mile of the boundary	Increase by 10% by 2040 to 86.8 miles of bicycle facilities

REQUIRED BY:	PERFORMANCE MEASURE	BASELINE	TARGET
ECONOMIC IMPACT			
MPO	<p>Enhance transit access leading to High Density Employment Clusters</p> <p>Enhance pedestrian facilities within High Density Employment Clusters</p> <p>Enhance dedicated bicycle facilities leading to and within High Density Employment Clusters</p>	<p>1,117 Miles of transit routes within 1 mile of the boundary of these clusters</p> <p>384.1 Miles of pedestrian facilities inside these clusters</p> <p>126.2 Miles of dedicated bicycle facilities inside these clusters and within 1 mile of the boundary</p>	<p>Increase by 20% by 2040 to 1,340 miles of transit routes</p> <p>Increase by 10% by 2040 to 423 miles of pedestrian facilities</p> <p>Increase by 10% by 2040 to 139 miles of bicycle facilities</p>
MPO	<p>Enhance pedestrian facilities within areas of moderate to significant employment growth</p> <p>Enhance dedicated bicycle facilities leading to and within areas of moderate to significant employment growth</p>	<p>268.4 Miles of pedestrian facilities inside areas of moderate to significant employment growth</p> <p>45.1 Miles of dedicated bicycle facilities inside areas of moderate to significant employment growth and within 1 mile of the boundary</p>	<p>Increase by 10% by 2040 to 295.2 miles of pedestrian facilities</p> <p>Increase by 10% by 2040 to 49.6 miles of bicycle facilities</p>
MOTOR VEHICLE ACCESS			
FHWA	Level of Travel Time Reliability (LOTTR) on Interstates	KIPDA supports the statewide targets set forth by KYTC and INDOT by planning and programming projects that contribute to the accomplishment of each state's Interstate LOTTR target	
FHWA	Level of Travel Time Reliability (LOTTR) on the non-Interstate NHS	KIPDA supports the statewide targets set forth by KYTC and INDOT by planning and programming projects that contribute to the accomplishment of each state's non-Interstate NHS LOTTR target	
MPO	Maintain or improve level of service on Interstates at LOS D or worse	56.5% of Interstate and freeway roadway miles were at LOS D, E, or F in 2016	≤ 56.5% of Interstate and freeway roadway miles at LOS D, E, or F in 2040
MPO	Maintain or improve level of service on arterials at LOS D or worse	28.0% of arterial roadway miles were at LOS D, E, or F in 2016	≤ 28.0% of arterial roadway miles at LOS D, E, or F in 2040

REQUIRED BY:	PERFORMANCE MEASURE	BASELINE	TARGET
ROADWAY MAINTENANCE			
FHWA	Percent of pavements in “Good” condition on Interstates	46.2% of pavements in “Good” condition	50.0% of pavements in “Good” condition on Interstates by 2022
MPO	Percent of pavements in “Borderline” or worse condition on Interstates	13.0% of pavements in “Borderline” or worse condition	10.0% of pavements in “Borderline” or worse condition on Interstates by 2022
FHWA	Percent of pavements in “Poor” condition on Interstates	1.9% of pavements in “Poor” condition	1.0% of pavements in “Poor” condition on Interstates by 2022
FHWA	Percent of pavements in “Good” condition on non-Interstate NHS	24.9% of pavements in “Good” condition	27.0% of pavements in “Good” condition on non-Interstate NHS by 2022
MPO	Percent of pavements in “Borderline” or worse condition on non-Interstate NHS	16.0% of pavements in “Borderline” or worse condition	13.5% of pavements in “Borderline” or worse condition on non-Interstate NHS by 2022
FHWA	Percent of pavements in “Poor” condition on non-Interstate NHS	3.9% of pavements in “Poor” condition	3.5% of pavements in “Poor” condition on non-Interstate NHS by 2022
FHWA	Percent of deck area in “Good” condition on bridges carrying the NHS	30.5% of deck area in “Good” condition	30.5% of deck area in “Good” condition on bridges carrying the NHS by 2022
	Percent of deck area in “Poor” condition on bridges carrying the NHS	10.5% of deck area in “Poor” condition	7.1% of deck area in “Poor” condition on bridges carrying the NHS by 2022
MPO	Percent of bridges on functionally classified roads that are in “Good” condition	27.8% of bridges in “Good” condition	Increase by 50% by 2040 to 41.7% of bridges in “Good” condition
	Percent of bridges on functionally classified roads that are in “Poor” condition	6.9% of bridges in “Poor” condition	Reduce by 50% by 2040 to 3.5% of bridges in “Poor” condition

REQUIRED BY:	PERFORMANCE MEASURE	BASELINE	TARGET
FREIGHT			
MPO	Maintain or improve roadways on the KIPDA Freight Network that are LOS D or worse	TBD % of roadway miles on the KIPDA Freight Network were at LOS D, E, or F in 2016.	TBD % of roadway miles on the KIPDA Freight Network at LOS D, E, or F in 2040
MPO	Number of locations on the KIPDA Freight Network within 1 mile of Freight Clusters where roadway geometry and/or restrictions impede freight movement	TBD # of locations that impede freight movement	Reduce by 10% by 2040
FHWA	Truck Travel Time Reliability (TTTR) on the Interstate	KIPDA supports the statewide targets set forth by KYTC and INDOT by planning and programming projects that contribute to the accomplishment of each state's TTTR target	
AIR QUALITY			
MPO	Meet or do better than mobile source budgets in the State Implementation Plan (SIP)	TBD MTP Air Quality Analysis	Meet or do better than mobile source budgets in the SIP

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APPENDIX D: PROJECT EVALUATION FORM

The form on the following page was used to evaluate all of the projects and programs submitted through the project development process for *Connecting Kentuckiana 2040*.

Project

Sponsor

KIPDA ID:

Description	
Purpose and Need	
Project Type	
<i>CMP Network</i>	True or False
<i>Freight Network</i>	True or False

Focus Area:	0	Need	Impact	Score
FA1	Congestion	0	0	NO SCORE
FA2	High Crash Intersection	0	0	NO SCORE
FA3	High Crash Roadway Segment	0	0	NO SCORE
FA4	High Crash Pedestrian	0	0	NO SCORE
FA5	High Crash Bicycle	0	0	NO SCORE
				Focus Area Score
				0

Safety and Congestion Areas of Concern	Need	Impact	Score	
C1	Surface Street Congestion	0	0	NO SCORE
C2	Interstate Segment Congestion	0	0	NO SCORE
C3	High Crash Intersection	0	0	NO SCORE
C4	High Crash Roadway Segment	0	0	NO SCORE
C5	High Crash Pedestrian	0	0	NO SCORE
C6	High Crash Bicycle	0	0	NO SCORE
C7	High Crash Interchange	0	0	NO SCORE
C8	High Crash Interstate Segment	0	0	NO SCORE
				Safety and Congestion Areas of Concern Score
				0

Performance -- Proposed Project Contributes to:	Need	Impact	Score	
Safety				
High Crash	S1 Reduce the number of crashes at designated High Crash locations	N/A	N/A	0
Bike and Ped Safety	S2 Reduce the number of crashes involving pedestrians	0	0	NO SCORE
	S3 Reduce the number of crashes involving bicyclists	0	0	NO SCORE
				Safety Score
				0

Transit	Need	Impact	Score	
Ridership and Age of Fleet	T1 Increase transit ridership	0	0	NO SCORE
	T2 Reduce the percent of transit fleet (both revenue and non-revenue vehicles) above the useful life benchmark	0	0	NO SCORE
	T3 Add additional rolling stock (revenue vehicles) to the public transit fleet	0	0	NO SCORE
Schools	T4 Increase and/or improve transit access to schools	0	0	NO SCORE
Clusters	T5 Increase and/or improve transit access to and/or within Community Access Clusters	0	0	NO SCORE
	T6 Increase and/or improve transit access to and/or within High Density Employment Clusters	0	0	NO SCORE
	T7 Increase and/or improve transit access to and/or within High Density Medical Clusters	0	0	NO SCORE
	T8 Increase and/or improve transit access to and/or within High Density Shopping Clusters	0	0	NO SCORE
	T9 Increase and/or improve transit access to and/or within High Density Housing Clusters	0	N/A	NO SCORE
EJ	T10 Increase and/or improve transit access to and/or within EJ Areas	0	0	NO SCORE
Headway	T11 Reduce average headway time on TARC's defined Title VI routes	0	0	NO SCORE
	T12 Reduce average transit travel time	0	0	NO SCORE
Park and Ride Lots	T13 Increase and/or improve transit access to Park and Ride lots	0	0	NO SCORE
	T14 Increase and/or improve pedestrian access to Park and Ride lots	0	0	NO SCORE
	T15 Increase and/or improve dedicated bicycle access to Park and Ride lots	0	0	NO SCORE
	T16 Improve interchanges that are within 1 mile of a Park and Ride lot	0	0	NO SCORE
Amenities	T17 Increase and/or improve transit amenities (shelters, on-board technology, etc.)	0	0	NO SCORE
CMP	T18 Increase and/or improve transit access on the CMP Network or on a roadway within 1/2 mile buffer of the CMP Network	0	0	NO SCORE
				Transit Score
				0

Non-Motorized	Need	Impact	Score	
Transit	N1 Increase and/or improve pedestrian access to transit	0	0	NO SCORE
	N2 Increase and/or improve dedicated bicycle access to transit	0	0	NO SCORE
	N3 Reduce gaps in existing pedestrian facilities	0	0	NO SCORE
Gaps	N4 Reduce gaps in existing dedicated bicycle facilities	0	0	NO SCORE
	N5 Increase and/or improve pedestrian access to schools	0	0	NO SCORE
Schools	N6 Increase and/or improve dedicated bicycle access to schools	0	0	NO SCORE
Comm. Access	N7 Increase and/or improve pedestrian access within Community Access Clusters	0	0	NO SCORE
	N8 Increase and/or improve dedicated bicycle facilities inside Community Access Clusters OR within 1 mile of the boundary	0	0	NO SCORE
Medical	N9 Increase and/or improve pedestrian access within High Density Medical Clusters	0	0	NO SCORE
	N10 Increase and/or improve dedicated bicycle access inside High Density Medical Clusters OR within 1 mile of the boundary	0	0	NO SCORE
Shopping	N11 Increase and/or improve the amount of pedestrian walkways within High Density Shopping Clusters	0	0	NO SCORE
	N12 Increase and/or improve dedicated bicycle access inside High Density Shopping Clusters OR within 1 mile of the boundary	0	0	NO SCORE
EJ	N13 Increase and/or improve the amount of pedestrian walkways within EJ Areas	0	0	NO SCORE
	N14 Increase and/or improve dedicated bicycle access inside EJ Areas OR within 1 mile of the boundary	0	0	NO SCORE
Employ.	N15 Increase and/or improve pedestrian access within High Density Employment OR within 1/4 mile of a Major Employer	0	0	NO SCORE
	N16 Increase and/or improve dedicated bicycle access inside High Density Employment Clusters or within 1 mile of the boundary OR within 1 mile of Major Employers	0	0	NO SCORE
CMP	N17 Increase and/or improve pedestrian on the CMP Network or on a roadway within 1/2 mile buffer of the CMP Network	0	0	NO SCORE
	N18 Increase and/or improve dedicated bicycle access on the CMP Network or on a roadway within 1/2 mile buffer of the CMP Network	0	0	NO SCORE
				Non-Motorized Score
				0

Economic Impact	Need	Impact	Score	
E1	Increase and/or improve transportation options (transit, bicycle, pedestrian) in High Density Employment Clusters OR areas with forecast moderate to significant employment growth	0	0	NO SCORE
				Economic Impact Score
				0

Motor Vehicle Access	Need	Impact	Score	
Surface Streets	V1 Improve surface street access to OR surface street mobility on the NHS	0	FALSE	NO SCORE
	V2 Maintain or reduce existing congestion on surface street arterials with LOS D or worse	0	0	NO SCORE
	V3 Maintain or reduce forecast congestion on surface street arterials with a LOS D or worse	0	0	NO SCORE
	V4 Reduce existing and/or forecast congestion (LOS D or worse) on surface streets that are located in or provide access to Community Access Clusters	0	0	NO SCORE
	V5 Reduce existing and/or forecast congestion (LOS D or worse) on surface streets that are located in or provide access to High Density Medical Clusters	0	0	NO SCORE
	V6 Reduce existing and/or forecast congestion (LOS D or worse) on surface streets that are located in or provide access to High Density Shopping Cluster	0	0	NO SCORE
	V7 Reduce existing congestion (LOS D or worse) on surface streets that are located in or provide access to High Employment Clusters and/or Major Employers	0	0	NO SCORE
	V8 Reduce forecast congestion (LOS D or worse) on surface streets that are located in TADs with forecast moderate to significant employment growth	0	0	NO SCORE
Interstates	V9 Maintain or reduce existing congestion on freeways and interstates at LOS D or worse	0	0	NO SCORE
	V10 Maintain or reduce forecast congestion on freeways and interstates at LOS D or worse	0	0	NO SCORE
	V11 Interchange improvement contributes to reducing existing/and or forecast congestion (LOS D or worse) on intersecting/adjacent surface street	0	0	NO SCORE
	V12 Reduce existing and/or forecast congestion (LOS D or worse) on interstate segments that include system interchanges	0	0	NO SCORE
	V13 Reduce existing congestion (LOS D or worse) on interstate segments that are adjacent to interchanges that provide access to & are within 1.0 mile of High Employment Clusters, Major Employers	0	0	NO SCORE
V14 Reduce forecast congestion (LOS D or worse) on interstate segments that are adjacent to interchanges that provide access to & are within areas w/forecast employment growth (moderate to significant)	0	0	NO SCORE	
CMP	V15 TSMO strategies that maintain or reduce congestion (LOS D or worse) on or within 1/2 mile of the CMP Network	0	0	NO SCORE
				Motor Vehicle Access Score
				0

Roadway Maintenance					
Pavement	M1	Improve pavements on Interstates that are in Borderline or Poor condition	0	0	NO SCORE
	M2	Improve pavements on non-Interstate NHS that are in Borderline or Poor condition	0	0	NO SCORE
	M3	Improve pavements on non-NHS roadways that are in Borderline or Poor condition and on the INDOT or KYTC pavement condition inventories	0	0	NO SCORE
Bridges	M4	Improve condition of bridges that carry the NHS	0	0	NO SCORE
	M5	Improve condition of bridges that carry non-NHS roads	0	0	NO SCORE
			Roadway Maintenance Score		0
Freight Movement					
Freight Network	F1	Improve access TO the KIPDA Freight Network	0	0	NO SCORE
	F2	Improve mobility ON the KIPDA Freight Network	0	0	NO SCORE
Misc. Interstate	F3	Improve interchanges that are within 1 mile of and provide access to High Density Shopping	0	0	NO SCORE
	F4	Improve mobility on interstate segments with a truck percentage greater than 10%	0	0	NO SCORE
	F5	Improve interchanges where the adjacent interstate segments have a truck a percentage greater than 10%	0	0	NO SCORE
Clusters, Impede	F6	Improve interchanges that are within 1 mile of and provide access to Freight Clusters	0	0	NO SCORE
	F7	Reduce freight-related roadway impedances	0	0	NO SCORE
			Freight Movement Score		0
Environment / Air Quality					
	AQ1	Contributes to improving air quality	5	0	NO SCORE
			Environment / Air Quality Score		0
			Performance Target Score		0
Public Comments					
	P1	Proposed Project or Program Directly Addresses Public Comment(s)	5	0	NO SCORE
			Public Comment Score		0
Additional Transportation Considerations (Score 0, 1 or 2)					
	A1	Introduces Innovative Transportation Solution(s)	0	0	NO SCORE
	A2	Has planning support from approved planning document (local, regional, state)	0	0	NO SCORE
	A3	Connection and Relationship to other TIP programmed projects	0	0	NO SCORE
	A4	Supports strategies identified in the KIPDA Regional ITS Architecture or related ITS projects	0	0	NO SCORE
	A5	Supports Mode Split	0	0	NO SCORE
	A6	Addresses "Fix It First"	0	0	NO SCORE
	A7	Improves Freight Transportation	0	0	NO SCORE
			Additional Issues Score		0
			Project Impact Score		0
Impact to Cost					
			Estimated Project Cost (in YOY): \$		1
			Impact to Cost Score		0
			Project Final Score		0

Reviewer's Comments

Review Date
Tab Name

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APPENDIX E: ENVIRONMENTAL CONSULTATION

As outlined in Chapter 3, Environmental Mitigation is the process of ensuring that there is greater awareness concerning potential impacts on environmental, historical/community and natural resources from transportation related projects so to further the opportunities for mitigating measures being taken as needed. As per federal regulation 23 CFR § 450.324, the essential purpose of environmental mitigation and consultation is to develop and plan for a transportation network that contributes to preserving and enhancing natural, historical, community and environmental resources.

This appendix serves as the discussion of environmental mitigation between KIPDA and other Federal, State, and Tribal land management, wildlife, and regulatory agencies. An interactive map was sent to the list of contacts below in an effort to collect feedback on the identified natural, historical, community and environmental resources. Those contacted and their associated comments can be found in the table below.

KIPDA received two comments during the environmental consultation. Comments were made from the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology and the United States Department of Agriculture Natural Resources Conservation Service. Both comments provided stated that until federal money is being utilized, or until there are more project details, they cannot provide specific details on potential impacts on environmental, historical, natural or community resources from the events and projects carried out in *Connecting Kentuckiana 2040*.

AGENCY/DEPARTMENT	
Oldham County Planning Commission	Clark County Soil & Water Conservation District
Clark County Planning Commission	Floyd County Soil & Water Conservation District
Floyd County	Clark County Conservation Team
Ohio River Greenway Commission	United States Department of Agriculture - Natural Resource Conservation Service - IN
Kentucky Department for Environmental Protection	United States Department of Agriculture - Natural Resource Conservation Service - KY
Indiana Department of Natural Resources- Division of Historic Preservation & Archeology	Indiana State Historic Preservation Officer
Indiana Division of Nature Preserves	Kentucky State Historic Preservation Officer
Indiana Department of Natural Resources - Fish and Wildlife	Army Corp of Engineers
Oldham County Conservation District	Kentucky Fish and Wildlife
Shelby County Conservation District	Kentucky Division of Air Quality
Jefferson County Soil & Water Conservation District	Indiana Department of Transportation - Environmental Management

APPENDIX F: OHIO RIVER BRIDGES PROJECT FUNDING



U.S. Department of Transportation
Federal Highway Administration

Indiana Division 575 N. Pennsylvania Street, Room 254
Indianapolis, IN 46204
317-226-7475
317-226-7341

Kentucky Division 330 W. Broadway, Suite 264
Frankfort, KY 40601
502-223-6720

December 13, 2017

502-223-6735

Mr. Joe McGuinness
Commissioner
Indiana Dept. of Transportation
100 North Senate Avenue
IGCN Room N755
Indianapolis, Indiana 46204

Mr. Greg Thomas
Secretary
Kentucky Transportation Cabinet
100 Mero Street, Room 613
Frankfort, Kentucky 40622

Dear Commissioner McGuinness and Secretary Thomas:

The Federal Highway Administration (FHWA), Indiana and Kentucky Divisions, in conjunction with the FHWA Major Projects Team, have reviewed the September 2017 updated financial plan for the Ohio River Bridges Project. Based upon our review, the updated financial plan adequately meets the anticipated project costs. Therefore, the updated 2017 finance plan is approved. This is the final financial plan annual update that is required for the Ohio River Bridges Project. Congratulations on the completion of this highly successful project.

Should you have any questions or need additional information, please contact Mr. Jeff Schmidt at (601) 572-1098 or via email at jeffrey.schmidt@dot.gov.

Sincerely,

Mayela Sosa
Indiana Division Administrator

Thomas L. Nelson, Jr.
Kentucky Division Administrator

cc:
Andy Barber, KYTC
Ronald Heustis, INDOT
Jermaine Hannon, FHWA-IN
Mohammed Hajeer, FHWA-IN

Steve Mills, FHWA-KY
Jeffrey Schmidt, FHWA-KY
Michael Loyselle, FHWA-KY

Respectfully Submitted:



Greg Thomas 12/6/17
Secretary Date
Kentucky Transportation Cabinet



Joe McGuinness 11-19-17
Commissioner Date
Indiana Department of Transportation



**Kentucky Transportation Cabinet
Indiana Department of Transportation**

**Louisville - Southern Indiana Ohio River Bridges Project
2017 Financial Plan Annual Update
Letter of Certification**

The Kentucky Transportation Cabinet (KYTC) and the Indiana Department of Transportation (INDOT) present this final Financial Plan Annual Update for the Louisville-Southern Indiana Ohio River Bridges Project (the Project) in accordance with the requirements of Section 106(h) of Title 23, as amended by Section 1904(a)(2) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and further amended by Section 1503(a)(4) of Moving Ahead for Progress in the 21st Century (MAP-21). This Annual Update conforms to the requirements set out in Federal Highway Administration (FHWA) December 2014 *Major Project Financial Plan Guidance*.

This 2017 Financial Plan Annual Update provides the final schedule for delivering the Project, plus final cost estimates and expenditure data through State Fiscal Year (SFY) 2017 (June 30, 2017) and limited projected costs through SFY 2019. The cost data in this Financial Plan Annual Update provides an accurate accounting of costs incurred through the reporting period and includes an estimate of limited future trailing costs. The estimates of financial resources to fund the Project also represent an accurate accounting of funds expended through the reporting period and reliable estimates for limited future resources.

To the best of our knowledge and belief, the Financial Plan Annual Update, as submitted herewith, is based on sound underlying assumptions that fairly and accurately present the financial position of the Project, cash flows, and expected conditions for the Project's life cycle as of this reporting period. We have made available all significant information that is relevant to the Financial Plan for the Project and, to the best of our knowledge and belief, the inputs and assumptions derived from these documents and records are appropriate.

As stated in the Initial Financial Plan and the 2013, 2014, 2015, and 2016 Financial Plan Annual Updates, the states have remained committed to fully fund the Ohio River Bridges Project through completion, with substantial completion achieved in SFY 2017.



LOUISVILLE - SOUTHERN INDIANA OHIO RIVER
BRIDGES PROJECT

Financial Plan –
2017 Annual Update

September 2017

Submitted to:
Federal Highway Administration



Submitted by:
**Kentucky Transportation Cabinet
Indiana Department of Transportation**



In conjunction with:
**Indiana Finance Authority
Kentucky Public Transportation Infrastructure
Authority**

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Executive Summary

INTRODUCTION

This document presents the 2017 Annual Update to the Initial Financial Plan (IFP or Plan) for the Louisville-Southern Indiana Ohio River Bridges Project (the Project or the Ohio River Bridges Project), as prepared by the Kentucky Transportation Cabinet and the Indiana Department of Transportation. This Annual Update includes the updated schedule for delivering the Project, cost estimates and expenditure data through State Fiscal Year (SFY) 2017, and updates to the project delivery and financing status for the Project.

PROJECT OVERVIEW

The Louisville-Southern Indiana Ohio River Bridges Project is a construction and reconstruction project undertaken to address long-term cross-river transportation needs in the Louisville metropolitan area (LMA). The Project was developed over more than 40 years in recognition of the need to improve cross-river mobility between Jefferson County, Kentucky and Clark County, Indiana (see Figure ES-1). In September 2003, the Federal Highway Administration (FHWA) issued a Record of Decision (ROD) that identified the preferred alternative in the Final Environmental Impact Statement (FEIS) as two new Ohio River bridge crossings, connected approaches, and the reconstruction of the Kennedy Interchange.



Figure ES-1. Louisville Kentucky Metropolitan Area

The 2012 Supplemental Environmental Impact Statement (SEIS) modified the preferred alternative to introduce tolling to the Project and to achieve substantial cost savings, yet still included the two new Ohio River bridge crossings, connected approaches, and the reconstruction of the Kennedy Interchange. On June 20, 2012, FHWA issued a revised ROD (RROD), approving the Modified Selected Alternative approach. This Financial Plan Update is prepared in support of this modified approach.

PROJECT SPONSORS

The Commonwealth of Kentucky and the State of Indiana are collectively the Project Sponsors for the Ohio River Bridges Project. In furtherance of this partnership, each state took the lead in financing and overseeing construction of one half of the Project, with Kentucky responsible for financing and constructing the Downtown Crossing, and Indiana responsible for financing and constructing the East End Crossing, as described further below.

PROJECT DETAIL

For procurement purposes, the Project was implemented as two components, the Downtown Crossing and the East End Crossing, as described below. The sections that comprise the Crossings are shown in Figure ES-2:



Figure ES-2. Project Section Map

Downtown Crossing – funded, procured, and constructed using Kentucky Transportation Cabinet (KYTC) and Kentucky Public Transportation Infrastructure Authority (KPTIA) processes, and including the following subcomponents:

- **Kennedy Interchange (Section 1)** – reconstructing the Kennedy Interchange in downtown Louisville, at the convergence of I-64, I-65 and I-71.
- **Downtown Bridge (Section 2)** – a new Ohio River bridge located adjacent to and east of the existing I-65 Kennedy Bridge, providing six northbound I-65 lanes. The existing John F. Kennedy Bridge is converted to carry southbound I-65 traffic only.

- **Indiana Downtown Approach (Section 3)** – approximately one mile of reconfigured I-65 and associated ramps north of the Ohio River Downtown Bridges, and including new and improved access to Clarksville and Jeffersonville, Indiana via Court Avenue, 6th Street and 10th Street.

East End Crossing – funded, procured, and constructed using Indiana Department of Transportation (INDOT) and Indiana Finance Authority (IFA) processes, and including the following subcomponents:

- **East End Kentucky Approach (Section 4)** – approximately four miles of reconstruction and new terrain road on KY 841, including reconstruction of the half diamond interchange at US 42 and KY 841, twin two-lane tunnels under the historic Drumanard property, and a four-lane approach to the new East End Bridge.
- **East End Bridge (Section 5)** – a new four-lane Ohio River bridge with a pedestrian walkway/bikeway that connects the East End Kentucky Approach section with the East End Indiana Approach section.
- **East End Indiana Approach (Section 6)** – construction of a new roadway from the existing SR 265/SR 62/Port Road Interchange to the new East End River Bridge and reconstruction of the SR 265/SR 62/Port Road Interchange which provides access to the Ports of Indiana-Jeffersonville on the Ohio River and the River Ridge Commerce Center on SR 62.

PROJECT IMPLEMENTATION STATUS

The Project is substantially complete and fully operational, as evidenced by the following actions:

- In January 2011, Kentucky Governor Steve Beshear, Indiana Governor Mitch Daniels, and Louisville Mayor Greg Fisher announced plans to explore design options to reduce the cost of the Project and speed construction.
- Over the course of 2011, the Louisville and Southern Indiana Bridges Authority (the Bridges Authority) evaluated alternative delivery options for the Project and, in October 2011, identified two options as the most viable: (i) one involving a design-build construction approach, financed with tax-exempt toll revenue bonds and combined with a separate operations and maintenance contract following construction, and (ii) another involving an availability payment public-private partnership (P3) model.
- On December 29, 2011, the two governors and the Bridges Authority announced that the states would use both of the preferred delivery options identified by the Bridges Authority. Kentucky will utilize a design-build contracting approach for procurement of the Downtown Crossing, whereas Indiana will utilize an availability payment P3 approach to deliver the East End Crossing.
- In February 2012, a cost review was completed in conjunction with FHWA, which resulted in a reduced total estimated Project cost of \$2.6 billion – a savings of \$1.5 billion from previous estimates.
- On March 5, 2012, the governors signed a memorandum of understanding commemorating their agreement regarding the roles and responsibilities of each state in delivering the Project. The same day, both the Bridges Authority and the Kentucky

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Public Transportation Infrastructure Authority unanimously approved the financial plan for the Project.

- On March 8, 2012, KYTC issued a Request for Qualifications (RFQ) to teams interested in providing design-build services for the Downtown Crossing and on March 9, 2012, IFA and INDOT issued an RFQ for a Developer to design, build, and finance the East End Crossing and operate and maintain portions thereof.
- On June 20, 2012, FHWA issued a revised ROD, approving the Modified Selected Alternative approach.
- On July 19, 2012, FHWA accepted the Section 129 Toll Agreement for the Project.
- On August 1, 2012, FHWA approved the financing, management, and tolling plans for the Project.
- On August 30, 2012, a groundbreaking ceremony was held at Old Salem Road, which will be the first exit on the Indiana side of the East End Crossing.
- On October 16, 2012, KYTC and IFA and INDOT finalized a Bi-state Development Agreement to govern the construction, financing, and management of the Project.
- On November 16, 2012, IFA announced the Walsh-Vinci-Bilfinger team (WVB) as the selected proposer for the P3 contract.
- On December 7, 2012, KYTC formally selected the Walsh Construction Company (Walsh) to build the Downtown Crossing, proposing a substantial completion date 18 months ahead of schedule and cost savings of approximately \$90 million compared to initial cost estimates.
- On December 27, 2012, IFA reached Commercial Close with WVB, whose proposal had a substantial completion date nearly eight months ahead of the required completion date and cost savings of approximately \$228 million compared to initial cost estimates. NTP1 was issued at the same time, which allowed WVB to commence design work.
- On December 28, 2012, notice to proceed was issued to Walsh for the Downtown Crossing.
- On January 4, 2013, INDOT and KYTC reached a settlement agreement with the National Trust for Historic Preservation and River Fields, Inc. – agreeing to dismiss the pending lawsuit in exchange for additional commitments to historic preservation and public involvement.
- On March 28, 2013, WVB reached Financial Close on the East End Crossing.
- In July 2013, the Kentucky Asset Liability Commission issued \$236 million in grant anticipation revenue vehicles (GARVEEs) bonds.
- On September 5, 2013, the Joint Board confirmed and ratified the selection of Computer Aid, Inc (CAI) as oversight advisor to oversee the work of a toll system integrator and toll operator.
- On September 11, 2013, the Kentucky-Indiana Tolling Body approved initial toll rates for both Crossings.
- On December 12, 2013, KPTIA closed on a \$452.2 million loan with the US Department of Transportation (US DOT) through the Transportation Infrastructure Finance and Innovation Act (TIFIA) program.

- On December 20, 2013, KPTIA closed approximately \$275.67 million in toll revenue bonds and \$452.2 million in bond anticipation notes (BANs) to complete the LSIORB financing. The BANs will be retired on or before July 1, 2017 when the TIFIA loan proceeds will be drawn.
- On January 27, 2014, Kapsch Trafficom USA was selected by the Joint Board and subsequently awarded a contract through INDOT to provide the services of the electronic toll collection (ETC) contractor.
- On August 20, 2014, the Joint Board confirmed and ratified the selection of New West to provide marketing, branding, and communications services related to an all-electronic tolling system.
- On March 12, 2015, the Joint Board approved the selection and associated contract award of Kapsch as Toll Service Provider.
- On April 15, 2015, IFA entered into a TIFIA Loan Agreement with US DOT in the amount of \$162 million to be used to finance future milestone payments.
- On June 9, 2015, the Joint Board appointed Parsons Transportation Group as the interim Toll Services Advisor, replacing eTrans KY, Inc. in this role.
- On December 6, 2015, the new downtown bridge, named the Abraham Lincoln Bridge, was opened to traffic.
- On May 7, 2016, the Kentucky-Indiana Tolling Body accepted and approved a tolling mitigation plan per Section 4.1.17 of the Revised Record of Decision.
- On May 11, 2016, the Kentucky-Indiana Tolling Body accepted and approved the tolling policy, including vehicle classifications and toll rates, for RiverLink, the tolling system for the Project.
- On November 18, 2016, KYTC achieved Substantial Completion of the Downtown Crossing.
- On December 17, 2016, WVB achieved Substantial Completion of the East End Crossing. The East End Crossing was opened to unrestricted traffic on December 18, 2016 and the Operations and Maintenance Phase was begun.
- On December 30, 2016, tolling was begun on both the East End Crossing and the Downtown Crossing.
- On September 11, 2017, KYTC achieved Final Acceptance for the Downtown Crossing.
- On April 18, 2017, WVB achieved Final Acceptance for the East End Crossing.

OVERVIEW OF FINANCIAL PLAN UPDATE

This Annual Financial Plan Update reflects the funding and finance strategy by which the Project's currently estimated \$2.320 billion cost (in year-of-expenditure dollars, exclusive of financing and interest costs) has been funded through a combination of conventional state and federal transportation program funds and toll-based Project revenues. This cost estimate is approximately \$263 million less than that provided in the Initial Financial Plan for the Project.

In the case of Kentucky's design-build contracting approach for the Downtown Crossing, identified funding sources have been leveraged to provide the necessary capital for construction through a combination of Kentucky's commitment of state and federal funding, toll revenue bonds, financing via the TIFIA program, and GARVEE bonds. In the case of Indiana's availability payment P3 approach for the East End Crossing, private sector financing, including private equity and debt (issued via private activity bonds), has been secured by the Developer to support its obligations, and the payments under the availability payment agreement are being met by Indiana's commitments of state and federal funding, including financing via a TIFIA loan, and its share of the toll-based revenues from the Project. As of the end of SFY2017 (June 30, 2017), the states expended approximately \$2.294 billion collectively for the Project (exclusive of financing and interest costs).

The Project Sponsors developed a financial plan that recognizes the limitations on conventional state and federal transportation funding and finds the right balance of funding alternatives to meet the following goals:

- Ensuring that cost sharing arrangements are equitable and the states' financial obligations to the Project are manageable;
- Ensuring that the Project delivers value to the states, taxpayers, project partners, and end users through appropriate toll rates and the lowest feasible Project cost;
- Seeking private sector innovation and efficiencies and encouraging design solutions that respond to environmental concerns, permits, and commitments in the Record of Decision;
- Developing the Project in a safe manner that supports congestion management and economic growth for the region;
- Ensuring the Project is constructed within a time period that meets or exceeds final completion target dates;
- Transparently engaging the public and minimizing disruptions to existing traffic, local businesses, and local communities; and
- Delivering a Project that is a self-sustaining, integrated cross-river mobility solution for future generations.

The alternative delivery methods selected by the states have had a strong impact on reducing Project costs and enhancing the overall Project finance strategy. A portion of these cost savings were reflected in the IFP and significantly improved upon in the 2013 Annual Update, based on actual construction and project delivery bids received.

FINANCIAL PLAN UPDATE ORGANIZATION

This document demonstrates the states' commitment to completing the Ohio River Bridges Project and to sound financial planning, as required by Section 106 of Title 23 and modified by Section 1305 (b) of the Transportation Equity Act for the 21st Century (TEA-21) and Section 1904 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and further amended by Section 1503(a)(4) of Moving Ahead for Progress in the 21st Century (MAP-21). This document addresses the following requirements:

- **Chapter 1. Introduction** – This chapter provides an overview of the Project by section, describes the management plan, and provides a history of the Project to date, including a review of the status of all ongoing activities.
- **Chapter 2. Project Cost Estimate** – This chapter provides a detailed overview of Project costs and changes since the IFP was developed. It also summarizes the costs incurred as of SFY 2017 and provides detail on key cost-related assumptions.
- **Chapter 3. Implementation Plan** – This chapter provides information on the schedule for completing the Project, including information regarding the assignment of responsibilities and a summary of the status of necessary permits and approvals.
- **Chapter 4. Financing and Revenue** – This chapter describes the plan of finance for the Project, including both the sources of funds and financing methods, and provides updates from the IFP and the 2016 Annual Update to reflect developments in completing the financing for the Project.
- **Chapter 5. Project Cash Flow** – This chapter provides an annual construction cash flow schedule for the Project and an updated overview of the sources and uses of funds. This chapter also addresses the estimated long-term operations and maintenance costs of the Project and how these costs will be managed.
- **Chapter 6. Risk Identification and Other Factors** – This chapter identifies continued risks that could affect the Project and, in particular, the Project's Financial Plan. This chapter also provides mitigation strategies to manage such risks and addresses the anticipated impact of the Project on each state's transportation program, budgets, and other projects.
- **Chapter 7. Cost and Revenue History** – This chapter reviews the cost and schedule history for the Project as well as the revenue history since the IFP.
- **Chapter 8. Cost and Revenue Trends** – This chapter reviews key trends in Project costs and revenue and addresses the future implications of these trends for the Project.
- **Chapter 9. Revenue Shortfall Mitigation** – This chapter addresses any necessary mitigation steps for actual or anticipated shortfalls in Project revenues.
- **Chapter 10. Significant Cost Reductions** – This chapter reviews significant cost reductions for the Project since the 2016 Financial Plan Annual Update.
- **Chapter 11. Significant Cost Increases** – This chapter reviews significant cost increases for the Project since the 2016 Financial Plan Annual Update.

The effective date for the primary cost and funding information in this Annual Update is June 30, 2017. This is anticipated to be the final Annual Update for the Project.

Chapter 1. Introduction

INTRODUCTION

This document presents the 2017 Annual Update to the Initial Financial Plan (IFP or Financial Plan) for the Louisville-Southern Indiana Ohio River Bridges Project (the Project or the Ohio River Bridges Project), as prepared by the Kentucky Transportation Cabinet and the Indiana Department of Transportation. This Annual Update includes the updated schedule for delivering the Project, cost estimates and expenditure data through State Fiscal Year (SFY) 2017 (June 30, 2017), and updates to the project delivery and financing status for the Project. This Annual Update has been prepared generally in accordance with FHWA's Financial Plans Guidance, including the January 2007 Financial Plans Guidance, as updated December 18, 2014.

PROJECT OVERVIEW

The Louisville-Southern Indiana Ohio River Bridges Project is a construction and reconstruction project undertaken to address long-term cross-river transportation needs in the Louisville metropolitan area (LMA). The Project was developed over more than a 40-year period (see *Project History* below), in recognition of the need to improve cross-river mobility between Jefferson County, Kentucky and Clark County, Indiana (see *Figure 1-1*). In September 2003, FHWA issued a Record of Decision (ROD) confirming the selected alternative identified in the Final Environmental Impact Statement (FEIS) consisting of two new Ohio River bridge crossings and the reconstruction of the Kennedy Interchange.

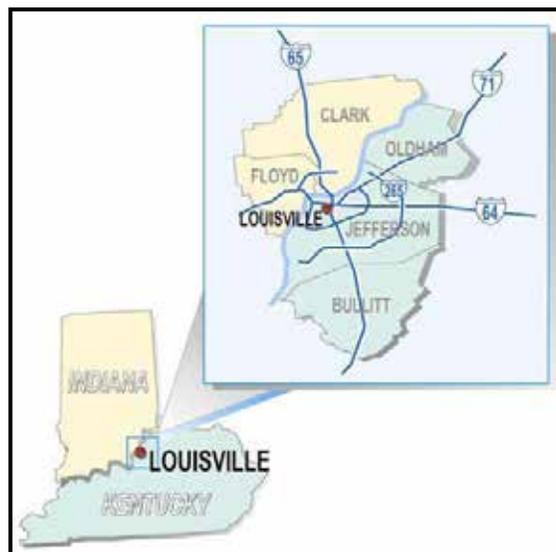


Figure 1-1. Louisville Kentucky Metropolitan Area

The 2012 Supplemental Environmental Impact Statement (SEIS) modified the preferred alternative to introduce tolling to the Project and achieve substantial cost savings, yet still includes the two new Ohio River bridge crossings, connected approaches, and the

reconstruction of the Kennedy Interchange. On June 20, 2012, FHWA issued a revised ROD, approving the Modified Selected Alternative approach.

PROJECT SPONSORS

The Commonwealth of Kentucky and the State of Indiana are collectively the Project Sponsors for the Ohio River Bridges Project. In furtherance of this partnership, the Governors of Kentucky and Indiana determined that each state would take the lead in financing and overseeing construction of one half of the Project, with Kentucky responsible for financing and constructing the Downtown Crossing, and Indiana responsible for financing and constructing the East End Crossing.

PROJECT DETAIL

For procurement purposes, the Project was implemented in two components, the Downtown Crossing and the East End Crossing, as described below (the sections that comprise the Crossings are shown in Figure 1-2):

- **Downtown Crossing** – funded, procured, and constructed using Kentucky Transportation Cabinet (KYTC) and Kentucky Public Transportation Infrastructure Authority (KPTIA) processes.
- **East End Crossing** – funded, procured, and constructed using Indiana Department of Transportation (INDOT) and Indiana Finance Authority (IFA) processes.



Figure 1-2. Project Section Map

Downtown Crossing – Key aspects of the Downtown Crossing component of the Project are described further below.

The Kennedy Interchange (Section 1) – The Kennedy Interchange operates interdependently with the Kennedy Bridge and is the convergence of Interstates 64, 65, and 71 in downtown Louisville, commonly known as “Spaghetti Junction.” The modernization of the interchange eliminates dangerous weaves, provides sufficient capacity to meet the rush hour demands, adds emergency pull-off areas and softens the curves throughout the interchange to improve safety and meet drivers’ expectations. Its improvements include:

- Reconfiguration of I-64, I-65, and I-71 movements to the additional lanes provided by the new northbound I-65 Downtown Bridge and the rehabilitated (for southbound I-65) existing Kennedy Bridge;
- Elimination of the current traffic weaving movements from I-64 westbound and I-71 southbound to I-65;
- Elimination of the current traffic weaving movements from I-65 to I-64 eastbound and I-71 northbound;
- Introduction of “Collector-Distributor (CD) Road” systems on I-65 between I-64 and the Liberty Street interchange;
- Reconstruction of all bridges in the interchange; and
- Introduction of a “Flyover Ramp” for the Story Avenue entrance ramp movement to I-65.

The Downtown Bridge (Section 2) – The new Downtown Bridge crossing of I-65 between downtown Louisville, Kentucky and Jeffersonville, Indiana is configured to carry northbound I-65 traffic across the river. The newly constructed bridge extends from the northern end of the Kennedy Interchange from the south in Kentucky to the newly constructed approach spans in Indiana. The new main structure is a three-tower cable-stayed bridge.

The new bridge and approach structures cross both Waterfront Park in Kentucky and Riverfront Park in Indiana and, on the latter side, are adjacent to the Old Jeffersonville Historic District. This new northbound structure is located just upstream and nearly parallel to the existing Kennedy Bridge and carries six 12-foot lanes and two 12-foot shoulders. Northbound approach spans flank both sides of the main cable-stayed bridge. To the south, the cable-stayed bridge connects with new approach spans that are a part of the new Kennedy Interchange. To the north, approach spans are constructed over the river flood wall and local streets in Jeffersonville.



The Downtown Bridge will revitalize downtown Louisville and alleviate what is fast-becoming a drain on the economic vitality of the Louisville-Southern Indiana region and a barrier to Interstate travel.

The existing I-65 Kennedy Bridge was re-decked and included structural improvements made to it. The existing Indiana bridge approaches to the Kennedy Bridge were replaced. The Kennedy Bridge was reconfigured to

serve southbound traffic and carries six 12-foot travel lanes and two 9.5-foot shoulders. The reconfigured deck of the Kennedy Bridge ties into the newly-constructed Kennedy Interchange to the south.

The Indiana Approach to the Downtown Bridge (Section 3) – Changes to I-65 in southern Indiana included reconstruction of the facility to accept the additional capacity provided by the new Downtown Bridge, modernizing a collector-distributor road system to improve ingress and egress from Clarksville and Jeffersonville, Indiana, and improving connections between these two communities that have been separated since the Interstate was originally built through this area. Thus, the Indiana approaches to the Downtown Bridge include the realignment and widening of southbound I-65 to the current Kennedy Bridge and the construction of a new segment of northbound I-65 from the new Downtown Bridge. The Indiana approach improvements extend from West Market Street northward to approximately 1,250 feet north of Stansifer Avenue / West 14th Street. In addition to the improvements for I-65, improved local access is provided to the City of Jeffersonville and the Town of Clarksville.

In addition, I-65 was expanded from the existing three lane configuration to four lanes in both the northbound and southbound directions. A new elevated ramp system connects US 31 at the Clark Memorial (2nd Street) Bridge with I-65, eliminating the at-grade crossing at Court Avenue. Additional access for Clarksville and Jeffersonville will be provided with the opening of 6th Street / South Clark Boulevard under I-65 and added ramps. The collector-distributor ramp system and interchanges with I-65 at Court Avenue, 10th Street and Stansifer Avenue/West 14th Street were also reconstructed for added capacity and safety.

East End Crossing – Key aspects of the East End Crossing are described further below.

The Kentucky Approach to the East End Bridge (Section 4) – The Kentucky approach includes a four-lane reconstruction and extension of KY 841 from I-71 to the new Ohio River East End Bridge, two lanes in each direction, for a distance of approximately 3.4 miles. This includes reconstruction of the two-lane section of KY 841 between I-71 and US 42 to four lanes, an approximately 1,700-foot long tunnel beneath US 42 and the historic Drumanard Estate, with two tunnel bores, each carrying two lanes with shoulders, one for northbound, one for southbound, and then continuing with four-lanes continuing northwesterly across Harrods Creek, River Road and Transylvania Beach Road to the proposed East End Bridge.

East End Bridge (Section 5) – The East End Bridge section comprises construction of an approximately 2,500 foot long 4-lane bridge (which can accommodate 6 lanes) over the Ohio River with a 13-foot wide pedestrian and bicycle pathway on the downstream side of the bridge.

The Indiana Approach to the East End Bridge (Section 6) – The Indiana approach comprises a four-lane extension of SR 265 from SR 62 to the new East End Bridge, two lanes in each direction, a distance of approximately 4.1 miles. This includes reconstruction of the SR 265/SR 62/Port Road interchange and construction of a full-diamond interchange at an extension of Old Salem Road.



The East End Bridge will provide critical transportation choices, reduce travel times and distances, and ensure cross-river mobility for local residents and through-travelers alike.

PROJECT HISTORY

The inception of the Ohio River Bridges Project occurred nearly 50 years ago as part of the development of a regional transportation planning process. Below is a chronology of the most recent major Project milestones. The IFP for the Project includes a full chronology of Project history.

- **2003**

The Federal Highway Administration issued a Record of Decision selecting the preferred alternative as a Two Bridges/Highway Alternative, with the specific elements selected in the Far East and Downtown corridors, as well as the Kennedy Interchange Reconstruction option.

- **2008**

The Federal Highway Administration approved an Initial Financial Plan for the Project based on its configuration at the time.

- **2010**

The Bridges Authority was established pursuant to Kentucky Revised Statutes Section 175B.030. Indiana Governor Mitch Daniels issued an Executive Order in December 2009 authorizing Indiana's participation in the Authority, and its formation was ratified by the Kentucky General Assembly in late March 2010, as required by the enabling statute.

- **2011**

On January 2011, Kentucky Governor Steve Beshear, Indiana Governor Mitch Daniels, and Louisville Mayor Greg Fisher announced plans to explore design options to reduce the cost of the Project and speed construction.

Over the course of 2011, the Bridges Authority evaluated various alternative delivery options for the Project and, at its October 2011 meeting, identified two options as the most viable: (i) one involving a design-build construction approach, financed with tax-exempt toll revenue bonds and combined with a separate operations and maintenance contract following construction, and (ii) another involving an availability payment public-private partnership (P3) model.

On December 29, 2011, the two governors and the Bridges Authority announced that, under an agreement in principle reached among them, the states would use both of the preferred delivery options identified by the Bridges Authority. Under this approach, each state would take the lead in financing and overseeing construction of one half of the Project, with Kentucky being responsible for financing and constructing the Downtown portion, and Indiana being responsible for financing and constructing the East End portion.

- **2012**

In February 2012, a cost review was completed in conjunction with FHWA, which resulted in a reduced total Project cost of \$2.6 billion – a savings of \$1.5 billion from previous estimates.

On March 5, 2012, the governors signed a memorandum of understanding commemorating their agreement regarding the roles and responsibilities of each state in delivering the Project. The same day, both the Bridges Authority and the Kentucky Public Transportation Infrastructure Authority unanimously approved the financial plan for the Project.

On June 20, 2012, FHWA issued a revised ROD, approving the Modified Selected Alternative approach.

On July 19, 2012, FHWA accepted the Section 129 Toll Agreement for the Project and an agreement will be entered into among the states and FHWA.

On August 1, 2012, FHWA approved the financing, management, and tolling plans for the Project.

On August 30, 2012, a groundbreaking ceremony was held at Old Salem Road, which will be the first exit on the Indiana side of the East End Crossing.

On October 16, 2012, KYTC and IFA and INDOT finalized the Bi-State Development Agreement to govern the construction, financing, and management of the Project.

On December 7, 2012, KYTC formally awarded the Downtown Crossing to the Walsh Construction Company (Walsh) to build the Downtown Crossing. Walsh is proposing a substantial completion date 18 months ahead of schedule and cost savings of approximately \$90 million compared to initial cost estimates.

On December 27, 2012, IFA and INDOT reached Commercial Close with the Walsh – Vinci- Bilfinger (WVB) East End Partners Team, proposing a substantial completion date nearly eight months ahead of schedule and cost savings of approximately \$228 million compared to initial cost estimates.

On December 28, 2012, KYTC issued a notice to proceed to Walsh for the Downtown Crossing.

▪ 2013

On January 4, 2013, INDOT and KYTC reached a settlement agreement with the National Trust for Historic Preservation and River Fields, Inc., agreeing to dismiss a lawsuit in exchange for additional commitments to historic preservation and public involvement.

On March 28, 2013, WVB reached Financial Close for the East End Crossing.

On May 14, 2013, IFA issued NTP2 to WVB, allowing WVB to commence construction.

In July 2013, the Kentucky Asset Liability Commission issued \$236 million in grant anticipation revenue vehicles (GARVEEs) bonds for the Project.

On September 5, 2013, the Joint Board confirmed and ratified the selection of Computer Aid, Inc (CAI) as oversight advisor to oversee the work of a toll system integrator and toll operator.

On September 11, 2013, the Kentucky-Indiana Tolling Body approved initial toll rates for both crossings.

Final (Nov. 15, 2017)

On December 12, 2013, KPTIA closed on a \$452.2 million loan with the US Department of Transportation (US DOT) through the TIFIA program.

On December 20, 2013, KPTIA closed approximately \$275.67 million in toll revenue bonds and \$452.2 million in bond anticipation notes (BANs) to complete the LSIORB financing. The BANs will be retired on or before July 1, 2017 when the TIFIA loan proceeds will be drawn.

- **2014**

On January 27, 2014, Kapsch Trafficom USA was selected by the Joint Board and subsequently awarded a contract through INDOT to provide the services of the electronic toll collection (ETC) contractor.

On August 20, 2014, the Joint Board confirmed and ratified the selection of New West to provide marketing, branding, and communications services related to an all-electronic tolling system.

- **2015**

On March 12, 2015, the Joint Board approved the selection and associated contract award of Kapsch as Toll Service Provider.

On April 15, 2015, IFA entered into a TIFIA Loan Agreement with US DOT in the amount of \$162 million to be used to fund future milestone payments.

On June 9, 2015, the Joint Board appointed Parsons Transportation Group as the interim Toll Services Advisor, replacing eTrans KY, Inc. in this role.

On December 6, 2015, the new downtown bridge, named the Abraham Lincoln Bridge, was opened to traffic.

- **2016**

On May 7, 2016, the Kentucky-Indiana Tolling Body accepted and approved a tolling mitigation plan per Section 4.1.17 of the Revised Record of Decision.

On May 11, 2016, the Kentucky-Indiana Tolling Body accepted and approved the tolling policy, including vehicle classifications and toll rates, for RiverLink, the tolling system for the LSIORBP.

On November 18, 2016, KYTC achieved Substantial Completion of the Downtown Crossing construction.

On December 17, 2016, WVB achieved Substantial Completion of the East End Crossing construction. The East End Crossing was opened to unrestricted traffic on December 18, 2016 and the Operations and Maintenance Phase was begun.

- **2017**

On December 30, 2016, tolling was begun on both the East End Crossing and the Downtown Crossing.

On April 18, 2017, WVB achieved Final Acceptance for the East End Crossing.

On September 11, 2017, KYTC achieved Final Acceptance for the Downtown Crossing.

PROJECT MANAGEMENT AND OVERSIGHT

The Commonwealth of Kentucky and the State of Indiana are collectively the Project Sponsors for the Ohio River Bridges Project. Working closely together, the states implemented the Project through the Kentucky Transportation Cabinet and the Kentucky Public Transportation Infrastructure Authority with respect to the Downtown Crossing and the Indiana Department of Transportation and the Indiana Finance Authority with respect to the East End Crossing.

Following is additional detail on the roles and responsibilities of various parties.

- **Bi-State Management Team**

Overall project management has been performed by the Bi-State Management Team (BSMT), comprised of representatives from KYTC, INDOT, and FHWA as a non-voting, ex-officio member.

- **Joint Board**

The Joint Board has acted as the appeal authority for conflict resolution for the Bi-State Management Team. The Joint Board is comprised of the Secretary of the Kentucky Transportation Cabinet, the Chairman of KPTIA, the Commissioner of the Indiana Department of Transportation, and the Public Finance Director of the State of Indiana, or their designees.

- **KYTC and KPTIA**

KYTC and KPTIA, supported by their Technical Team (described below), was responsible for all aspects of the Downtown Crossing contract(s). KYTC also provided a liaison and advisory support to INDOT and IFA for their successful completion of the East End Crossing contract(s).

- **INDOT and IFA**

INDOT and IFA, supported by their Technical Team (described below), was responsible for all aspects of the East End Crossing contract(s). INDOT also provided a liaison and advisory support to KYTC for its successful completion of the Downtown Crossing contract(s).

- **General Engineering Consultant**

The General Engineering Consultant (GEC) has served as requested and authorized by the BSMT.

- **Technical Teams**

Each state procured consultant Technical Teams to assist their staff with contract administration and oversight of their respective alternative delivery contracts. The Technical Teams supplemented and assisted state personnel with design review, contract administration, construction inspection, and quality control and quality assurance activities. Each state appointed a representative to serve on the other state's Technical Team in order to assist in the review and development of those portions of the Project (Sections 3 and 4) that were constructed within the jurisdiction of the appointing state.

- **Downtown Crossing Design-Builder**

On December 28, 2012, KYTC formally selected Walsh Construction to build the Downtown Crossing.

- **East End Crossing Developer**

On December 27, 2012, IFA reached Commercial Close with WVB East End Partners, a consortium of Walsh Construction, Vinci Concessions, and Bilfinger Berger PI International, to construct the East End Crossing. IFA and INDOT elected to let separate construction contracts under INDOT's authority for the Salem Road alignment and for the majority of tree clearing and structure demolition for the East End Crossing.

- **Tolling Body**

The Tolling Body has been responsible for developing tolling policies that will be the basis for determining future toll rates. The Tolling Body consists of the members of the Joint Board, plus one additional representative from IFA and one additional representative of KPTIA.

- **Toll System Provider**

The bi-state Joint Board selected, through a procurement of the Indiana Finance Authority, Kapsch Trafficom to serve as the Toll System Provider to design, develop, integrate, deliver, install, test, operate, maintain, repair, and manage the all-electronic toll collection system. Kapsch was provided a Notice to Proceed in May of 2015, and worked with the states to develop the Business Rules that govern the system's day to day operations.

Parsons Transportation Group assisted the Joint Board in overseeing Kapsch as Interim Toll System Advisor through INDOT's East End Crossing Technical Team contract. Through a contract with KYTC, the Joint Board has received communications and public outreach support.

- **Section Design Consultants**

Six Section Design Consultants (SDCs) were responsible for preliminary design, right of way, and utility engineering, including plan development, environmental investigations, preliminary permitting, and environmental mitigation required by the ROD. The SDCs were selected after issuance of the original ROD in 2004 and worked up to the start of the procurement process for the two major alternative delivery contracts. Four of the six SDCs continue to provide assistance in support of the procurements and will complete their work when the procurements are formally accepted.

- **Standing Advisory Teams**

Several standing advisory teams with specific historical and environmental functions served as information outlets. These included a Bi-State Historic Consultation Team, two Historic Preservation Advisory Teams, four Area Advisory Teams, and a Regional Advisory Committee. These advisory teams had varying duties which included providing recommendations to the BSMT during development of contract provisions regarding design of the Project; providing feedback on plans with the specific needs of their communities in mind as well as the region at large.

- **Ombudsmen**

Two Project Ombudsmen were responsible for communicating with the public and investigating reported problems on all aspects of the Project during the development and delivery of the Project. The Ombudsmen reported recommendations, complaints and their findings to the BSMT. The Ombudsmen provided responses of any findings, decisions or resolutions. The Ombudsmen were retained until December 2016 following the substantial

completion of both sections of the Project. Their services were discontinued on December 31, 2016.

- **Louisville and Southern Indiana Bridges Authority**

The Bridges Authority has and will continue to satisfy any obligations it has with respect to the Project pursuant to Kentucky Revised Statutes Section 175B and any responsibilities it may have under the Bi-State Development Agreement.

Chapter 2. Project Cost Estimate

INTRODUCTION

This chapter provides a detailed description of Project cost elements and cost estimates in year-of-expenditure dollars for each element. This chapter also summarizes the costs incurred since the original Notice of Intent was published in the Federal Register and provides detail on key cost-related assumptions. Project costs discussed in this chapter are limited to direct project expenditures and do not include financing and interest costs associated with the delivery of the Project. These indirect costs are discussed in Chapter 4 and included in the Project cash flows provided in Chapter 5. Estimated costs and expenditures presented in this chapter are current as of State Fiscal Year 2017 (June 30, 2017).

CURRENT COST ESTIMATES

The total estimated cost for the Project is \$2.320 billion, based on year-of-expenditure dollars (i.e., on a cash flow basis in nominal terms and exclusive of financing and interest costs during construction). This cost estimate includes the most current project phasing and schedule and the most up-to-date cost information.

Table 2-1 provides an overview of Project costs, broken down by project component and section and comparing the 2012 IFP with the 2013, 2014, 2015, 2016, and 2017 Annual Updates. The estimates are presented in year-of-expenditure dollars and incorporate reasonable inflation estimates, as described further below. These costs are exclusive of financing and interest costs for the Project and do not include designated reserve funds. The cost estimate of \$2.320 billion is just slightly lower than the prior year's official cost estimate as presented in the 2016 Annual Update of \$2.327 billion. The aggregate difference is approximately \$6.4 million but reflects more significant changes between planned and actual expenses in several cost categories, as described further in Chapters 10 and 11.

Table 2-1. Project Cost Estimate – by Project Component and Section

Total Project Costs in Year of Expenditure Dollars (in millions)								
Project Segment	2012 IFP	2013 Update	2014 Update	2015 Update	2016 Update	2017 Update	Change from 2016	Change from IFP
Downtown Crossing								
Section 1 - Kennedy Interchange	659.8	586.4	612.5	614.8	600.3	597.4	(2.9)	(62.4)
Section 2 - Downtown Bridge	357.8	323.2	308.2	312.8	339.3	341.4	2.1	(16.4)
Section 3 - Downtown IN Approach	197.7	182.9	172.3	175.5	196.1	196.3	0.2	(1.4)
Kentucky Other Costs	92.3	176.2	172.7	169.1	138.5	121.5	(17.0)	29.2
Total Downtown Crossing	1,307.6	1,268.7	1,265.8	1,272.1	1,274.2	1,256.6	(17.6)	(51.0)
East End Crossing								
Section 4 - KY East End Approach	737.6	500.7	511.1	483.7	486.1	495.3	9.2	(242.3)
Section 5 - East End Bridge	284.4	247.5	222.6	241.7	242.4	243.5	1.1	(40.9)
Section 6 - IN East End Approach	196.1	218.7	224.3	226.4	228.0	232.8	4.7	36.7
Indiana Other Costs	58.2	108.7	99.8	99.0	96.3	92.4	(3.9)	34.2
Total East End Crossing	1,276.3	1,075.7	1,057.8	1,050.8	1,052.8	1,064.0	11.2	(212.3)
PROJECT TOTAL	2,583.9	2,344.4	2,323.6	2,323.0	2,327.0	2,320.5	(6.4)	(263.4)

- (1) Totals may not sum due to rounding.
- (2) Other Costs include project-wide costs that are not specific to individual project sections and include such costs as those incurred for historic mitigation and enhancements (not tied to any particular section), project development, general engineering and other professional fees and administrative expenses. Kentucky's share of project-wide costs is shown as part of the Downtown Crossing expenditure and Indiana's share of project-wide costs is shown as part of the East End Crossing expenditure.
- (3) Project costs do not include financing and interest costs, addressed in Chapter 4.

INFLATION ASSUMPTIONS AND COST ESTIMATING METHODOLOGY

Inflation Assumptions

The inflation assumptions used by both states are within a range of 2.00 – 2.50 percent, which is representative of the average Midwestern Consumer Price Index (CPI) found over the past twenty years by the Bureau of Labor and Statistics. State costs that are subject to inflation include the General Engineering, Oversight, and Toll System costs.

Design Build and Developer costs are included as year-of-expenditure figures reflecting contractual commitments and thus no additional inflation assumptions are required for these costs. It also should be noted that Milestone Payments paid by Indiana are fixed contractual amounts and not subject to inflation; however, 20 percent of the Availability Payments are subject to inflation as measured by the CPI and the remaining 80 percent at a constant 2.50 percent.

Cost Estimating Methodology

Cost estimates for state expenditures were developed by the General Engineering Consultant, and the states' technical advisors, in conjunction with the BSMT and FHWA. Cost estimates for the Design-Build Team (DBT) and Developer costs are based on actual bids received and contractual commitments from the selected construction consortia. The cost estimates were developed by breaking down the Project into the six major sections plus an "Other Costs"

category and, further, into nine major elements. The updated methodology for each element is further described below.

Table 2-2. Cost Estimating Methodology

Cost Elements
<p>Engineering and Design</p> <p><i>Preliminary and final engineering design services.</i> Final engineering is included in the delivery contracts for the Downtown and East End Crossings. The engineering design cost is approximately 10-15 percent of the DBT and Developer's total bid.</p>
<p>Design Program Management</p> <p><i>Cost to each state for services of the GEC during the design phase and miscellaneous departmental program management costs.</i> This element is subdivided into two components: Design Program Management INDOT and Design Program Management KYTC to cover each state's share of the GEC costs. Program Management estimates are based on actual costs to date.</p>
<p>Construction Administration and Inspection</p> <p><i>All construction and program management, administration, and inspection activities during the construction phase of the Project.</i> Construction Administration and Inspection costs are based on the negotiated contracts with the states technical advisors and actual costs to date.</p>
<p>Construction</p> <p><i>Cost of construction.</i> Construction costs reflect actual costs utilizing two large alternative delivery contracts, with several smaller specialty contracts throughout the construction period.</p>
<p>Construction Contingency</p> <p><i>Contingency to cover additional construction services in the event unforeseen circumstances arise that result in additional cost.</i> With the alternative project delivery type contracts for the East End and Downtown Crossings, all of the pricing and most of the construction have been assigned to the DBT and Developer and are included in their bids. The states set up reserve accounts to cover the risks they retain.</p>
<p>Utilities</p> <p><i>All public and private project-related utility relocation and new utility construction.</i> Costs include those related to telephone, electric, gas, fiber optics, water, sewer, TV cable, and storm drainage and are all fixed. All of the Downtown Crossing's utility costs were included in the DBT's bid and are now fixed. Indiana retained responsibility for several utility relocations, and has negotiated fixed costs for that work with the utility companies. The balance of the East End Crossing utility work is included in the Developer's bid and is now fixed.</p>
<p>Right of Way Acquisition</p> <p><i>Appraisals, administration, management, and acquisition of required right of way.</i> All of the right-of-way required for the Project has been acquired.</p>

Cost Elements
Enhancements
<i>Various Project-related commitments as identified in the Record of Decision.</i> This includes fixed dollar commitments made for a Minority Historic Rehabilitation Craftsman Training Program, Rehabilitation of Trolley Barn Buildings in West Louisville, TARC enhanced bus service, and various other NEPA commitments.
Historic Mitigation
<i>Implementation of mitigation of sensitive historic properties.</i> This includes costs to date for such items as the acquisition and renovation of the Spring Street Freight House in Indiana and the acquisition and rehabilitation of Rosewell in Kentucky, both of which are now complete. Costs for mitigation at several other historic properties will continue into future years.

Figure 2-1 provides a summary breakdown of Project costs by element in year-of-expenditure dollars and a comparison of the 2012 IFP with the 2013, 2014, 2015, 2016, and 2017 Financial Plan Updates.

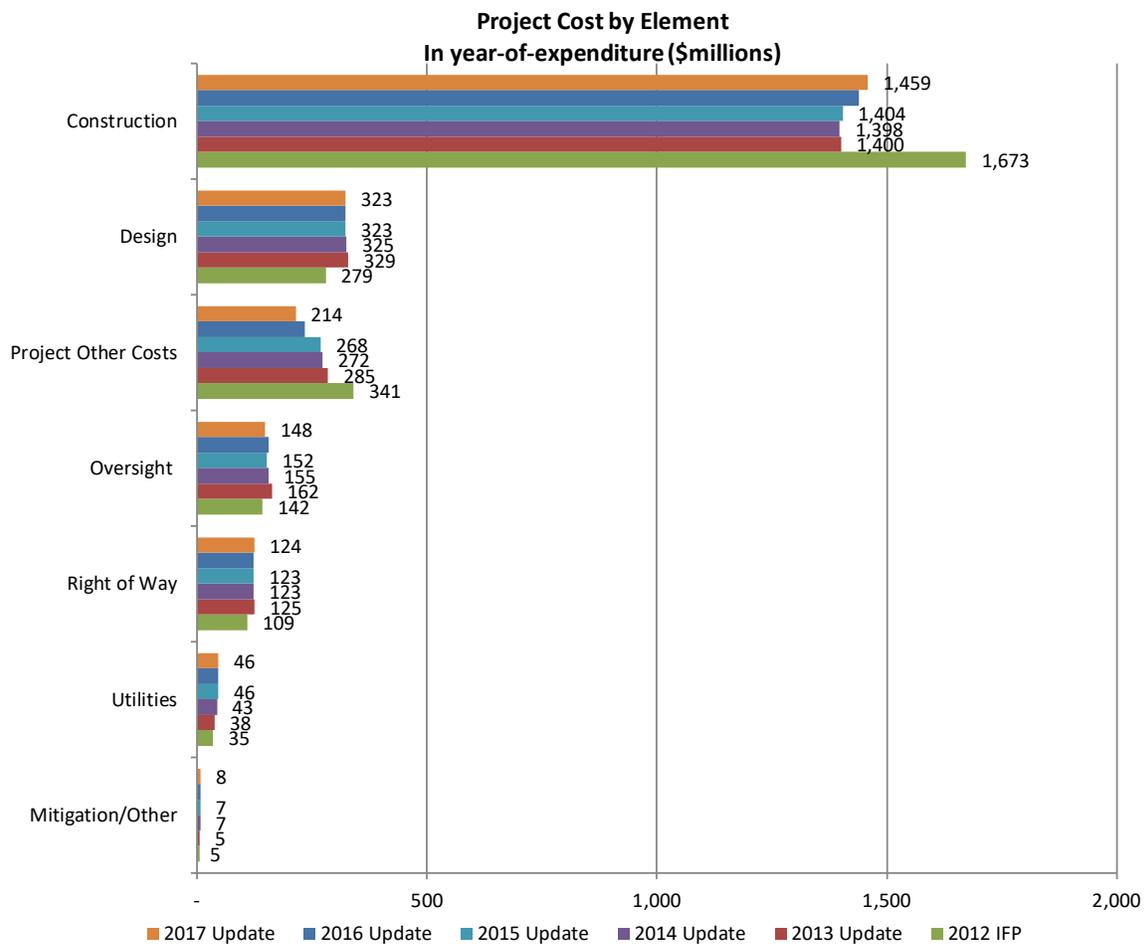


Figure 2-1. Project Cost by Element (exclusive of financing and interest costs)

Tables 2-3a and 2-3b show the breakdown of costs for the Project annually by Project component and section and by state, respectively. As noted above, these costs reflect updated costs by section and by state as well as an accelerated construction timetable relative to the project budget included in the IFP.

Kentucky was primarily responsible for the costs associated with the Downtown Crossing (Sections 1, 2 and 3) and Indiana for the costs of the East End Crossing (Sections 4, 5 and 6). However, Kentucky paid for right of way for Section 4 and Indiana for right of way for Section 3. Prior to July 2012, Project costs were generally allocated so that Kentucky was responsible for Sections 1 and 4, Indiana was responsible for Sections 3 and 6, and the states split equally the cost of Sections 2 and 5. Therefore, Kentucky's total expenditures will not equal the total cost of the Downtown Crossing and Indiana's total expenditures will not equal the total cost of the East End Crossing.

**Table 2-3a. Project Budget by Project Component and Section, Exclusive of Financing and Interest Costs
(Year-of-Expenditure \$)**

Detailed Budget (\$YOE)	Thru 2010	2011	2012	2013	2014	2015	2016	2017	2018/2019	Total
Downtown Crossing										
Section 1	54,389,977	10,598,674	7,937,305	70,718,227	146,495,199	157,073,827	110,227,869	32,213,230	7,700,611	597,354,920
Section 2	12,974,022	47,659	1,236,056	43,813,166	90,898,838	98,430,214	69,181,739	19,922,048	4,888,245	341,391,985
Section 3	1,177,461	1,621,824	2,426,272	37,352,593	54,825,180	49,454,479	34,921,444	12,079,222	2,464,576	196,323,051
Kentucky Other Costs	50,304,264	4,902,764	7,983,064	35,880,869	5,751,701	2,141,416	3,902,620	7,629,908	3,000,000	121,496,607
Subtotal – Downtown	118,845,724	17,170,921	19,582,697	187,764,855	297,970,919	307,099,935	218,233,672	71,844,408	18,053,432	1,256,566,563
East End Crossing										
Section 4	24,203,119	15,680,827	13,456,048	68,285,247	114,098,027	110,295,418	97,432,676	50,483,636	1,353,929	495,288,926
Section 5	12,794,456	2,813,469	2,424,770	29,399,732	52,649,193	59,919,004	56,428,350	25,031,057	2,029,548	243,489,579
Section 6	17,600,591	3,294,844	2,568,909	29,764,581	52,957,264	71,443,464	43,855,865	10,935,266	339,043	232,759,828
Indiana Other Costs	19,520,365	2,828,919	7,172,322	30,812,248	4,623,861	4,733,955	10,083,379	8,397,593	4,260,946	92,433,588
Subtotal – East End	74,118,530	24,618,059	25,622,049	158,261,808	224,328,344	246,391,842	207,800,271	94,847,551	7,983,467	1,063,971,921
TOTAL	192,964,254	41,788,980	45,204,746	346,026,663	522,299,263	553,491,777	426,033,943	166,691,960	26,036,899	2,320,538,483

**Table 2-3b. Project Budget by State
(Year-of-Expenditure \$)**

Detailed Budget (\$YOE)	Thru 2010	2011	2012	2013	2014	2015	2016	2017	2018/2019	Total
Full Project										
Kentucky	141,781,599	32,612,829	31,206,830	184,198,955	296,536,309	307,099,935	218,233,672	71,844,408	18,053,432	1,301,567,969
Indiana	51,182,656	9,176,151	13,997,916	161,827,708	225,762,954	246,391,842	207,800,271	94,847,551	7,983,467	1,018,970,514
Total	192,964,254	41,788,980	45,204,746	346,026,663	522,299,263	553,491,777	426,033,943	166,691,960	26,036,899	2,320,538,483

PROJECT EXPENDITURES

As shown in Table 2-4, approximately \$2.294 billion was expended on the Project through the end of SFY 2017. In aggregate, the 2017 Update shows \$18.4 million less being expended through SFY 2017 than the 2016 Update.

Table 2-5 provides a summary of the very limited projected future expenditures for the Project, by state fiscal year and based on the year-of-expenditure estimates as of SFY 2017. It also provides a comparison with the 2012 IFP and 2016 Updates. For Indiana, future expenditures relate to TIFIA loan service, payment of two change orders executed in SFY 2017 but invoiced in SFY 2018, and remaining project-wide costs for environmental commitments. For Kentucky, the payments in SFY 18 are related to the final payment of the Walsh contract associated with project oversight as well as fulfillment of Downtown Crossing streetscape commitments.

Table 2-4. Total Expenditures to Date by State Fiscal Year (Year-of-Expenditure \$, in millions)

SFY	Kentucky				Indiana				Total					
	IFP	2016	2017	Change from 2016	IFP	2016	2017	Change from 2016	IFP	2016	2017	Change from 2016	Change from IFP	
1998 -														
2003	11.1	11.1	11.1	(0.0)	11.1	11.1	11.1	-		22.2	22.2	22.2	(0.0)	
2004	1.0	1.0	1.0	(0.0)	0.6	0.6	0.6	-		1.6	1.6	1.6	(0.0)	
2005	15.1	15.1	15.1	0.0	4.1	4.1	4.1	-		19.2	19.2	19.2	0.0	
2006	29.3	29.3	29.3	-	7.3	7.3	7.3	-		36.6	36.6	36.6	0.0	
2007	31.1	31.1	31.1	0.0	8.4	8.4	8.4	-		39.5	39.5	39.5	0.0	
2008	18.7	18.7	18.7	(0.0)	5.6	5.6	5.6	-		24.3	24.3	24.3	(0.0)	
2009	18.1	18.1	18.1	0.0	7.9	7.9	7.9	-		26.0	26.0	26.0	0.0	
2010	17.4	17.4	17.4	(0.0)	6.1	6.1	6.1	-		23.5	23.5	23.5	(0.0)	
2011	32.6	32.6	32.6	0.0	9.2	9.2	9.2	(0.0)		41.8	41.8	41.8	(0.0)	
2012	45.8	31.2	31.2	(14.6)	12.9	14.0	14.0	1.1		58.7	45.2	45.2	(13.5)	
2013	71.4	184.2	184.2	112.8	60.3	161.8	161.8	101.5		131.7	346.0	346.0	214.3	
2014	213.7	296.5	296.5	82.8	260.4	225.8	225.8	(34.6)		474.1	522.3	522.3	48.2	
2015	237.2	307.1	307.1	69.9	260.4	246.4	246.4	(14.0)		497.6	553.5	553.5	55.9	
2016	241.5	218.2	218.2	(23.3)	276.1	209.2	207.8	(1.4)		517.6	427.4	426.0	(1.4)	
2017	251.1	99.5	71.8	(179.3)	284.2	84.2	94.8	10.6		535.3	183.7	166.7	(17.0)	
TOTAL	1,235.1	1,311.2	1,283.5	-	48.4	1,214.6	1,001.6	1,010.9	9.3	(203.7)	2,449.7	2,312.8	2,294.4	(18.4)

*Numbers may not sum due to rounding.

**Costs are exclusive of financing and interest costs in this time period.

Table 2-5. Projected Future Expenditures by State Fiscal Year (Year-of-Expenditure \$, in millions)

SFY	Kentucky				Indiana				Total					
	IFP	2016	2017	Change from 2016	IFP	2016	2017	Change from 2016	IFP	2016	2017	Change from 2016	Change from IFP	
2018	117.2	8.0	18.1	10.1	(99.1)	2.4	6.1	8.0	1.9	5.6	119.6	14.1	26.0	11.9
TOTAL	117.2	8.0	18.1	10.1	(99.1)	2.4	6.1	8.0	1.9	5.6	119.6	14.1	26.0	11.9
GRAND TOTAL	1,352.3	1,319.2	1,301.6	(17.6)	(50.7)	1,217.0	1,007.7	1,018.9	11.2	(198.1)	2,569.3	2,326.9	2,320.5	(6.5)

*Numbers may not sum due to rounding.

**Costs are exclusive of financing and interest costs in this time period.

Figures 2-2 and 2-3 show updated Project expenditures by section and year, exclusive of financing and interest costs.

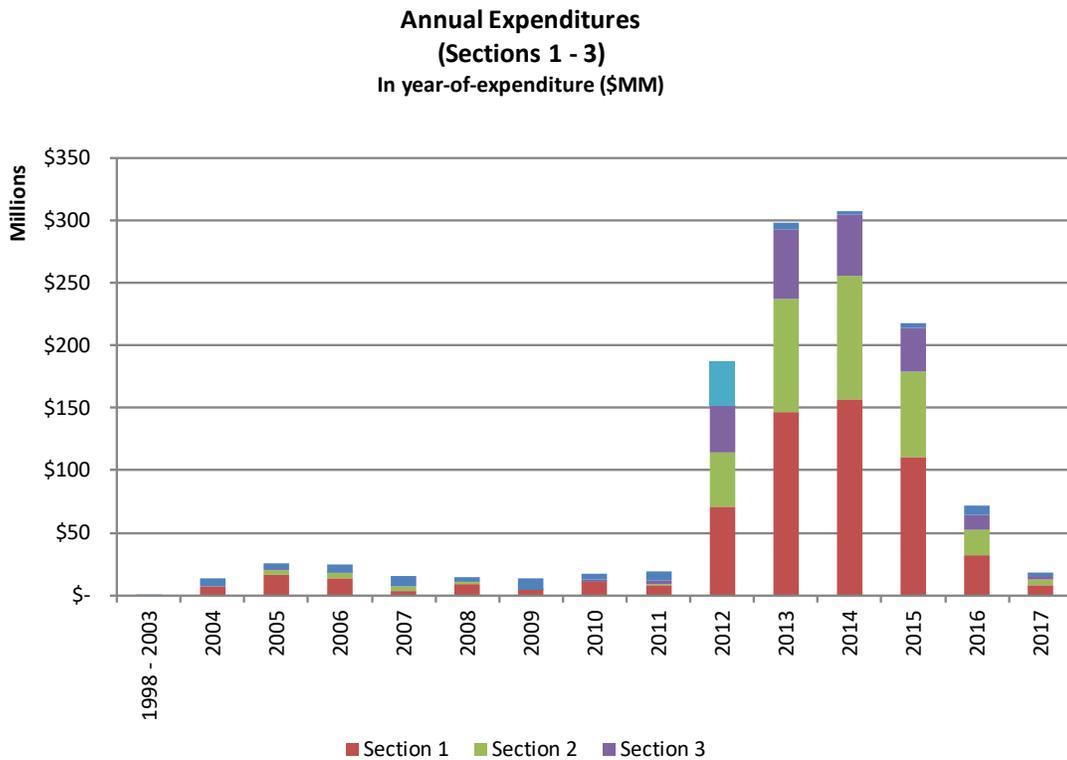


Figure 2-2. Annual Expenditures – Downtown Crossing

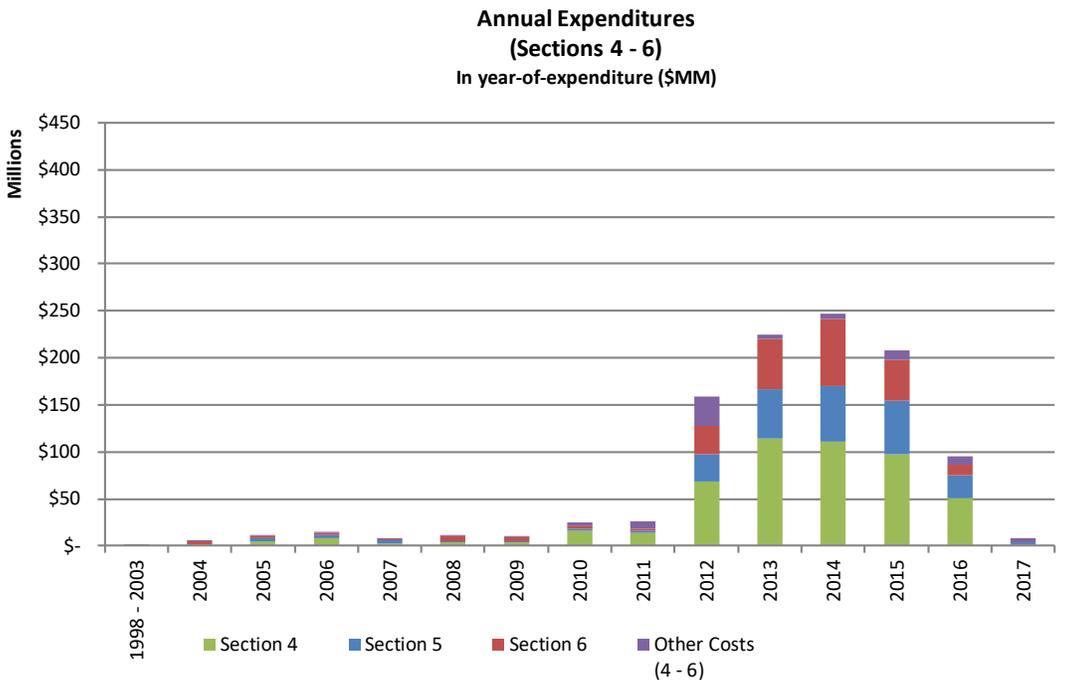


Figure 2-3. Annual Expenditures – East End Crossing

Figures 2-4a and 2-4b provide a comparison of budgeted annual expenditures by Crossing and Section and actual expenditures as of June 30, 2017 for the Downtown and East End Crossings, respectively. These costs are exclusive of financing and interest costs and do not include designated reserve funds. The budget figures presented have been updated as of the 2013 Annual Update. Subsequent updates use these costs as the baseline for comparison.

**Budgeted Annual Expenditures vs. Actual Expenditures
(Section 1 - 3)
In year-of-expenditure (\$MM)**

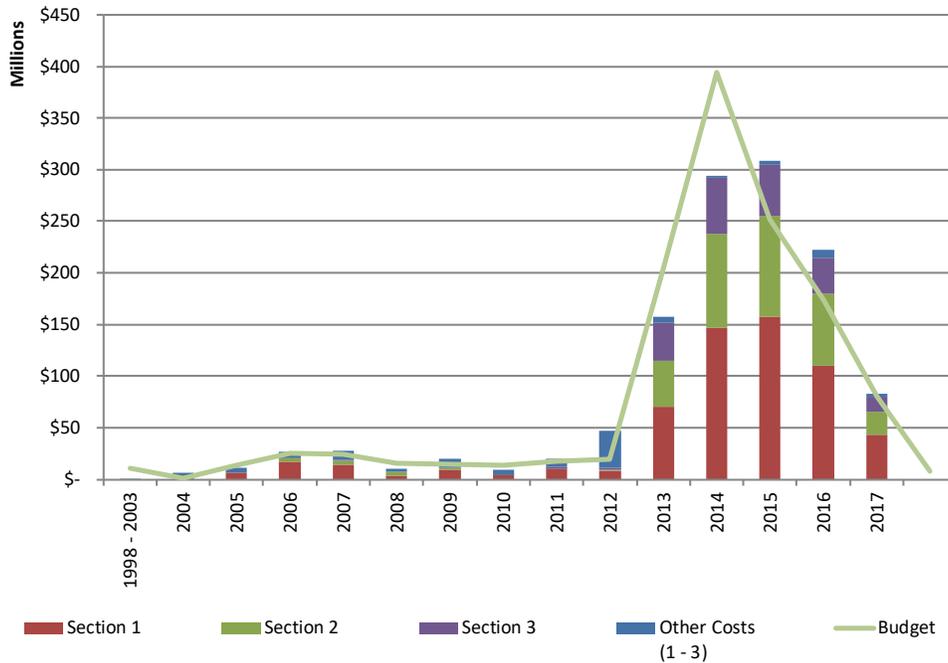


Figure 2-4a. Budgeted Annual Expenditure vs. Actual Expenditure, Downtown Crossing

**Budgeted Annual Expenditures vs. Actual Expenditures
(Sections 4 - 6)
In year-of-expenditure (\$MM)**

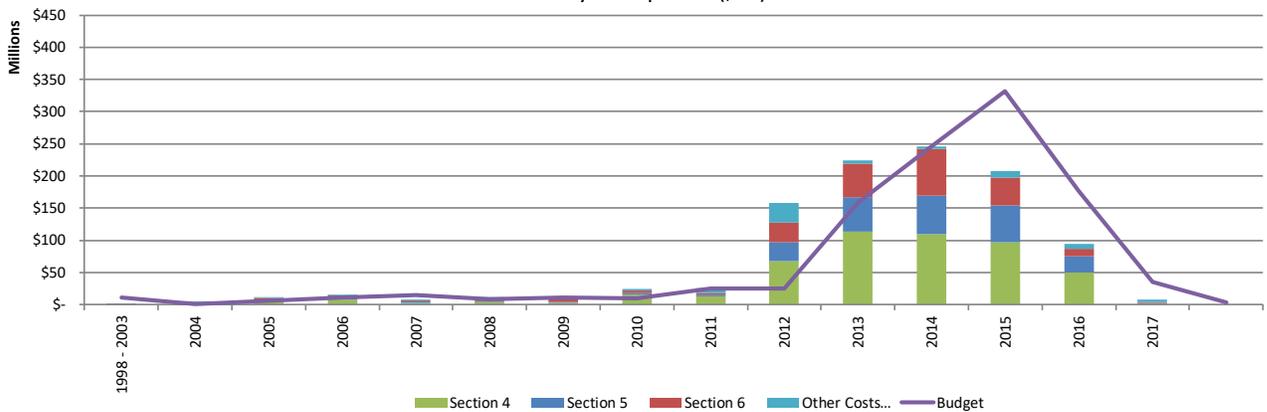


Figure 2-4b. Budgeted Annual Expenditure vs. Actual Expenditure, East End Crossing

Chapter 3. Implementation Plan

INTRODUCTION

This chapter provides information on the implementation schedule for the Project. It also provides additional information regarding the allocation of implementation responsibilities and an updated summary of the status of necessary permits and approvals.

PROJECT SCHEDULE OVERVIEW

The Project schedule is based on delivery of the Downtown Crossing under a design-build contract and the East End Crossing under an availability payment P3 procurement. The Project is substantially complete as of the end of SFY 2017 (see *Figure 3-1 and Table 3-1*). The East End Crossing reached final acceptance on April 18, 2017. The Downtown Crossing reached final acceptance on September 11, 2017. The activities in the “Other” category for the Downtown Crossing that extend into SFY 2019 relate to fulfillment of streetscaping commitments in Section 1 of the Project.

State Fiscal Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Downtown Crossing																	
Environmental	Update - June 2012																
	IFP																
Design	Update - July 2015																
	IFP																
Right-of-Way					Update - March 2015												
					IFP												
Utilities									Update - April 2016								
									IFP								
Construction									Update - April 2017								
									IFP								
Other *	Update - June 2019**																
East End Crossing																	
Environmental	Update - June 2012																
	IFP																
Design	Update - October 2016																
	IFP																
Right-of-Way			Update - June 2014														
			IFP														
Utilities									Update - June 2014								
									IFP								
Construction									Update - April 2017								
									IFP								
Other*	December 2018**																

**Includes state costs for toll system, project-wide mitigation, and oversight costs. **IFP did not include Other category.*

Figure 3-1. Project Schedule Overview

Table 3-1 shows the status of each section of the Project.

Table 3-1. Current Activities and Status

Project Section	Activities	Approximate Status	Estimated Construction Start Date						Estimated Open to Traffic Date					Actual Open	
			2012 IFP	2013 Update	2014 Update	2015 Update	2016 Update	2017 Update	2012 IFP	2013 Update	2014 Update	2015 Update	2016 Update		2017 Update
Section 1 – Kennedy Interchange	Design	100%													
	ROW	100%	Jul-13	Jul-13	Jul 2013 (actual)	Jul 2013 (actual)	Jul 2013 (actual)	Jul 2013 (actual)	Dec-18	Dec-16	Dec-16	Dec-16	Dec-16	Dec-16	Dec-16
	Utilities	100%													
	Construction	98%													
Section 2 – Downtown Bridge	Design	100%	Jul-13	Jul-13	Jul 2013 (actual)	Jul 2013 (actual)	Jul 2013 (actual)	Jul 2013 (actual)	Dec-18	Dec-16	Dec-16	Dec-16	Dec-16	Dec-16	Dec-16
	Construction	98%													
Section 3 – Downtown Indiana Approach	Design	100%													
	ROW	100%	Jul-13	Jul-13	Jul 2013 (actual)	Jul 2013 (actual)	Jul 2013 (actual)	Jul 2013 (actual)	Dec-17	Dec-16	Dec-16	Dec-16	Dec-16	Dec-16	Dec-16
	Utilities	100%													
	Construction	98%													
Section 4 – East End Kentucky Approach	Design	100%													
	ROW	100%	Jun-13	Jun-13	Jun 2013 (actual)	Jun 2013 (actual)	Jun 2013 (actual)	Jun 2013 (actual)	Dec-17	Oct-16	Oct-16	Oct-16	Oct-16	Dec-16	Dec-16
	Construction	100%													
Section 5 – East End Bridge	Design phase	99%													
	Construction	100%	Jun-13	Jun-13	Jun 2013 (actual)	Jun 2013 (actual)	Jun 2013 (actual)	Jun 2013 (actual)	Dec-17	Oct-16	Oct-16	Oct-16	Oct-16	Dec-16	Dec-16
Section 6 – East End Indiana Approach	Design	100%													
	ROW	100%	Jun-13	Jun-13	Jun 2013 (actual)	Jun 2013 (actual)	Jun 2013 (actual)	Jun 2013 (actual)	Dec-17	Oct-16	Oct-16	Oct-16	Dec-16	Dec-16	Dec-16
	Construction	100%													

PROJECT DELIVERY

The Project Sponsors pursued alternative delivery approaches for both Crossings in order to enhance the feasibility of the Project through accelerated project delivery, avoid inflation costs, take advantage of additional sources of financing, and transfer various risks to the private sector, such as construction risk, and/or long-term operating and maintenance risks. As a result, the Downtown Crossing was procured under a design-build contract and the East End Crossing as an availability payment P3 procurement. Figure 3-2 provides the updated procurement schedules for each component.

Milestone	Downtown Crossing	East End Crossing
Final RFQ Issued	March 8, 2012	March 9, 2012
Statement of Qualifications	April 2, 2012	April 9, 2012
Shortlist of Proposers	May 1, 2012	April 23, 2012
Final RFP	August 3, 2012	July 31, 2012
Final Proposals Received	November 15, 2012	October 26, 2012
Notice to Proceed/Financial Close	December 28, 2012	March 28, 2013
Substantial Completion	November 18, 2016	December 17, 2016
Final Acceptance Dates	September 11, 2017	April 18, 2017

Figure 3-2. Procurement Schedules

PERMITS AND APPROVALS

On September 6, 2003, the Federal Highway Administration issued a Record of Decision selecting the preferred alternative as a Two Bridges/Highway Alternative, with the specific

elements selected in the Far East and Downtown corridors, as well as the Kennedy Interchange Reconstruction option.

On November 10, 2011, a Supplemental Draft Environmental Impact Statement was approved by FHWA, KYTC, and INDOT. The Supplemental Final Environmental Impact Statement (SFEIS) was signed on April 20, 2012 and the Revised ROD was signed on June 20, 2012. All permitting activity is being carried out in accordance with the SFEIS and Revised ROD.

The permits and approvals required for the Downtown Crossing and for the East End Crossing are outlined in the following table. Additional detail can be found in the Project Management Plan for the Project.

Table 3-2. Required Permits or Notifications

Required Permits or Notifications						
Permit Description (Agency)	Design Section					
	1	2	3	4	5	6
Levee System Modification Permit (USACOE)	✓	N/A	✓	N/A	N/A	N/A
Floodplain Construction Permit (KDOW, Louisville MSD)	N/A	N/A	N/A	N/A	N/A	N/A
Stream Construction Permit (KDOW)	N/A	N/A	N/A	✓	✓	N/A
Construction in a Floodway Permit (IDNR)	N/A	✓	N/A	N/A	✓	✓
Federal Permit for Eagle Take (US Fish & Wildlife)	N/A	N/A	N/A	✓	N/A	N/A
National Pollutant Discharge Elimination System (Rule 5, Stormwater) (IDEM)	✓	✓	✓	N/A	✓	✓
National Pollutant Discharge Elimination System (Kentucky PDES)	✓	✓	N/A	✓	✓	N/A
Section 401 Water Quality Certification (IDEM)	N/A	✓	✓	N/A	✓	✓
Section 401 Water Quality Certification (KDOW)	✓	✓	N/A	✓	✓	N/A
Section 402 NPDES Permit for Permanent Storm Drainage (KDOW)	N/A	N/A	N/A	✓	✓	N/A
Section 404 – Discharge of Dredged or Fill Material (USACOE)	✓	✓	✓	✓	✓	✓
Section 9 Bridges or Causeways Permit (USCG)	N/A	✓	N/A	✓	✓	N/A
Section 10 of Rivers and Harbors Act for Work in Navigable Waters – Bridge Permit (USACE)	N/A	N/A	✓	N/A	N/A	N/A
Tall Structure Permits/Determinations (FAA)	N/A	✓	✓	N/A	✓	✓
Conditional Letter of Map Revisions (FEMA/Louisville MSD/IDNR)	✓	pending final submittal	N/A	pending final submittal	pending final submittal	N/A
Erosion and Sediment Control Plan (Louisville MSD)	contractor	contractor	N/A	contractor	contractor	N/A
Risk Management Plan (KDOWM)	contractor	contractor	N/A	contractor	N/A	N/A

Required Permits or Notifications						
Permit Description (Agency)	Design Section					
	1	2	3	4	5	6
Indiana Navigable Waterways Act (IDEM)	N/A	✓	N/A	N/A	✓	N/A
Aviation Lighting Determination (Bridge Tower & Temporary Crane) (KAZC)	N/A	✓	N/A	N/A	✓	N/A
Indiana Bat Conservation MOA (USFW)	N/A	N/A	N/A	✓	N/A	N/A

In 2010, the Bridges Authority and the Bi-State Management Team worked with the area's Metropolitan Planning Organization (MPO) and FHWA on a financial demonstration document for the Project in connection with the update of the MPO's long-range Metropolitan Transportation Plan (MTP). The plan was approved by the MPO's Transportation Policy Committee in October 2010 and subsequently approved by FHWA in November 2010. These actions allowed the Project to be retained as an active, fiscally-constrained project within the MTP. In October 2011, the third amendment of the MTP was approved. That amendment included project changes to align the MTP with the Modified Selected Alternative project scope and description, with the cost savings and tolling assumptions that were reflected in the SDEIS published in November 2011, and that are consistent with this Financial Plan document. The Project remains in the Transportation Improvement Program (TIP) and the fiscally constrained long-range MTP. The total project is in the KIPDA Update from August 2016 as KIPDA project #52.

Chapter 4. Financing and Revenues

INTRODUCTION

This chapter discusses the financial plan for the Project and reviews updates since the 2016 Annual Update was prepared. Specifically, it presents the available and committed funding required to complete the Project, including state transportation and federal-aid formula funds, federal discretionary funds, Project revenues, and associated financing. A discussion of continued risks associated with project financing also is included.

FINANCIAL PLAN OVERVIEW

This Annual Update to the Financial Plan reflects the funding and finance strategy by which the Project's estimated \$2.320 billion cost (in year-of-expenditure dollars, exclusive of financing and interest costs) was funded through a combination of conventional state and federal transportation program funds and toll-based Project revenues. In the case of Kentucky's design-build contracting approach for the Downtown Crossing, these funding sources were leveraged to provide the necessary up-front capital for construction through a combination of Kentucky's federal-aid funding commitments, toll revenue bonds, Transportation Infrastructure and Financing Act (TIFIA) financing and grant anticipation revenue vehicle (GARVEE) bonds. In the case of Indiana's availability payment P3 approach for the East End Crossing, private sector financing, including private equity and debt, was secured by the Developer to support its obligations, and the payments under the P3 agreement were met by Indiana's commitments of state and federal funding, including financing via a TIFIA loan, and its share of the toll-based revenues from the Project. As of the end of SFY2017 (June 30, 2017), the states expended approximately \$2.294 billion collectively for the Project (exclusive of financing and interest costs).

The Project Sponsors developed a financial plan that recognizes the limitations on conventional state and federal transportation funding and finds the right balance of funding alternatives to meet the following goals:

- Ensuring that cost sharing arrangements are equitable and the states' financial obligations to the Project are manageable;
- Ensuring that the Project delivers value to the states, taxpayers, project partners, and end users through appropriate toll rates and the lowest feasible Project cost;
- Seeking private sector innovation and efficiencies and encouraging design solutions that respond to environmental concerns, permits, and commitments in the ROD;
- Developing the Project in a safe manner that supports congestion management and economic growth for the region;
- Ensuring the Project is constructed within a time period that meets or beats final completion target dates.
- Transparently engaging the public and minimizing to the extent possible disruptions to existing traffic, local businesses, and local communities; and
- Delivering a Project that is a self-sustaining, integrated cross-river mobility solution for future generations.

PROCUREMENT APPROACH AND FINANCING

The Downtown Crossing and East End Crossing were procured using two different methods of delivery and financing, as described below.

Downtown Crossing

On May 1, 2012, KYTC issued a draft RFP to three short-listed teams. The Final RFP was released in August 2012 and the Apparent Best Value Design Build Team, a consortium led by Walsh Construction, was announced in November 2012. On December 7, 2012, KYTC formally selected Walsh Construction to design and construct the Downtown Crossing.

Payments to the selected design-builder for the Downtown Crossing were financed by KYTC and KPTIA using a combination of direct funding from the KYTC Highway Plan, GARVEE bond proceeds, toll revenue bond proceeds, and TIFIA financing.

On December 12, 2013, KPTIA closed on a \$452.2 million loan with the US Department of Transportation (US DOT) through the TIFIA program. On December 20, 2013, KPTIA closed approximately \$275.670 million in toll revenue bonds and \$452.2 million in bond anticipation notes (BANs) to complete the LSIORB financing. The all-in true interest cost for the toll revenue bonds is 6.297 percent and the all-in true interest cost for the toll revenue BANS was 2.332 percent. The BANs were taken out by the TIFIA loan which had an all-in true interest cost of 3.88 percent.

East End Crossing

Indiana procured a developer to design, build, finance, as well as operate and maintain portions of the East End Crossing under an Availability Payment (AP) structure as set out in a Public-Private Agreement (PPA). On May 2, 2012, IFA issued a draft RFP to four short-listed teams. The Final RFP was issued in July 2012 and in December 2012 IFA reached Commercial Close on the PPA with WVB East End Partners (WVB), a consortium of Walsh Construction, Vinci Concessions, and Bilfinger Berger PI International. IFA and INDOT elected to let separate construction contracts under INDOT's authority for the Salem Road alignment and for the majority of tree clearing and structure demolition for the East End Crossing.

To finance design and construction of the East End Crossing, WVB sold \$702 million in private activity bonds (PABs) and provided \$78 million in Risk Capital. IFA has made eight Milestone Payments to WVB for the completion of specific portions of the East End Crossing during the construction phase, including substantial completion. Beginning at substantial completion, Availability Payments will be made during the 35-year operations and maintenance (O&M) term of the PPA contract. The Maximum Availability Payment (MAP) of \$32.9 million, in 2012 dollars, will be adjusted as defined in the PPA dependent on the CPI and the Developer's performance during the O&M term. IFA is contractually obligated to make milestone and availability payments and has entered into a Project Trust Agreement with a Project Trustee who will manage and dispense funds accordingly. To give effect to this arrangement, IFA has received a total of \$230 million to fund Milestone Payments as follows: \$44 million in FY2013, \$54 million in FY2014, \$54 million in FY2015, \$24 million in FY2016, and \$54 million in FY2017. IFA has entered into a Use Agreement with INDOT to receive payments at least equal to anticipated MAP as defined in the PPA.

INDOT has used a combination of state and federal funds, including draws under the TIFIA Loan Agreement (at 2.25 percent interest), to fund the Milestone Payments owed by IFA to the Developer while toll revenues, in combination with state and federal funds, as needed, will be used to make Availability Payments, as described further below. As noted above, the Developer utilizes a combination of PABs and Risk Capital to finance design and construction prior to receiving Milestone and Availability Payments.

STATE TRANSPORTATION AND FEDERAL-AID FORMULA FUNDING

Both Kentucky and Indiana have historically used federal-aid resources for the Project and have committed specific funding from their respective near-term federal-aid highway funding programs, as described further below.

Federal-aid formula funds provided to the Project were matched by a combination of state road funds and toll credits (credits unrelated to the Project) in Kentucky and by state funds in Indiana.

An estimated \$1,301.6 million of federal-aid highway formula and state transportation funds has been made available to the Project as well as \$115.7 million in federal discretionary funds, discussed further below (*see Table 4-1*). This includes the state and federal funds reflected in the Sources of Funds in Chapter 5 as well as additional contingency funding resources for both states. It does not include up-front funds being provided by the Developers or through project financing, discussed later in this chapter. The decrease in Kentucky's funding is the result of the elimination of contingency funding that was not required. The change in Indiana's funding is the result of a combination of a correction for double-counting of the Relief Events Allowance Account (REAA) in the 2016 Financial Plan Update Table 4-1 and the reduction of the REAA, with refund made to INDOT of unutilized funds of approximately \$21.9 million. A similar amount was refunded to the Developer and included as a project cost.

Table 4-1. Ohio River Bridges Federal and State Conventional Funding (in thousands)

Detailed Budget (YOE \$, thousands)	Financial Plan Year	Thru 2012	2013	2014	2015	2016	2017	2018	Total
Kentucky									
KYTC State Highway Plan Funding	2016	20,620	11,271	10,070	10,289	9,449	8,922	-	70,620
	2017	20,620	11,271	10,070	10,289	9,449	6,267	-	67,966
	Difference	-	-	-	-	-	(2,654)	-	(2,654)
KYTC Federal Highway Plan Funding	2016	82,480	45,083	40,278	41,156	37,796	35,686	-	282,480
	2017	82,480	45,083	40,278	41,156	37,796	25,069	-	271,862
	Difference	-	-	-	-	-	(10,618)	-	(10,618)
KYTC GARVEES	2016	100,000	-	237,302	-	-	-	-	337,302
	2017	100,000	-	237,302	-	-	-	-	337,302
	Difference	-	-	-	-	-	-	-	-
Federal Discretionary Funding	2016	76,300	-	-	-	-	-	-	76,300
	2017	76,300	-	-	-	-	-	-	76,300
	Difference	-	-	-	-	-	-	-	-
Total	2016	279,400	56,353	287,650	51,445	47,245	44,608	-	766,702
	2017	279,400	56,353	287,650	51,445	47,245	31,336	-	753,430
	Difference	-	-	-	-	-	(13,272)	-	(13,272)
Indiana									
State Funding*	2016	15,757	35,274	40,346	30,336	23,114	191,938	1,000	337,765
	2017	15,757	26,274	31,346	21,336	14,114	161,608	7,287	277,721
	Difference	-	(9,000)	(9,000)	(9,000)	(9,000)	(30,330)	6,287	(60,044)
Federal Formula Funding	2016	31,185	91,488	51,115	62,593	39,881	68,525	5,093	349,881
	2017	31,185	91,488	51,115	62,593	39,881	69,200	1,266	346,728
	Difference	-	-	-	-	-	675	(3,828)	(3,153)
Federal Discretionary Funding	2016	27,200	1,200	10,980	-	-	-	-	39,380
	2017	27,200	1,200	10,980	-	-	-	-	39,380
	Difference	-	-	-	-	-	-	-	-
Total	2016	74,142	127,962	102,440	92,929	62,995	260,464	6,093	727,026
	2017	74,142	118,962	93,440	83,929	53,995	230,808	8,552	663,829
	Difference	-	(9,000)	(9,000)	(9,000)	(9,000)	(29,656)	2,459	(63,197)

*Includes funding for Relief Event Allowance Account. Also includes \$162 million TIFIA loan proceeds in SFY 2017.

Kentucky

Through the Six-Year Highway Plan, Kentucky utilized \$677.1 million in federal and state funds on the Project. This total includes \$339.8 million in traditional federal and state matching funds coming from the National Highway Performance and Surface Transportation Programs funding category. The remaining \$337.3 million in federal funding was provided via GARVEE bonds issued to support the Project (see table below for Kentucky's Advance Construction conversion schedule).

Designated funding amounts are reflected in the Commonwealth's biennial budget (committed for the first two years of funding) and in the Six-Year Highway Plan (subject to appropriation for the remaining four years). Kentucky's funding participation is also reflected in the fiscally-constrained Statewide Transportation Improvement Program (STIP) and the FY 2011 – 2015 Transportation Improvement Program (TIP) for the metropolitan region.

The Transportation Cabinet budget for the biennium is prepared in accordance with Chapter 48 of the Kentucky Revised Statutes and is based on two-year projections made in light of long-range program requirements and revenue estimates. The biennial budget request is prepared by the Transportation Cabinet and presented to the Governor for submission to the Kentucky General Assembly. The General Assembly is required by the Kentucky Constitution to adopt measures providing for the state's revenues and appropriations for each fiscal year. The Governor is required by law to submit a biennial State Budget (the "State Budget") and a separate biennial Transportation Budget to the General Assembly during the legislative session held in each even numbered year. State Budgets have generally been adopted by the General Assembly during those legislative sessions, which end in mid-April, to be effective upon the Governor's signature for appropriations commencing for a two-year period beginning the following July 1.

Indiana

To support the East End Crossing procurement, INDOT has committed a total of \$786.449 million in federal and conventional state funds, including a \$162 million TIFIA loan, to be repaid with state highway funds. The term of the TIFIA Loan is 15 years, beginning in March 2017. The INDOT commitment includes \$230 million to be used by IFA to pay Milestone Payments. The Milestone Payments are reimbursements to the Developer for costs initially incurred by the Developer for design and construction. Payments have been made when the Developer achieves specific construction milestones, but no sooner than defined in the PPA. The funding for the Milestone Payments is shown in Table 5-3 as \$25 million in FY2015, \$151 million in FY2016, and \$216 million in FY2017, based on prescribed schedule for funding of the payments under the PPA. The corresponding expenditures are included in Table 5-3 in the design and construction costs for each Section. Upon the Developer achieving substantial completion of the East End Crossing, Availability Payments commenced. These payments are funded by toll revenues, in combination with state and federal funds as needed to backstop any shortfalls in toll revenues. It is anticipated that future funds will come from the National Highway Performance and Surface Transportation Programs and state matching funds.

The table below provides the Advance Construction conversion status for both Kentucky and Indiana.

Table 4-2. Advance Construction Conversion Status/Schedule (in \$millions)

	Total Federal Funding Amounts (through SFY2018)	Amount AC'd to Date	Amount Converted to Date	Amount Remaining in AC
KY GARVEE AC	337.3	488.7	142.5	346.2
KY AC	398.8	201.0	147.0	54.0
IN AC	389.8	400.9 ²	327.9	73.0

¹Includes principal and interest

²In SFY 2016, INDOT adjusted the authorized AC amounts to more closely align with the federal funding requirements associated with the Milestone Payments, resulting in a reduction of authorized to date AC amounts of \$76.7 million.

Milestone/Availability Payments

With regard to the Indiana budgeting process, the fiscal year commences on July 1 and ends on June 30 of the following calendar year. The State operates under a biennial budget for the two consecutive fiscal years ending on June 30 of an odd numbered year. On or before the first day of September in each even numbered year, all State agencies (including INDOT) submit budget requests to the State Budget Agency. The State Budget Agency then conducts an internal review of each request. In the fall of each even numbered year, the State Budget Committee (comprised of the State Budget Director and four members of the General Assembly) begins hearings on the budget requests. After presentations by the requesting State agency and the State Budget Agency, the State Budget Committee makes budget recommendations to the Governor. These budgets then become appropriations when the budget is passed by the Legislature, and then signed into law by the Governor.

As it relates to the East End Crossing, on or before the first day of August of each even numbered year, IFA prepared and provided to INDOT an annual Milestone Payment budget forecast and delivered a copy for the ensuing two fiscal years which set forth the Milestone Payment. Upon substantial completion of the East End Crossing, on or before the first day of August of each even numbered year, the IFA will prepare and provide to INDOT an annual budget forecast and deliver a copy for the ensuing two fiscal years which details the Maximum Availability Payment for both fiscal years, the estimated tolling O&M expenses, the estimated funds required to be deposited under the Project Trust Agreement, and the amounts of funds to be appropriated to INDOT to meet Use Payment Requirements. The most recent versions of these agreements between IFA and INDOT have been completed.

Indiana's plan for making these payments will be to use its biennial appropriations to INDOT for Availability Payments. Payments will be made by INDOT to IFA based on the budget IFA will present to INDOT. These payments will be made on an annual basis prior to August 1 of the current fiscal year.

The IFA will work with the Project Trustee to evaluate the available tolling revenues and to determine whether there is a shortfall or excess in those funds. If there is a shortfall, IFA will use the appropriation from INDOT to make up the shortfall. If tolling revenues exceed the Availability Payment budget, IFA will return the appropriation to INDOT. IFA and INDOT are using the biennial appropriations for Availability Payments to show that Indiana is budgeting these appropriations out of INDOT's Capital Program. INDOT estimates that these payments will be approximately 5-8 percent of the State's capital program (see further discussion below and Table 4-4 for additional information).

Availability Payments will be funded by INDOT from appropriations from the General Assembly of the State to INDOT for such biennium to the extent that Availability Payments are not funded by toll revenues. In addition to being reflected in internal budget and financial control systems, all anticipated funding amounts are reflected in the fiscally-constrained Statewide Transportation Improvement Program (STIP) and the Transportation Improvement Program (TIP) for the metropolitan region.

FEDERAL DISCRETIONARY FUNDING

In addition to Federal-aid formula funds, Kentucky and Indiana have previously secured \$116 million in discretionary funding from the Federal Highway Trust Fund and General Appropriations for the Project. This includes \$24 million in direct federal appropriations and \$92 million through High Priority Project funding designations under TEA-21 (“Transportation Equity Act for the 21st Century”) and SAFETEA-LU (“Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users”). The \$116 million of discretionary funds received for the Project were expended on major investment and environmental studies, design and engineering costs, right of way acquisition, and oversight and project management, and are included in the figures above.

PROJECT REVENUES

Both states have had successful histories of using alternative funding sources, including tolling, for the development of their road infrastructures.¹ Further, both states have the requisite legislative authority to impose tolls on the Project. Specifically, Kentucky Revised Statutes Section 175B.030 provides tolling authority for the Project, and the Indiana General Assembly amended its tolling and public-private partnership statutes in 2010 to expressly permit both tolling and public-private partnerships to be utilized in delivering the Project.² The states have entered into a Tolling Agreement with the Federal Highway Administration, as previously provided for under Title 23 United States Code, Section 129.

Traffic forecasting work on the Project has been performed by the Bi-State Management Team’s traffic and revenue consultants using a time-of-day travel demand model that was developed in connection with the Project. The initial traffic and revenue work began in the 2005-2006 time period and included a Level 1 study using the KIPDA Daily Regional Travel Demand Model and assumed the FEIS Preferred Alternative. This was followed in 2007 with a Level 2 study again using the KIPDA Daily Model and FEIS Preferred Alternative. This study was updated in 2010 and is reflected in a December 2010 report. Subsequent to the 2010 report, an extensive effort was undertaken to create a time of day (TOD) model suitable for use in an investment grade traffic and revenue study. In addition to developing this model, additional data was collected and used to support the model validation process. Using the LSIORB TOD Model, a complete set of 2030 traffic forecasts were developed, used in the SEIS process and documented in a LSIORB Traffic Forecasting Report.

¹ Kentucky, for example, built a system of approximately 680 miles of full-access controlled parkways using bonding with debt service supported by a mix of state road funds and tolling. Indiana maintained the 157-mile Indiana Toll Road connecting the Chicago Skyway with the Ohio Turnpike for fifty years, using the proceeds of toll-revenue bonds for necessary expansion and maintenance projects. In 2006, Indiana completed a very successful public-private partnership transaction involving the Toll Road. These experiences will be brought to bear to move the Ohio River Bridges Project to construction.

² See Indiana Senate Enrolled Act No. 382 (2010).

Work continued beyond the SEIS in a Traffic and Revenue Study completed by Steer Davies Gleave (SDG) in August 2013, which was developed as follows:

- A stated preference survey undertaken to provide an empirical basis for establishing a route choice model mechanism into the highway assignment;
- Nine model time periods to present the varying levels of traffic and congestion throughout the day;
- Representation of the highway network to reflect the 2012 traffic conditions;
- New traffic counts and travel time measures used to validate the assignment results across the network for each of the nine time periods, and in particular for each of the existing Bridges, providing a robust platform for the forecasts; and
- Socioeconomic forecasts for the model area developed by an independent economic consultant, and a growth model built to validate the river crossing traffic growth included in the demand matrices.

Table 4-2a shows the estimated toll revenue for each of the Crossings and the total Project based on revenues generated by the facilities – with an indicative two-thirds of revenue being generated by the Downtown Crossing and one-third by the East End Crossing. These estimates are based on an investment-grade Traffic & Revenue Study for the Project, as revised in a memo from SDG dated June 26, 2016. This memo took into account the recently approved refinement to the vehicle classification structure, specifying more clearly the distinction between vehicle classes. Table 4-2b displays this approved classification scheme as approved by the ORB Tolling Body on May 11, 2016.

Table 4-2a. Estimated Toll Revenue by Facility – Ohio River Bridges Project
 (\$, in millions)

Financial Plan Year	Ohio River Bridges Project Toll Revenue Summary Through 2054 (\$ Millions)								
	Downtown			East End			Total All Bridges		
	Gross Revenue	Toll O&M	Net Revenue	Gross Revenue	Toll O&M	Net Revenue	Gross Revenue	Toll O&M	Net Revenue
2016	5,432	269	5,163	2,798	116	2,683	8,230	384	7,846

Table 4-2b. Toll Rate Vehicle Classification – Approved May 11, 2016

Vehicle Classification		RIVER LINK		
CLASSIFICATION	VEHICLE DESCRIPTION	TOLL WITH TRANSPONDER	TOLL WITH REGISTERED PLATE	TOLL WITH UNREGISTERED PLATE
Passenger Vehicle	2-axle up to 7 ½ feet in height 	\$2	\$3	\$4
Medium Vehicle	2-axle more than 7 ½ feet in height 	\$5	\$6	\$7
	All 3-axle 			
Large Vehicle	All 4-axle 	\$10	\$11	\$12
	5-axle or more 			

To develop the current outlook on traffic and revenue for the Project, SDG combined the approved vehicle classifications as described above along with updated growth forecasts and a refinement of their application of early year ramp-up and leakage assumptions. Furthermore, the actual toll related costs associated with the operation and maintenance of the toll collection system, now branded as RiverLink, were applied from the Kapsch Toll System Provider (TSP) contract for the first seven years of operation. This seven years represents the initial term of the TSP contract. For toll related O&M cost for years FY 2024 thru FY 2054, a three percent annual inflation rate was applied to the FY 2023 numbers. Revenues were distributed 66% to the Downtown Crossing and 34% to the East End Crossing to be consistent with traffic projections. Toll related O&M estimates were distributed in proportion to toll equipment lanes, 19 in the Downtown Crossing (70%) and 8 in the East End Crossing (30%). The resulting revenue estimates are update in Tables 4-2b above.

Although tolls are collected at the facility-level, based upon an agreement between the States, they are distributed in a manner consistent with Table 4-2c. This table shows the estimated toll revenue for each of the Crossings and the total Project based on the analysis described above. This incorporates the agreed-upon 50-50 sharing between the states of toll revenues generated on the entire Project, including both Downtown and East End Crossings.

Table 4-2c. Estimated Toll Revenue by State – Ohio River Bridges Project
(\$, in millions)

Ohio River Bridges Project Toll Revenue Summary Through 2054 (\$ Millions)								
Kentucky			Indiana			Total		
Gross Revenue	Toll O&M	Net Revenue	Gross Revenue	Toll O&M	Net Revenue	Gross Revenue	Toll O&M	Net Revenue
4,115	192	3,923	4,115	192	3,923	8,230	384	7,846

As described further below, toll revenues are leveraged in the states' financing approaches, including via toll revenue bonds, TIFIA financing, private activity bonds, and equity investment.

FINANCING STRATEGY

Financing approaches for both the East End Crossing and Downtown Crossing have advanced significantly since the IFP for the Project was prepared and are now finalized. In the case of the East End Crossing, Financial Close was reached on the Project, solidifying the Project's financial structure throughout both construction and operations. In 2015, IFA entered into a TIFIA loan agreement to support the project financing. In the case of the Downtown Crossing, the Project's financial structure is finalized. On December 12, 2013, KPTIA closed on a \$452.2 million loan with the US DOT through the TIFIA program. On December 20, 2013, KPTIA closed approximately \$275.67 million in toll revenue bonds and \$452.2 million in BANs. The BANs were retired when the TIFIA loan proceeds were drawn. GARVEE financing also was completed for the Project.

Kentucky

Under the design-build and separate operate-maintain structure, the Downtown Crossing was financed with a combination of funding commitments from Kentucky, governmental purpose tax-exempt debt in the form of GARVEE bonds backed by future federal funds, and toll revenue

financing including both toll revenue bonds and TIFIA financing backed by Kentucky's share of toll revenues from the Project.

In addition to previously committed KYTC funds, as noted above, Kentucky utilized \$275.67 million in Toll Revenue Bonds during 2013-2014, \$237.3 million in GARVEE bonds issued in 2013, \$452.2 million in TIFIA BAN proceeds and TIFIA take-out financing, and \$250 million in Highway Plan Funds comprised of \$200 million in federal funds and \$50 million in state matching funds over the 2013-2017 timeframe. An additional \$50 million, previously planned as part of Kentucky's 6-year Highway Plan in 2018 and available as contingency resources has been eliminated as it has been determined to no longer be necessary (Interest on GARVEE bonds issued in 2013 will be covered within the \$50 million per year in federal and state matching funds). Federal-aid funds will not be used to pay financing and interest costs associated with the sale of toll revenue bonds.

Kentucky recognizes the importance of the Louisville-Southern Indiana Ohio River Bridges project. As such, both the Kentucky Transportation Cabinet and the Kentucky Public Transportation Infrastructure Authority are fully committed to ensuring that the roadways which constitute the Downtown Crossing are properly maintained, and that the system used to collect toll revenues on both the Downtown Crossing and the East End Crossing are maintained and operated to standard. This commitment is evidenced by the KPTIA 2013 General Indenture, which requires the trustee, on behalf of KPTIA, to establish a Tolling O&M Reserve Fund, a General O&M Reserve Fund, and a M&R Reserve Fund. These reserve funds, through an automatically renewable biennial lease between KPTIA and the Cabinet, benefit from a pledge by the Cabinet to seek an appropriation from the Kentucky General Assembly at the next available opportunity to replenish if insufficient toll collections cause them to be drawn upon to a level below their required funding. The state Road Fund is a dedicated fund established under Section 230 of the Constitution of the Commonwealth of Kentucky. Section 230 states in part that:

No money derived from the excise or license taxation relating to gasoline and other motor fuels, and no monies derived from fees, excise or license taxation relating to registration, operation, or use of vehicles on public highways shall be expended for other than the cost of administration, statutory refunds and adjustments, payment of highway obligations, costs for construction, reconstruction, rights-of-way, maintenance and repair of public highways and bridges, and expense of enforcing state traffic and motor vehicle laws.

**Table 4-3. Non-Statutorily Dedicated Road Fund Revenues Available for Appropriation
(In thousands)**

Table 4-3 has been removed.
The information previously presented in this table is no longer directly relevant to the Project.

Indiana

Under the Availability Payment P3 structure implemented by Indiana, the East End Crossing was financed with a combination of funding commitments from Indiana as well as private activity bonds and Developer Risk Capital (equity) secured by WVB. In particular, WVB has provided \$78 million of Developer Risk Capital and \$702 million of PABs proceeds (\$677 million in par amount) to fund design and construction of the East End Crossing. The structure of the PABs that were issued can be seen in the table below.

Table 4-4. Private Activity Bond Structure for East End Crossing

MATURITY	PRINCIPAL	PROCEEDS	COUPON	YIELDS
2019	\$194,495,000	\$213,438,813	5%	2.28%
2035	\$45,115,000	\$46,723,801	5%	4.56%
2040	\$97,955,000	\$99,679,008	5%	4.78%
2044	\$108,765,000	\$109,712,343	5%	4.89%
2048	\$120,435,000	\$120,226,647	5%	5.01%
2051	\$110,040,000	\$112,572,020	5.25%	4.96%
TOTAL	\$676,805,000	\$702,352,633		

The Financial Plan distinguishes that two types of PABs were issued by WVB – specifically “Milestone PABs (Series B)” and “Long Term PABs (Series A)”. The difference is that “Milestone PABs (Series B)” have a shorter tenor – reaching Maturity January 1, 2019 and with a Call Date of January 1, 2017. These Milestone PABs, as the name suggests, are repaid by Milestone Payments from Indiana. The other PABs, “Long Term PABs (Series A)”, have longer tenors – with maturities in 2034, 2040, 2044, 2048, and 2051.

Indiana has made \$392 million of Milestone Payments to WVB during construction and up to a maximum \$38.3 million of Availability Payments during the first full year of operations. The Availability Payments have 20 percent of their growth indexed to CPI, and 80 percent of their growth indexed at a constant 2.50 percent. A portion of the Availability Payments are distributed on a monthly basis, insofar as the Project meets agreed upon operating standards. A snapshot of the growth of the Availability Payments has been captured in the table below, which begins in the first full year of operations and ends in the last full year of operations:

Table 4-5. Availability Payment Growth
(in year-of-expenditure dollars, thousands)

Year	Availability Payments - Limit
2018	37,326
2023	42,230
2028	47,780
2033	54,059
2038	61,162
2043	69,200
2048	78,293
2051	84,313

Indiana also funded a Relief Events Allowance Account (REAA) as a contingency against Relief Events during construction of the East End Crossing. Relief Events and the Relief Events Allowance Account are defined in the PPA. Starting in 2013, the Account was funded at \$9 million per year, which continued through 2017, resulting in a total of \$45 million of funds in the Allowance Account. This funding is included in Table 4-1 and reflected in the Project Sources and Uses of Funds. The Relief Events Allowance Account funding profile can be seen in the

table below. The Allowance Account was funded through an internal agreement between the IFA and INDOT. Upon achievement of Final Acceptance, the balance of \$43,777,563 in the REAA was split between IFA and WVB in accordance with the provisions of the PPA.

Table 4-6. Relief Events Allowance Account Funding Profile

Year	Funding Amount
2013	9,000,000
2014	9,000,000
2015	9,000,000
2016	9,000,000
2017	9,000,000
Total	\$45,000,000

ASSUMPTIONS, RISKS, AND MITIGATIONS

While the vast majority of financial risk has already been mitigated – through substantial completion of the Project – some risk remains through the operations period due to the financing structure for the Project. The following is a summary of continued potential risks that may affect the financing of the Project and the Project Sponsors' assessment of mitigating factors:

- 1) *Availability of state and federal revenue sources beyond those currently committed to the Project:* The states have demonstrated a strong commitment to ensuring the Project is delivered. This commitment is demonstrated through the investment of funds to date as well as the issuance of GARVEE bonds by the Commonwealth of Kentucky. The states believe that it is reasonable to assume that any future state and federal funds will be made available to fund the Project as detailed in this Annual Financial Plan Update and reflected in contractual obligations of each state with respect to the private developer and construction consortia. Both states have demonstrated the availability of contingency resources to the extent required as part of this Financial Plan Update.
- 2) *Whether toll revenues will meet projections:* The Project Sponsors have developed traffic and revenue forecasts under a variety of tolling scenarios and now including an investment grade traffic and revenue study and approved initial toll rates. While risk inherently exists in traffic and revenue forecasts, the rigor employed in developing an investment-grade traffic and revenue report and the sensitivity testing performed on these estimates helps to ensure Project financing is based on reasonable toll revenue estimates. Rate covenants on Kentucky's planned toll revenue-backed debt also will serve to ensure adequate toll revenues are received to meet debt service, availability payments, and other obligations of the states.

Chapter 5. Project Cash Flow

INTRODUCTION

This chapter provides an annual construction cash flow schedule for the Project and an overview of the sources of funds. This chapter also addresses the estimated long-term operations and maintenance costs of the Project and how these costs will be met.

ESTIMATED SOURCES AND USES OF FUNDING

The estimated sources and uses of funds shown in the figure below are based on the design-build and separate operate-maintain structure that Kentucky has utilized and the availability payment concession structure that Indiana utilized. These charts reflect construction-related costs, exclusive of ongoing operations and maintenance costs addressed later in this section, and include financing related costs as well. The total sources and uses of funds of \$2.769 billion is greater than the costs specified in Chapter 2 of \$2.320 billion to reflect interest and other financing-related costs. Updates to the sources and uses for each state are consistent with the changes in costs and funding discussed previously in Chapter 2 and Chapter 4 of this Financial Plan Update. These differences are described further in Chapter 8.

Downtown Crossing Sources and Uses of Funds

Sources of Funds During Construction (\$000)		
Source	Nominal \$	% of Total
KY State & Federal Funding	\$323,852	22%
KY GARVEE Bonds	\$337,302	23%
IN State & Federal Funding	\$35,771	2%
KY Toll Revenue Bonds	\$271,730	19%
KY TIFIA/BANs	\$493,606	34%
Total Sources	\$1,462,261	100.00%

Uses of Funds During Construction (\$000)		
Use	Nominal \$	% of Total
Oversight & Design	\$284,925	19%
Right of Way	\$59,113	4%
Utilities	\$13,168	1%
Construction	\$773,485	53%
Mitigation/Other	\$4,376	0%
Financing & Interest	\$205,697	14%
Tolling & Other	\$121,497	8%
Total Uses	\$1,462,261	100.00%

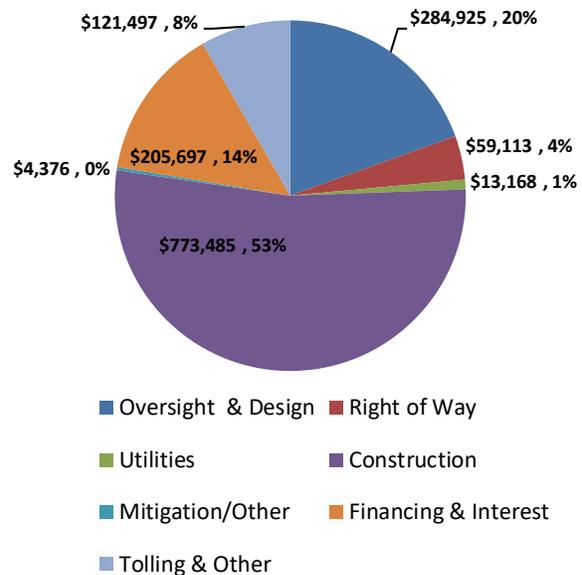
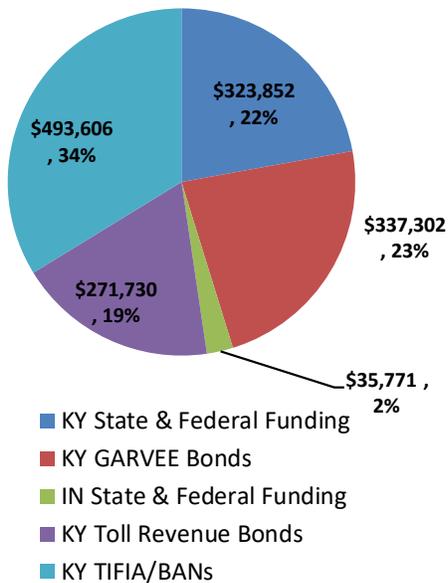


Figure 5-1a Estimated Downtown Crossing Sources and Uses of Funds Through Construction

Final (Nov. 15, 2017)

East End Crossing Sources and Uses of Funds

Sources of Funds During Construction (\$000)		
Source	Nominal \$	% of Total
KY State & Federal Funding	\$92,877	7%
IN State Funding - Milestone Payments/TIFIA	\$162,000	12%
IN State & Federal Funding - Milestone Payments/Other	\$230,000	18%
IN State & Federal Funding - Other	\$214,167	16%
IN Milestone PABs (Series B)	\$18,944	1%
IN Long-Term PABS (Series A)	\$488,912	37%
Developer Risk Capital	\$78,145	6%
Relief Events Reserve Account	\$21,889	2%
Total Sources	\$1,306,932	100.00%

Uses of Funds During Construction (\$000)		
Use	Nominal \$	% of Total
Oversight & Design	\$185,607	14%
Right of Way	\$64,742	5%
Utilities	\$32,908	3%
Construction	\$685,037	52%
Mitigation/Other	\$3,245	0%
Financing & Interest	\$242,960	19%
Tolling & Other	\$92,434	7%
Total Uses	\$1,306,932	100.00%

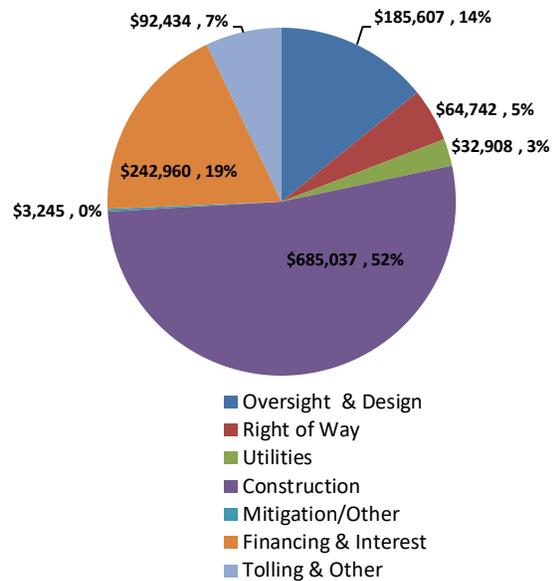
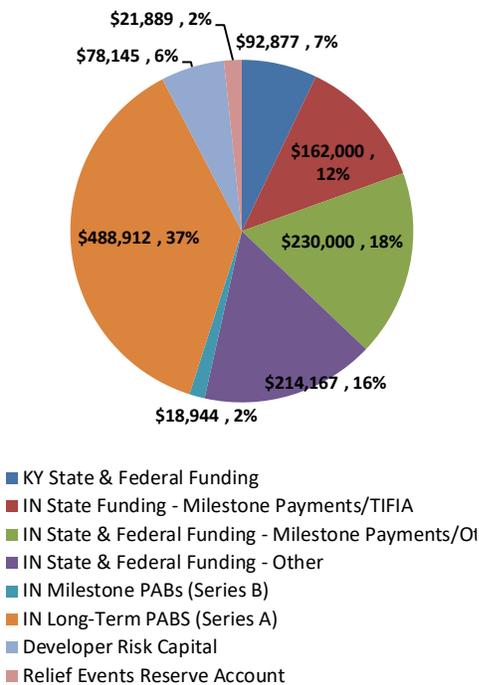


Figure 5-1b Estimated East End Crossing Sources and Uses of Funds Through Construction

Ohio River Bridges Project Sources and Uses of Funds

Sources of Funds During Construction (\$000)		
Source	Nominal \$	% of Total
KY State & Federal Funding	\$416,729	15%
KY GARVEE Bonds	\$337,302	12%
IN State Funding - Milestone Payments/TIFIA	\$162,000	6%
IN State & Federal Funding - Milestone Payments/Other	\$230,000	8%
IN State & Federal Funding - Other	\$249,940	9%
KY Toll Revenue Bonds	\$271,730	10%
KY TIFIA/BANs	\$493,606	18%
IN Milestone PABs (Series B)	\$18,944	1%
IN Long-Term PABS (Series A)	\$488,912	18%
Developer Risk Capital	\$78,145	3%
Relief Events Reserve Account	\$21,889	1%
Total Sources	\$2,769,196	100.00%

Uses of Funds During Construction (\$000)		
Use	Nominal \$	% of Total
Oversight & Design	\$470,532	17%
Right of Way	\$123,855	4%
Utilities	\$46,076	2%
Construction	\$1,458,525	53%
Mitigation/Other	\$7,621	0%
Financing & Interest	\$448,657	16%
Tolling & Other	\$213,930	8%
Total Uses	\$2,769,196	100.00%

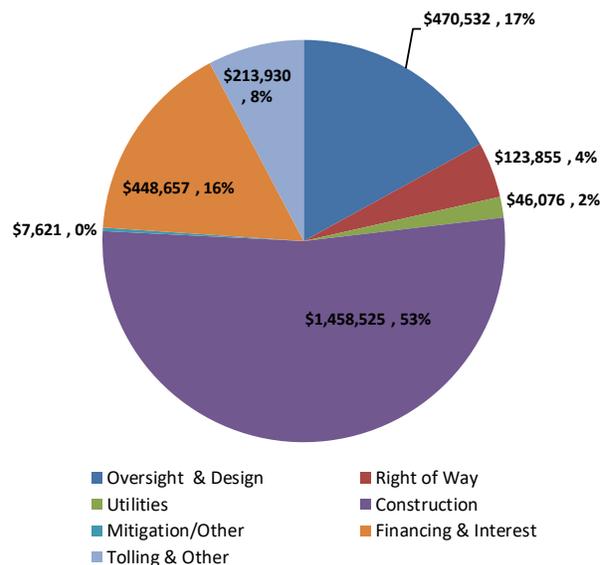
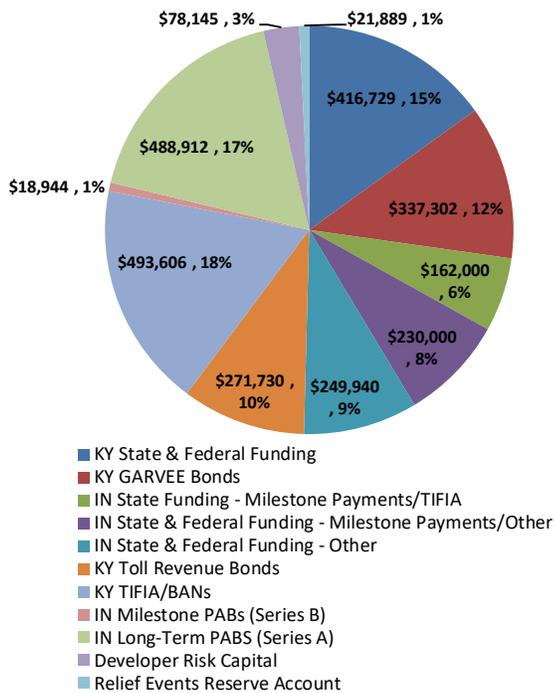


Figure 5-1c. Estimated Project Sources and Uses of Funds Through Construction

The tables below summarize the anticipated annual cash outlays for the Project – by Crossing and by State – based on delivery under an availability payment concession structure for the East End Crossing and a design-build delivery model for the Downtown Crossing. Actual and projected cash flow is compared with that of the IFP for each year. Short-term shortfalls are addressed through available cash management techniques, including internal borrowing. Specifically, short-term shortfalls in 2013 and 2016 for Kentucky are addressed through internal borrowing from the Kentucky Road Fund. Prior year shortfalls for the Downtown Crossing represent minor adjustments in final costs based on SFY 2012 year-end close as it relates to portions of the Project funded by Indiana. These costs were covered with internal borrowing by Indiana. Additional adjustments for prior year costs from the 2012 IFP represent final adjustments based on year-end close procedures in both states as well as a review of eligible costs as it relates to federal funding. As noted previously, adjustments between the 2012 IFP and the 2013 Financial Plan Update as it relates to future year costs are the result of accelerated construction schedules based on final bids and contracts. In the case of the Downtown Crossing, Federal aid funds are not being used to pay debt service with respect to toll revenue bonds.

Table 5-1. Annual Expenditures by Crossing, Section, and Element

Table 5-1 has been removed.
The information previously presented in this table is now repetitive of information provided in
Tables 5-2 and 5-3.

Table 5-2. Downtown Crossing Cash Flows

Detailed Budget (SYOE)	Thru 2010 ITP		Thru 2010 Actual		Thru 2010 Difference		2011 ITP		2011 Actual		2011 Difference		2012 ITP		2012 Actual		2012 Difference		2013 ITP		2013 Actual		2013 Difference	
DOWNTOWN CROSSING																								
Carry Forward										(886)		(886)												
KY State and Federal Funding (Incl GARVEEs)	111,181,252	111,181,252						15,525,288	15,525,288					87,004,420	87,004,420					52,075,520	68,507,042		16,431,522	
IN State and Federal Funding	7,663,586	7,663,586					1,082,036	1,082,036	1,082,036	(1)			1,649,822	1,649,822					8,707,500	20,443,997		11,736,497		
KY Toll Revenue Bonds																								
KY TIF/IABANS																								
Revenue Total	118,844,838	118,844,838					16,607,304	16,607,303	16,607,303	(1)		88,654,242	88,654,242						59,044,500	60,664,808		1,620,308		
Section 1																								
Oversight																								
Design	(48,530,192)	(48,530,192)					(6,398,118)	(6,398,118)	(6,398,118)			(6,691,055)	(6,691,055)						(15,482,878)	(19,845,454)		(4,362,576)		
Right of Way	(5,859,785)	(5,859,785)					(4,199,556)	(4,199,556)	(4,199,556)			(12,517,615)	(1,246,250)						(14,943,605)	(13,005,187)		1,938,418		
Utilities																			(1,983,234)	(82,758)		1,900,476		
Construction																								
Mitigation/Other																				(2,151,563)	(1,000,000)		1,151,563	
Section 2																								
Oversight																								
Design	(12,974,022)	(12,974,022)					(47,659)	(47,659)	(47,659)			(1,236,056)	(1,236,056)						(9,519,127)	(17,080,721)		(7,561,594)		
Construction																								
Mitigation/Other																								
Section 3																								
Oversight																								
Design	(864,575)	(864,575)					(1,058,206)	(1,058,206)	(1,058,206)			(1,031,794)	(2,401,272)						(1,068,794)	(720,376)		348,418		
Right of Way	(312,000)	(312,000)					(886)	(886)	(886)										(8,707,500)	(19,098,322)		(10,390,822)		
Utilities																								
Construction																								
Mitigation/Other																								
Kentucky Other Costs																								
Other Costs (Project Wide for IFP)	(50,304,264)	(50,304,264)					(4,902,764)	(4,902,764)	(4,902,764)			(7,983,064)	(7,983,064)						(9,112,500)	(35,880,869)		(26,768,369)		
Toll System																								
Interest During Construction																								
Financing and Reserve Costs																								
Expenditure Total	(118,844,838)	(118,844,838)					(886)	(886)	(886)	(886)	1	(17,170,921)	(564,504)	(563,618)	(29,459,584)	(19,582,697)	9,876,887	(72,962,274)	(187,764,855)	(144,812,581)				
Net Cash Flow	-	-					(886)	(886)	(886)	(886)	1	(564,504)	(564,505)	59,194,658	68,507,042	9,312,383	38,167,746	(58,593,005)	(96,760,751)					

Detailed Budget (SYOE)	2014 IFP	2014 Actual	2014 Difference	2015 IFP	2015 Actual	2015 Difference	2016 IFP	2016 Actual	2016 Difference
DOWNTOWN CROSSING									
Carry Forward	38,167,746	(58,593,005)	(96,760,751)	46,767,376	64,503,676	17,736,300	46,767,376	56,890,293	10,122,917
KY State and Federal Funding (Incl GARVEES)	222,347,000	283,214,344	60,867,344	113,316,000	51,010,405	(62,305,595)	50,000,000	46,645,375	(3,354,625)
IN State and Federal Funding	8,990,494	2,665,204	(6,325,290)	-	193,108	193,108	-	41,100	41,100
KY Toll Revenue Bonds		106,189,990	106,189,990	123,871,845	95,074,123	(28,797,722)	191,517,553	54,735,821	(136,781,732)
KY TIF/ABAs		208,831,715	208,831,715		163,554,291	163,554,291		94,161,040	94,161,040
Revenue Total	231,337,494	600,901,253	369,563,759	237,187,845	309,831,927	72,644,082	241,517,553	195,583,336	(45,934,217)
Section 1									
Oversight	(9,662,892)	(12,442,358)	(2,779,666)	(10,049,200)	(11,793,186)	(1,743,986)	(10,375,799)	(10,483,696)	(107,897)
Design	(15,986,072)	(32,667,962)	(16,681,890)	-	(6,486,584)	(6,486,584)	-	-	-
Right of Way	-	(5,542,893)	(5,542,893)	-	(4,838,388)	(4,838,388)	-	(1,802,732)	(1,802,732)
Utilities	(2,047,889)	(5,786,467)	(3,738,778)	(2,129,597)	(836,442)	1,293,155	(2,198,809)	(794,333)	(1,404,476)
Construction	(85,363,592)	(89,337,570)	(3,973,978)	(88,778,135)	(132,251,339)	(43,473,204)	(91,663,425)	(96,747,476)	(5,084,051)
Mitigation/Other	(3,528,246)	(717,950)	2,810,296	(2,989,862)	(867,888)	2,121,974	(561,279)	(399,633)	161,646
Section 2									
Oversight	(7,338,612)	(8,050,049)	(711,437)	(7,632,157)	(7,486,157)	146,000	(7,880,202)	(6,654,910)	1,225,292
Design	(10,377,337)	(16,437,179)	(6,059,842)	(570,792)	(3,179,191)	(2,608,399)	-	-	-
Construction	(65,784,674)	(66,411,610)	(626,936)	(68,416,061)	(87,764,866)	(19,348,805)	(70,639,583)	(62,526,829)	(8,112,754)
Mitigation/Other	-	-	-	-	-	-	-	-	-
Section 3									
Oversight	(3,862,353)	(4,614,358)	(752,005)	(4,016,847)	(3,774,402)	242,445	(4,147,394)	(3,355,301)	792,093
Design	(5,172,794)	(11,496,217)	(6,323,423)	-	(85,435)	(85,435)	-	-	-
Right of Way	(8,990,494)	(2,270,352)	6,720,142	-	(109,836)	(109,836)	-	(11,883)	(11,883)
Utilities	(245,670)	(5,035,842)	(4,790,172)	(255,497)	(86,250)	169,247	-	(29,217)	(29,217)
Construction	-	(31,104,958)	(31,104,958)	(48,000,807)	(45,398,555)	2,602,252	(49,560,833)	(31,525,043)	18,035,790
Mitigation/Other	(196,014)	(303,453)	(107,439)	-	-	-	-	-	-
Kentucky Other Costs									
Other Costs (Project Wide for IFP)	(4,181,625)	(3,751,701)	429,924	(4,348,890)	(1,410,335)	2,938,555	(4,490,229)	(2,271,474)	2,218,755
Toll System		(2,000,000)	(2,000,000)		(731,081)	(731,081)		(1,631,146)	(1,631,146)
Interest During Construction		(123,887,211)	(123,887,211)		(10,345,375)	(10,345,375)		(10,345,375)	(10,345,375)
Financing and Reserve Costs		(55,946,442)	(55,946,442)		-	-		-	-
Expenditure Total	(222,737,864)	(477,804,572)	(255,066,708)	(237,187,845)	(317,445,310)	(80,257,465)	(241,517,553)	(228,579,047)	12,938,506
Net Cash Flow	46,767,376	64,503,676	17,736,300	46,767,376	56,890,293	10,122,917	46,767,376	23,894,582	(22,872,794)

Detailed Budget (\$YOE)									
	2017 IFP	2017 Actual	2017 Difference	2018/2019 IFP	2018/2019 Projected	2018/2019 Difference	Total IFP	Total Actual/Projected	Total Difference
DOWNTOWN CROSSING									
Carry Forward		23,894,582	23,894,582	46,767,376	18,053,432	(28,713,944)	749,710,940	681,153,894	(88,557,046.38)
KY State and Federal Funding (incl GARVEES)	50,000,000	26,352,019	(23,647,981)	50,000,000	-	(50,000,000)	28,093,438	35,773,692	7,680,253.54
IN State and Federal Funding	-	2,034,840	2,034,840	-	-	-	583,673,961	271,729,566	(311,944,375.00)
KY Toll Revenue Bonds	201,054,818	15,729,652	(185,325,166)	67,229,745	-	(67,229,745)	-	493,606,482	493,606,482.00
KY TRF/BANS	-	27,059,436	27,059,436	-	-	-	-	-	-
Revenue Total	251,054,818	71,175,947	(179,878,872)	117,229,745	-	(117,229,745)	1,361,478,339	1,462,263,633	100,785,314
Section 1									
Oversight	(10,635,194)	(7,923,171)	2,712,023	(10,901,074)	(511,552)	10,389,522	(54,376,471)	(45,404,792)	8,971,679
Design	-	-	-	-	-	-	(93,089,315)	(120,620,365)	(27,531,050)
Right of Way	-	(814,851)	(814,851)	-	-	-	(37,520,561)	(37,309,640)	210,921
Utilities	-	-	-	-	-	-	(8,359,329)	(7,500,000)	859,329
Construction	(93,956,010)	(23,460,679)	70,494,331	(96,303,885)	(7,189,059)	89,114,826	(456,064,047)	(383,520,123)	72,543,924
Mitigation/Other	(575,311)	(14,529)	560,782	(589,693)	-	589,693	(10,395,954)	(3,000,000)	7,395,954
Section 2									
Oversight	(8,077,207)	(5,029,523)	3,047,684	(1,179,387)	(324,726)	854,661	(34,138,312)	(28,974,160)	5,164,152
Design	-	-	-	-	-	-	(34,724,993)	(50,954,827)	(16,229,834)
Construction	(78,158,679)	(14,892,525)	63,266,153	(5,896,933)	(4,563,518)	1,333,415	(288,895,929)	(261,462,997)	27,432,932
Mitigation/Other	-	-	-	-	-	-	-	-	-
Section 3									
Oversight	(4,251,079)	(2,535,806)	1,715,273	-	(163,722)	(163,722)	(17,346,467)	(15,163,966)	2,182,501
Design	-	(1,435)	(1,435)	-	-	-	(13,137,339)	(23,806,670)	(10,669,331)
Right of Way	-	-	-	-	-	-	(18,009,994)	(21,803,278)	(3,793,284)
Utilities	-	-	-	-	-	-	(501,167)	(5,668,270)	(5,167,103)
Construction	(50,799,854)	(9,541,981)	41,257,873	-	(2,300,854)	(2,300,854)	(148,361,494)	(128,504,892)	19,856,602
Mitigation/Other	-	-	-	-	-	-	(385,858)	(1,375,976)	(990,118)
Kentucky Other Costs									
Other Costs (Project Wide for IFP)	(4,602,485)	(1,613,651)	2,988,834	(2,356,773)	(3,000,000)	(641,227)	(92,284,594)	(111,118,122)	(18,833,528)
Toll System	-	(6,016,258)	(6,016,258)	-	-	-	-	(10,378,485)	(10,378,485)
Interest During Construction	-	(5,172,688)	(5,172,688)	-	-	-	-	(149,750,649)	(149,750,649)
Financing and Reserve Costs	-	-	-	-	-	-	-	(55,946,442)	(55,946,442)
Expenditure Total	(251,054,818)	(77,017,096)	174,037,722	(117,229,745)	(18,053,432)	99,176,313	(1,307,591,824)	(1,462,263,634)	(154,671,830)
Net Cash Flow	-	18,053,432	18,053,432	46,767,376	(0)	(46,767,376)	53,886,515	(0)	(53,886,515)

Table 5-3. East End Crossing Cash Flows

Detailed Budget (SYOE)	Thru 2010 IFP		Thru 2010 Actual		Thru 2010 Difference		2011		2012 IFP		2012 Actual		2012 Difference		2013 IFP		2013 Actual		2013 Difference				
	Thru 2010 IFP	Actual	Actual	Difference	2011 IFP	2011 Actual	Difference	2012 IFP	2012 Actual	Difference	2013 IFP	2013 Actual	Difference	2013 IFP	2013 Actual	Difference							
EAST END CROSSING																							
Camp Forward																							
KY State and Federal Funding	30,600,346	33,102,363	2,502,017		841,750	13,320,646	12,478,896	841,750	9,907,362	9,065,612	841,750	5,216,832	4,375,082	841,750	5,216,832	4,375,082	841,750	5,216,832	4,375,082				
IN State and Federal Funding-Milestone Payments/TIFIA	-	-	-		17,087,563	17,334,815	247,252	18,001,152	15,392,011	(2,609,141)	18,001,152	16,132,422	9,013,284	18,001,152	16,132,422	9,013,284	18,001,152	16,132,422	9,013,284				
IN State and Federal Funding-Other	44,381,138	54,336,814	9,955,676		8,094,116	3,669,960	(4,224,157)	11,237,910	5,539,508	(5,698,402)	11,237,910	4,518,491	18,361,209	11,237,910	4,518,491	18,361,209	11,237,910	4,518,491	18,361,209				
Less Funds for TIFIA Principal Repayment																							
Milestone PABs (Series B)																							
Long Term PABs (Series A)																							
Developer Risk Capital																							
Relief Events Reserve Account																							
Project Financing (IFP Only)																							
Revenue Total	74,981,484	87,439,177	12,457,693		25,181,679	21,204,774	(3,976,905)	29,239,062	20,931,519	(8,307,543)	88,276,420	825,097,557	736,821,137										
Section 4																							
Oversight																							
Design	(17,982,349)	(17,982,349)	(0)		(2,515,015)	(2,515,015)	0	(7,132,728)	(3,094,082)	4,038,666	(7,132,728)	(3,094,082)	4,038,666	(7,132,728)	(3,094,082)	4,038,666	(7,132,728)	(3,094,082)	4,038,666	(19,555,025)	(5,068,155)	14,486,870	
Right of Way	(6,146,219)	(6,146,219)	(0)		(13,148,778)	(13,148,778)	0	(9,656,039)	(9,189,982)	466,077	(9,656,039)	(9,189,982)	466,077	(9,656,039)	(9,189,982)	466,077	(9,656,039)	(9,189,982)	466,077	(7,119,138)	(15,532,422)	(8,413,284)	
Utilities	-	-	-		(17,039)	(17,039)	0	(22,024)	(22,024)	(22,024)	(22,024)	(22,024)	(22,024)	(22,024)	(22,024)	(22,024)	(22,024)	(22,024)	(22,024)	(243,173)	(243,173)	(243,173)	
Construction	(74,550)	(74,550)	74,550		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(44,297,403)	(44,297,403)	(44,297,403)	
Mitigation/Other		(74,550)	(74,550)		-	-	-	-	(1,150,000)	(1,150,000)	-	(1,150,000)	(1,150,000)	-	(1,150,000)	(1,150,000)	-	(1,150,000)	(1,150,000)	(759,375)	(759,375)	759,375	
Section 5																							
Oversight																							
Design	(12,794,456)	(12,794,456)	-		(2,813,489)	(2,813,489)	1	(2,424,770)	(2,424,770)	0	(2,424,770)	(2,424,770)	0	(2,424,770)	(2,424,770)	0	(2,424,770)	(2,424,770)	0	(1,571,621)	(1,037,889)	533,732	
Construction	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(7,771,976)	(5,151,222)	2,620,754	
Mitigation/Other	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(23,210,621)	(23,210,621)	(23,210,621)	
Section 6																							
Oversight																							
Design	(6,243,232)	(6,243,232)	-		(2,237,896)	(2,237,896)	-	(2,105,997)	(2,265,137)	(159,140)	(2,105,997)	(2,265,137)	(159,140)	(2,105,997)	(2,265,137)	(159,140)	(2,105,997)	(2,265,137)	(159,140)	(994,713)	(637,078)	357,635	
Right of Way	(11,344,892)	(11,323,688)	21,204		(1,056,948)	(1,056,948)	-	(2,803,772)	(303,772)	2,500,000	(2,803,772)	(303,772)	2,500,000	(2,803,772)	(303,772)	2,500,000	(2,803,772)	(303,772)	2,500,000	(4,662,719)	(2,322,434)	2,340,255	
Utilities	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(2,025,000)	(6,685,213)	(4,660,213)	
Construction	(33,671)	(33,671)	(33,671)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(99,733)	(99,733)	(99,733)	
Mitigation/Other	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(20,020,123)	(20,020,123)	(20,020,123)	
Indiana Other Costs																							
Other Costs	(19,554,036)	(19,520,365)	33,671		(3,392,537)	(2,828,919)	563,618	(5,115,756)	(7,172,322)	(2,055,566)	(5,115,756)	(7,172,322)	(2,055,566)	(5,115,756)	(7,172,322)	(2,055,566)	(5,115,756)	(7,172,322)	(2,055,566)	(10,195,268)	(30,812,248)	(20,616,980)	
Toll System	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(8,813,000)	(8,813,000)	(8,813,000)
Interest During Construction (WVB & INDOT/IEA)	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(67,164,000)	(67,164,000)	(67,164,000)
Financing and Reserve Costs	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expenditure Total	(74,139,734)	(74,118,530)	21,203		(25,181,678)	(24,618,059)	563,619	(29,239,062)	(25,622,049)	3,617,013	(58,678,554)	(234,238,808)	(175,560,254)										
Net Cash Flow	841,750	13,320,646	12,478,896		841,751	9,907,562	9,065,611	841,750	5,216,532	4,375,082	30,439,616	596,075,561	565,639,965										

Detailed Budget (SYOE)	2014 IFFP		2014 Actual		2014 Difference		2015 IFFP		2015 Actual		2015 Difference		2016 IFFP		2016 Actual		2016 Difference	
EAST END CROSSING																		
Carry Forward	30,439,616	596,075,581	565,635,965	4,435,742	54,000,000	363,932,981	434,970	363,932,981	434,970	363,932,981	434,970	124,712,227	1,060,766	124,712,227	1,060,766	1,060,766	1,060,766	1,060,766
KY State and Federal Funding		4,435,742	4,435,742															
IN State and Federal Funding-Milestone Payments/TIF	54,000,000	-	(54,000,000)		54,000,000	25,000,000	(29,000,000)	54,000,000	151,000,000	54,000,000	151,000,000	97,000,000	151,000,000	97,000,000	151,000,000	97,000,000	151,000,000	97,000,000
IN State and Federal Funding-Other	28,750,604	27,775,002	(975,602)		39,543,563	20,735,844	(18,807,719)	28,491,371	20,954,206	28,491,371	20,954,206	(7,537,165)	20,954,206	(7,537,165)	20,954,206	(7,537,165)	20,954,206	(7,537,165)
Less Funds for TIF/A Principal Repayment																		
Milestone PABs (Series B)		-	-															
Long Term PABs (Series A)		-	-															
Developer Risk Capital		-	-															
Relief Events Reserve Account		9,000,000	9,000,000			9,000,000		9,000,000		9,000,000			9,000,000		9,000,000		9,000,000	
Project Financing (IFP Only)	138,259,983		(138,259,983)		181,407,827	181,407,827		181,407,827		181,407,827		193,613,810		182,014,972		193,613,810		(94,990,209)
Revenue Total	221,010,587	41,210,744	(179,799,843)		274,951,390	55,170,814		274,951,390	55,170,814	274,951,390	55,170,814	276,105,181		182,014,972		276,105,181		(94,990,209)
Section 4																		
Oversight	(14,540,715)	(10,541,910)	3,998,805		(15,122,344)	(6,775,229)		8,347,115	(15,613,820)	(7,322,368)		8,291,452		(1,299,879)		8,291,452		(1,299,879)
Design	(20,190,563)	(17,924,072)	2,266,491		(835,742)	(4,398,081)		5,857,145	(1,335,956)	(1,335,956)		51,713,712		(87,674,473)		51,713,712		(87,674,473)
Right of Way	-	(835,742)	(835,742)		(10,255,228)	(4,398,081)		5,857,145	(1,335,956)	(1,335,956)		(1,135,956)		(1,135,956)		(1,135,956)		(1,135,956)
Utilities	(9,860,794)	(6,258,328)	3,602,466		(129,808,331)	(77,520,006)	52,288,325	(135,000,664)	(92,446,584)	42,554,080	(139,388,185)	(87,674,473)		51,713,712		51,713,712		51,713,712
Construction	(129,808,331)	(77,520,006)	52,288,325		(784,055)	(1,017,968)												
Mitigation/Other	(784,055)	(1,017,968)	(233,913)															
Section 5																		
Oversight	(5,679,447)	(3,892,124)	1,787,323		(5,906,625)	(3,554,445)		2,352,180	(6,098,590)	(2,674,223)		3,424,367		(3,449,678)		3,424,367		(3,449,678)
Design	(8,024,565)	(13,451,831)	(5,427,266)		(6,984,886)	(49,379,673)		3,629,856	(59,222,568)	(50,304,449)		8,918,119		(50,304,449)		8,918,119		(50,304,449)
Construction	(50,970,701)	(35,305,237)	15,665,464															
Mitigation/Other	-	-	-		-	-		-	-	-		-		-		-		-
Section 6																		
Oversight	(1,027,042)	(3,030,043)	(2,003,001)		(4,628,534)	(2,787,372)		1,841,162	(4,778,961)	(1,641,495)		3,137,466		(2,499,977)		3,137,466		(2,499,977)
Design	(4,814,257)	(8,661,670)	(3,847,413)		(2,969,336)	(184,914)		-	-	-		-		(959,521)		-		(959,521)
Right of Way	-	(333,829)	(333,829)		(1,630,834)	(4,802,792)		(3,171,958)	(46,512,828)	(41,004,872)		5,507,956		(41,004,872)		5,507,956		(41,004,872)
Utilities	(1,568,109)	(14,426,260)	(12,858,151)		(60,699,051)	(15,650,307)		(4,746,411)	(5,336,968)	(4,746,411)		(5,336,968)		(4,746,411)		(5,336,968)		(4,746,411)
Construction	(26,260,991)	(26,260,991)	(26,260,991)		(244,471)	(244,471)		-	-	-		-		-		-		-
Mitigation/Other	(244,471)																	
Indiana Other Costs																		
Other Costs	(4,181,625)	(4,006,611)	175,014		(4,348,890)	(3,803,913)		544,977	(4,490,229)	(4,746,411)		(5,336,968)		(4,746,411)		(5,336,968)		(4,746,411)
Toll System		(617,250)	(617,250)		(930,042)	(930,042)		(34,116,000)	(14,315,550)	(14,315,550)		(14,315,550)		(14,315,550)		(14,315,550)		(14,315,550)
Interest During Construction (WVB & INDOT/IFA)		(34,116,000)	(34,116,000)		(13,883,725)	(13,883,725)		(256,231,821)	(256,231,821)	(256,231,821)		55,154,554		(256,231,821)		55,154,554		(256,231,821)
Financing and Reserve Costs		(14,909,000)	(14,909,000)															
Expenditure Total	(251,450,204)	(273,353,344)	(21,903,140)		(274,951,390)	(294,391,567)		(9,301,041)	(276,105,181)	(256,231,821)		55,154,554		(256,231,821)		55,154,554		(256,231,821)
Net Cash Flow	(1)	363,932,981	363,932,982		-	124,712,227		134,851,363	-	50,495,378		55,154,554		50,495,378		55,154,554		50,495,378

Drafted Budget (SY08)	2017 FFP	2017 Actual	2017 Difference	2018/2019 FFP	2018/2019 Projected	2018/2019 Difference	Total FFP	Total Actual/Projected	Total Difference
EAST END CROSSING									
Carry Forward		50,495,378	50,495,378		10,655,931	10,655,931			
KY State and Federal Funding		4,983,950	4,983,950		-	-	72,808,199	92,877,037	20,068,838.31
IN State and Federal Funding-Milestone Payments/TFI	54,000,000	216,000,000	162,000,000		-	-	270,000,000	392,000,000	122,000,000.00
IN State and Federal Funding-Other	30,304,277	32,554,633	2,250,356	2,358,773	17,535,974	15,177,198	220,319,034	228,820,428	8,501,394.12
Less Funds for TIFIA Principal Repayment		(5,670,016)	(5,670,016)		(8,983,817)	(8,983,817)	-	(14,653,833)	(14,653,832.93)
Milestone PABs (Series B)		(194,495,000)	(194,495,000)		-	-	-	18,943,550	18,943,550.44
Long Term PABs (Series A)		-	-		-	-	-	488,911,750	488,911,749.70
Developer Risk Capital		26,048,172	26,048,172		-	-	-	78,144,515	78,144,515.48
Relief Events Reserve Account		(14,111,218)	(14,111,218)		-	-	-	21,888,782	21,888,782.30
Project Financing (FP Only)	199,854,158			(199,854,158)			713,135,778	-	(713,135,778.00)
Revenue Total	284,158,435	65,310,520	(218,847,915)	2,358,773	8,552,154	6,193,381	1,276,263,011	1,306,932,230	30,669,219
Section 4									
Oversight	(16,004,166)	(5,601,673)	10,402,493		(1,353,929)	(1,353,929)	(65,304,764)	(34,739,202)	30,565,562
Design		(253,308)	(253,308)		-	-	(67,375,680)	(64,812,365)	(12,563,315)
Right of Way		-	-		-	-	(36,070,174)	(44,853,123)	(8,782,949)
Utilities		(544,725)	(544,725)		-	-	(20,133,055)	(12,619,322)	7,513,733
Construction	(142,872,891)	(43,345,087)	99,527,804		-	-	(547,144,621)	(345,283,553)	201,861,068
Mitigation/Other		(738,843)	(738,843)		-	-	(1,543,430)	(2,981,362)	(1,437,932)
Section 5									
Oversight	(7,401,676)	(2,225,989)	5,175,687		(552,349)	(552,349)	(26,657,959)	(13,937,020)	12,720,939
Design		(280,228)	(280,228)		-	-	(33,829,236)	(47,350,539)	(13,521,303)
Construction	(60,703,132)	(22,524,840)	38,178,292		(1,477,200)	(1,477,200)	(223,905,930)	(182,202,020)	41,703,910
Mitigation/Other		-	-		-	-	-	-	-
Section 6									
Oversight	(4,898,435)	(1,335,594)	3,562,841		(339,043)	(339,043)	(16,327,685)	(9,770,625)	6,557,060
Design		(47,853)	(47,853)		-	-	(20,064,101)	(24,997,535)	(4,933,434)
Right of Way		(500)	(500)		-	-	(17,230,612)	(19,888,884)	(2,658,252)
Utilities		-	-		-	-	(3,198,943)	(20,288,306)	(17,089,363)
Construction	(47,675,648)	(9,532,418)	38,143,230		-	-	(139,237,220)	(157,551,128)	(18,313,906)
Mitigation/Other		(18,900)	(18,900)		-	-	-	(263,371)	(263,371)
Indiana Other Costs									
Other Costs	(4,602,485)	(2,170,751)	2,431,734		(2,358,773)	(1,902,173)	(58,239,589)	(79,322,486)	(21,082,887)
Toll System		(6,226,842)	(6,226,842)		-	-	-	(13,111,102)	(13,111,102)
Interest During Construction (WVB & INDOT/IFA)		(18,393,973)	(18,393,973)		(3,473,398)	(3,473,398)	-	(109,925,938)	(109,925,938)
Financing and Reserve Costs		8,097,557	8,097,557		(7,751,220)	(7,751,220)	-	(133,034,371)	(133,034,371)
Expenditure Total	(284,158,433)	(105,149,968)	179,337,046	(2,358,773)	(19,208,084)	(16,849,311)	(1,276,263,009)	(1,306,932,230)	(30,669,221)
Net Cash Flow	2	10,655,931	10,984,510	-	0	0	2	0	(2)

Table 5-4. Annual Expenditures by State

Detailed Budget (SYOE)	Thru 2010											2011	2012	2013	2014	2015	2016	2017	2018/2019	Total
	2010	2011	2012	2013	2014	2015	2016	2017	2018/2019											
Kentucky																				
Oversight	-	-	-	4,400,000	25,106,765	23,053,745	20,493,907	15,488,501	1,000,000	89,542,918										
Design	79,396,780	10,344,697	11,615,530	44,825,705	60,601,358	9,751,210	-	1,435	-	216,536,714										
Right of Way	12,006,004	17,348,333	10,436,212	28,537,609	6,378,635	4,948,224	1,814,614	814,851	-	82,284,482										
Utilities	-	17,035	22,024	599,718	10,822,309	922,692	823,550	-	-	13,207,328										
Construction	-	-	-	68,471,149	186,864,138	265,414,760	190,799,348	47,895,185	14,053,432	773,488,012										
Mitigation/Other	74,550	-	1,150,000	1,483,905	1,021,403	867,888	399,633	14,529	-	5,011,908										
Kentucky Other Costs	50,304,264	4,902,764	7,983,064	35,880,969	185,585,354	12,486,791	14,247,995	12,802,596	3,000,000	327,193,698										
SUBTOTAL - KENTUCKY	141,781,599	32,612,829	31,206,830	184,198,955	476,369,962	317,445,310	228,579,047	77,017,096	18,053,432	1,507,265,060										
Indiana																				
Oversight	-	-	-	4,819,061	17,464,077	13,117,046	11,638,086	9,163,256	2,245,321	58,446,847										
Design	19,992,046	4,726,666	6,496,822	12,541,811	40,037,574	16,629,746	4,999,534	581,389	-	106,005,587										
Right of Way	11,636,574	1,056,948	303,772	25,783,535	2,604,181	184,914	-	500	-	41,570,423										
Utilities	-	-	-	342,906	20,684,588	9,200,873	2,095,477	544,725	-	32,868,569										
Construction	33,671	-	-	87,528,147	139,086,234	202,525,308	178,983,794	75,402,345	1,477,200	685,036,699										
Mitigation/Other	-	563,618	25,000	-	1,262,439	-	-	757,744	-	2,608,801										
Indiana Other Costs	19,520,365	2,828,919	7,172,322	106,789,248	53,648,861	52,733,680	58,514,929	18,700,009	15,485,564	335,393,898										
SUBTOTAL - INDIANA	51,182,656	9,176,151	13,997,916	237,804,708	274,787,954	294,391,567	256,231,821	105,149,968	19,208,084	1,261,930,823										
PROJECT TOTAL	192,964,254	41,788,980	45,204,746	422,003,663	751,157,916	611,836,877	484,810,868	182,167,064	37,261,516	2,769,195,884										

The charts below illustrate the breakdown of annual expenditures for the Project both by Section (Figure 5-2) and by State (Figure 5-3).

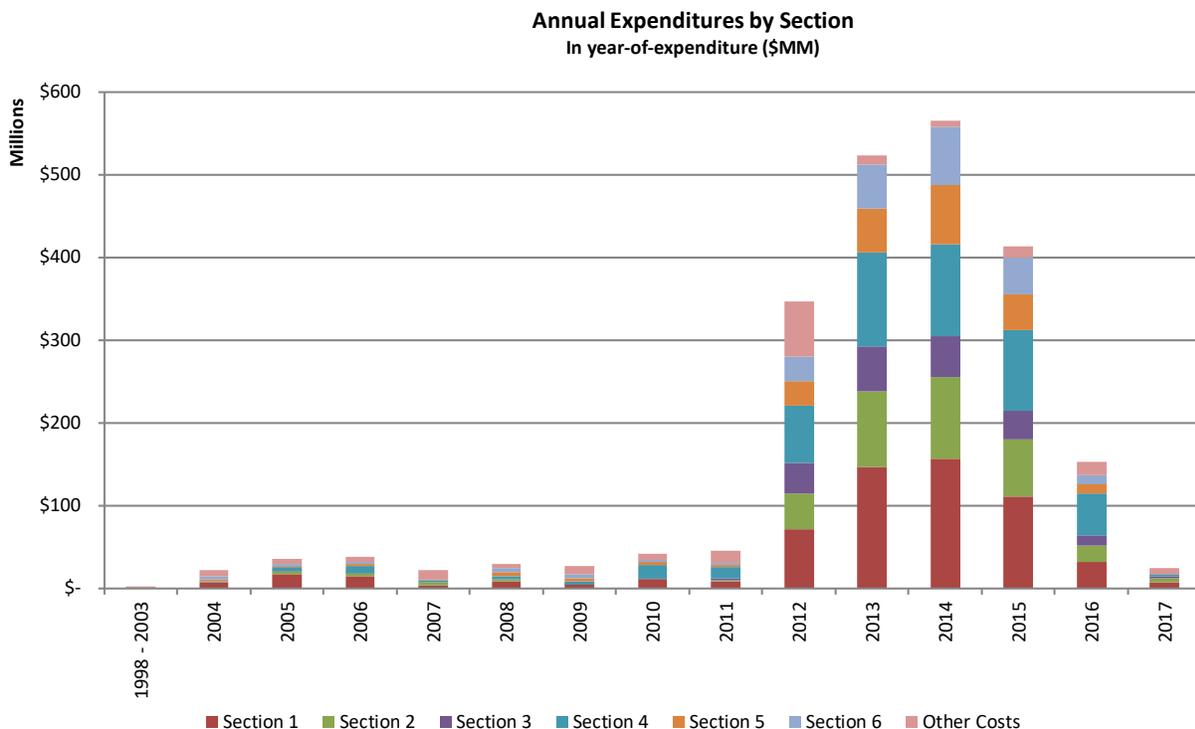


Figure 5-2. Total Estimated Project Annual Outlays by Section

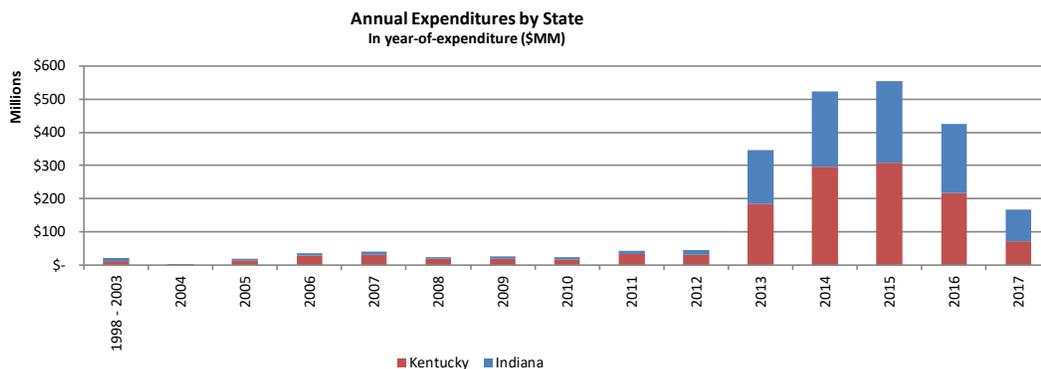


Figure 5-3. Total Estimated Project Annual Outlays by State

CASH MANAGEMENT TECHNIQUES

For Project funding contributed from state and federal sources, the states have utilized available cash management techniques, including but not limited to Advance Construction and Tapered Match, to manage the timing of cash needs against the availability of federal and state funds.

The Secretary of KYTC has the authority to “concurrently advance projects in the Biennial Highway Construction Plan by employing management techniques that maximize the Cabinet’s

ability to contract for and effectively administer the project work.” All state revenues flowing through Kentucky’s Road Fund are subject to the cash management principles outlined in KYTC’s “Cash Management Spending Plan” (dated September 29, 2003). The Spending Plan also established a legislatively-mandated safeguard directing that KYTC not draw Road Fund cash balances below \$100 million without the approval of the State Finance and Administration Cabinet. Indiana has similar capabilities and provisions. Kentucky also will utilize GARVEE debt financing and BANs to manage the cash flow needs of the Project.

The Indiana Department of Transportation also has the authority to “concurrently advance projects by employing management techniques that maximize the State’s ability to contract for and effectively administer the project work.” Indiana will advance the project utilizing the federally accepted practice of Advance Construction. Current year expenditures will be converted to limitation obligation while future year expenditure estimates will remain under Advance Construction. This practice will continue throughout the life of the project. At no time will Indiana’s Advance Construction exceed Indiana’s future federal estimates. Indiana also will utilize Tapered Match provisions to manage the timing of federal and state expenditures for the Project.

For funding that is provided from bond proceeds, appropriate oversight mechanisms are in place through the requirements of the legal documents. These include controls over disbursement of proceeds for construction and annual reporting requirements.

FINANCING COSTS

The East End Crossing has financing costs as they relate to both WVH and the State of Indiana. These financing costs are as follows:

- **WVH Financing Costs:** Financing costs for WVH total \$81.2 million during construction and encompass costs for Agent & Security Trustees, Rating Agencies Fees, Conduit Fees, Underwriter Fees, funding the Debt Service Reserve Fund (DSRF), Trustee Expenses, and Working Capital Costs.
- **Indiana Financing Costs:** Financing costs for Indiana during construction are approximately \$2 million, which are associated with costs to enter into the TIFIA Loan Agreement to fund the balance of the Milestone Payments owed by IFA to the Developer. The TIFIA loan interest rate is 2.25 percent.

Kentucky bears costs associated with the GARVEE debt issuance for the Project (at 3.387 percent) as well as issuance costs for the toll revenue bonds (at 6.297 percent) and TIFIA/BAN financing (at 3.88 percent for the TIFIA loan which took out the BANs). The Six-Year Highway Plan currently has \$2.2 million programmed from Interstate Maintenance (IM) and \$2.2 million from National Highway System (NH) funding for debt service on the previously issued \$100 million GARVEEs. GARVEE payments are subject to biennial appropriations of federal-aid highway funds, with no state Road Funds used for the payment of these obligations. The Transportation Cabinet covenants to include appropriations sufficient to make debt service payments solely from federal funds in subsequent appropriation bills and manages the debt according to an additional bonds test which specifies that federal funds available must be not less than 400 percent of the Maximum Annual Debt Service for each future fiscal year.

OPERATIONS AND MAINTENANCE COSTS

The Project Sponsors understand that the financial plan must account for reasonably anticipated operations and maintenance costs. These costs include routine operations and maintenance expenditures, major maintenance requirements (“lifecycle costs”), and toll operations costs. Representative annual operations and maintenance cost estimates are highlighted in Table 5.5, below, as supplied by WVB and Indiana DOT for the East End Crossing and KYTC for the Downtown Crossing. Table 5.5 includes updates from the 2013 Financial Plan Update to reflect adjusted estimates based on updated information regarding the Project’s operations phase. These estimates will continue to be refined as the project proceeds toward Operations.

Table 5-5. Projected Operations and Maintenance Costs (\$, in millions)

Year	Downtown Crossing		East-End Crossing	
	O&M Costs	Lifecycle Costs	O&M Costs	Lifecycle Costs
2017	1,915,587	455,480	1,214,863	-
2018	4,334,702	964,604	2,161,496	-
2019	4,975,351	832,405	1,839,543	86,718
2020	5,161,831	982,971	2,003,254	681,359
2021	5,293,995	1,277,430	2,496,236	371,973
2022	5,428,726	1,848,490	2,521,422	116,733
2023	5,564,827	1,849,964	2,606,183	47,860
2024	5,703,556	2,293,291	2,488,972	1,155,202
2025	5,846,546	4,138,999	2,268,983	748,478
2026	5,992,298	3,726,066	3,123,370	308,722
2027	6,305,943	7,028,918	3,023,578	144,920
2028	6,459,074	6,723,746	3,366,427	959,863
2029	6,453,493	3,111,458	3,070,951	513,826
2030	6,614,376	41,147,601	2,998,527	102,354
2031	6,780,201	43,416,001	3,175,733	1,719,621
2032	6,949,229	8,310,982	3,019,596	3,624,446
2033	7,123,449	3,967,892	3,286,679	6,202,499
2034	7,301,033	8,040,867	4,307,684	2,680,650
2035	7,484,073	14,468,479	3,691,054	2,106,252
2036	7,670,648	14,314,068	4,570,326	2,292,234
2037	8,072,141	24,380,413	3,360,228	823,118
2038	8,268,161	27,777,439	3,548,113	124,008
2039	8,261,016	10,018,975	3,931,883	56,060
2040	8,466,960	9,433,012	4,815,766	1,962,152
2041	8,679,230	7,185,185	4,889,554	1,739,552
2042	8,895,600	9,255,892	4,301,965	421,426
2043	9,118,616	8,637,321	4,035,064	305,868
2044	9,345,940	6,554,805	4,338,931	1,421,674

Year	Downtown Crossing		East-End Crossing	
	O&M Costs	Lifecycle Costs	O&M Costs	Lifecycle Costs
2045	9,580,246	9,886,258	4,707,924	1,277,540
2046	9,819,078	11,404,284	6,921,166	7,861,223
2047	10,333,022	16,066,382	5,928,210	5,479,792
2048	10,583,945	10,814,751	5,242,859	7,228,581
2049	10,574,799	7,016,951	4,849,602	5,834,502
2050	10,838,425	10,475,513	6,808,890	9,926,803
2051	11,110,149	13,282,810	7,191,241	5,670,512
2052	11,387,120	15,904,127	2,855,082	642,596
2053	11,672,600	10,059,074	-	-
2054	11,963,593	57,100,056	-	-
2055	12,263,525	108,408,619	-	-
2056	12,569,250	114,999,142	-	-
2057	13,227,142	131,496,444	-	-
2058	13,548,345	134,605,268	-	-
2059	13,536,637	66,332,285	-	-
2060	13,997,771	22,468,491	-	-
2061	14,472,362	2,320,755	-	-
2062	14,833,170	4,222,611	-	-
2063	15,205,025	4,258,573	-	-
2064	15,954,108	8,898,974	-	-
2065	16,724,048	16,214,695	-	-
2066	17,145,837	15,888,584	-	-
2067	18,022,661	52,303,219	-	-
2068	18,464,569	52,720,943	-	-
Total	506,294,035	1,169,291,563	134,961,355	74,639,117

CHAPTER 6. Risk Identification and Other Factors

INTRODUCTION

This chapter addresses a number of important factors that could affect the Project and, in particular, the financial plan for the Project. These risks fall under one or more of the following categories: Project Cost, Project Schedule, Financing and Revenue, and Long-term Operations and Maintenance. Significant consideration has been given to identifying risks and potential mitigation measures, and this chapter outlines these factors and provides updates to those presented in the IFP. Additionally, this chapter addresses the impact of each state's financial contribution to the Project on their respective statewide transportation programs.

PROJECT COST RISKS AND MITIGATION STRATEGIES

The following factors were identified as possible reasons for cost overruns. Additional detail can be found in the Cost Estimate Review document prepared by the states and the Federal Highway Administration in 2012 as well as in the 2016 Project Management Plan for the Project. A 2017 Project Management Plan is not to be prepared.

A Risk Management Plan was regularly reviewed by the Bi-State Management Team (BSMT) throughout the project construction. On May 23, 2017, the BSMT determined that all risk factors had been mitigated or eliminated and that the Risk Management Plan, as related to potential construction costs or impacts, could be closed.

Table 6-1. Project Cost – Risks and Mitigation Strategies

Risk	Mitigation Strategy	Status
Inflation		
Highway construction inflation has been very volatile over the past several years and could significantly increase the cost of the Project.	The states have entered into design-build and availability payment P3 agreements for the vast majority of their respective project components, transferring most of the risk to the private sector design-builder or developer. Reasonable inflationary assumptions based on recent and historical trends in construction inflation have been included in all remaining cost estimates.	Closed
Contingency		
The amount of contingency factored into Project cost estimates may be insufficient to cover unexpected costs or cost increases.	The design-build and availability payment concession structures transfer much of this risk from the public to the private sector design-builder or developer.	Limited exposure based on design-build and concession structures and limited remaining costs

Risk	Mitigation Strategy	Status
Cost Overruns During Construction		
Cost overruns after start of construction could result in insufficient upfront funds to complete the Project.	A design-build or availability payment concession structure (with guaranteed maximum price contracts) helps transfer much of this risk from the public to the private sector design-builder or developer.	Closed

PROJECT SCHEDULE RISKS AND MITIGATION STRATEGIES

The following risks have been identified as those that may affect Project schedule and, therefore, the ability of the Project Sponsors to deliver the Project on a timely basis.

Table 6-2. Project Schedule – Risks and Mitigation Strategies

Risk	Mitigation Strategy	Status
NEPA Litigation		
Lawsuits filed within the statutory protest period may result in significant delays to the start of construction and expose the Project to additional inflationary costs.	<p>At this time, there is no ongoing litigation related to the Project. On January 4, 2013, INDOT and KYTC reached a settlement agreement with the National Trust for Historic Preservation and River Fields, Inc. – agreeing to dismiss a lawsuit in exchange for additional commitments to historic preservation and public involvement. On July 17, 2013, the courts dismissed an additional suit that had been brought by the Coalition for the Advancement of Regional Transportation (CART). CART subsequently appealed the decision and the appeal has been fully briefed as of the end of 2013. The Sixth Circuit Court of Appeals affirmed the decision of the lower court dismissing the case on August 7, 2014. CART has until November 5, 2014 to file a petition for certiorari with the Supreme Court of the United States if it intends to pursue its allegations further. If a petition for certiorari is filed, the Supreme Court has discretion not to grant it.</p> <p>To mitigate the potential impacts of any future litigation that could cause schedule delays and cost escalation, risk and mitigation measures were addressed in the Environmental Impact Statement (EIS). The BSMT intends to adhere to the recommendations outlined in the EIS.</p>	No ongoing litigation

Final (Nov. 15, 2017)

Risk	Mitigation Strategy	Status
Permits and Approvals		
Delays in the receipt of permits and approvals may delay the start of construction.	NEPA has been approved and all environmental permits have been received. Subsequent responsibility for permit revisions resulting from revisions, updates based on time limitations, and local permits associated with specific construction activities will be transferred to the developers for both the Downtown Crossing and East End Crossing and are addressed directly in the relevant contract documents.	Closed
ROW Acquisition		
A large number of ROW parcels will need to be acquired for the Project and variances in cost and time forecasts may impact both Project cost and schedule.	All rights of way have been purchased.	Closed
Unanticipated Site Conditions		
As materials are exposed, unanticipated geotechnical concerns for the construction of the tunnel, in particular, and for other subsurface construction of other structures could be identified that may delay the schedule or increase costs.	<p>Extensive analysis was undertaken as part of the FEIS process. The Developers were responsible for doing a reasonable and prudent site investigation before making their proposal. The failure of the Developer to perform its own testing, or to make themselves aware of already existing subsurface information, shall preclude the Developer from presenting any claim for conditions that such preparation and measures might have revealed, or that might have been reasonably anticipated after such reviews. The Developer was specifically instructed that geotechnical and environmental reports on contamination regarding site conditions were provided for information only and would not serve as a basis for any claims.</p> <p>Additionally, geotechnical investigations are ongoing on several sections of the Project and results do not indicate any significant problems.</p>	Closed

Risk	Mitigation Strategy	Status
Schedule Coordination		
<p>Due to the size and complexity of the Project, poor project scheduling and coordination could delay the project schedule.</p>	<p>Design-build and availability payment P3 structures help transfer much of this risk from the public to the private sector design-builder or concessionaire. The State Transportation Authorities (STA) are not liable to the Developer for any claims, costs, losses, damages, or time extensions sustained by the Developer as a result of his own actions. Time extensions and potential change orders are permitted only if it is shown to be the sole fault of the STA or its contactors associated with the project oversight and that it, affects the critical path schedule and cannot be mitigated through the use of manpower and equipment in other aspects of the project.</p>	<p>Project completed on schedule</p>

FINANCING AND REVENUE RISKS AND MITIGATION STRATEGIES

The following risks may negatively affect the Project Sponsors’ ability to finance the Project cost-effectively and operate and maintain the Project over time. For each risk, this table provides a summary of potential mitigation strategies.

Table 6-3. Financing and Revenue – Risks and Mitigation Strategies

Risk	Mitigation Strategy	Status
Availability of State and Federal Funding		
<p>The states have identified and committed various levels of conventional funding for the Project within the timeframe of their budget planning cycles. Funding beyond this period is subject to appropriation risk.</p>	<p>Within procedural limitations, the states have demonstrated a strong commitment to ensuring that the Project is delivered given the investment of funds to date and issuance of GARVEE bonds by the Commonwealth of Kentucky.</p> <p>Kentucky has included the Project in its current biennial budget and subsequent 4-year Highway Plan at the funding levels reflected in this financial plan document.</p> <p>Indiana has included the Project in INDOT’s internal budgeting and financial control systems at the requisite funding levels. On a bi-annual basis, IFA will provide INDOT an annual budget which details the amount of funds to be appropriated to INDOT to meet annual payment requirements. In addition, all anticipated funding amounts are reflected in Indiana’s fiscally-constrained Statewide Transportation Improvement Program (STIP) and the Transportation Improvement Program (TIP) for the metropolitan region.</p>	<p>Closed</p>

Risk	Mitigation Strategy	Status
Toll Revenue Risk		
<p>Toll revenues could be less than projected, which could jeopardize the ability for Project debt to be repaid and for sufficient funds to be available for long-term operations and maintenance.</p>	<p>While uncertainty inherently exists in traffic and revenue forecasts, a series of investment-grade traffic and revenue reports and sensitivity analyses have been performed. These reports help ensure financing is based on the most realistic and reasonable toll revenue estimates.</p> <p>Initial toll rates have been approved by the Joint Tolling Body of the states and are consistent with those rates anticipated in the previously described traffic and revenue reports.</p> <p>Kentucky’s financial plan includes two separate debt service reserve funds for toll revenue bonds and for the TIFIA loan to help address potential revenue shortfall.</p> <p>Indiana will provide any additional funds required to supplement its share of toll revenues from conventional federal and state funding.</p>	<p>Updated traffic and revenue study completed in SFY 2016 and reflected in Financial Plan Update</p>
Toll Collection Risk		
<p>Toll revenues could be less than forecasted if toll collection mechanisms are inadequate or ETC equipment deficiencies result in the inability to identify users of the Project.</p>	<p>The selection of a toll system developer and operator has been approved. This contract applies to both crossings to ensure that the most reliable electronic tolling equipment, back-office systems, customer service centers, and collection processes are utilized to minimize toll evasion.</p> <p>The toll revenue forecasts include an estimate of “leakage”, i.e. an amount of revenues lost due to transactions for which the license plates cannot be read or the toll proves otherwise uncollectible.</p> <p>State parties have procured the services of a marketing firm to assist with public outreach and education of the tolling systems and how they will operate. The goal of this effort is to maximize the number of accounts with pre-paid transponders distributed prior to commencement of tolls. This approach will minimize leakage and otherwise uncollectible tolls.</p> <p>Both states are investigating the feasibility of business interruption insurance coverage to minimize or eliminate the risk associated with temporary or long-term damage or failure of the toll collection systems.</p>	<p>Updated traffic and revenue study completed in SFY 2016 and reflected in Financial Plan Update</p>

Risk	Mitigation Strategy	Status
Capital Market Access		
Capital market volatility could limit access to future financing and/or increase financing costs.	This risk is fully mitigated. All planned debt has been issued for the Project.	Closed
Availability of Federal Financing Tools		
Uncertainty surrounding the availability of federal financing via the TIFIA program will have an impact on the risk level of the finance plan for the Project.	<p>TIFIA financing has been secured for Kentucky’s portion of the Project. The only remaining risk is that associated with meeting conditions precedent to draw on the TIFIA loan at the planned future date prior to BAN maturity. KYTC and KPTIA will remain diligent in ensuring all conditions are met and loan proceeds available on the intended schedule.</p> <p>TIFIA financing has been secured by IFA for a portion of the Milestone Payments owed to the Developer on the East End Crossing. The only remaining risk is that associated with meeting conditions precedent to draw on the TIFIA Loan Agreement at the planned future dates. IFA and INDOT will remain diligent in ensuring all conditions are met and loan proceeds available on the intended schedule.</p>	Closed. All draws made
Uncertainty surrounding the availability of federal highway funding could limit access to future discretionary funding (e.g. TIGER).	The Project financial plan does not rely on additional federal discretionary funds beyond those already committed to the Project.	Closed

PROCUREMENT RISKS AND MITIGATION STRATEGIES

The following risks may affect the Project Sponsors' ability to implement the Project due to risks associated with the procurement of the Downtown Crossing under a design-build contract and the East End Crossing as an Availability Payment concession.

Table 6-4. Procurement – Risks and Mitigation Strategies

Risk	Mitigation Strategy	Status
Delay in Procurement		
One of the Crossings suffers a delay in completion, resulting in lower than expected revenue across the Project.	A Bi-state Development Agreement has been entered into that addresses the risks associated with a delay in completion of one of the Crossings. The Agreement establishes that tolling operations shall commence when either the New Downtown Crossing Bridge or the East End Crossing is sufficiently complete to be open to traffic or by June 30, 2018, whichever is earlier. Should any of the planned work be canceled or materially delayed for either Crossing, the states' parties shall use their best efforts and work together in good faith to identify and implement appropriate measures to ensure that construction of the entire Project will be completed as contemplated in the ROD.	Construction completed on schedule
The states do not receive affordable bids or are not able to reach commercial or financial close on their respective procurements.	Each state has entered into binding agreements with the design-builder and P3 developer for the Project.	Closed

IMPACT ON STATEWIDE TRANSPORTATION PROGRAMS

Both states made specific commitments to the completion of the Project and utilized state program funds accordingly.

Kentucky made specific funding commitments to the Project based on the State's standard two-year budget procedures and in accordance with the state's Highway Plan. The Six-Year Highway Plan ensures that funding for the Project is fully considered in the context of any potential impact on other projects in the state's transportation program. Kentucky designed its portion of the Project financing to minimize impacts on other transportation needs around the Commonwealth. Based on Kentucky's Six-Year Plan, the planned \$50 million in annual funding represented approximately 8 percent of Kentucky's overall federal program and just over 5 percent of the Commonwealth's total program. Kentucky's funding participation is

also reflected in the fiscally-constrained Statewide Transportation Improvement Program (STIP) and the Transportation Improvement Program (TIP) for the metropolitan region.

Indiana provided for substantial funding for the Project through a combination of state and federal funding, including but not limited to the State's *Major Moves* Transportation Program, and addition of a TIFIA loan for up to \$162 million of funding required for milestone payments. Indiana made specific financial commitments to the Project based on its standard budget procedures and in accordance with the State's Transportation Plan, which takes into account the needs of the overall transportation program and other projects throughout the State. INDOT and IFA utilized biennial appropriations for Availability Payments to show that Indiana is budgeting these appropriations out of INDOT's Capital Program. INDOT estimates that these payments represent 5-8 percent of its capital program. In addition to being reflected in internal budget and financial control systems, all funding amounts are reflected in the fiscally-constrained Statewide Transportation Improvement Program (STIP) and the Transportation Improvement Program (TIP) for the metropolitan region.

Chapter 7. Cost & Revenue History

INTRODUCTION

Since the approval of the Initial Financial Plan, the revenue sources and project scope changed significantly, as described in the 2013 Annual Update. Minor additional changes are reflected in this 2017 Annual Update and described in this chapter.

COST & SCHEDULE HISTORY

Table 7-1 and Figure 7-1 provide the updated cost and schedule for the Project and compared to the 2012 IFP and 2013,2014, 2015, and 2016 Financial Plan Updates.

2017 Financial Plan Update Discussion: As shown, Project costs have decreased by approximately \$6.4 million since the 2016 Financial Plan Update. This reflects more substantial changes in several cost categories. These differences are further addressed in Chapter 10 and Chapter 11. The overall schedule is unchanged since the 2016 Financial Plan Update.

Table 7-1. Project Cost History (exclusive of financing and interest costs during construction, in \$ millions)

Total Project Costs in Year of Expenditure Dollars (in millions)								
Project Segment	2012 IFP	2013 Update	2014 Update	2015 Update	2016 Update	2017 Update	Change from 2016	Change from IFP
Downtown Crossing								
Section 1 - Kennedy Interchange	659.8	586.4	612.5	614.8	600.3	597.4	(2.9)	(62.4)
Section 2 - Downtown Bridge	357.8	323.2	308.2	312.8	339.3	341.4	2.1	(16.4)
Section 3 - Downtown IN Approach	197.7	182.9	172.3	175.5	196.1	196.3	0.2	(1.4)
Kentucky Other Costs	92.3	176.2	172.7	169.1	138.5	121.5	(17.0)	29.2
Total Downtown Crossing	1,307.6	1,268.7	1,265.8	1,272.1	1,274.2	1,256.6	(17.6)	(51.0)
East End Crossing								
Section 4 - KY East End Approach	737.6	500.7	511.1	483.7	486.1	495.3	9.2	(242.3)
Section 5 - East End Bridge	284.4	247.5	222.6	241.7	242.4	243.5	1.1	(40.9)
Section 6 - IN East End Approach	196.1	218.7	224.3	226.4	228.0	232.8	4.7	36.7
Indiana Other Costs	58.2	108.7	99.8	99.0	96.3	92.4	(3.9)	34.2
Total East End Crossing	1,276.3	1,075.7	1,057.8	1,050.8	1,052.8	1,064.0	11.2	(212.3)
PROJECT TOTAL	2,583.9	2,344.4	2,323.6	2,323.0	2,327.0	2,320.5	(6.4)	(263.4)

*Includes state costs for toll system, project-wide mitigation, and oversight costs. **IFP did not include Other category.

State Fiscal Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Downtown Crossing																	
Environmental	Update - June 2012																
	IFP																
Design	Update - July 2015																
	IFP																
Right-of-Way					Update - March 2015												
					IFP												
Utilities									Update - April 2016								
									IFP								
Construction									Update - April 2017								
									IFP								
Other *	Update - June 2019**																
East End Crossing																	
Environmental	Update - June 2012																
	IFP																
Design	Update - October 2016																
	IFP																
Right-of-Way		Update - June 2014															
		IFP															
Utilities									Update - June 2014								
									IFP								
Construction									Update - April 2017								
									IFP								
Other*	December 2018**																

Figure 7-1. Project Schedule History

REVENUE & FUNDING HISTORY

Figure 7-2 provides the updated baseline sources of funds for the Project, as reflected in more detail in Chapters 4 and 5 of this Financial Plan Update.

2017 Financial Plan Update Discussion: Changes between the 2016 Update and 2017 Update are the result of the following:

- For Kentucky, primarily the elimination of unneeded contingency funding.
- For Indiana, primarily adjustments to the Relief Events Allowance Account to provide for refund to the State for unused funds. The remaining balance in the REAA is used to make a similar payment to the Developer in accordance with the PPA.

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Sources of Funds During Construction (Nominal, \$000)			
Source	2016 Update	2017 Update	Difference
KY State & Federal Funding	\$429,834	\$416,729	(\$13,105)
KY GARVEE Bonds	\$337,302	\$337,302	\$0
IN TIFIA	\$162,000	\$162,000	\$0
IN State & Federal Funding (Other)	\$475,026	\$479,940	\$4,915
KY Toll Revenue Bonds	\$271,730	\$271,730	\$0
KY TIFIA/BANs	\$493,606	\$493,606	\$0
IN Milestone PABs (Series B)	\$18,944	\$18,944	\$0
IN Long-Term PABS (Series A)	\$488,912	\$488,912	\$0
Developer Risk Capital	\$78,145	\$78,145	\$0
Relief Events Reserve Account	\$45,000	\$21,889	(\$23,111)
Total Sources	\$2,800,497	\$2,769,196	(\$31,301)

Figure 7-2. Project Funding Sources History

Chapter 8. Cost & Revenue Trends

INTRODUCTION

This chapter reviews cost and revenue trends for the Project on an annual basis.

CURRENT COST TRENDS

As shown in Chapter 2, the Project has experienced minor cost decrease since the 2016 Financial Plan Update, totaling less approximately \$6.4 million.

The cost estimate of \$2.320 billion is approximately \$6.4 million lower than the prior year's official cost estimate as presented in the 2016 Update of \$2.327 billion. The small variance is attributable to variances between planned and actual expenses in several cost categories, described further in Chapters 10 and 11.

CURRENT REVENUE TRENDS

As shown in Chapter 4, the revenue and funding sources for the Project have been updated to correspond with the revised Project costs, schedule, and financing plans. As shown in that chapter, sufficient resources are available to meet reasonably anticipated Project costs, to meet financing costs, and to fund necessary contingency reserves.

FUTURE IMPLICATIONS OF TRENDS

The Project costs and revenues have remained relatively stable in this final Annual Update.

ADJUSTMENTS IN FINANCIAL PLAN TO ACCOUNT FOR TRENDS

The 2017 Financial Plan Update was updated to reflect trends noted over the preceding year.

Chapter 9. Revenue Shortfall Mitigation

This Annual Update to the Financial Plan for the Project includes all necessary federal and state revenues to offset the anticipated expenditures through the end of the Project.

Chapter 10. Significant Cost Reductions

INTRODUCTION

This section identifies those individual budgets (by cost category) that experienced a reduction in cost in excess of \$10 million relative to the estimates included in the 2016 Financial Plan Update for the Project.

DOWNTOWN CROSSING

The table below compares the 2017 Financial Plan Update estimate for the Downtown Crossing with estimates as of the 2016 Financial Plan Update and lists causes for major reductions (see Chapter 11 for explanation of significant cost increases).

Table 10-1a. Significant Cost Reduction Summary – Downtown Crossing

DOWNTOWN CROSSING	2016 Update	2017 Update	Difference	Cause for Reduction
Section 1				
Oversight	50,557,459	45,404,792	(5,152,668)	
Design	120,620,365	120,620,365	-	
Right of Way	36,889,480	37,309,640	420,161	
Utilities	7,500,000	7,500,000	-	
Construction	381,702,117	383,520,123	1,818,006	
Mitigation/Other	3,000,000	3,000,000	-	
Section 1 Total	600,269,420	597,354,920	(2,914,501)	
Section 2				
Oversight	28,038,198	28,974,160	935,963	
Design	50,954,827	50,954,827	-	
Construction	260,308,951	261,462,997	1,154,046	
Mitigation/Other	-	-	-	
Section 2 Total	339,301,976	341,391,985	2,090,009	
Section 3				
Oversight	15,569,373	15,163,966	(405,407)	
Design	23,805,235	23,806,670	1,435	
Right of Way	21,803,278	21,803,278	-	
Utilities	5,684,770	5,668,270	(16,500)	
Construction	127,865,832	128,504,892	639,059	
Mitigation/Other	1,375,976	1,375,976	-	
Section 3 Total	196,104,464	196,323,051	218,588	
Kentucky Other Costs				
Other Costs	138,504,471	121,496,607	(17,007,864)	Reduction of unused contingency
Downtown Crossing Total	1,274,180,331	1,256,566,563	(17,613,768)	

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EAST END CROSSING

The tables below compare the 2017 Financial Plan Update estimate for the East End Crossing with estimates as of the 2016 Annual Update and lists causes for major reductions (see Chapter 11 for explanation of significant cost increases).

Table 10-1b. Significant Cost Reduction Summary – East End Crossing

EAST END CROSSING	2016 Update	2017 Update	Difference	Cause for Reduction
Section 4				
Oversight		34,739,202	(1,164,982)	
Design	54,812,365	54,812,365	-	
Right of Way	44,853,123	44,853,123	-	
Utilities	12,619,322	12,619,322	-	
Construction	335,694,087	345,283,553	9,589,467	
Mitigation/Other	2,242,518	2,981,362	738,843	
Section 4 Total	486,125,598	495,288,926	9,163,328	
Section 5				
Oversight	14,295,015	13,937,020	(357,995)	
Design	47,350,539	47,350,539	-	
Construction	180,724,820	182,202,020	1,477,200	
Mitigation/Other	-	-	-	
Section 5 Total	242,370,375	243,489,579	1,119,204	
Section 6				
Oversight	10,021,135	9,770,625	(250,510)	
Design	24,997,535	24,997,535	-	
Right of Way	19,888,364	19,888,864	500	
Utilities	20,288,306	20,288,306	-	
Construction	152,577,039	157,551,126	4,974,087	
Mitigation/Other	244,471	263,371	18,900	
Section 6 Total	228,016,851	232,759,828	4,742,977	
Indiana Other Costs				
Other Costs	96,293,974	92,433,588	(3,860,385)	
East End Crossing Total	1,052,806,797	1,063,971,921	11,165,124	

Chapter 11. Significant Cost Increases

INTRODUCTION

This section identifies those individual budgets (by cost category for this Interim Annual Update) that experienced an increase in cost in excess of \$10 million as of the 2017 Annual Update relative to the estimates included in the 2016 Annual Update for the Project.

DOWNTOWN CROSSING

The table below compares the 2017 Financial Plan Update estimate for the Downtown Crossing with estimates as of the 2016 Financial Plan Update and lists causes for major increases (see Chapter 10 for explanation of significant cost increases).

Table 11-1a. Significant Cost Increase Summary – Downtown Crossing

DOWNTOWN CROSSING	2016 Update	2017 Update	Difference	Cause for Increase
Section 1				
Oversight	50,557,459	45,404,792	(5,152,668)	
Design	120,620,365	120,620,365	-	
Right of Way	36,889,480	37,309,640	420,161	
Utilities	7,500,000	7,500,000	-	
Construction	381,702,117	383,520,123	1,818,006	
Mitigation/Other	3,000,000	3,000,000	-	
Section 1 Total	600,269,420	597,354,920	(2,914,501)	
Section 2				
Oversight	28,038,198	28,974,160	935,963	
Design	50,954,827	50,954,827	-	
Construction	260,308,951	261,462,997	1,154,046	
Mitigation/Other	-	-	-	
Section 2 Total	339,301,976	341,391,985	2,090,009	
Section 3				
Oversight	15,569,373	15,163,966	(405,407)	
Design	23,805,235	23,806,670	1,435	
Right of Way	21,803,278	21,803,278	-	
Utilities	5,684,770	5,668,270	(16,500)	
Construction	127,865,832	128,504,892	639,059	
Mitigation/Other	1,375,976	1,375,976	-	
Section 3 Total	196,104,464	196,323,051	218,588	
Kentucky Other Costs				
Other Costs	138,504,471	121,496,607	(17,007,864)	
Downtown Crossing Total	1,274,180,331	1,256,566,563	(17,613,768)	

Final (Nov. 15, 2017)

EAST END CROSSING

The tables below compare the 2017 Financial Plan Update estimate for the East End Crossing with estimates as of the 2016 Annual Update and lists causes for major increases (see Chapter 10 for explanation of significant cost decreases).

Table 11-1b. Significant Cost Increase Summary – East End Crossing

EAST END CROSSING	2016 Update	2017 Update	Difference	Cause for Increase
Section 4				
Oversight	35,904,184	34,739,202	(1,164,982)	
Design	54,812,365	54,812,365	-	
Right of Way	44,853,123	44,853,123	-	
Utilities	12,619,322	12,619,322	-	
Construction	335,694,087	345,283,553	9,589,467	Includes \$5.02 million in Change Orders requested by KYTC for Section 4.
Mitigation/Other	2,242,518	2,981,362	738,843	
Section 4 Total	486,125,598	495,288,926	9,163,328	
Section 5				
Oversight	14,295,015	13,937,020	(357,995)	
Design	47,350,539	47,350,539	-	
Construction	180,724,820	182,202,020	1,477,200	
Mitigation/Other	-	-	-	
Section 5 Total	242,370,375	243,489,579	1,119,204	
Section 6				
Oversight	10,021,135	9,770,625	(250,510)	
Design	24,997,535	24,997,535	-	
Right of Way	19,888,364	19,888,864	500	
Utilities	20,288,306	20,288,306	-	
Construction	152,577,039	157,551,126	4,974,087	Includes \$6.0 million in Change Orders requested by INDOT in Section 6.
Mitigation/Other	244,471	263,371	18,900	
Section 6 Total	228,016,851	232,759,828	4,742,977	
Indiana Other Costs				
Other Costs	96,293,974	92,433,588	(3,860,385)	
East End Crossing Total	1,052,806,797	1,063,971,921	11,165,124	

APPENDIX G: CANDIDATES FOR GROUP PROJECTS

Candidates for Group Project Categories are listed in the following table. These projects were submitted through the project development process for *Connecting Kentuckiana 2040*, but were determined to meet requirements for a group project category. The projects are not included in the MTP, because they can be added to the Transportation Improvement Program through the group project process when funding is identified.

The projects are listed here for informational purposes only.

PROJECT NAME	KIPDA ID	DESCRIPTION
Bridge 27 Rehab		Rehabilitation of Bridge 27 on Georgetown Greenville Road. Rehabilitation includes replacement of the bridge deck overlay, which has substantially degraded.
Bridge 3 Replacement		Replacement of Bridge #3 in on Chapel Hill Road.
Bridge 31		Rehabilitation of Bridge #31 at the intersection of Duffy Road and Luther Road in Floyds Knobs. Rehabilitation involves the replacement of the bridge superstructure
Bridge 38 Replacement/ Baylor-Wissman Road Re-Alignment	2029	Replacement of Bridge 38 on baylor-wissman road, a structurally deficient bridge .re-alignment of baylor-wissman road and SR 64 intersection to meet Henriott intersection.
Bridge 506 Replacement	2031	Replacement of Bridge 506 carrying Pamela Drive in New Albany, Indiana. Currently, the bridge has a sufficiency rating of 62.9.
Bridge 9 Replacement		Replacement of Bridge #9, a structurally deficient Bridge.
Charlestown Road/ County Line Road Intersection Safety Improvement		Safety improvement to intersection. Speed Limit reduction, sight distance improvement, signal upgrade, and timing adjustment.
Corydon Ridge Road/ SR62 Intersection Improvements	1870	Turning lane improvements off Corydon Ridge Road onto SR 62, deceleration lane improvements off SR 62 onto Corydon Ridge Road. Signalization infrastructure for future signal once approved by INDOT.
Dixie Corridor Commuter Rail	1913	Preliminary Assessment of P&L Railroad right-of-way as future mass transit/commuter rail solution between Louisville, Fort Knox and Elizabethtown.

PURPOSE & NEED	PROJECT TYPE	SPONSOR	PROJECT COST	EST. OTP
Bridge 27 is a structurally deficient bridge per the 2018 Bridge Inventory Report and is in need of a new bridge deck overlay to bring the bridge into compliance.	Roadway	Floyd County	\$694,000	2023
Bridge 3 is a structurally deficient bridge located on Chapel Hill Road. the 2018 Floyd County Bridge Inventory Report listed bridge 3 with a sufficiency rating of 51.5	Roadway	Floyd County	\$454,000	2020
Bridge 31 is a structurally deficient bridge, scoring a 51.6 sufficiency rating in the 2018 Bridge Inventory Report. This bridge provides an important alternative route to Floyd Central High School from Georgetown and alternative route the Highlander Point Commercial node.	Roadway	Floyd County	\$367,000	2021
Project's goal is to rehabilitate a structurally deficient bridge and improve the intersection of baylor-wissman road where it meets SR 64. Currently, the intersection of baylor-wissman road and SR 64 is offset from the Henriott Road intersection and is currently signalized. This creates a dangerous situation for traffic utilizing baylor-wissman road.	Roadway	Floyd County	\$5,000,000	2027
Bridge 506 has been noted as needing replacement in our latest Bridge Inventory Report. The bridge currently has issues with the superstructure deteriorating and does not have a sufficient load capacity. The road it carries, Pamela Drive, is in the center of a subdivision within the City of New Albany.	Roadway	Floyd County	\$460,000	2021
Bridge #9 was listed as a structurally deficient bridge and has a sufficiency rating of 38.8 per the 2018 Bridge Inventory Report	Roadway	Floyd County	\$430,000	2020
Intersection is listed as the 4th most dangerous intersection in Southern Indiana.65 crashes occurred between 2009 and 2011 at this intersection, with 15 having injuries reported.	Roadway	Floyd County	\$250,000	2024
Current intersection is dangerous for motorists turning onto SR 62 from Corydon Ridge Road due to poor sight distance, fast moving traffic, and lack of turn lanes and lane reduction on SR 62.	Roadway	Floyd County	\$425,828	2021
Conduct preliminary study and explore funding options for implementing commuter rail transit using the existing P&L railroad that connects Louisville, Fort Knox and Elizabethtown. The study shall include public participation, preliminary design concept, basic analysis for stations development, potential funding options and community outreach. Previous research and traffic analysis available for Dixie Hwy Corridor shall be used as a basis for the project and shall be updated with the new data. Benefits of the project: alternate transportation option/mobility improvement, traffic congestion management (traffic flow improvements and air quality), regional economic development opportunities such as TOD (Transit Oriented Development), affordable housing centers and job creation.	Program	TARC	\$300,000	2025

PROJECT NAME	KIPDA ID	DESCRIPTION
Frankfort/Shelbyville	1916	Frankfort Avenue and Shelbyville Road Transit Corridor Transportation Management Plan from Baxter Avenue to Eastwood. Approximate length is 18 miles. Potential future expansion will be analyzed in the next phase of the project.
Grant Line Road/St Joe Intersection Signalization		Intersection improvement project includes installation of signal, loops, and re-stripping of lanes.
Greenway Connector	2189	The installation of a new Greenway walking and biking path along the Ohio River between I-65 and Clarksville.
I-64 Corridor Vegetation Management and Landscape Beautification	2105	Environmental documentation, design development, landscape construction documents, and implementation of the landscape management plan for three discrete tracts of Commonwealth of Kentucky property adjacent to the I-64 right-of-way from exit 10 at Cannon's Lane to just west of exit 8 at Grinstead Drive. The three tracts comprise approximately 42 acres. Tract A is 18.1 acres along Middle Fork Beargrass Creek next to Lexington Road. Tract B is 5.2 acres within the exit ramps of I-64 exit 8 at Grinstead Drive. Tract C is 18.8 acres adjacent to Seneca Park near Old Cannon's Lane underpass of I-64.
I-65/I-264 Interstate Lighting		IMPROVEMENTS TO INTERSTATE LIGHTING AT THE I-65/I-264 INTERCHANGE MP 129.8 TO MP 131.3. CHAF IP20170048
I-65/I-265 Interstate Lighting	2783	IMPROVEMENTS TO INTERSTATE LIGHTING AT THE I-65/I-265 INTERCHANGE MP 124.5 TO MP 125.5. CHAF IP20170049"
Jeffersontown to 21st Century Park Bicycle/ Pedestrian Trail	2091	Prepare a preliminary engineering planning study to look at the best alternatives to construct a multi-use bicycle and pedestrian trail along Taylorsville Road from Veterans Memorial Park at Chenoweth Run Road to South Pope Lick Road at the Parklands.
K & I Railroad Bridge	867	Conversion of the existing non-railroad lanes on the K & I Bridge into a mutli-use path that would connect KY and IN and complete an urban loop connecting Waterfront Park, the Louisville Loop, the Big 4 Bridge, and the Ohio River Greenway.
KY 1747	2383	EXTEND THE LEFT TURN LANE ON HURSTBOURNE LANE AT INTERSECTION WITH SIX MILE LANE. (16CCN) CHAF IP20160184
KY 2251	2156	Upgrade a 1-mile section of sidewalks, curbing and beautification to Bardstown Road in Buechel. The project includes new sidewalks, curbing, ADA ramps, landscaping, drainage and other ancillary improvements from Six Mile Lane west to Buechel Bypass.
Louisville CBD Detailed Traffic Model	2211	Evaluation of improvements identified through the MOVE Louisville Multimodal Transportation Study, including conversions of one-way streets; roadway reconfigurations; intersection improvements; and interchange modifications, for all modes including pedestrians, bicycles, transit, cars and freight. The study area includes the Central Business District, Butchertown, Phoenix Hill, Smoketown, Limerick, Old Louisville, Russell, Shawnee, Portland, and the University of Louisville Belknap Campus.
Louisville-Lexington Mass Transit Alternatives	1932	Preliminary assessment study of mass transit need between Louisville and Lexington.
McCullough Pike Bridge over Browns Station Way		Bridge is in Poor Condition, structural integrity and lifespan of bridge is critical. Bridge will have to be demolished and reconstructed. Also need to provide a provide a pedestrian crossing as the previous crossing was struck and demolished by a dump truck. The new bridge will contain two 5-6' sidewalks with 2' curbs.

PURPOSE & NEED	PROJECT TYPE	SPONSOR	PROJECT COST	EST. OTP
<p>Preliminary analysis of Frankfort Avenue and Shelbyville Road and surrounding areas as a future transit corridor with focus on public transit improvements (fixed bus routes, trolleys and circulators). Analysis of the existing railroad right-of-way as potential Louisville-Lexington mass transit corridor. The project should include preliminary analysis and need assessment, basic design concept, public participation, preliminary engineering, implementation plan in phases, community education, promotion and marketing, and project evaluation and monitoring. Previous research and analysis available for this corridor shall be used as a basis for the project and shall be updated with the new data.</p> <p>The Plan should develop short and long-term recommendations for improvements in the corridor including transit and passenger facilities (information technology system), access management, connections to the malls, shopping centers and surrounding neighborhoods, parking consideration, pedestrian and bicycle connections, safety improvements and streetscape concept. The study should propose potential funding options, develop implementation plan in phases, and identify responsible agencies or project sponsors to ensure project completion. The improvements shall be accommodated within the existing right-of-way with minimal exception. Benefits of the project: alternate modes of transportation/mobility improvements, traffic congestion management (reduce traffic volumes and improve the air quality), safety improvements for all users, strong local and regional commercial corridor enhancement, economic development opportunities for the local community.</p>	Transit	TARC	\$300,000	2025
<p>Intersection was identified by Clark County and Floyd County as potential need area. Turning traffic off St Joe Road can have difficulty accessing Grant Line Road during Peak hours and can take risks.</p>	Roadway	Floyd County	\$180,000	2020
<p>Continuation of the Ohio River Greenway.</p>	Bike & Pedestrian	Jeffersonville	\$1,000,000	2027
<p>The purpose includes environmental improvements through the elimination of invasive exotic plant species which now dominate this corridor, and replacing them with landscape plantings that primarily consist of native plants that are tolerant of drought, vehicle emissions, and roadway stormwater runoff. These new plantings will also offer ecosystem services to native fauna and pollinating insects currently lacking in these landscapes, and provide a welcoming scenic experience for motorists as they enter Louisville.</p>	Roadway	Louisville Metro	\$896,634	2022
<p>The purpose of this project is to improve: 1) Safety. The following needs have been identified for this project: 1) Improve Roadway Safety 2) rehabilitation of KYTC assets.</p>	Roadway	KYTC	\$1,382,714	2031
<p>The purpose of this project is to improve: 1) Safety. The following needs have been identified for this project: 1) Improve Roadway Safety 2) rehabilitation of KYTC assets.</p>	Roadway	KYTC	\$712,922	2031
<p>Provide for an alternative to the automobile that will link up the central business district of the City of Jeffersontown to the Parklands/Louisville Loop. Improve bicycle/pedestrian movement along this arterial level roadway comprised of commercial and high density residential neighborhoods.</p>	Bike & Pedestrian	Jeffersontown	\$231,000	2019
<p>Provide a non-motorized connection between several amenities in both KY and IN. Transformative potential for multiple neighborhoods.</p>	Bike & Pedestrian	Louisville Metro	\$500,000	2030
<p>Improve safety. Crash reduction.</p>	Roadway	KYTC	\$200,000	2028
<p>Beautification and pedestrian improvements on KY 2251 (Bardstown Road) to US 31E (Bardstown Road).</p>	Roadway	Louisville Metro	\$350,000	2025
<p>These proposed improvement projects will enable the City to enhance the downtown transportation network in an effort to enhance safety, support economic growth and investments, improve regional and local connectivity, and create accessibility through a variety of transportation modes, including walking, transit, and driving.</p>	Program	Louisville Metro	\$375,000	2020
<p>Conduct a scoping study and explore options for mass transit to connect Louisville and Lexington. Analyze need and potential transportation alternatives including cost estimates. Detailed scope of the project to be developed.</p>	Program	TARC	\$250,000	2025
SAFETY	Roadway	Clarksville	\$6,000,000	2022

PROJECT NAME	KIPDA ID	DESCRIPTION
Multi-use Trail Connection - West Point & Salt River to Southern Jefferson County		This feasibility/planning study would result in examination of issues associated with using existing KYTC right-of-way, potential elimination or alteration of existing access to northbound Dixie Highway and/or the crossing of Dixie Highway, and placement of future bridge construction to traverse the Salt River. It will further evaluate trailhead requirements and potential improvements. The project location is a two mile radius of the intersection of Dixie Highway and State Road 835 (old Louisville Nashville Turnpike)
North Jeffersonville Multi-modal Transportation Plan		Engage in a full multi-modal transportation and land-use study for north Jeffersonville.
North-South Central Transit Corridor T-2	1933	Review and evaluate previous planning efforts and plan documents developed for the South Central Corridor Advanced Transit project T2. Based on the outcomes and findings of this review, if applicable build upon T2 plans and make preliminary assessment for premium transit improvements in the South Central Corridor.
Park-to-Bridge Trail Connection		Create 10' wide multi-use path from Chapel Lake Park (now under construction) to Old Salem Road along decommissioned Patrol Road. Using existing shoulders, paint bicycle lanes in both directions on Old Salem between Patrol Road and the trail head for the Lewis and Clark Bridge just south of 1-265 Exit 11.
Potters Lane Improvements		Roughly 25' of R/W to utilize along the southern portion of this segment for pedestrian improvements/ connectivity: 2' curb, 6' planting zone, and 7' sidewalks. At least one cross-walk with signs and road demarcations to allow pedestrians safe access to the Clarksville Softball Complex. After completion of this phase, Potters Lane pedestrian facilities may be further funded to extend to Emerald Ct. Project will also likely tie into the Town's Northern Trail project which will connect North Clarksville with South Sellersburg via a bike/ped trail, this project will likely cost upwards of \$14 million as the trail will be over 5 miles long through heavily wooded areas.
Signal Upgrade at Charlestown Road and Klerner Lane		<p>The project is an intersection improvement including full signal modernization aimed and enhancing vehicular progression and safety for all roadway users at Charlestown Rd. and Klerner Ln. intersection. The proposed scope of work includes numerous safety related improvements such as:</p> <ol style="list-style-type: none"> 1. Replacement of existing signal heads with LED signal heads and retroreflective backplates 2. New overhead street name signs and lane delineation signs 3. Implementation of 4-section flashing yellow arrows for dedicated left-turn lanes w/protected phasing 4. Possible realignment of crosswalks and new curb ramps to provide shorter, more direct routes for pedestrians 5. Addition of accessible pedestrian signals with LED heads, walk/don't walk symbols and countdowns 6. New Signal Cabinet and controller with added vehicle detection and possible radio interconnect for improved progression along Charlestown Rd. 7. Milling and resurfacing as needed to repair Charlestown Rd, Klerner Ln, and Old Ford Rd. approaches and accommodate the new crosswalk layouts and loop detection.
Signal Upgrade at Charlestown Road and Silver Street		<p>The project is an intersection improvement including full signal modernization aimed at enhancing vehicular progression and safety for all roadway users at Charlestown Rd. and Silver St. intersection. The proposed scope of work includes numerous safety related improvements such as:</p> <ol style="list-style-type: none"> 1. Replacement of existing signal heads with LED signal heads and retroreflective backplates 2. New overhead street name signs and lane delineations signs 3. Implementation of 4-section flashing yellow arrows for dedicated left-turn lanes with prtected phasing 4. Possible realignment of crosswalks and new curb ramps to provide shorter, more direct routes for pedestrians 5. Addition of accessible pedestrian signals with LED heads, walk/don't walk symbols and countdowns. 6. New Signal Cabinet and controller with added vehicle detection and possible radio interconnect for improved progression along Charlestown Rd. 7. Milling and resurfacing as needed to repair Charlestown Rd. and Silver St. approaches and accommodate the new crosswalk layouts and loop detection. "
State Street Rehabilitation	1847	State Street rehabilitation and reconstruction from Main Street to Green Valley Road.

PURPOSE & NEED	PROJECT TYPE	SPONSOR	PROJECT COST	EST. OTP
Through the West Point Revitalization committee meetings with Louisville Metro Greenways and Trails section, a strong desire was made to establish a connection from West Point to the Kulmer Beach Reserve area with a multi-use paved trail that will ultimately connect to the Louisville Loop, further enhancing multi-modal activity and addressing the barrier of crossing today.	Program	Louisville Metro	\$150,000	N/A
The City of Jeffersonville annexed over 10,000 acres of land in 2008. This was on top of nearly 6,000 acres of land owned by the River Ridge Development Corporation (former Indiana Army Munitions Facility) that was annexed several years earlier. Due to the recession starting in 2008, the City did not have funds to support a master planning process for this large annexation. In 2015, the City completed an update to its Comprehensive Plan, but for whatever reason, the area was hardly mentioned in the plan. Since 2008 over 10,000,000 SF of industrial space has been constructed in River Ridge and growth of that facility is continues at a break-neck pace. With this huge growth in industrial jobs, commercial and residential growth is following suit. Given the enormous amount of growth in north Jeffersonville, since annexation, it is crucial that the City engage in a multi-modal and land use planning study for this area.	Program	Jeffersonville	\$175,000	2021
As part of developing long-term plans for premium transit corridors in the Metro area, revisit and update traffic data and travel patterns. If feasible, reactivate the project placed on hold in May 2004. Explore potential funding options and review the T2 Corridor in terms of long-term public transportation goals in the region. Evaluate the project against current mobility and sustainability trends, and asses initial capital investment and transit service operating cost for potential corridor improvements.	Program	TARC	\$250,000	2025
With the opening of the Lewis and Clark (East End) Bridge, a multi-use path was created between Jeffersonville and Louisville. This path ends near the Old Salem Road Exit (Exit 11). The City of Jeffersonville would like to extend this trail to connect to the local neighborhood of Crystal Springs and the (now under construction) Chapel Lake Park.	Bike & Pedestrian	Jeffersonville	\$1,000,000	2025
Adjacent streets have sidewalks, project will provide connectivity. The Softball Complex becomes busy, especially during the summer, and pedestrians are forced to walk in the street to gain access to the softball diamonds. Many visitors park in the nearby neighborhood and walk to the diamonds but are left stranded in this segment as there is no existing sidewalk to utilize or crosswalk to help them, especially their families, cross the street in a safe manner.	Bike & Pedestrian	Clarksville	\$800,000	2020
The intent of the Charlestown Rd. and Klerner Ln. intersection improvement project is to implement safety related improvements that will assist in reducing accidents at this location. This intersection is ranked 10th on KIPDA's Indiana intersections with 55 crashes including one fatality. It is also ranked 19th on KIPDA's Indiana road segment crashes. It's a high volume at a commercialized intersection and includes a sidewalk along Charlestown Rd. It lacks audible pedestrian buttons and does not comply with ADA/PROWAG standards.	Roadway	New Albany	\$375,000	2024
The intent of the Charlestown Rd. and Silver St. intersection improvement project is to implement safety related improvements that will assist in reducing accidents at this location. This intersection is ranked 14th on KIPDA's Indiana road segment crashes and 20th on KIPDA's Indiana bike crash list. It's a high volume intersection and includes a sidewalk along Charlestown Rd. It lacks audible pedestrian signals and does not comply with ADA/PROWAG standards.	Roadway	New Albany	\$500,000	2025
Rehabilitation and reconstruction from Main Street to Green Valley Road.	Roadway	New Albany	\$8,000,000	2030

PROJECT NAME	KIPDA ID	DESCRIPTION
TARC System Wide Bus Routes Evaluation and Adjustments	1941	Evaluate existing fixed bus routes to address changes in the neighborhoods (shift in residential and commercial locations), respond to users' needs and propose route and schedule adjustments.
TARC Systemwide Transit Facilities Design and Improvements	1942	Develop and implement consistent, system-wide design standards for TARC signage and passenger amenities.
Traffic Light at Landis Ln. and N. Bardstown Rd.		This project of adding a traffic signal will expedite the flow of traffic through the intersection of Landis Lane and North Bardstown Rd. and reduce congestion, delays and increase safety.
Tyler Park/Baxter Avenue Bridge Study	2263	Develop a preservation plan and implement preservation plan recommendations for the rehabilitation of the Tyler Park/Baxter Avenue Bridge based upon an engineering study for the in-depth structural inspection, including, but not limited to, measurements for structural load rating, foundation, repair/rehabilitation recommendations with cost estimates, architectural drawings, a review of historical background and significance, and final report with recommendations.
US 31W	2386	PEDESTRIAN ACCESS/SAFETY IMPROVEMENT (PART OF LOUISVILLE METRO FEDERAL TIGER GRANT PROJECT COMMITMENT) AND ACCESS CONTROL ON US-31W (DIXIE HIGHWAY) FROM HEATON ROAD MP 14.488 NORTHWARD TO HERBERT AVENUE MP 14.969. (2016BOP)(MOA W/ LVILLE METRO) CHAF IP20170030
Utica-Sellersburg Road Planning Study	D34	This project aims to create a planning study for the Utica-Sellersburg Road Corridor.
Wendell Moore Park Recreational Trail Paving Project	2067	Pave the final section of an existing 1.75 mile 3 loop trail system and .72 mile Lakeside Connector Trail. The project includes trail facilities. The trails are used for walking, biking, and skating.

PURPOSE & NEED	PROJECT TYPE	SPONSOR	PROJECT COST	EST. OTP
System wide route analysis and adjustments will respond to TARC users needs (provide better bus connections between trip origination and destination points), improve operational efficiency (reduce travel time, consolidate bus stops as needed and reduce direct cost), save energy and decrease environmental impacts. A systematic and phased approach to short and long-term route improvements and schedule adjustments would meet community needs and attract "users by choice".	Transit	TARC	\$200,000	2022
Develop unified TARC signage design standards and replace current bus stop signs and schedule/information boxes system-wide. Improve pedestrian safety by providing adequate bus stop signage and lighting, ensure ADA compliance at all bus stops, and enhance users' experience to increase ridership and attract "users by choice" in the entire TARC service area.	Program	TARC	\$500,000	2024
The purpose of this traffic light is to expedite the flow of traffic traveling into and out of our Industrial Park and Sports Complex. Our citizens, business owners, and their employees have expressed a need for an easier and safer mode of travel through this intersection. Currently, we have three new businesses under construction that are estimated to bring in over six hundred new employees. Our thirty-five acre Sports Complex (opened October 2018) will see visitors from all over the region for various tournaments.	Roadway	Mt. Washington	\$400,000	2019
Baxter Avenue crosses Tyler Park on a stone arch bridge and stone retaining walls which were built in 1904. The bridge, known alternately as the Baxter Avenue Bridge or the Tyler Park Bridge, spans a valley which was developed as Tyler Park in 1910. The Olmsted Brothers firm designed the park, now one of the 18 parks in Louisville's Olmsted Park system. A remarkable feature of the park, as well as the bridge, is the impressive stone arch approximately 40 feet in width, through which pedestrians move under the roadway without having to cross Baxter Avenue. In 1984, the Baxter Avenue Bridge was designated a local Historic Landmark. It is also a contributing resource within the Highlands National Register Historic District. The bridge carries approximately 11,000 vehicles per day (2009, KYTC) and numerous buses, pedestrians and bicyclists across Tyler Park. Built at the very beginning of the automobile era, it has graciously functioned well beyond its original duty as a thoroughfare for automobiles and carriages. Baxter Avenue is a key corridor for traveling from downtown Louisville to Eastern Parkway and south to the Watterson Expressway (I-264). Baxter Avenue is often used by motorists to provide local access to residential streets and avoid the heavier traffic volumes on the roughly parallel Bardstown Road. It is also used by cyclists who prefer the wider lane widths on Baxter Avenue than those on Bardstown Road. There have been numerous problems identified in recent years associated with storm water and sanitary sewers effluent possibly infiltrating the stone arch structure. A 2014 water transmission main break allowed millions of gallons of water to flood the bridge structure, creating a waterfall over the stone arch. A structural analysis and preservation plan would guide the repair, rehabilitation, and maintenance of the structure - since the original plans, specifications, and structural calculations for the bridge have been lost."	Roadway	Louisville Metro	\$1,000,000	2030
The purpose of this project is to improve traffic operations and pedestrian safety along US 31 W (Dixie Highway), including the 1-264 interchange. The need of this project is to provide appropriate access control measures along US 31 W and to provide connected pedestrian facilities through the 1-264 interchange to improve safety within the proposed project limits.	Roadway	KYTC	\$833,158	2020
Utica-Sellersburg Road is currently classified as an ""urban collector"" within the City of Jeffersonville. With significant development in the vicinity over the last decade, the road is seeing considerably higher traffic volumes than it was designed to support. Over time this road will become the predominant north-south ""minor arterial"" in the area. At this time, Much of the current roadway still maintains it's rural configuration, with tight curves and sharp drop-offs into drainage ditches. As such, it is currently in need of safety improvements, but it also will likely need to be straightened and widened in the future. Additional improvements could include turning lanes at important intersections and subdivision entrances, bicycle lanes, and sidewalks. This study will set the stage for future improvements in this important transportation corridor.	Roadway	Jeffersonville	\$150,000	2022
Recreational Trail Project	Bike & Pedestrian	Oldham County	\$85,000	2025

APPENDIX H: COMPREHENSIVE LIST OF MTP PROJECTS

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
10th Street	2789		Provide pedestrian and bicycle facilities on both sides of 10th Street.
12th Street Extension	1965		Extend 12th Street from Hill Street to Industry Road.
403/62 Connector	2746		Construction of a new two (2) lane arterial road in the City of Charlestown, extending from Highway 403 to Highway 62. The arterial will consist of two (2)- twelve (12)-foot lanes, with curb and gutter and five (5)-foot wide sidewalks on both sides of the road along the entire length.
A.B. Sawyer Shared Use Path	1662	00529.00	Design and construct shared-use path through A.B. Sawyer Park along Middle Fork Beargrass Creek to Dorsey Lane and connecting to surrounding neighborhoods including an underpass, bridge, and site amenities; and construction of pedestrian facilities along Hurstbourne Pkwy from Middle Fork of Beargrass Creek bridge to Ormsby Station Rd. including a bridge over Middle Fork Beargrass Creek.
Applegate Lane	1320		Reconstruct Applegate Lane from from 2 to 3 lanes (3rd lane will be a center turn lane) Smyrna Parkway to Pennsylvania Run Road. Add pedestrian accommodations for the length of the project.
Applegate Lane Improvements	2781		Widening to at least 12' lanes for 2-way traffic, constructing new sidewalks to existing, and making streetlight improvements.
Appleleaf Lane Reconstruction	2734		Appleleaf Lane needs a designated central turning lane to avoid collisions stemming from vehicles making left-turns. This project will require at least 18' of ROW acquisition as certain segments appear to be only 24' wide, acquisition will predominantly come from western portion of road.
Arnoldtown Road	249		Reconstruct Arnoldtown Road as a 2 lane road (no additional lanes) from KY 1931 (Saint Andrews Church Road) to KY 907 (3rd Street Road) with turning lanes at high volume intersections including Windsor Lakes, Windsor Forest, Mountain Brook and Hardwood Forest. Add sidewalks on both sides of Arnoldtown Road for the length of the project.
Bardstown Road Safety Study Implementation - Northern Phase	2767		The Bardstown Road Safety Study was created in 2018 and provides recommendations to improve safety (prioritizing non-motorized users) along the corridor from Broadway to I-264. Recommendations include improved pedestrian-scale lighting, a road diet that would reduce the roadway from 4 lanes to 2 with permanent parking on both sides of the street and dedicated turn lanes at signalized intersections from Broadway to Woodford Place.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
To provide connectivity for pedestrians and cyclists along one of Jeffersonville's busiest corridors.	Bike & Pedestrian	Clark	Jeffersonville	\$2,000,000	2022	MEDIUM
Extending 12th Street directly to Industry Road can create a continuous central spine through the Park Hill Industrial Corridor. This spine would provide improved access to established companies as well as a number of underutilized properties with redevelopment potential. Truck traffic, transit services, and commuters would no longer have to negotiate the current twists and turns to access properties in the heart of the corridor.	Roadway	Jefferson	Louisville Metro	\$7,000,000	2030	LOW
Residential development is occurring rapidly along the city's "western" corridor; in order to serve the developments, this new arterial road will provide a safe and reliable route for both vehicular and pedestrian users. This road will also provide users alternate access to Highways 403 and 62 thus reducing traffic along Highway 3.	Roadway	Clark	Charlestown	\$5,250,000	2021	LOW
To improve pedestrian and bicycling access and connect park resources with residential neighborhoods.	Bike & Pedestrian	Jefferson	Louisville Metro	\$5,000,000	2025	MEDIUM
Improve roadway to current standards and increase safety.	Roadway	Jefferson	Louisville Metro	\$13,674,261	2040	LOW
Applegate Lane is an important connecting route to the Lewis and Clark Parkway Corridor and I-65/US-31. It is used frequently. Staff reports the road is often used by pedestrians despite existence of sidewalks, particularly at night. Segments are dangerous and safety issues need to be rectified with street, sidewalk, and lighting improvements.	Roadway	Clark	Clarksville	\$4,250,000	2025	LOW
Mix of commercial and residential activities on this road segment, some light to heavy industrial truck use occurs and causes potentially hazardous conditions and safety concerns. Internal staff discussion yielded a median left-turn lane as the best option to rectify the safety concerns while also continuing to serve the industrial and residential activities.	Roadway	Clark	Clarksville	\$4,000,000	2028	FURTHER REVIEW
The Arnoldtown Road reconstruction project is intended to improve the geometrics of the existing roadway. The project will correct poor curves, narrow lanes, and the lack of shoulders and will increase safety for drivers. This roadway has had approximately 180 crashes between January 1st, 2013 and December 31, 2017 with two fatalities. The project will also increase pedestrian safety and accessibility with the addition of sidewalks where they do not currently exist.	Roadway	Jefferson	Louisville Metro	\$6,900,000	2040	LOW
Crashes along the corridor are noticeably high for both pedestrians and autos. The critical crash rate for most of the corridor is well above 1. Over the last 5 years there has been an average of 40 collisions per month and 9 pedestrians collisions per year (both of which occur more frequently at night.) The multiple improvements proposed in the plan would help mitigate these unsafe conditions along one of Louisville's most vibrant urban corridors.	Roadway	Jefferson	Louisville Metro	\$4,100,000	2030	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Bardstown Road Safety Study Implementation - Southern Phase	2740		The Bardstown Road Safety Study was created in 2018 and provides recommendations to improve safety (prioritizing non-motorized users) along the corridor from Broadway to I-264. Bump-outs at specific locations to improve ped crossings, removal of the existing alternating lane lights, expanding the travel lanes from 4 to 5 (adding TWLTL) from Douglass Boulevard to Taylorsville Road and from Tyler Lane to Brighton Drive, improved crosswalks at several locations, a 10' shared use path from Eastview Avenue to Tyler Lane, dedicated turn lanes onto Tyler Lane, and improved traffic coordination for arrival and dismissal at Assumption High School, St. Raphael and Hawthorne Elementary.
Baxter/Bardstown Premium Transportation Corridor - Section 1	1353		The Baxter/Bardstown Premium Transportation Corridor Project is a design-build project that will: 1) streamline transit service on a key corridor by adding traffic signal bus prioritization, new bus stops, and increasing bus service frequency; 2) bring intelligent signal upgrades, which will include upgraded traffic signals and communication equipment to support premium transit and overall mobility; 3) incorporate complete streets roadway improvements by including bicycle and pedestrian facilities, intersection safety improvements, access management strategies for surrounding land uses, and new streetscape design elements.
Bethany Road	965	0710003	Widen existing lanes (no new travel lanes) on Bethany Road, provide turning lanes at 4 intersections and realign vertical/horizontal curves from IN 62 to CR 403.
Bicycle & Pedestrian Education, Encouragement, Enforcement & Evaluation	337	00965.15	Development of educational and awareness programs concerning bicycle and pedestrian issues. Provide education and training for cyclists, motorists, and city officials about laws governing cyclists' rights and responsibilities
Blackiston Mill Road	2187	1401350	Reconstruction and improvement of approximately 580 feet of Blackiston Mill Road, just north of Lewis & Clark Parkway, including the installation of turn lanes into and out of Kroger Drive, the addition of a raised center curb, improvement of sight lines, and drainage improvements.
Blackiston Mill Road Phase II	2389	1700724	Improvements to Blackiston Mill Road from just north of the Kroger entrance to Blackiston View Drive, including the addition of sidewalks, a new turn lane into Peddler's Mall entrance, improved site lines, and improved access control and drainage improvements. 0.34 miles.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Crashes along the corridor are noticeably high for both peds and autos. The critical crash rate for most of the corridor is well above 1. Over the last 5 years there has been an average of 40 collisions per month and 9 pedestrians collisions per year (both of which occur more frequently at night.) The multiple improvements proposed in the plan would help mitigate these unsafe conditions along one of Louisville's most vibrant urban corridors.	Roadway	Jefferson	Louisville Metro	\$3,300,000	2025	HIGH
The Baxter/Bardstown Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It is highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan, as both a "Major Corridor" and a "Premium Transit Corridor." A large sub-area of this Section was the focus of the intensive Bardstown/Baxter Safety Study, completed by Louisville Metro's Office of Advanced Planning. Baxter Avenue and Bardstown Road succeed as a commercial destination resulting in major mobility challenges. These two corridors have limited road space with high-demand for each portion of the cross-section. The vibrant commercial corridor, constituting the heart of Louisville's Highlands Neighborhoods, needs investment and improvements to maintain its success over the years to come. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received \$16.9 million in federal funds. Baxter Avenue and Bardstown Road transition around the I-264 interchange from a traditional marketplace corridor to a suburban marketplace corridor, Section 1 of this project will need to account for various demands across its length; however, each two sub-areas, despite is united by its need for significant mass transit improvements and more complete multi-modal connections. The area inside of the Watterson has high pedestrian activity while the area outside of the Watterson has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. Both sections have room for improvement concerning pedestrian connections and few to no safe bicycle facilities. Taken together, these issues need to be addressed to ensure that the Baxter/Bardstown Corridor of the future continues to succeed while providing even greater access to people of all ages and abilities.	Roadway	Jefferson	Louisville Metro	\$11,600,000	2030	HIGH
Bethany Road is located in a fast growing residential area of the city, and is classified as a major collector that connects IN 403 with IN 62. The existing roadway has 2-10 foot lanes and no shoulders. Furthermore, many of the existing vertical curves do not provide sufficient stopping sight distance along the roadway creating a very hazardous situation for drivers. The purpose of this project is to provide a safer roadway by widening the existing travel lanes to 12 feet, providing turn lanes at critical intersections, and reconstructing the horizontal and vertical curves to ensure that proper stopping sight distance is provided for the length of the roadway.	Roadway	Clark	Clark Co.	\$8,580,000	2021	FURTHER REVIEW
Bicycle and pedestrian projects may provide traffic congestion relief, improve air quality and provide safety for bicyclists and pedestrians. Project will increase awareness of bicycling and walking as an alternative to vehicle trips. This project is an essential component to meeting goals of increased biking and walking trips while decreasing related injuries and deaths.	Program*	Jefferson	Louisville Metro	\$1,950,000		MEDIUM
To increase vehicular and pedestrian safety at the intersection. Project is estimated to decrease accidents by over 50% in the improved stretch of roadway.	Roadway	Clark	Clarksville	\$2,266,994	2020	MEDIUM
Project will improve the safety of the corridor and provide pedestrian and drainage improvements.	Roadway	Clark	Clarksville	\$1,920,000	2022	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Blackiston Mill Road Phase III	2761		The project will provide for a widening of Blackiston Mill Road from Blackiston View Drive to Marlowe. The two large curves radius and grades will be reduced to allow for better sight distance and safety improvements. Drainage improvements to prevent roadway flooding are also included. Sidewalks will be added along the roadway and connect to Blackiston Mill Road Phase II and Marlowe Drive.
Blowing Tree Boulevard	258		Extend and widen Blowing Tree Boulevard from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 155 (Taylorsville Road) to Bunsen Parkway.
Bluegrass Commerce Park Bicycle/Pedestrian Trail Project Phase II	2084	00543.00	Construct a 10 foot wide multi-use bicycle/pedestrian trail along one side of Bluegrass Parkway from Watterson Trail to Campus Place and along Campus Place from Bluegrass Parkway to Plantside Drive. The trail will be constructed with concrete. Project length is 1.61 miles.
Bowling Boulevard/Christian Way	260		Construct a 5 lane (5th lane will be a center turn lane) connector between Bowling Boulevard and Christian Way.
Broadway Complete Street	2751		A complete street retrofit of Broadway from Shawnee Park to Baxter Avenue to include fixed guideway BRT, two-way cycle track and pedestrian safety improvements. The project scope should include the following: <ul style="list-style-type: none"> - Improved roadway design to increase transit speed, reliability and efficiency - Enhanced transit stations and rider amenities to improve the transit user experience - Enhanced bicycle and pedestrian access to frequent high capacity transit services - Operational plan including extension of BRT line southeast on Bardstown Road (non-fixed guideway).
Brook Street	264		Ramp improvements at the Brook Street/Broadway exit from I-65.
Buckner Connector	1808	00754.00	The proposed project will extend Commerce Parkway and the shared use path west 0.8-mile from KY 393 on new alignment to connect with Mattingly Road. Commerce Pkwy in Oldham County is currently a 2-lane road with a 10-foot wide shared use path along the north side, separated from the road with a grass verge. The road currently extends from KY 393 east approximately 3 miles to LaGrange. The proposed extension would begin approximately 1200 ft. north of I-71 and KY 393 interchange. Mattingly Road provides access to several industrial sites. the proposed project will provide access to I-71 from Mattingly Road that would allow traffic to avoid an at-grade railroad crossing.
Buechel Bank Road	381	08001.00	Add center turn lane on Buechel Bank Road from GE Appliance Park to US 31E (Buechel Bypass). Project length is 0.9 miles.
Bunsen Boulevard/Christian Way	265	00119.00	Construct Bunsen Boulevard/Christian Way connector as a 5 lane (5th lane will be a center turn lane) divided highway.
Byron Drive to Lombardy Drive Connection	2745		New road project connecting Byron Drive to Lombardy Drive, running somewhat parallel with Greentree Boulevard/Veterans Parkway. Construct 2 12' travel lanes, 2' curb and gutter, 6' ADA accessible sidewalk on eastern side of new road, 6' planting space. Install 3-way traffic signals at Intersection of Byron Drive and Greentree Boulevard. Delineate a left turn lane for Byron Drive to Veteran's Parkway northbound traffic. Install three at-grade crossing signals and crosswalks connecting to nearby sidewalks.
Cardinal Boulevard Extension	1945		Extend Cardinal Boulevard to the west of 4th Street, across the railroad tracks at-grade to connect to Davies Avenue and 7th Street.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The project will provide safety improvements to the vehicles that use the roadway daily for both commuting and recreational purposes. The reduction in the curves is needed to prevent accidents along the roadway.	Roadway	Clark	Clarksville	\$4,200,000	2026	LOW
The Blowing Tree Boulevard Project is intended to mitigate congestion.	Roadway	Jefferson	Louisville Metro	\$2,300,000	2030	MEDIUM
The community including the businesses have expressed interest to provide both pedestrian and bicycle movement throughout the Bluegrass Commerce Park. So the City has been constructing a multi-use trail to connect Hurstbourne Parkway to Blankenbaker Parkway. Better connectivity is desired throughout the employment center in order to provide alternative means to the automobile.	Bike & Pedestrian	Jefferson	Jeffersontown	\$1,630,000	2020	MEDIUM
The Bowling Boulevard / Christian Way connector will improve system continuity as well as provide additional access, respond to regional growth and development and provide traffic congestion relief for US 60 (Shelbyville Road) and KY 1747 (Hurstbourne Parkway).	Roadway	Jefferson	Louisville Metro	\$21,000,000	2040	MEDIUM
Improve connectivity for all modes; improve safety; promote social equity; and enhance neighborhoods.	Transit	Jefferson	Louisville Metro	\$140,000,000	2035	MEDIUM
The Brook Street intersection and ramp improvements will improve access to the local medical center.	Interstate/ Interchange	Jefferson	Louisville Metro	\$6,000,000	2040	LOW
The purpose of the project is to improve system connectivity. Mattingly Road serves the Oldham County Industrial Park, located between the CSX railroad and dead-ends at I-71. At present, all industrial park traffic must cross the CSX railroad at two at-grade locations to access I-71. The road would connect the Park to KY 393 just north of I-71, thereby providing an option to avoid the two railroad crossings.	Roadway	Oldham	Oldham Co.	\$4,330,340	2021	LOW
This project will reduce traffic congestion.	Roadway	Jefferson	Louisville Metro	\$6,850,000	2025	LOW
From Bunsen Parkway, drivers would have easy access to KY 1747, KY 155 (Taylorsville Road) and I-64. This alternative would also provide relief to the I-64 and KY 1747 interchange.	Roadway	Jefferson	Louisville Metro	\$32,448,000	2040	LOW
Segment is 15th on Indiana Top Crash List, largely due to vehicles driving too fast around the curve and vehicles making left turns lacking demarcation. The new road project connecting Byron Drive to Lombardy Drive will connect the two predominantly residential corridors, a connecting route is currently lacking. The new connecting route should ease some of the traffic stemming from Greentree/Veterans Parkway. Traffic light will slow down traffic and allow nearby residential motorists safer access to Greentree/Veterans Parkway. Crossing signal/crosswalks will allow pedestrians to utilize the sidewalks without risking injury from crossing the busy street.	Roadway	Clark	Clarksville	\$3,500,000	2025	LOW
Stronger linkages between the University of Louisville and the Industrial Corridor will benefit both the residents of the new University Housing west of the railroad and help support retail/commercial development along the Cardinal Boulevard corridor.	Roadway	Jefferson	Louisville Metro	\$6,000,000	2030	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Cedar Creek Road Connector	268		East/west collector corridor from KY 864 (Beulah Church) to Cedar Creek Road consisting of a two-lane roadway with pedestrian accommodations.
Cedar Street Extension	2737		S-Curve alignment road extension of Cedar Street to Veterans Parkway, two-way road with 12'+ lanes, curb and gutter, 5' sidewalks on both sides, 2' median verge, all should match adjacent streetscape.
Cedar Street Reconstruction	2736		Cedar Street would be reconstructed from Woodstock Drive south to Lewis & Clark Parkway. The segment between Ring Road extension (the mall's circulator road) and Madison Street would shift slightly west to operate as both a public street and circulatory for River Falls Mall. This segment of Ring Road would be removed. Throughout the reconstructed road would be curb and gutter, 2-4' planting verge, and 5' sidewalks on both sides of the roadway.
Charlestown Road (from Hedden Court to Genung Drive)	2390	1700727	<p>The Project begins at Hedden Court and proceeds northerly for 0.31 miles to Genung Drive. The project involves the construction of curb and gutter with sidewalk and a storm sewer system. 6' wide attached sidewalks are planned. The pavement would be milled overlaid/ widened to provide a maximum of 33' of pavement width. The pavement width will provide one lane in each direction with a two-way left turn lane. The project is likely to involve phase construction with the shifting of traffic. The existing paved travel lanes/shoulders allow for traffic to be shifted while maintaining a safe distance to work zone for storm sewer construction, curb and gutter and sidewalk construction.</p> <p>The Project includes the following Phases: 1. Preliminary Engineering/Right-of-way Engineering; 2. Right-of Way Acquisition; 3. Utilities; and 4. Construction.</p> <p>The Project provides connections to an Elementary School, a N-hood Center, urban residential neighborhoods and nearby commercial and industrial uses.</p>
Charlestown Road Corridor Complete Streets	2128	1400550, 1800900	Construction of a multi-use path from Sunset Drive to County Line Road in New Albany, Indiana. The multi-use path is 10 feet in width. Additional traffic calming measures are planned, including re-stripping and additional signage. Project length is 1.31 miles.
Clark Road Extension	2747		Reconstruct and extend portion(s) of Clark Road located in the City of Charlestown. The project consists of uniformly widening approximately 0.6 miles of existing road to two (2) - twelve-foot-wide lanes. Existing sidewalks will be improved and new sidewalks will be constructed along both sides of the road. These sidewalks will be five (5) - foot in width and ADA compliant. Clark Road will be extended by constructing a new two (2) lane road of twelve-foot lane width for approximately 0.6 mile. The extension will terminate at a future arterial road that will connect Highways 403 and 62.
CNG Fueling Stations	2199	03716.00	Construction of 1 new CNG fueling station in Jefferson County.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
This connector will reduce travel times for a growing residential population south of I-265 (Gene Snyder Expressway) lying between US 150 (Bardstown Road) and KY 864 (Beulah Church Road). Additionally, this project will provide vehicle and pedestrian connectivity to future improvements along KY 864 and Cooper Chapel Road.	Roadway	Jefferson	Louisville Metro	\$4,000,000	2035	FURTHER REVIEW
Since Broadway Street and Cedar Street are truncates at opposite ends, no single street provides a connection lane between Veterans Parkway and Lewis & Clark. The extension of Cedar Street would provide the necessary connection by utilizing already existing internal roadways.	Roadway	Clark	Clarksville	\$750,000	2022	LOW
The Broadway District and Lewis and Clark Parkway district are not well-connected, the reconstruction of Cedar Street will tie into the new Cedar Street extension, thereby providing accessibility and reducing congestion on the other two connecting routes for these two important corridors.	Roadway	Clark	Clarksville	\$3,500,000	2022	LOW
Charlestown Road is a major arterial, former State Highway, which runs for over 4 miles in a northeasterly direction from the center of the City to a mile north of I-265, finally connecting to I-65 in Sellersburg. The City has constructed a 3-lane section and sidewalks along most all of Charlestown Road with the exception of this 1,600+’ section lying between Hedden Court and Genung Drive. This final section of Charlestown Road lies in a fully urbanized area and includes nearby Fairmont Elementary School and the Fairmont (Rauch) Neighborhood Center. Much of this corridor lies in a HUD-designated lower income area and is identified as a KIPDA Title VI - Environmental Justice Area (west side where the School and N-Hood Center are located). Several years ago, the City developed a neighborhood park for Fairmont Elementary School and fully rehabilitated the neighborhood center...each using CDBG funding. Charlestown Road Improvement including the provision of sidewalks is listed in the City’s Comprehensive Plan Year 2020. This segment is also listed as #14 on the KIPDA Region’s Top 20 Indiana High Crash Segments and is also listed as a KIPDA Bicycle & Pedestrian Priority Corridor. This is a compelling segment to provide sidewalks and to provide for left-turning vehicles...it’s not only for the benefit of lower income households, it serves neighborhood commercial and some industrial uses immediately north of the school and the n-hood center. Residents including handicapped people currently use the existing narrow shoulders to reach destinations along this busy stretch as well.	Bike & Pedestrian	Floyd	New Albany	\$2,541,873	2024	MEDIUM
The Charlestown Road Complete Streets Project brings pedestrian and multi-modal infrastructure to an area that currently lacks any at all. The multi-use path will provide access for residents living in the subdivisions along the corridor the ability to access Kevin Hammersmith Park and the commercial area by bike or by foot. Currently, this segment of Charlestown Road is not safe for pedestrian nor bike traffic.	Bike & Pedestrian	Floyd	Floyd Co.	\$1,250,000	2022	MEDIUM
Residential development within the city is expanding rapidly, this project will provide motorist and pedestrians safe and reliable access to the "western" corridor of the city. The collector road will provide motorist and pedestrians an alternative route to reduce congestion within Highways 3, 403 and 62.	Roadway	Clark	Charlestown	\$4,000,000	2021	LOW
Alternative Fuel Infrastructure	Roadway	Jefferson	Louisville Metro	\$4,901,363	2022	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Commerce Parkway Widening	2614		Widen Commerce Parkway between Parker Drive and KY 393 adding a continuous turn lane for approximately three miles including the relocation of 10' wide shared-use path. Lane width is 12' with one proposed signal between termini. Project length is 3 miles.
Comprehensive Campus Improvements for Pedestrians & Bicyclists, Phase II	1111		The project needed by JCTC includes improvements on the downtown campus for pedestrians and bicyclists. The Downtown campus is bordered on Chestnut Street to the north, and Breckinridge Street to the south. The college owns property on east side of 2nd street and on both sides of 1st Street. Additional property is owned at the corner of the off ramp on Interstate 65 North at Broadway. In general this metropolitan campus has been expanded to include additional property and in 2018 the college began construction on an additional classroom building along the east side of south 1st street between Jacob and College streets. The addition of a new building will add many pedestrians to these 5 city blocks that are already congested. There are two access points to Interstate 65 south along our campus borders on 1st street. Students, parking, bicycles, and other foot traffic will continue to increase throughout this area and certainly as a new building is opened and the number of students grows. Improvements to crosswalks, lighting, pedestrian areas, safety, and bicycle lanes and parking are all part of the comprehensive nature of a Phase 3 Downtown Comprehensive Plan for Pedestrian and Bicyclists Improvements. At the current time, no funding has been secured and costs are based on very rough estimates.
Connection 21 - Signal System Upgrade and Research	2669		Expansion of fiber communications; and upgrades of signal controllers; along heavily traveled corridors in Jefferson County with high current and projected congestion. Preston Highway, Westport Road, Hurstbourne Parkway, Cane Run Road, Bardstown Road, Shelbyville Road (E&W) & West Broadway.
Cooper Chapel Road Phase 2	271		Phase 2: Reconstruct Cooper Chapel Road as a 2 lane road with left turn lanes at major intersections (Smyrna Parkway, Pennsylvania Run Road, KY 864, Beulah Church Road) from Smyrna Parkway to KY 864.
Cooper Chapel Road Phase 3	223	00404.01	Phase 3: Extend and construct 2 lane roadway with a continuous center-turn lane from KY 864 (Beulah Church Road) to US 31E (Bardstown Road) at Bardstown Falls Road. Project will include consideration of bicycle and pedestrian facilities.
Court Avenue Streetscape Improvements	2759		This project will reconstruct portions of Court Avenue from the I-65 Interchange to Graham Street per the recommendations in a recently completed planning study for the corridor. It includes eliminating one lane of travel in each direction from I-65 to Walnut Street in order to slow traffic, provide turn lanes for local streets and provide bicycle infrastructure from Downtown to the Second Street Bridge. The project includes improving sidewalks, creating pedestrian bulbouts for increased safety and walkability, installing street trees, enhancing lighting, and re-configuring existing diagonal parking where necessary to improve safety and accessibility.
CSX Trail Bike/Ped Project	2743		Bike and Ped trail on former CSX railroad corridor, 10' trail with designated biking lane, will connect to other town bike/ped trails.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The purpose of the project is to improve capacity, access, and mobility along Commerce Parkway through an actively developing industrial and business park. The widening of the road will reduce congestion, improve safety, and increase travel capacity and alternatives for residents, businesses, and freight traffic given the anticipated direct connection with new I-71 ramps.	Roadway	Oldham	Oldham Co.	\$17,500,000	2029	FURTHER REVIEW
The project will provide safe walkways for pedestrians, many of which are students at the college's campus. These walkways will be used by all students including approximately 1000 students that have identified themselves as having a disability of some kind. The 1st Street corridor is busy with cars and trucks moving in and out of the downtown area. Students are parking, walking to classroom and administrative buildings. Crosswalks on these busy streets can be extremely dangerous, crosswalks at our less traveled areas are non-existent. Adequate lighting is essential as well as other safety mechanisms, like security call boxes with emergency connections to 911 and Metrosafe are essential. As the college encourages students to become greener in their transportation choices, additional and secure parking for bicycles is required. Dedicated bike lanes would be something to consider for any project in the area of the college.	Bike & Pedestrian	Jefferson	JCTC	\$4,000,000	2025	MEDIUM
The project purpose is to mitigate congestion issues, reduce vehicle emissions and fuel consumption, enhance safety and prepare the community for future ITS investments.	Roadway	Jefferson	Louisville Metro	\$1,835,000	2022	MEDIUM
The area south of I-265 (Gene Snyder Freeway) between KY 61 (Preston Highway) and US 31E (Bardstown Road) is experiencing rapid growth with the development of many new residential subdivisions. Cooper Chapel Road is a heavily traveled collector road serving this area. The project will add shoulders where there are none and improve existing poor geometrics to this rapidly growing residential area south of I-265. The project will also improve traffic flow through major intersections. When coupled with the proposed Fairmount Road extension (KIPDA ID #282 and 283), the project will provide a continuous route parallel to I-265 between KY 61 (Preston Highway) and US 31E (Bardstown Road).	Roadway	Jefferson	Louisville Metro	\$15,000,000	2030	LOW
The area south of I-265 (Gene Snyder Fwy.) between KY 61 (Preston Highway) and US 31E (Bardstown Road) is experiencing rapid growth with the development of many new residential subdivisions. Cooper Chapel Road is a heavily traveled collector road serving this area. The Location and Feasibility Study will establish and preserve a corridor for the future extension of Cooper Chapel Road so that it can be established as a through route between KY 61 and US 31E. The roadway construction will provide access to an area that recently received sanitary sewers and city water service.	Roadway	Jefferson	Louisville Metro	\$30,699,792	2023	LOW
Court Avenue is the City of Jeffersonville's "Civic Spine." It is the location of the county courthouse, the library, Warder Park, the historic Nachand Fieldhouse, nearly 100 small businesses and a future Downtown elementary school (now under construction). As such, Court Avenue needs to be made more walkable and pedestrian friendly - a logical counterpart of Historic Spring Street. Currently sidewalks and curbs are in need of repair, lighting is inconsistent, pedestrian crossings are unsafe, and traffic speeds are too high. The traffic configuration is inconsistent and can easily be reduced from 4-lanes to two (as traffic volumes do not support four lanes of traffic). This project aims to correct these issues and create a much more pleasant pedestrian street which supports the numerous small businesses in the area.	Roadway	Clark	Jeffersonville	\$2,500,000	2025	MEDIUM
Town currently working on bike/ped connectivity plan, this project will serve as a central connector.	Bike & Pedestrian	Clark	Clarksville	\$8,000,000	2020	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Dixie Bus Rapid Transit	2773		Dixie Highway Bus Rapid Transit (BRT) will extend from Downtown to Valley Station in order to provide high capacity service along Dixie Highway Corridor. This corridor has some of the highest ridership among TARC's routes.
Dixie TIGER Project	2232	00478.00	Intelligent Transportation System (ITS)/Signal System and Technology Upgrades to connect Dixie Highway to the city's existing traffic operations center for active traffic management operations. Complete Streets and Safety/Access Management Improvements to include construction of pedestrian pathways and improved multi-modal (especially pedestrian and transit) connectivity. Project will include raised medians, consolidation of access points, modification from TWLTL to dedicated turn lanes, signage and striping upgrades. Bus Rapid Transit to include upgraded transit facilities along corridor with approximately 36 new, highly visible and easily accessible BRT stations, newly branded vehicles unique to the Dixie Corridor, appropriately located queue-jump lanes and bus turnouts. Project length is 12.3 miles.
Dutchmans & Breckenridge Lane Intersection Improvements	1915		Lane additions for Breckenridge Lane south of Dutchmans Lane; Dutchmans Parkway west of Breckenridge Lane and Dutchmans Lane east of Breckenridge Lane. The average daily traffic for these three approaches need further evaluation for additional lanes. Lanes re-assignment may occur which may also require signal phase modification. Sidewalks will also be provided on Dutchmans Parkway.
East Main Street	2392	1700730	<p>This road reconstruction project on East Main Street will extend from State Street to East 5th Street for approximately 1,600 feet or 0.3 miles and is located in the heart of Downtown New Albany. The proposed road reconstruction project will provide for a continuation of the improvements of the East Main Street corridor extending from the recently completed project on East Main from Vincennes Street to East 5th Street in 2014 and connect to the improvements completed by INDOT on West Main Street from State Street to Corydon Pike in 2015. Like the preceding East Main project, the improvements will focus on replacing or rehabilitating deteriorated pavement and sidewalks, improve walkability and multi-modal accessibility of the Main Street corridor, improve vehicular, cyclist and pedestrian safety and enhance the overall character of the corridor. Specific improvements include:</p> <ul style="list-style-type: none"> • Full pavement reconstruction for 0.3 miles of roadway (existing 52 foot wide pavement section to be reduced by 8 feet to promote traffic calming). • New pavement markings identifying two 11-foot travel lanes, 7-foot parking lanes and accommodations for cyclists. • Replacement of curb/gutter and the addition of intersection curb bump-outs to provide traffic calming. • Replacement and widening of existing sidewalks to provide for reduced pavement section width and encourage lower travel speeds. • Installation of ADA compliant curb ramps at all intersections/crosswalks. • Installation of street lighting to improve pedestrian visibility and motorist awareness. <p>These improvements will take place entirely within currently designated right-of-way and will not require any acquisitions. Construction is anticipated to be completed in a single phase.</p>

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Operating cost for the new Dixie Highway BRT service to support access to jobs and education, and support economic redevelopment along Dixie Highway.	Transit	Jefferson	TARC	\$4,325,000	2020	MEDIUM
This project takes a strategic and comprehensive approach to building a sustainable, safe and well managed transportation link between the city center and its southwestern communities. The project seeks to address congestion, safety, and functionality. The Dixie corridor carries over 60,000 vehicles per day and serves over 4,800 transit riders per day. This is a major freight and commuter corridor that is highly congested and experiences more than double the number of injury collisions and three times the number of traffic relate fatalities compared to similar roadways statewide.	Roadway	Jefferson	Louisville Metro	\$34,500,000	2020	HIGH
Mitigate congestion and improve access for pedestrians.	Roadway	Jefferson	Louisville Metro	\$2,500,000	2030	MEDIUM
The Project includes design and construction of a 1,600+/-' length, 52' wide section of E. Main Street between State Street and E. 5th Street. Currently, this portion of the E. Main Street corridor has extensive deteriorated sidewalks and a poor pavement rating. It's worn out and dysfunctional. It lies in the Mansion Row National Register District and connects the residential portion of this unique Historic District to the Downtown and the north-south Major Arterial, State Street. In fact, the Project ends at the E. Main and State Street intersection where the Founding Father's historic Scribner House Museum and the City's new YMCA-Aquatic Center are located. E. Main Street is a former State Highway (actually Highways 62 and 111) which was relinquished by INDOT to the City in 2010. The proposed improvements for the E Main Street project were listed as a component of the relinquishment agreement between the City and InDot. he proposed project will connect to two recently completed Main Street corridor improvement projects. The segment to the east of the proposed project area from E 5th Street to Vincennes Street was reconstructed in 2014 and included sidewalks, curbs replacement, a new median, improved pavement surface , bicycle improvements, traffic calming measures and lighting/landscaping. The segment of Main Street to the west, from State Street to Corydon Pike is under InDot's jurisdiction and was improved in 2015. That improvement included base patching, full width HMA overlay, curb ramp improvements and re-striping including provision for bike lanes. The proposed project segment lies in a HUD-designated lower income area and is also identified as a KIPDA Title VI - Environmental Justice Area and listed as a KIPDA Bicycle & Pedestrian Priority Corridor. Several years ago, the City reconstructed the portion of E. Main street between Vincennes Street and East Street using local/state funding. Based upon the pavement inventory that was completed in 2016 in conjunction with the Community Crossings Grant Application, the PASER ratings of the E. Main Street segments between State Street and E. 5th Street range from 4-5, which correlates to a "fair" to "poor" condition that requires structural improvements for correction. The condition rating is based upon wheel path, edge and block cracking throughout the corridor. A feasibility study completed in 2013 summarized an inspection of all existing sidewalk/curb ramps and indicated that the majority of the sidewalk in the corridor was "deteriorated" or "severely deteriorated" and required replacement to provide for safe passage of pedestrian traffic and comply with ADA requirements. This is a compelling, highly used and visible segment that needs reconstruction due to the deteriorated roadway and sidewalks and to make it more attractive to motorists, pedestrians and bicyclists.	Roadway	Floyd	New Albany	\$3,037,239	2023	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
East Market Street Streetscape Improvements	2064	80053.10	Streetscape enhancements to improve pedestrian/bicycle amenities along East Market Street from Brook Street to Johnson Street and along the following intersecting streets from Nanny Goat Alley to Billy Goat Strut Alley: Brook St., Floyd St., Preston St., Jackson St., Hancock St., Clay St., Shelby St., Campbell St., Wenzel St., Baxter Ave. and Johnson St. Enhancements include the addition of landscape medians in two separate blocks to serve as a gateway to the neighborhood and repurposing one of the existing east-bound drive lanes to provide a dedicated separate bike facility. Project length 2.1 miles.
East Pages Lane	274		Reconstruct East Pages Lane as a 2 lane (no additional lanes) road with several improvements to intersections from US 31W (Dixie Highway) to KY 907 (3rd Street Road). Construct pedestrian accommodations on both sides of roadway for the length of the project.
Ellingsworth Lane	276		Extend and widen Ellingsworth Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 913 (Blankenbaker Parkway) to Urton Lane and add sidewalks.
Emery Crossing Road	525		The project is a road reconstruction and stabilization project. No additional lanes would be added, but some drainage work will be included.
English Station Road	188	00353.00	6YP DESC: Widen English Station Road from 2 to 3 lanes (3rd lane will be a center turn lane) from Aiken Road to Avoca Road. (Funding subject to fiscal constraint pending MPO TIP). CHAF DESC: The purpose of this project is to provide a wider roadway configuration to improve safety, increase capacity and elevate level of service. Project will improve the safety of the rail crossing and enhance bike and pedestrian network. From: MP 0.457 To: MP 1.232.
English Station Road	277		Reconstruct English Station Road as a 2 lane (no additional lanes) road from Wibble Hill Road to Christian Academy (700 South English Station Road). Construct pedestrian accommodations on both sides of English Station Road for the length of the project.
Fairground Road	281		Reconstruct Fairground Road as a 2 lane road (no additional lanes) from US 31E (Bardstown Road) to KY 1819 (Billtown Road), including left-turn lanes at US 31E, Billtown Road and possibly other intersections and consideration of radius improvements at three 90-degree curves.
Ferndale Road	1330		Reconstruct Ferndale Road as a 2-lane road (no additional lanes) from Watterson Trail to Fern Creek Road. Add pedestrian accommodations on both sides of Ferndale Road for the length of the project.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
This project is for the design and construction documents of the improvements East Market Street and intersecting streets within the area generally bounded by Brook Street to the west; Billy Goat Strut Alley to the north; Baxter Avenue to the east; and Nanny Goat Strut Alley to the south. Streetscape improvements should transform the vehicular and pedestrian spaces into attractive urban space that can serve cars, bikes and people. The design should accommodate and enhance the variety of properties in the neighborhood, including housing, retail, restaurant, manufacturing, and office uses.	Roadway	Jefferson	Louisville Metro	\$14,000,000	2022	LOW
East Pages Lane is a narrow 2 lane roadway with inadequate shoulders and poor geometrics. It connects US 31W to KY 907 (Third Street Rd) at KY 907 (Valley Station Road).	Roadway	Jefferson	Louisville Metro	\$7,895,591	2040	LOW
Ellingsworth Lane connects KY 913 and Tucker Station Road through heavy, residential development. With the proposed reconstruction of Urton Lane (KIPDA # 474) and Tucker Station (KIPDA # 472) Roads, an extension of Ellingsworth Lane would connect Urton Lane, Tucker Station Road and KY 913. This would allow the Urton Lane extension to the south to utilize the existing crossing at I-64 on Tucker Station Road.	Roadway	Jefferson	Louisville Metro	\$11,000,000	2035	LOW
The roadway has been severely damaged from heavy industrial traffic, as well as frequent flooding through the years. The anticipated West Riverfront Park is expected to bring hundreds of thousands of visitors to the area and the current roadway conditions will not be able to handle the additional traffic. A rebuild of the roadway to enable the Town to install a roadway suitable for both the heavy visitor and industrial traffic along the roadway, as well as withstand regular flooding.	Roadway	Clark	Clarksville	\$3,500,000	2025	LOW
The purpose of this project is to provide a wider roadway configuration to improve safety, increase capacity and elevate level of service. Project will improve the safety of the rail crossing and enhance bike and pedestrian network. Due to the two lane configuration and the numerous developments and entrances along the roadway, traffic operations are adversely impacted by vehicles making left turns along this congested corridor. Sight distance in the sag near Chenoweth Run and the crest near the railroad at the northern terminal of the project do not meet the 35 mph design speed criteria. The corridor is a high accident area. The existing roadway surface shows excessive wear with several sections having significant base failures that are not remedied by typical pavement resurfacing. The corridor is heavily traveled by trucks accessing a nearby rock quarry on Old Henry Road and school buses going to the Jefferson Public Schools maintenance facility on East Aiken. Several of the entrances have rutting on the shoulders with drop offs resulting from turning radii not adequate for truck turning movements. Rail crossing is substandard. There are gaps in the bike and pedestrian network. CHAF ID: IP20170032	Roadway	Jefferson	KYTC	\$12,445,300	2024	MEDIUM
This project will facilitate access to Christian Academy, reduce traffic congestion and improve safety.	Roadway	Jefferson	Louisville Metro	\$4,200,000	2025	LOW
Fairground Road is a collector serving a residentially developed area. Although the length of Fairground Road is only two miles, it has significant number of local street intersections. Three of these have abnormally high volumes of traffic and actually serve as through routes. Fairground Road is in the top twenty of the highest thoroughfare accident rates of Jefferson County routes.	Roadway	Jefferson	Louisville Metro	\$6,000,000	2040	LOW
To improve roadway to current standards and increase safety. Increase pedestrian safety and connectivity along Ferndale Road to Bardstown Road, a major transit route.	Roadway	Jefferson	Louisville Metro	\$13,000,000	2040	LOW

APPENDICES

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Flat Rock Road	1323		Reconstruct Flat Rock Road as a 2-lane road (no additional lanes) from US 60 (Shelbyville Road) to Aiken Road. Add pedestrian accommodations on both sides of Flat Rock Road for the length of the project.
Floyd Central - Highland Hills Safe Routes to School Project	2032		Multi-use path to connect Floyd Central High School and Highland Hills Middle School in Georgetown. Current area lacks any pedestrian/multi-modal infrastructure. Project could be located along Edwardsville-Galena Road and would provide pedestrian/multi-modal access to existing neighborhoods around both schools.
Floyd Street Roundabout, Cardinal Boulevard, Brandies Arthur Street Intersection and Other Belknap Campus Improvements	2150	08805.00	D&C for Multi-modal directional non-vehicle and vehicle safety project at UofL Belknap. 1st year to include construction funds for roundabout at Floyd Street and Cardinal Boulevard, and intersection at Brandeis and Arthur Street. UofL Foundation will pay upfront \$4.5M of \$22.5M (80/20) in 1st year. (14CCN). CHAF IP20160278.
Galene Drive/Sprowl Road Collector Extension	2774		Realign Galene Drive and Sprowl Road to eliminate the right turn/left turn movement as it approaches Taylorsville Road. Extend Sprowl Road across Taylorsville Road and connect up with Shelby Street and widen Shelby Street to Watterson Trail intersection. The project includes widening the collector roadway, curb and gutters, sidewalks and bicycle facilities. Project will include turning movements and signalization as warranted.
Good Samaritan Bicycle and Pedestrian Trail Connector	2082	00486.00	Construct a .67 miles multi-use bicycle and pedestrian trail 10 feet wide along portions of Watterson Trail, Grand Avenue, Bluebird Lane and Shelby Street as well as traversing between the Jeffersontown Public Library and the Academy of Individual Excellence School and the Good Samaritan Residential Community in downtown Jeffersontown.
Grade Lane	289		Widen Grade Lane from 2 to 3 lanes from KY 1065 (Outer Loop) to KY 1631 (Fern Valley Road). Includes pedestrian and bicycle accommodations.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Improve roadway to current standards and increase safety for motorized traffic. Increase pedestrian safety and connectivity from Shelbyville Road to existing and potential residential development.	Roadway	Jefferson	Louisville Metro	\$63,542,571	2028	LOW
After school, many students from Highland Hills Middle School use the athletic fields at Floyd Central High School. However, they do not have any safe access between the schools besides walking on Edwardsville Galena Road. Existing neighborhoods around schools do not have sidewalks, discouraging students from being able to walk to school safely.	Bike & Pedestrian	Floyd	Floyd Co.	\$3,770,000	2025	LOW
The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.	Roadway	Jefferson	Univ. of Louisville	\$24,000,000	2021	LOW
The project will increase connectivity in the downtown business district of Jeffersontown and provide a new collector roadway to relieve the congestion at that the Taylorsville Road/Watterson Trail Intersection. It will enhance economic development opportunities and connectivity to schools, civic uses of the city.	Roadway	Jefferson	Jeffersontown	\$3,250,500	2028	MEDIUM
This project will greatly enhance both pedestrian and bicycle connectivity to the surrounding streets in downtown Jeffersontown as well provide enhanced access to schools, libraries, parks and places of employment. It would also provide a missing gap in the existing multi-use bicycle and pedestrian trail system already constructed that will connect a high commercial corridor to the Bluegrass Commerce Park Employment Center to the surrounding roadway network and the city's downtown.	Bike & Pedestrian	Jefferson	Jeffersontown	\$1,630,000	2020	MEDIUM
This project will improve access to the Louisville International Airport and industrial development.	Roadway	Jefferson	Louisville Metro	\$26,000,000	2035	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Grant Line Road (Hausfeldt Lane to Security Parkway)	2770		<p>Need for Improvement: The need for improvement is based on the existing substandard geometrics, and lack of traffic capacity along the corridor, which is in a rapidly growing area of New Albany and Floyd County. Existing Level of Service (LOS) has fallen below minimum standards. This project is needed to improve safety and traffic flow/mobility by adding capacity and improving geometrics along the corridor. This project will increase vehicular capacity, add pedestrian access and resolve fundamental and unsafe roadway deficiencies within this section of Grantline Road north of I-265. This road rehabilitation and multi-use (MU) trail project along Grantline Road will extend from Hausfeldt Lane to Security Parkway. The MU trail/sidewalk only portion of the project will begin at Hausfeldt Lane, and will run north along Grantline Road for approximately 2150 ft. to Indiana University Southeast (IU-SE)/Klerner Lane intersection. The MU trail will be located on the west side of the roadway, and the sidewalk will be located on the east side. The roadway rehabilitation portion of the project will begin at IU-SE/Klerner Lane. The Multi Use Trail/sidewalk and roadway rehabilitation project will then run north to just north of the intersection with Security Parkway. The length of the MU trail/sidewalk only portion of the project will be approximately 0.41 miles. The length of the Grantline Road rehabilitation with MU trail/sidewalk project will be approximately 1.31 miles. The total project length is estimated to be approximately 1.72 miles. The project is located within the INDOT Seymour District. The MU trail will be constructed as a 10 ft. wide trail, and will follow all applicable INDOT Standards for geometry and pavement thickness, along with the AASHTO Guide for the Development of Bicycle Facilities. The 5 ft. concrete sidewalk will also follow all INDOT Standards. Both facilities will meet or exceed ADA requirements. Grantline Road will be widened and resurfaced from approximately 250 ft. south of IU-SE/Klerner Lane intersection to approximately 300 ft. north of IU-SE/Klerner Lane. This is currently a five lane section with curb and gutter. From approximately 300 ft. north to 700 ft. north of IU-SE/Klerner Lane, Grantline Road will transition from the five lane section to a three lane section. From that point, Grantline Road will be reconstructed as a three lane section with curb & gutter to just north of Security Parkway. The MU trail will be located on the west side of the roadway along the entire project length, and the sidewalk will be located on the east side for the entire project length. The 5-lane section near IU-SE/Klerner Lane will consist of two through lanes in each direction and a center lane to be used as a two-way left turn lane (TWLTL) or a channelized left turn lane. Lane widths are proposed to be 4-12 ft. lanes, with a 14 ft. TWLTL. A new storm sewer will also be constructed along this section. The traffic signal at IU-SE/Klerner Lane and Grantline Road will be modernized. The 3-lane section of Grantline Road will consist of one through lane in each direction and a center lane to be used as a TWLTL or a channelized left turn lane. Lane widths are proposed to be 2-12 ft. lanes, with a 14 ft. TWLTL. A new storm sewer will also be constructed along this section. Various culverts and cross pipe drainage structures are located within the project limits. All of these culverts and drainage structures will be replaced with hydraulically adequate structures. The proposed horizontal alignment on Grantline Road will tie into the existing 5-lane section already in place just south of IU-SE/Klerner Lane and transitions to meet the existing centerline. The alignment is proposed to follow the existing centerline for the remainder of the project. The proposed vertical alignment will correct numerous substandard vertical curves along the corridor. The proposed profile grade will be designed to meet 3R standar</p>
Grantline Road	1586	0901276	Reconstruct Grantline Road as a 2 lane road (no additional travel lanes) from McDonald Lane south to Beechwood Avenue for a distance of 1.1 miles.
Hazard Elimination Program for Existing Roads and Streets	2660	1900554	The Indiana Local Technical Assistance Program (LTAP) Office under agreement with Indiana Department of Transportation (INDOT) operates a roadway safety assistance program titled Hazard Elimination Program for Existing Roads and Streets (HELPERS).
Heavy Haul Transportation Corridor	2119	1382612	Construction of a new 2 lane road from the Port of Indiana to I-265, and construction of a 3 lane road from the I-265/Old Salem Road interchange through River Ridge to IN 62. The project will also identify a direct railroad route from the Port of Indiana to River Ridge.
Hubbards Lane	384	00479.00	Widen Hubbards Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from US 60 (Shelbyville Road) to KY 1447 (Westport Road). Add bike lanes to Hubbards Lane from Kresge Way to KY 1447. Project length is 1.4 mi.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>More than a decade ago, INDOT had planned to completely improve this important corridor and began design of improvements to the corridor, but instead relinquished it to Floyd County in 2012. Floyd County since transferred it to the City of New Albany. This corridor provides access to IU-SE (enrollment 5,400), Grantline Elementary School and 5 existing Industrial Parks. Multiple apartment complexes and retail uses are planned or already under construction in the area. IU-SE has recently substantially increased their on-campus housing capacity by adding and/or expanding dormitories with more dorms and additional campus buildings in the planning stages. The City recently constructed access and sanitary sewer service on the west side of Grantline Road through land now being developed with apartments to a new forty acre industrial park. The City anticipates development of another 150+ acres of vacant land zoned for industrial or multi-family use on this corridor in the near future. With IU-SE, Grantline Elementary School, 5 industrial parks, multiple apartment complexes, and retail development either planned or under construction along this corridor, the addition of adequate pedestrian facilities will be vitally important for both safety and mobility. There are other pedestrian facilities in the vicinity of this project area. The addition of a MU path and sidewalk with this project will help to provide much-needed connectivity with these other facilities, and to other parts of the community. This corridor provides easy access to the only non-tolled interstate bridge over the Ohio River, the Sherman Minton Bridge. It is also anticipated that this corridor will attract businesses that generate significant truck traffic to metro Louisville via I-265. Hausfeldt Lane is ranked 14th and St. Joseph Road is ranked 20th on KIPDA's Indiana vehicle crashes list. This Project was included in the City's Comprehensive Plan 2020.</p>	Roadway	Floyd	New Albany	\$9,176,400	2028	MEDIUM
<p>Improve lanes for vehicular service and safety; provide sidewalks and/or pedway for pedestrian/bike travel and for safety.</p>	Roadway	Floyd	New Albany	\$4,298,587	2020	MEDIUM
<p>The HELPERS program provides instruction to all local agencies on traffic safety best practices, provides advice regarding HSIP project eligibility requirements and maintains qualified listing of individuals trained to conduct Road Safety Audits. The HELPERS Program also provides crash data analysis support and advises rural roadway agencies with the goal of reducing the risk of fatal and serious injury crashes on local public roadways.</p>	Program*	Clark, Floyd	INDOT	\$1,154,604	2020	MEDIUM
<p>The Heavy Haul Road provides direct access to IN 265 from both the Port of Indiana and River Ridge and also direct access between the Port of Indiana and River Ridge which will alleviate the mixing of truck and passenger vehicles on IN 62 and Port Road by reducing the amount of trucks in the future. The future railroad will provide a direct connection between the Port of Indiana and River Ridge and also give better connectivity to two Class I railroads.</p>	Roadway	Clark	INDOT	\$27,397,141	2022	FURTHER REVIEW
<p>Hubbards Lane is a heavily traveled collector which passes through residential development between US 60 and US 42.</p>	Roadway	Jefferson	Louisville Metro	\$4,403,200	2022	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
I- 64	351	00064.00	KYTC Highway Plan (June, 2018): Address deficiencies on I-64 Sherman Minton Bridge over the Ohio River. (Joint project with Indiana(056B00279N)(BSBP). CHAF ID: 20190123. From MP 0 to MP 0.316.
I- 64	389	00553.00	6YP DESC: Improvements within the I-64 corridor from the Kennedy Interchange to I-264 (Watterson Expressway) addressing safety and congestion issues. The improvements may include but are not limited to: consideration of alternative transportation modes, deployment. CHAF DESC: Improve safety and reduce congestion within the I-64 corridor from the Kennedy interchange to I-264 (Watterson Expressway). CHAF ID # - IP20080187. Additional Considerations: No widening of I-64 is included in the model at this time. No changes to the model network at all are assumed. At one time, widening was assumed in the model from the Kennedy Interchange to I-264 with the exception of the Grinstead to Cannons portion that contains the tunnel. This was changed with the recent model update in 2018 when KYTC added to the description that this project is a study only.
I- 64	390	80000.00	New interchange and connector road from KY 148 to US 60 (Shelbyville Road) with interchange on the I-64 corridor. Corridor would be in the vicinity of Gilliland Road.
I- 64	2279	1592187	Bridge painting of the Sherman Minton Bridge over the Ohio River.
I- 64 Bridge Painting	2596	10016.00	KYTC Highway Plan (June, 2018): Bridge painting of I-64 Riverside Expressway bridges. (056B00298N, 056B00299N, 056B00300N, 056B00301N, 056B00302N, 056B00285N, 056B00292N, 056B00293N, 056B00142N). CHAF: TBD."
I- 65	224	00378.10	Extend and reconstruct I-65 southbound ramp to Brook Street and Floyd Street. The project will include the consideration of bicycle and pedestrian facilities.
I- 65	491	00550.00	6YP DESC: Widen I-65 from 6 to 8 lanes from KY 61 (Preston Highway) in Lebanon Junction to I-265 (Gene Snyder Freeway). CHAF DESC: Reduce congestion and improve mobility on I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County. CHAF ID: IP20170064.
I- 65	2121	00559.00/ 00559.01	6YP DESC: Improve safety and reduce congestion at the I-65/I-264 (Watterson Expressway) interchange. Project length is 2.29 miles. CHAF ID - IP20160017. Additional Considerations: Model does not include any changes to this interchange and the configuration is assumed to be the same as the one we drive on today. KIPDA asked KYTC for clarity on this project's description and was notified that they cannot provide any suggested changes to the number of lanes or to the configuration until a planning study is complete (email from Tom Hall to Andy Rush on 7/31/18).

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Maintain travel time reliability of the interstate network. This project will also provide infrastructure preservation and maintain the existing transportation network in a state of good repair.	Interstate/ Interchange	Jefferson	KYTC	\$17,000,000	2026	FURTHER REVIEW
CHAF Purpose: Improve safety and reduce congestion within the I-64 corridor from the Kennedy interchange to I-264 (Watterson Expressway). CHAF Need: This project is needed because the capacity of I-64 between the Kennedy interchange and I-264 (Watterson Expressway) is inadequate to meet current and future traffic volumes, resulting in congestion and reduced mobility. This section of I-64 also has spots of higher crashes and is an important freight corridor. Improvements may include but are not limited to: consideration of alternative transportation modes, deployment of ITS technology, addition of auxiliary and/or travel lanes, interchange modifications, and installation of traffic safety devices, signs and lighting. None of the potential improvements will involve expansion of the Cochran Hill Tunnel.	Interstate/ Interchange	Jefferson	KYTC	\$30,482,000	2024	MEDIUM
CHAF Purpose: Eastwood Fisherville Connector to I-64 (18CCN) Reduce congestion and improve connectivity to I-64 in eastern Jefferson County between I-265 (Gene Snyder Freeway) in Jefferson County to KY 1848 (Buck Creek Road) in Shelby County. CHAF NEED: This project is needed because in light of existing and anticipated growth, local and regional access via the interstate system and local roadway network is needed due to their being a distance of 9 miles between access to I-64 from I-265 (Gene Snyder Freeway) in Jefferson County to KY 1848 (Buck Creek Road) in Shelby County. Limited access to I-64 has contributed to ever increasing traffic volumes on US 60 and KY 155/KY 148.	Interstate/ Interchange	Jefferson, Shelby	KYTC	\$74,240,000	2029	LOW
Bridge painting of the Sherman Minton Bridge over the Ohio River to maintain the integrity of the bridge.	Interstate/ Interchange	Floyd	INDOT	\$23,500,000	2021	FURTHER REVIEW
Maintain the existing transportation network in a state of good repair.	Interstate/ Interchange	Jefferson	KYTC	\$30,000,000	2022	FURTHER REVIEW
Improve interstate egress and movement at Jefferson Street increasing access to the Medical Center.	Interstate/ Interchange	Jefferson	Louisville Metro	\$12,425,000	2028	LOW
The purpose of this project is to reduce congestion and improve mobility on I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County. This project is needed because the capacity of of I-65 from KY 61 (Preston Highway) in Lebanon Junction (Bullitt County) to I-265 (Gene Snyder Freeway) in Jefferson County is inadequate to meet current and future traffic volumes, resulting in congestion and reduced mobility on this stretch of I-65. This stretch of I-65 is also an important freight corridor and has a high percentage of truck volume.	Interstate/ Interchange	Bullitt, Jefferson	KYTC	\$305,700,000	2030	LOW
CHAF Purpose: Improve safety and reduce congestion at the I-65/I-264 (Watterson Expressway) interchange. CHAF Need: The I-65/I-264 interchange was ranked as the number one highest crash interchange in the KIPDA MPA area for Kentucky (Bullitt, Jefferson, and Oldham Counties). This analysis was based upon crash data for the years of 2009-2011. In that time period there were 1,056 crashes within the interchange (meaning the area between the exit and entrance ramps in all directions) which included six fatalities and forty injuries. The average daily traffic entering this interchange is 337,350 with a crash rate of 2.859 (the ratio of the number of crashes to the number of vehicles entering an interchange) and severity index of 1.138. The movements that appear to have the most issues at this interchange are I-264 westbound to I-65, I-65 northbound to I-264 eastbound, and I-65 southbound to I-264 eastbound.	Interstate/ Interchange	Jefferson	KYTC	\$145,593,000	2029	LOW

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PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
I- 65	2333	00538.00	KYTC Highway Plan (June, 2018): Construct new I-65 interchange between KY 480 and KY 245. Project length is 1.5 miles. CHAF ID: IP20160210. Additional Considerations: Project includes construction of a 3 lane connector road from KY 61 east to Alpha Way.
I- 65	2601	00560.00	Improve safety and reduce congestion at the I-65/I-265 (Gene Snyder Freeway) interchange. CHAF IP20160019.
I- 65 / KY 1526	2785		Improve safety and reduce congestion at the I-65/KY 1526 (Brooks Hill Road - John Harper Highway) interchange including improvements to KY 1526 from KY 1020 (Coral Ridge Road) to KY 1450 (Blue Lick Road). I-65 MP 121.20 to MP 122.00. Design may consider addition of dedicated turn lanes along length of KY 1526 where appropriate and adding turn lane capacity to interstate ramps. CHAF IP20190078.
I- 65 / KY 61	392		Construct new interchange at I-65 and KY 61 (Preston Highway).
I- 65 Barrier Wall MP 116 to MP 118	2765		Sound barrier wall on I-65 from MP 116 to MP 118 post northbound side.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>CHAF Purpose: Improve access and mobility between I-65 and the rapidly growing commercial development to the south of KY 480 (Cedar Grove Road).</p> <p>CHAF Need: This project is needed because the I-65/KY 480 interchange is projected to operate at LOS F in the PM peak period for both southbound and northbound ramp intersections and in the AM the southbound ramp intersection is projected to operate at LOS D while t</p>	Interstate/ Interchange	Bullitt	KYTC	\$40,500,000	2020	LOW
<p>The Purpose of the I-65/I-265 interchange project is to reduce congestion and improve safety. The 2015 I-265 Programming Study has projected the I-265 westbound to I-65 northbound diverge as operating at a level of service (LOS) of F in both the AM and PM peaks in the year 2020. The study also identifies the I-65 to I-265 eastbound merge as operating at a LOS of D in the AM and F in the PM peaks in the year 2020. The I-65/I-265 interchange was ranked as the 5th highest crash interchange in the KIPDA MPO area for Kentucky (Bullitt, Jefferson, and Oldham Counties). This analysis was based upon crash data for the years of 2009-2011. In that time period there were 347 total crashes within the interchange (meaning the area between the exit and entrance ramps in all directions) which included two fatalities and 5 injuries. The average daily traffic entering this interchange is 181,545 with a crash rate of 1.746 (the ratio of the number of crashes to the number of vehicles entering an interchange) and severity index of 1.071.</p>	Interstate/ Interchange	Jefferson	KYTC	\$100,400,000	2028	LOW
<p>Improve safety and reduce congestion at the I-65/ KY 1526 (Brooks Hill Road - John Harper Highway) interchange including improvements to KY 1526 from KY 1020 (Coral Ridge Road) to KY 1450 (Blue Lick Road). I-65 MP 121.20 to MP 122.00. Multiple concerns from First responders as they head into traffic on the John Harper Highway along with congestion on Blue Lick Road due to accelerated growth of both Industrial and Commercial on Blue Lick. The west side of Exit 121 is now an Opportunity Zone and development will accelerate and will add to the strained traffic patterns caused by the growing employment of the industrial and commercial growth.</p>	Interstate/ Interchange	Bullitt	KYTC	\$6,600,000	2026	LOW
<p>Provide access to I-65 for developing area of Bullitt County. Alleviate congestion of existing I-65/KY 44 interchange in Shepherdsville.</p>	Interstate/ Interchange	Bullitt	KYTC	\$50,000,000	2039	LOW
<p>To provide relief of interstate noise to residents that bound the northbound lanes of I-65 from MP 116 to MP 118.</p>	Interstate/ Interchange	Bullitt	Bullitt Co.	\$4,800,000	2026	FURTHER REVIEW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
I- 65 Road Reconstruction	2616	1700135	<p>Upgraded to added travel lanes I-65 from RP 19+0.995 to RP 28+0.883 is a composite pavement section, and is exhibiting severe stripping in the HMA layers beneath the surface. During the last construction contract (RS-37549), the centerline and edgelines were patched to the top of concrete to mitigate severe joint deterioration. Unfortunately, these partial depth patches effectively created a dam in the stripped layers, forcing water to come up through the new surface under traffic loading. 71 wet spots have been inventoried and are creating a safety hazard, especially during the winter months, when the water turns to ice. Additionally, questionable subgrade conditions were discovered under the last contract on the southern portion of the job from 16+0.417 to RP 19+0.995 (R-33813) demonstrating yet another water issue. Given these observations, it is likely that the existing underdrains are not performing as intended. 3 pavement drains were installed as experimental features on October 26, 2017 in the driving lane between Scottsburg and Henryville. These consisted of 2.5" wide trenches that were milled to the top of the underlying concrete (approx. 8" depth) and backfilled with permeable concrete. 1" PVC drains were also installed at the HMA/concrete interface to facilitate drainage. During the installation of the drains, stripped aggregate was observed beneath the surface and water flowed out of the HMA layers at a fairly substantial rate. These drains were considered a success, at least temporarily, since the water that was permeating to the surface was eliminated. Thus, the safety was improved especially during the winter months when freezing occurs. However, during this field work, the concerns of stripping were validated leaving the element of time as the unknown variable before substantial pavement distress occurs. Traffic will be maintained utilizing a 3/1 configuration to maintain 2 lanes in each direction throughout construction, with all ramps remaining open. Restricting the length allowed between crossovers is being considered. Project length is 7.25 miles in Clark County.</p>
I- 65/KY 480 Interchange	2193	00391.30	<p>6YP Desc: Improve operational performance of the I-65/KY 480 interchange including ramp improvements and turning lanes. (12CCR)(14CCR)(2014BOP) (16CCR) From MP 0.80 to MP 1.30. CHAF ID: IP20160218</p>
I- 71	1478	00048.10/ 00048.11	<p>6YP DESC: Addition of NB and SB auxiliary lanes on I-71 near Kennedy, including operations improvements to the Zorn interchange (2004BOPC). CHAF DESC: Improve safety and reduce congestion on I-71 from I-64 near the Kennedy interchange to Zorn Avenue. CHAF ID: IP20150266.</p>

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The purpose of this project is to address the safety concern of the wet spots, remove the stripped HMA pavement, replace the existing underdrain system, and improve the subgrade beneath the pavement and construct added travel lanes in this portion of I-65.	Roadway	Clark	INDOT	\$155,923,188	2024	LOW
CHAF Purpose: The purpose of this project is to reduce future traffic congestion at the I-65/KY 480 (Cedar Grove Road) interchange to acceptable levels of service (i.e., A, B, C, or D) and to improve access to existing and committed businesses in the Cedar Grove Business Park and surrounding area. CHAF Need: The I-65/KY 480 southbound ramps' signalized intersection west of I-65 operates at LOS C during the AM peak travel period and LOS D during the peak PM travel period. In the 2040 design year, it is projected to operate at LOS D during the AM peak and LOS F during the PM peak, assuming that no improvements are made to the interchange. For the I-65/KY 480 northbound ramps' signalized intersection east of I-65, the 2015 AM and PM LOS of B will decline in operational performance to LOS E for the AM peak and LOS F for the PM peak in the 2040 design year.	Interstate/ Interchange	Bullitt	KYTC	\$12,160,000	2026	LOW
CHAF Purpose: Addition of NB and SB auxiliary lanes on I-71 near Kennedy, including operations improvements to the Zorn interchange (2004BOPC). Improve safety and reduce congestion on I-71 from I-64 near the Kennedy interchange to Zorn Avenue. CHAF Need: This project is needed because of a higher than average crash rate, inadequate current and future capacity, and roadway deficiencies on I-71 from I-64 near the Kennedy interchange to Zorn Avenue. The critical crash rate factor (CCRF) in this 2 mile section is 2.791 as analyzed in the I-71 Study. The percentage truck traffic is 7% with multiple major traffic and freight generators as noted in the I-71 Study. The 2038 anticipated truck percent growth rate is 2.8%. This section of I-71 has a LOS F and volume to capacity ratio of 1.02. Shoulder width deficiencies and functionally obsolete culverts also exist within these milepoints.	Roadway	Jefferson	KYTC	\$37,970,000	2024	LOW

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PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
I- 71	1480	00048.30	Improve safety and reduce congestion of the I-265 northbound to I-71 southbound movement at the I-71/I-265 (Gene Snyder Freeway) interchange.
I- 71	2024		Improve safety and reduce congestion at the I-71/KY 53 (North/South First Avenue) interchange. Includes consideration of an additional two-way left turn lane and bike/ped accommodations.
I- 71	2152	00483.00/ 00483.01/ 00483.02	6YP DESC: Six lane priority section of I-71 between I-265 and KY 329 (16CCR). Project length is 2.785 miles. CHAF ID: IP20150450 Additional Considerations: Widen priority section of I-71 between I-265 and and KY 329 from 4 to 6 lanes.
I- 71	2382	00539.00	6YP DESC: Provide collector-distributor lane on southbound I-71 to facilitate ramp movements to and from I-265. Project length is 1.6 miles. CHAF DESC: Provide collector-distributor lane on southbound I-71 to facilitate ramp movements to and from I-265. CHAF ID: IP20160234 From: MP 8.60 To: MP 9.50.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Mobility within designated freight corridors. I-71 interchange at I-265 (MP 9.063 to MP 9.163) is located in north eastern Jefferson County. The land uses in this area are low to medium density residential. The adequacy rating data point to crash issues and congestion. At this time, this segment is experiencing a high level of congestion, especially at peak hours. This interchange is used to move people and goods in and out of east Jefferson County and Oldham County; I-71 is used by freight carriers moving goods along the corridor and accessing other interstate facilities in addition to commuters. The planned growth in this area and the Ohio River Bridges project in close proximity may place additional demand on this facility.</p>	Interstate/ Interchange	Jefferson	KYTC	\$63,201,000	2030	LOW
<p>The purpose of this project is to improve safety and reduce congestion at the I-71/KY 53 (North/South First Avenue) interchange. This project is needed because the current I-71/KY 53 (North/South First Avenue) interchange is inadequate to meet current and future capacity demands. This interchange operates at a low level of service and fails in the AM and PM peaks."</p>	Interstate/ Interchange	Oldham	KYTC	\$9,800,000	2028	MEDIUM
<p>CHAF Purpose: The Purpose of the I-71 widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. It will serve through traffic on I-71, as well as local users traveling to and from the Louisville Metro and Crestwood/Brownsboro areas. CHAF Need: The Needs being addressed by the proposed I-71 project are based on the following facts:</p> <ul style="list-style-type: none"> Increasing traffic volumes have resulted in traffic congestion and poor traffic flow characteristics. In 2009, the Average Daily Traffic was 56,600 vehicles per day (vpd). In 2015, the traffic volume has increased to 61,900 vpd. By 2040, those numbers are forecasted to increase to 80,000 vpd. Traffic projections illustrate continued growth in traffic volumes. This forecast takes into account the future opening of the East End Bridge from I-265/KY 841 in Kentucky north to I-265 in Indiana. I-71 has roadway deficiencies and poor traffic operational characteristics. The life span of the pavement surface and bridges warrant they be replaced within the foreseeable future, regardless of the transportation demands; the clear zones along with the inside shoulder width are less than desirable. Driver crash rates are notably high along this section of I-71. Between January 2012 and December 2015, there were 360 crashes, including 5 fatalities, along the project corridor. The northbound direction had 123 crashes and southbound direction had 237 crashes. Based on a quantitative analysis, the project had six 0.2 mile sections of roadway that had a statistically high crash rate (i.e., critical rate factor greater than 1.0). The six sections were all in the southbound direction and the critical rate factors ranging from 1.072 to 1.5.. 	Interstate/ Interchange	Jefferson, Oldham	KYTC	\$66,465,000	2023	MEDIUM
<p>CHAF Purpose: The purpose of the proposed project is to facilitate traffic flow on I-71 and improve ramp movement efficiency to and from I-265. CHAF Need: I-71, I-265, and the interchange between these facilities carry high traffic volumes, particularly during peak travel periods. Capacity analysis using the HCS7 Freeways module indicates the weaving segment (between the I-71 southbound loop ramps) is over capacity based on 2015 AM peak hour forecast volumes; it operates at LOS F. The lower volumes heading into town during the 2015 PM peak lead to LOS D operations, speeds drop 20+ mph versus the mainline through vehicles in the adjacent lane. According to Kentucky State Police crash data for 2015-2017, 234 crashes were reported along I-71 mainline between MP 8.4 and 9.8. Of these, 145 (over 60%) were southbound. There were no fatalities and 28 injury collisions, divided evenly between directions. Looking at only southbound crashes, five 0.1 mile long high crash ""spots"" occur along the corridor.</p>	Interstate/ Interchange	Jefferson	KYTC	\$6,000,000	2020	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
I- 71	2602	00556.00	6YP Desc: Improve safety and reduce congestion on I-71 from Zorn Avenue to I-264. I-71 from MP 2.00 TO MP 5.00. CHAF ID: IP20150031. Additional Considerations: Project will evaluate widening to the inside from 4 to 6 lanes."
I- 71	2603	00483.30/ 00483.31	KYTC Highway Plan (June, 2018): Construct new I-71 interchange between KY 393 and KY 53 to relieve congestions in LaGrange. Project length is 1.0 miles. CHAF ID: 20190047.
I- 71	2604	00483.10	6YP DESC: Widen I-71 from four to six lanes from KY 329 (MP 14.1) to KY 393 (MP 18.0). (16CCN). Project length is 3.9 miles. CHAF ID: IP20160192.
I- 71	2611	00557.00	Improve safety and reduce congestion on I-71 from Zorn Avenue to I-265. I-71 from MP 2.00 to MP 9.00. CHAF ID: IP20150032. Project will evaluate widening to the inside from 4 to 6 lanes.
I- 71	2612	80005.00	KYTC Highway Plan (June, 2018): Improve the interchange of I 71 and KY 329. CHAF ID: IP20080244. Additional Consideration: Project will evaluate: signaling SB I-71 on and off ramps; adding left turn lane on KY 329 for left turns onto SB I-71 ramp; multi-use path along KY 329; and various sight distance improvements.
I- 71	2788		KYTC Highway Plan (June, 2018): Widen I-71 from four to six lanes from KY 393 (MP 18.0) to KY 53 (MP 22.4). (16CCN) CHAF ID: IP20160193.
I- 71 / I-264	2784		Improve safety and reduce congestion at the I-71/I-264 (Watterson Expressway) interchange. CHAF IP20170047.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>CHAF Purpose: Improve safety and reduce congestion on I-71 from Zorn Ave to I-264 (Watterson Expressway).</p> <p>CHAF Need: This project is needed because of a higher than average injury crash rate, inadequate current and future capacity, and roadway deficiencies on I-71 from Zorn Avenue to I-264 (Watterson Expressway). The percent of injury crashes cited in the March 2014 I-71 Study along this section of I-71 is 20.3% which exceeds the Interstate average referenced in the study of 17.4%. The percentage truck traffic is 7% with traffic and freight generators close to the 2.0 milepoint. The 2038 anticipated truck growth rate is 1.7%. This section of I-71 has a LOS F and a volume to capacity ratio of 1.27. Deficiencies include shoulder widths.</p>	Interstate/ Interchange	Jefferson	KYTC	\$39,238,000	2030	LOW
<p>The purpose of the project is to provide connectivity to the surrounding development/community that is already experiencing growth today.</p>	Interstate/ Interchange	Oldham	KYTC	\$18,400,000	2026	LOW
<p>CHAF Purpose: The Purpose of the I-71 widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. It will serve through traffic on I-71, as well as local users traveling to and from the Louisville Metro and Crestwood/Buckner areas.</p> <p>CHAF Need: The Needs being addressed by the proposed I-71 project are based on the following facts:</p> <ul style="list-style-type: none"> Increasing traffic volumes have resulted in traffic congestion and poor traffic flow characteristics. In 2009, the Average Daily Traffic was near 56,600 vehicles per day (vpd). In 2015, the traffic volume has increased to approx. 61,900 vpd. By 2040, those numbers are forecasted to increase to around 80,000 vpd. Traffic projections illustrate continued growth in traffic volumes. This forecast takes into account the recent opening of the East End Bridge from I-265/KY 841 in Kentucky north to I-265 in Indiana. I-71 has roadway deficiencies and poor traffic operational characteristics. The life span of the pavement surface and bridges warrant they be replaced within the foreseeable future, regardless of the transportation demands; the clear zones along with the inside shoulder width are less than desirable. Driver crash rates are notably high along this section of I-71. 	Roadway	Oldham	KYTC	\$4,258,000	2025	LOW
<p>Increase safety for all users. Manage and reduce roadway congestion where appropriate. Ensure timely and efficient movement of freight within, departing, and entering the region.</p>	Interstate/ Interchange	Jefferson	KYTC	\$220,734,000	2030	MEDIUM
<p>CHAF Purpose: Improve safety and reduce congestion at the I-71/KY 329 interchange.</p> <p>CHAF Need: This project is needed because of a high amount of crashes and limited sight distance that exists at the I-71 ramps at KY 329. Additionally, the capacity of KY 329 is inadequate to handle current traffic volumes during peak hours.</p>	Interstate/ Interchange	Jefferson	KYTC	\$4,240,000	2025	LOW
<p>CHAF Purpose: The Purpose of the I-71 widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. It will serve through</p> <p>CHAF Need: The Needs being addressed by the proposed I-71 project are based on the following facts: Increasing traffic volumes have resulted in traffic congestion and poor traffic flow characteristics. In 2009, the Average Daily Traffic was approximately 56,600.</p>	Interstate/ Interchange	Oldham	KYTC	\$71,300,000	2030	FURTHER REVIEW
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Mobility within designated freight corridors. The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.</p>	Interstate/ Interchange	Jefferson	KYTC	\$69,250,000	2034	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
I- 71 Northbound Exit Ramp Improvements to KY 53	2670	00567.00	Safety improvement and congestion mitigation improvements at the I-71 northbound exit ramp at KY 53 in Oldham County. (2018BOP). Project may include the following scope: widen the exit ramp from 1 to 2 lanes; add a right turn lane and a left turn lane to create dual right and dual left turn movements; install a new traffic signal for the intersection improvements; and add lane striping and way finding signs for lane assignment to guide drivers to the correct lane for turning or thru traffic movements at the intersection.
I-264	2025		Reduce congestion and improve safety along I-264 from I-64 to the KY 3082 (Bank Street) interchange. Project design will evaluate the addition of one travel lane in each direction. CHAF IP20130130.
I-264 / I- 64	397	00159.00	KYTC Highway Plan (June, 2018): Improve ramp capacity of the I-64 westbound ramp to I-264 westbound from one to two lanes for entire length and other needed improvements to address weave issues at merge on I-264. (2006BOPP)(12CCR). CHAF: Widen I-64 westbound ramp to I-264 westbound from one to two lanes for entire length and other needed improvements to address weave issues at merge on I-264. (2006BOPP)(12CCR). CHAF ID: IP20150209.
I-264/US 42	1922	00804.00	KYTC Highway Plan (June, 2018): Reconstruct/widen I-264 (Watterson Expressway) from Westport Road (KY 447) to I-71, including the US 42 interchange as a SPU. (Project includes 5-594) (12CCR)(14CCR). Project length is 1.7 miles. CHAF ID: IP20160046. Additional Considerations: Widen all ramps to two lanes.
I-265	179	00549.00/ 00549.01	KYTC Highway Plan (June, 2018): Reconstruction of the I-265/I-64 Interchange. (2016BOP) CHAF ID: IP20110064 Additional Considerations: Reconstruction of the I-265/I-64 interchange Project will evaluate a Spill Thru Flyover Interchange configuration as a potential solution to eliminate all four weaving segments of the existing interchange. I-265 From: MP 24.600 To: MP 26.400/I-264 From: MP:17.700 To: 19.600.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Reduce congestion and improve safety on the northbound exit ramp from I-71 to KY 53, and at the exit ramp and KY 53 intersection.	Interstate/ Interchange	Oldham	KYTC	\$2,009,000	2020	LOW
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Mobility within designated freight corridors. The Purpose of the I-264 and I-64 interchange widening and reconstruction is to address the capacity deficiencies and operational issues that currently characterize the existing corridor and provide increased efficiency and safety for the traveling public. It will serve through traffic on I-264 and I-64, as well as local users traveling to and from the Downtown Louisville Areas.	Interstate/ Interchange	Jefferson	KYTC	\$9,250,000	2040	FURTHER REVIEW
"The purpose of the project is to improve traffic operations, reduce congestion, and improve safety on I-64 Westbound and I-264 Westbound and on the I-64 Westbound to I-264 Westbound ramp in the vicinity of the I-64 / I-264 interchange. Heavy daily traffic volumes commonly result in traffic delays and traffic queues on I-64 Westbound and poor weaving conditions for motorists between the convergence of the I-64 Westbound ramp and I-264 Westbound and the I-264 / Breckenridge Lane interchange. Crash data was obtained for this study from the Kentucky State Police Collision Analysis database for a three year period from January 1, 2012, through December 31, 2014. The evaluation considered the primary corridor segments as noted below: <ul style="list-style-type: none"> • I-64 Westbound from I-264 to Hurstbourne Parkway (KY 1747) (439 crashes in the westbound direction), • I-264 Westbound from Breckenridge Lane (KY 1932) to I-64 (95 crashes in the westbound direction), • Breckenridge Lane (KY 1932) from Taylorsville Road (KY 155) to Dutchmans Lane (233 crashes in both directions), and, • I-64 Westbound to I-264 Westbound ramp (52 crashes). The crash rate along the existing corridor routes was computed using the methodology provided in the crash analysis report periodically published by the Kentucky Transportation Center (KTC).	Interstate/ Interchange	Jefferson	KYTC	\$24,550,000	2020	LOW
CHAF Purpose: The purpose of the project is to improve system operation by reducing delays and congestion along Interstate 264 (Watterson Expressway) and the interchange at US 42. By reducing congestion and delay within the project limits the safety on US 42 and I-264 CHAF Need: The existing I-264/US 42 interchange does not have adequate capacity or storage to accommodate the left turn and through traffic volumes during the AM and PM peak hours. Commuters are experiencing long delays. These long delays are causing long queue le	Interstate/ Interchange	Jefferson	KYTC	\$45,360,000	2025	MEDIUM
CHAF Purpose: The purpose of the Gene Snyder Interchange Project is to enhance the operation and improve the safety of the I-265/I-64 Interchange. CHAF Need: The present operation and safety of the I-265/I-64 interchange is considered deficient based on a poorly linked, congested, and functionally obsolete transportation network. With a current Average Daily Traffic (ADT) count of 76,700, the current Level of	Interstate/ Interchange	Jefferson	KYTC	\$38,397,500	2023	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
I-265	958	00537.00/ 00537.01/ 00537.02	Six lane priority section of I-265 between Taylorsville Road and I-71. Approximately 11.3 miles, from MP 23.409 to MP 34.727. Project design will evaluate widening from 4 to 6 lanes as a potential solution to the congestion.
I-265	959	00558.00	KYTC Highway Plan (June, 2018): Improve safety and reduce congestion on I-265 from US 31E (Bardstown Road) to KY 155 (Taylorsville Road). CHAF ID: IP20150080. Additional Considerations: Project will evaluate widening to the inside from 4 to 6 lanes.
I-265	407	00554.00	KYTC Highway Plan (June, 2018): Improve safety and reduce congestion on I-265 from I-65 to US 31E. CHAF ID: IP20080191. Additional Considerations: Project will evaluate widening to the inside from 4 to 6 lanes.
I-265 Rehl Road	1514		Construct a new interchange on I-265 at Rehl Road.
I-265/US 60	2742		Snyder Freeway: Reconstruct I-265/US-60 interchange as a single point urban interchange and construct needed improvements to connect with the I-265/I-64 interchange. (2006BOPC). CHAF IP20150185.
I-64 Sherman Minton Corridor Maintenance	2533	1702255	Maintenance of the I-64 Sherman Minton Bridge and three Indiana approach bridges and one Kentucky approach bridge.
Intelligent Transportation Systems - Priority Corridors	2748		Upgrade the traffic system along priority corridors identified as Premium Transit Corridors in the Move Louisville planning study to provide a smart traffic management system. Corridors are: Dixie from Broadway to Upper Hunters Trace, Broadway/Bardstown from 29th Street to Hikes Lane, Preston from Main to I-265, and US 60 from Main Street to Lyndon Lane.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
CHAF Purpose: The purpose of the proposed project is to decrease existing congestion on the mainline of I-265 Gene Snyder Freeway between KY 155 Taylorsville Road and I-71. CHAF Need: Carrying 65,000 to 88,000 vehicles per day today, the existing I-165 corridor does not provide adequate capacity to serve current peak period traffic volumes. It exhibits poor Level of Service (LOS), inflated travel times, and ramp queue lengths that bac	Interstate/ Interchange	Jefferson	KYTC	\$95,920,000	2023	MEDIUM
CHAF Purpose: Improve safety and reduce congestion on I-265 (Gene Snyder Freeway) from US 31E (Bardstown Rd) to KY 155 (Taylorsville Road). CHAF Need: This project is needed because of deficient ramps and inadequate capacity on I-265 (Gene Snyder Freeway) from US 31E (Bardstown Road) to KY 155 (Taylorsville Road). The I-265 Study completed in January of 2015 cites an existing LOS D along this section i	Interstate/ Interchange	Jefferson	KYTC	\$7,500,000	2029	LOW
CHAF Purpose: Improve safety and reduce congestion on I-265 (Gene Snyder Freeway) from I-65 to US 31E (Bardstown Road). CHAF Need: This project is needed because of deficient ramps, inadequate capacity, and higher than average crash rates on I-265 (Gene Snyder Freeway) from I-65 to US 31E (Bardstown Road). As cited in the I-265 Study of January 2015 the projected 2020 LOS along this section of I-265 is D with 2 smaller sections having LOS E and F in the PM peak, and the 2020 average PM peak v/c ratio is 0.84. The 2014 rear end crash rate from I-65 to KY 61 exceeds the average rate for the road type according to the most recent I-265 Study. 2014 ramp deficiencies include the merge lengths from Smyrna Pkwy to I-265 WB and EB. Two bridges in this section are identified as functionally obsolete. The surrounding land uses are residential, commercial, and industrial. Commuters use this segment to bypass I-65 as well as gain access to I-65. Adequacy rating data point to high levels of congestion and rough pavement conditions in some areas. There is additional growth occurring now and planned for the future in this area in Jefferson County which will only worsen congestion.	Interstate/ Interchange	Jefferson	KYTC	\$76,350,000	2028	MEDIUM
Project will improve access to the rapidly developing area between I-64 and Billtown Road. The interchange will provide interstate access and relieve demand at the Taylorsville Road/I-265 interchange.	Interstate/ Interchange	Jefferson	Louisville Metro	\$50,000,000	2040	LOW
The purpose of this project is to improve traffic operations and safety in the I-265 (Gene Snyder Freeway)/US 60 (Shelbyville Road) interchange area. This project is needed because the capacity of the I-265 (Gene Snyder Freeway)/US 60 (Shelbyville Road) interchange is insufficient to meet current and future traffic demands, which results in congestion and potential safety concerns at this interchange.	Interstate/ Interchange	Jefferson	KYTC	\$64,410,000	2023	MEDIUM
Rehabilitate the bridge decks, perform minor structural repairs on the five bridges in the I-64 Sherman Minton Corridor. These maintenance efforts are required to sustain the bridges through their 100 year design life.	Interstate/ Interchange	Floyd	INDOT	\$48,675,000	2022	FURTHER REVIEW
A smart traffic management system along these five (5) corridors will allow for: 1. A reduction in traffic congestion by smoothing traffic flows and prioritizing traffic in response to demand in real time; 2. A reduction of pollution throughout the region by reducing inefficient and polluting stop-start driving; and 3. Prioritization for buses approaching intersections, phasing lights to give traffic flowing with buses a 'green wave' along the corridors.	Roadway	Jefferson	Louisville Metro	\$30,000,000	2035	MEDIUM

APPENDICES

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Jeff Boat Rail Spur Multi-Use Trail	2755		Following the closure and clean-up of the Jeff Boat Facility, this project will convert the defunct railroad spur into a 1.7 mile, paved, multi-modal trail that will connect Highland Park to the Ohio River.
Jeffersontown to Parklands Multi-use Bicycle/Pedestrian Trail	2786		Construct a 10-foot wide multi-use bicycle/pedestrian trail along Taylorsville Road from Chenoweth Run Road to South Pope Lick Road/Parklands.
Jeffersonville 9th Street/ Clarksville Montgomery Avenue Multimodal Connection	2541	0801597	Design and construction of multimodal connection between Jeffersonville and Clarksville's Arts Districts, underneath I-65 along Montgomery Avenue and 9th Street. The design will include new sidewalks, bicycle paths, lighting, and other aesthetic amenities. Project length is 0.64 miles.
Joseph Drive Extension	2732		Extend Joseph Lane to Hamburg Way and Hwy 60. 14' Lanes for nearby fire truck accessibility, curb and gutter, two 5' sidewalks, 4' vegetative buffer.
Kentuckiana Air Education	369		Information/outreach campaign to educate public about air quality issues and encourage the public to make air-friendly choices.
Kentuckiana Air Education	370	1600642	Kentuckiana Air Education (KAIRE): Air pollution prevention and awareness program.
Kenwood Road	2615		Construct a new urban roadway section to connect KY 146 and KY 393 Bypass in Crestwood. The proposed facility will be three-lanes with a continuous, center left-turn lane, curb, gutter, a sidewalk, and a potential traffic signal. Lane width will be 11 feet with a proposed posted speed of 25 MPH.
KIPDA Regional Rideshare Program - Indiana	56	1401656	The KIPDA Regional Rideshare program provides ride-matching services, employer-based and regional ridesharing, vanpool subscription services, promotional activities to support ride-sharing, which includes carpooling, vanpooling, and bikepooling. This also includes program evaluation and administration.
KIPDA Regional Rideshare Program - Kentucky	162	00384.00	The KIPDA Regional Rideshare Program provides ride-matching services, employer-based and regional ridesharing, vanpool subscription services, promotional activities to support ride-sharing, which includes carpooling, vanpooling, taking transit, walking, telecommuting, and bikepooling. This also includes program evaluation and administration.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
This project will provide an off-street bicycle and pedestrian route that connects the existing neighborhood to community facilities along the existing rail spur (Highland Park, Park View Middle School, and the Woehrle Athletic Complex). The Trail culminates at the Ohio River and could one day be connected to the Ohio River Greenway with redevelopment of the Jeff Boat Site. The Project provides a healthy alternative to driving to these destinations and provides a desirable recreation amenity in the existing neighborhoods.	Bike & Pedestrian	Clark	Jeffersonville	\$4,500,000	2025	LOW
To provide alternatives to the automobile by increasing connectivity for pedestrians and bicyclist. Provide opportunities for future transit access and linkages between where people live and work. Taylorsville Road is coming a highly developed corridor and connecting the various residential neighborhoods to arterial streets and transit is desired.	Bike & Pedestrian	Jefferson	Jeffersontown	\$5,450,000	2025	LOW
The construction of I-65 has created a significant barrier to community connectivity between Jeffersonville and Clarksville in the Southern Indiana region. In an effort to recreate the connectivity once enjoyed by this area, both communities intend to partner in order to provide a safe, attractive bicycle and pedestrian connection for residents in each community. There are very few alternative transportation options available connecting these two communities, due to restrictions created by the interstate corridor. Citizens and visitors will have a safe route provided to them to cross between communities and Arts and Cultural Districts without using motorized transportation. In conjunction with other projects that Jeffersonville and Clarksville are undertaking, this improvement will provide an additional path to the Ohio River Greenway.	Bike & Pedestrian	Clark	Clarksville	\$2,964,000	2023	LOW
Adjacent neighborhood currently has only one entrance/exit, this is a fire/police/emergency hazard that needs to be remedied. This configuration will also give the Sellersburg Fire Department Station 5 easier west-bound access if and when needed. Additionally, if Hamburg Way is ever obstructed the firetrucks will have another outlet.	Roadway	Clark	Clarksville	\$4,000,000	2025	FURTHER REVIEW
Reduce ozone levels in Louisville ozone maintenance area. Raise public awareness of connections between transportation and air quality and influence positive behavior.	Program*	Bullitt, Jefferson, Oldham	APCD	\$5,492,000		LOW
KAIRE works to encourage voluntary air quality changes through community involvement. The goal is to decrease the area's levels of ground-level ozone and fine particulates.	Program*	Clark, Floyd	APCD	\$3,793,500		LOW
The purpose of this project is to improve access and mobility within the northern portion of Crestwood by improving connectivity between KY 329 B and KY 146. The development of a new roadway connector between these facilities will reduce congestion at the existing intersection between KY 329 B and KY 146 and increase travel alternatives for residents and truck traffic while also providing greater access to the South Oldham school campus.	Roadway	Oldham	Oldham Co.	\$3,279,688	2026	LOW
To reduce congestion, improve air quality, and promote sustainability.	Program*	Clark, Floyd	KIPDA	\$3,492,500		HIGH
To reduce congestion, improve air quality, and promote sustainability.	Program*	Bullitt, Jefferson, Oldham	KIPDA	\$51,043,475		HIGH

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 22	1488	00304.10	Reconstruct KY 22/KY 146 from Pryor Avenue to KY 329B - 3 lane section with center turn lane. From MP 3.250 to MP 3.929. CHAF ID IP20190082.
KY 22	1489	00304.20	Reconstruct KY 22 with consideration of a 3 lane section with center turn lane from KY 2858 (Abbott Lane) to Centerfield Drive. MP 5.32 to MP 7.50. IP20150249.
KY 22	412		Improve safety and reduce congestion on KY 22 from just east of Murphy Lane to Haunz Lane. Project design will evaluate 3-lane widening with two-way center turn lane and consider bicycle and pedestrian facilities. CHAF IP20110072.
KY 22	414		Improve safety and reduce congestion on KY 22 from Haunz Lane to KY 329. Includes consideration of a three lane widening and bike/ped accommodations.
KY 22	1445	00371.10	Reconstruct KY 22 at Springcrest Drive. (Emergency culvert replacement awarded under 00371.12) CHAF IP20160177.
KY 22	1446	00371.13	KYTC Highway Plan (June, 2018): Reconstruct KY 22 at Goose Creek Road (06CCN) (2004BOPC)(14CCR). CHAF ID: IP20150195. Additional Considerations: Center turn bays, but not a continuous 3rd lane have been assumed along KY 22 from US 42 to Hurstbourne. This reflects the series of intersection improvements, not just the one at Goose Creek Road.
KY 44	417	00150.00	CHAF: Section 1 -1 from I-65 to Chimney Rock Drive (06CNN). CHAF ID: IP20150318. Additional Considerations: Propose 2 added lanes per CHAF database.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Reconstruct KY 22/KY 146 from Pryor Avenue to KY 329B - 3 lane section with center turn lane. From MP 3.500 to MP 3.929. Improve capacity, provide an improved highway that meets current safety design standards, enhance network connections, implement a long term regional priority and serve recent and planned growth. Complete build out of parent project 5-304.00.	Roadway	Oldham	KYTC	\$16,500,000	2028	LOW
Reconstruct KY 22 with consideration of a 3 lane section with center turn lane from KY 2858 (Abbott Lane) to Centerfield Drive. MP 5.32 to MP 7.50 The following needs have been identified for this project: 1) Improve Capacity, 2) Provide an improved highway that meets current safety design standards, 3) Enhance network connections, 4) Implement a long-term regional priority, 5) Serve recent and planned growth.	Roadway	Oldham	KYTC	\$18,240,000	2026	LOW
The purpose of this project is to Improve safety and reduce congestion on KY 22 from Haunz Lane to KY 329. This project is needed because the crash rate is high (particularly at the end of the project near KY 329), multiple roadway deficiencies exist, and projected growth results in inadequate capacity on KY 22 from Haunz Lane to KY 329. Roadway deficiencies include horizontal curves and numerous vertical curves. Continued development in the area along this corridor will contribute to congestion issues in the future.	Roadway	Jefferson	KYTC	\$5,600,000	2026	MEDIUM
"The purpose of this project is to improve safety and reduce congestion on KY 22 from Haunz Lane to KY 329. This project is needed because the crash rate is high (particularly at the end of the project near KY 329), multiple roadway deficiencies exist, and projected growth results in inadequate capacity on KY 22 from Haunz Lane to KY 329. Roadway deficiencies include horizontal curves and numerous vertical curves. Continued development in the area along this corridor will contribute to congestion issues in the future."	Roadway	Oldham	KYTC	\$12,140,000	2028	LOW
The purpose of this project is to provide better turning movements and improve safety on KY 22 at the intersection with Springcrest Drive, thereby improving the existing corridor and supporting the overall quality of life of the roadway users. For the three-year period from 2001-2003, there were thirty crashes on the section of roadway between Greenlawn and Brownhurst Cove Road. The Springcrest intersection is within this section. The project is needed because twelve of these crashes were rear-end crashes which could be attributed to left turns. Since KY 22 is a two-lane roadway, traffic operations are adversely impacted whenever a vehicle attempts to make a left turn at any of the intersections along the corridor. Providing left turn lanes will help the traffic flow through this corridor. Another fourteen of the crashes were either angle, head-on, or sideswipe which could be a result of the roadway geometry.	Roadway	Jefferson	KYTC	\$1,740,000	2023	LOW
CHAF Purpose: Improve safety and traffic operations at the KY 22/Goose Creek Road intersection. CHAF Need: This project is needed because KY 22 near the Goose Creek Road intersection has a critical crash rate factor greater than that of similar roads in the state. There is also an inadequate capacity to handle turning movements at the intersection.	Roadway	Jefferson	KYTC	\$4,762,000	2021	LOW
CHAF Purpose: The purpose of this project is to reduce congestion, improve safety and provide for better emergency vehicle access. This project would provide improved connectivity between the cities of Mt. Washington and Shepherdsville. CHAF Need: From the approved design executive summary (DES) completed in 2012 for the 2030 No-Build Analysis this segment has a Critical Rate Factor (CRF) of 1.9, a volume to capacity ration (V/C) of 1.83 and level of service (LOS) of F. Pedestrian facilities currently terminate at Lees Valley Road.	Roadway	Bullitt	KYTC	\$43,568,000	2027	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 44	493	00347.50	CHAF: Mt. Washington-Taylorsville Road; Reconstruct KY 44 from Mt. Washington Bypass East 2.0 miles (04CCN). CHAF ID: IP20150255. Additional Considerations: Add center turn lane.
KY 44	494		Reconstruct KY 44 from US 31 W (Dixie Highway) to KY 61 (Preston Highway) in Shepherdsville. Project design will consider 3 lane section with two way left turn lane. CHAF IP20170066.
KY 44	497		Improve safety and reduce congestion on KY 44 between the I-65 interchange and the KY 61 intersection. Consider access management, pedestrian facilities and grade separated rail crossing. IP20130129.
KY 44	1925	00347.51	CHAF: New turn lanes in front of Bullitt East High School (Breakout from 347.50) (18CCN). CHAF ID: IP20150154.
KY 44	1926	00347.56	CHAF: KY 44 Section 2 from Parkland Trail/Winning Colors Drive eastward to Kings Church Road (KY 1319). (2008BOPC) CHAF ID: IP20150246. Additional Considerations: Add center turn lane.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>CHAF Purpose: The purpose of this project is to improve capacity, relieve congestion, and improve safety along KY 44 from US 31E/150 (Bardstown Road) to KY 1319 (Kings Church Road).</p> <p>CHAF Need: KY 44's intersection with US 31E has a current overall LOS of C and a projected 2033 overall LOS of F. Crash data reveals 252 crashes along the subject section of KY 44 over the last ten years, including 122 rear end collisions, 50 angle collisions and 42KY 44's intersection with US 31E has a current overall LOS of C and a projected 2033 overall LOS of F. Crash data reveals 252 crashes along the subject section of KY 44 over the last ten years, including 122 rear end collisions, 50 angle collisions and 42 single vehicle collisions. Of the 29 crashes at the intersection of KY 44 and US 31E (Bardstown Road), 21 were rear end collisions. The significance of crashes along this section is further enhanced by the narrow roadway providing poor access for emergency vehicles. The KY 44 vertical alignment provides inadequate sight distance at the east end of the project, particularly at the intersections with East Sanders Lane and Kings Church Road. Relieving congestion and delays for traffic destined for Bullitt East High School and Old Mill Elementary School, especially during the a.m. peak hours, is particularly needed.</p>	Roadway	Bullitt	KYTC	\$7,860,000	2032	LOW
<p>Reconstruct KY 44 from US 31 W (Dixie Highway) to KY 61 (Preston Highway) in Shepherdsville. Route is an unimproved two lane country road with deficient roadway geometrics not meeting current roadway design standards resulting in higher than average crash rates. Issues include insufficient lane and shoulder widths, deficient vertical and horizontal curves, faulty or insufficient drainage features, insufficient sight distance at intersections and/or curves.</p>	Roadway	Bullitt	KYTC	\$105,250,000	2030	MEDIUM
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.</p>	Roadway	Bullitt	KYTC	\$11,545,000	2027	MEDIUM
<p>CHAF Purpose: Improve safety and reduce congestion.</p> <p>CHAF Need: This project is needed because of existing delays especially during the AM peak periods near the KY 44/US 31E intersection and Bullitt East High School/Old Mill Elementary School and a high crash rate from US 31E (Bardstown Road) to Parkland Trace/Winning Colors Drive.</p>	Roadway	Bullitt	KYTC	\$1,720,000	2023	LOW
<p>CHAF Purpose: Improve capacity, relieve congestion, and improve safety along KY 44 from Parkland Trace/Winning Colors Drive to KY 1319 (Kings Church Road).</p> <p>CHAF Need: This project is needed because the vertical alignment provides inadequate sight distances, particularly at the intersections with East Sanders Lane and Kings Church Road on KY 44 from Parkland Trace/Winning Colors Drive to KY 1319 (Kings Church Road). Existing delays especially during the AM peak periods also occur due to traffic destined to Bullitt East High School/Old Mill Elementary School and Mount Washington.</p>	Roadway	Bullitt	KYTC	\$11,719,000	2028	FURTHER REVIEW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 44	2379	08956.00	CHAF: Provide a reliable connection and improve safety along KY 44 from MP 9.2 to MP 10.3, including raising the roadway, widening and replacing bridge 015B00020N. (16CCN). Project length is 1.1 miles. CHAF ID: IP20160220 Additional Considerations: Widening roadway from 2 to 3 lanes.
KY 44	2613	00150.50	Section 5 - From US 31EX to US 31E Bypass. (2008BOPC). Project length is 0.45 miles. CHAF ID: IP20150201.
KY 44 Bridge	2115		CHAF: Improve safety and address geometric deficiencies along KY 44 near Old Pitts Point Road (in and west of Shepherdsville).(ID#015B00020N). CHAF ID: IP20130146.
KY 53	418		Improve safety and reduce congestion on KY 53 from I-71 to Zhale Smith Road. Includes consideration of a five lane widening and bike/ped accommodations.
KY 53	2605	08852.00	KYTC Highway Plan (June, 2018): Design for improving KY 53 from Zhale Smith Road to KY 22 (Total 3.2 miles). (14CCN). Project length is 2.617 miles. CHAF ID: IP20150414. Additional Considerations: Project will evaluate 3 lane section from Zhale Smith Road to KY 22.
KY 53 from I-71 to Crystal Drive and I-71 SB Ramps	2464	00444.10	The I-71 Southbound off-ramp to be reconfigured to allow for two right turn only lanes and one left turn only lane. KY 53 to be reconfigured with the addition of a left turn lane at Crystal Drive. Striping and lane assignment signs will also be added to the I-71 ramp to direct drivers in to the correct turn lane.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>CHAF Purpose: Provide a reliable connection and improve safety along KY 44 from MP 9.2 to MP 10.3, including raising the roadway, widening and improving or replacing bridge 015B00020N. (16CCN)</p> <p>CHAF Need: KY 44 is a two lane minor arterial road that is prone to flooding between MP 9.20 and 10.30 in the vicinity of Bridge ID 015B00020N creating system reliability issues between Shepherdsville and Fort Knox. There are also deficient roadway geometrics not meeting current roadway design standards resulting in higher than average crash rates. Issues include insufficient lane and shoulder widths, deficient vertical and horizontal curves and roadway elevation too low in flood prone area.</p>	Roadway	Bullitt	KYTC	\$10,815,000	2024	FURTHER REVIEW
<p>The purpose of the KY 44 project is to reduce congestion, improve safety and provide for better emergency vehicle access. The 3/2012 DES (5-150.01 in Attachments) for the KY 44 corridor cited a CRF of 2.3 for this segment and projected a 2030 V/C of 1.73 and a LOS of F in the No-Build Alternative. This project would provide improved connectivity between the cities of Mt. Washington and Shepherdsville.</p>	Roadway	Bullitt	KYTC	\$5,000,000	2024	LOW
<p>CHAF Purpose: Improve safety and address geometric deficiencies along KY 44 near Old Pitts Point Road (in and west of Shepherdsville).</p> <p>CHAF Need: Rehabilitate bridge and approaches on ID#015B00020N on KY 44 over Bullitt Lick Creek in Bullitt County in order to maintain the bridge for safety. Bridge was originally constructed in 1938, and approaches, due to erosion from the creek, need to be reconstructed. KYTC D-5 Maintenance Division has performed regular and routine maintenance over the years on this bridge and approaches. Project intent is to raise elevation to make a reliable connection for freight.</p>	Roadway	Bullitt	KYTC	\$10,815,000	2024	FURTHER REVIEW
<p>The purpose of this project is to improve safety and reduce congestion on KY 53 from I-71 to Zhale Smith Road. This project is needed because there are a high amount of crashes and continued development in this area and south along KY 53 is anticipated, adding to future potential congestion issues on KY 53 from I-71 to Zhale Smith Road.</p>	Roadway	Oldham	KYTC	\$20,170,000	2026	MEDIUM
<p>CHAF Purpose: The purpose of this project is to improve safety and reduce congestion on KY 53 from Zhale Smith Road to KY 22.</p> <p>CHAF Need: This project is needed because continued development in this area and south along KY 53 from Zhale Smith Road to KY 22 will contribute to congestion issues in the future. This route is also highly traveled by local commuters to gain access to I-71 to the</p>	Roadway	Oldham	KYTC	\$39,400,000	2026	FURTHER REVIEW
<p>This intersection gets highly congested, backing up traffic onto the I-71 Southbound off ramp. This queue of vehicles threatens to extend onto the mainline of I-71. In 2009, the intersection of Crystal Drive at KY 53 was identified as having the highest crash rate location in Oldham County. By adding a dedicated left turn lane at Crystal Drive, there will be an increase in driver safety at this dangerous intersection. The proposed project is intended to decrease congestion and increase safety on KY 53 from I-71 to Crystal Drive, including the I-71 Southbound off-ramp. These improvements will improve air quality by reducing the delay times at both the I-71 and Crystal Drive intersections with KY 53.</p>	Interstate/ Interchange	Oldham	KYTC	\$2,593,690	2021	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 61 Premium Transportation Corridor Project	1357		The KY 61 Premium Transportation Corridor Project is a design-build project that will: 1) streamline transit service on a key corridor by adding traffic signal bus prioritization, new bus stops, and increasing bus service frequency; 2) bring intelligent signal upgrades, which will include upgraded traffic signals and communication equipment to support premium transit and overall mobility; 3) incorporate complete streets roadway improvements by including bicycle and pedestrian facilities, intersection safety improvements, access management strategies for surrounding land uses, and new streetscape design elements.
KY 146	427		Reduce congestion, improve access, and provide better mobility for all modes along KY 146 from the Oldham/Jefferson County line to Pryor Avenue in Crestwood. Project design will consider reconstructing KY 146 as a 2 lane road (no additional lanes) from Jefferson/Oldham County line to Pryor Avenue in Oldham County with consideration for turn lanes at Ash Avenue, Houston Avenue, Maple Avenue and Central Avenue. CHAF ID: IP20080252.
KY 146	428		Improve safety and reduce congestion on KY 146 (LaGrange Road) from KY 329B (KY 329 Bypass) to KY 393. Includes consideration of a four lane widening and bike/ped accommodations. CHAF ID: IP20080251.
KY 146	443		Widen KY 146 (LaGrange Road) from 2 to 5 lanes (5th lane will be a center turn lane) from Factory Lane to Reamers Road
KY 155	956	08908.00	Improve safety, mobility for all modes, and provide better access along KY 155 from KY 148 to I-265 near Pope Lick Park. Project may consider widening up to 4 travel lanes with a two-way center turn lane and consider bicycle and pedestrian facilities. CHAF ID: IP20080202. Formerly described as: Widen Taylorsville Road to 3 lanes from I-265 to KY 148. (18CCN).

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The KY 61 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It is highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan, as both a "Major Corridor" and a "Premium Transit Corridor." KY 61 is a successful commercial destination resulting in major mobility challenges. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received \$16.9 million in federal funds. This project will need to account for various demands and changing urban characteristics across its length. Complete multi-modal connections are needed along the entire corridor with premium transit, or Bus Rapid Transit, needing to be further assessed for portions of the corridor. Preston Highway generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. Pedestrian connections need improvements as distance between crossings is so far that it incentivizes uncontrolled crossings. Incomplete sidewalks force pedestrians to use the shoulder. This is a major safety concern as Preston Highway has relatively high rates of pedestrian activity. The 18 Bus, which serves the Corridor is the busiest in the city. There are no safe bicycle facilities along the corridor. Taken together, these issues need to be addressed to ensure that the KY 61 of the future is safer for people of all ages and abilities.	Roadway	Jefferson	Louisville Metro	\$18,241,610	2030	HIGH
The purpose of this project is to reduce congestion, improve access, and provide better mobility for all modes along KY 146 from the Oldham/Jefferson County line to Pryor Avenue in Crestwood. This project is needed because KY 146 from the Oldham/Jefferson County line to Pryor Avenue in Pewee Valley experiences a high level of congestion and has potential crash issues. With the additional population expected in Oldham County in this area, and the additional development of commercial and industrial uses in eastern Jefferson County, congestion is expected to increase in the near future and is already problematic today. Congestion is further compounded by the rail line running parallel to the corridor.	Roadway	Oldham	KYTC	\$14,750,000	2026	LOW
The purpose of this project is to improve safety and reduce congestion on KY 146 (LaGrange Road) from KY 329B (KY 329 Bypass) to KY 393. This project is needed because there are sections of KY 146 from KY 329B (KY 329 Bypass) to KY 393 that has inadequate capacity and is frequently congested during peak hours. With planned development in Oldham County, this area is expected to grow and this segment is expected to carry approximately 36,000 vehicles by the year 2030, greatly increasing congestion and the potential for crashes (OCMTP, 2003).	Roadway	Oldham	KYTC	\$20,510,000	2028	LOW
The purpose of this project is to improve safety and reduce congestion on KY 146 from Nelson Miller Parkway (CR1019C) to Reamers Road (CR1004D). To include consideration for bicycle and pedestrian facilities. The Critical Rate Factor (CRF) for this segment of KY 146 is 3.79 for the years 2012 to 2016. The KY State Data Center Report indicates a current employment annual growth rate of 2.9% and a population annual growth rate of 0.70%. This route connects I-265 and Oldham County.	Roadway	Jefferson	KYTC	\$14,500,000	2024	MEDIUM
CHAF Purpose: Improve safety, mobility for all modes, and provide better access along KY 155 from KY 148 to I-265 near Pope Lick Park. CHAF Need: The Critical Rate Factor for this section of KY 155 is 1.192 for the years 2012 to 2016. The KIPDA MPO TAZ data shows a 1.6% projected future population and employment growth in the project area. Commuters use this route to get to and from Shelby and Spencer counties.	Roadway	Jefferson	KYTC	\$19,840,000	2025	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 155	1372		Improve safety and reduce congestion on KY 155 from Watterson Trail to I-265. Project design will evaluate 3-lane widening with two-way center turn lane and consider bicycle and pedestrian facilities. CHAF IP20080201.
KY 155	2371	00808.00	Safety project for reconstruction of Taylorsville Road and South Pope Lick Road intersection and bridge over Pope Lick Creek.(2016BOP). Project length is 0.6 miles. CHAF IP20130147.
KY 245	1790	08509.00	Widen KY 245 from Bernheim Forest to the Community College. (08CCN)(10CCR)(14CCR)(16CCR) From MP 4.425 to MP 6.415. CHAF ID IP20150316. Additional Considerations: Four lanes, plus turn bays are assumed from the SB I-65 Ramps to a point approximately 1.7 miles E of the I-65 Interchange.
KY 329	1877	00542.00	Improvements to the area of the KY 329 and KY 329 Bypass intersection in Oldham County adjacent to the KY 329 interchange with Interstate 71. Congestion occurs during the morning and evening rush hours due to several nearby public schools as well as several roadways converging close to the intersection. Other areas of concern in the area include the 5% downgrade on KY 329 Bypass approaching KY 329 intersection; the sight distance between KY 329 Bypass to the business on the east of the road is obscured by an existing rock and the distance between a crest vertical curve on KY 329 and the intersection with the Spring Hill Subdivision looking east 575 ft. The project is planned to include: widening or reconstruction of KY 329 to include dual left turn lanes and a signal; widening of the KY 329 Bypass to include a left turn lane onto KY 329 and right turn lane onto KY 329; and, sight distance improvements on both the KY 329 Bypass and existing KY 329.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>The Critical Rate Factor (CRF) for the longest segment of KY 155 (MP 6.9 to MP 9.1) from 2012 to 2016 is 1.72. The KY State Data Center Report indicates a current average Population Annual Growth Rate of 1.47% for this area. The development in the area is both residential and commercial. Commuters use this route to access Shelby and Spencer counties.</p>	Roadway	Jefferson	KYTC	\$24,300,000	2021	MEDIUM
<p>Improve intersection safety and maintain continuity for roadway users, park users, and local residents at and near the KY 155/ South Pope Lick Road intersection in eastern Jefferson County. This project is needed because traffic has increased significantly with recent developments in the area including the new 4,000 acre Parklands of Floyds Fork recreational area making it difficult for vehicles to turn onto KY 155 from the approach roads at the KY 155/South Pope Lick Road intersection. The intersection is not signalized and traffic on KY 155 moves at 55 MPH (the posted speed limit) or higher. Traffic back-ups at this intersection are common and sight distance is limited. The South Pope Lick intersection doubles as a signature entrance to the park on the south side of KY 155. A shared-use trail crosses under KY 155 at the South Pope Lick intersection.</p>	Roadway	Jefferson	KYTC	\$2,730,000	2021	LOW
<p>The purpose of the KY 245 Widening Project is to provide an improved transportation facility to meet the additional traffic demand forecasted to occur and accommodate any existing or future developments, and/or tourist destinations along the corridor. KY 245 leading southward from its interchange with I-65 is the major link between I-65 and the City of Bardstown and the western entrance to the Kentucky Bourbon Trail. The area has significant institutions and tourist destinations near the interchange that attracts local traffic, visitors and travelers along I-65. Among the most important attractions are the Bernheim Arboretum, Jim Beam Distillery, The Boy Scout Camp, Bernheim Middle School and the Bullitt County Fairgrounds which hosts many events during the year. Currently the roadway is a two lane minor rural arterial. Traffic volumes increased from 9,520 ADT in 1991 to 12,800 ADT in 2007 and it is projected to grow to 17,200 ADT in 2034. A proposed Hotel development is planned on the North side of KY 245 next to I-65 interchange, which will increase current volumes. Local officials indicated the need to improve access to local institutions expected to enhance tourism and economic development. The proposed road is expected to provide a safe and efficient facility, help address future traffic demand, and generate an entry way that integrates businesses and natural areas creating a major tourist center.</p>	Roadway	Bullitt	KYTC	\$19,953,500	2025	LOW
<p>The purpose of this project is to make the KY 329 and KY 329 Bypass intersection safer and to improve Level of Service. The needs being addressed by the project are based on the following data: Existing traffic volumes result in traffic congestion and intersection delays. The existing eastbound left turn movement has an LOS F in both the AM and PM. MUTCD warrants for signalization are met for this intersection. Sight distance deficiencies - stopping sight distances for posted speed limits of 55 MPH on both roads are not met (vertically on KY 329 and horizontally with rock slopes obstructions on KY 329 Bypass). Crashes are notably high along this intersection of KY 329. Crash data between 1/1/2012 and 12/31/2016 was analyzed. The crash rate approaches critical (CRF = 0.95). There have been numerous crashed including one fatal and five injury crashes near the intersection."</p>	Roadway	Oldham	Oldham Co.	\$3,444,375	2022	LOW

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PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 362	2777		Improve safety, access, and address geometric deficiencies along KY 362 from the Oldham/ Shelby County line to KY 146 (in and south of Pewee Valley). Includes consideration of a 3 lane widening with a two way left turn lane and bike/ped accommodations. CHAF IP20130132.
KY 393	147	00234.00	KY 393 reconstruction from 140 feet south of railroad crossing (CSX) extending northwest towards KY 146 ending at Station 12+00 (Design under 5-230.00). (Construction Seq.#2). CHAF ID: IP20160227.
KY 480	1816	00391.20	CHAF: Widen Cedar Grove Road (KY 480) from Cedar Grove Elementary School to Valley View Drive. (12CCR)(14CCR) (See 5-391.3 for interchange improvements). From: MP 2.01 to MP 2.84. CHAF ID: IP20160217. Additional Considerations: Widen from 2 to 5 lanes per KIPDA database.
KY 524	1726	05013.00	Landslide repair on KY 524 (Westport Road) from Junction US 42 northwest, 1.0 mile. (2002BOPC)(Not required). CHAF ID IP20150467.
KY 61	2780		Improve safety, reduce congestion, and improve multi-modal transportation options along KY 61 from Commerce Crossings Drive(BMP 1.395) to Briden Avenue (EMP 8.400) including the I-264 (Watterson Expressway) and I-265 (Gene Snyder Freeway) interchanges. CHAF ID: IP20160018.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The purpose of this project is to improve safety, access, and address geometric deficiencies along KY 362 from the Oldham/ Shelby County line to KY 146 (in and south of Pewee Valley). This project is needed because of a high crash rate, substandard curves, lane widths, and shoulders along KY 362 from the Oldham/Shelby County line to KY 146 (in and south of Pewee Valley). A new corridor (Old Henry Road) will eventually tie into this section of roadway creating additional demand.	Roadway	Oldham	KYTC	\$10,385,000	2028	LOW
The primary purpose of the proposed project is to improve traffic flow and correct safety deficiencies through reconstruction and realignment of the existing facility, including construction of an underpass to replace the at-grade crossing of the CSX Railroad paralleling KY 146. The proposed improvements will accommodate the predicted increase in traffic volumes, reduce accident potentials, upgrade connections with I-71, and improve traffic service and safety for the large Oldham County school complex along the west side of existing KY 393 at KY 146. The project will correct identified traffic problems associated with existing design deficiencies, sight distance, grades and curves, train/automobile conflicts, school complex ingress and egress, emergency service demands, travel safety, travel time, and convenience. An improved facility is needed because of the route's importance in the local and regional transportation network and the necessity for improving system connectivity and travel conditions for school buses, emergency services, farm equipment, commercial vehicles, and local public access.	Roadway	Oldham	KYTC	\$11,990,000	2022	LOW
CHAF Purpose: Improve capacity and safety on KY 480 (Cedar Grove Road) from Omega Parkway to Valley View Drive. CHAF Need: The project is needed because the capacity of KY 480 (Cedar Grove Road) from Omega Parkway to Valley View Drive is inadequate to meet current and future traffic volumes, resulting in congestion. Current level of service and projected level of service in 2029 is LOS E for the no-build condition.	Roadway	Bullitt	KYTC	\$8,211,000	2024	LOW
The purpose of this project is to improve safety and reliability of KY 524 (Westport Road) from US 42 to 1/4 miles south of Smith Lane. This project is needed because there has been an ongoing landslide issue on KY 524 (Westport) from US 42 to 1/4 miles south of Smith Lane. Maintenance addresses the problem each year with band-aid approaches including driving pilings, adding new rip rap, and replacing guardrail that slides down the slope but a more permanent fix is needed requiring funding outside of the maintenance budget. Correction of the landslide will maintain the reliability of the network.	Roadway	Oldham	KYTC	\$5,600,000	2026	FURTHER REVIEW
Improve safety, reduce congestion, and improve multi-modal transportation options along KY 61 from Commerce Crossings Dr. to Briden Avenue including the I-264 (Watterson Expressway) and I-265 (Gene Snyder Freeway) interchanges. The KY 61 corridor from Commerce Crossings Drive to Briden Avenue had four roadway segments ranked in the top 41 of the highest roadway crash segments in the KIPDA MPO area for Kentucky (Bullitt, Jefferson, and Oldham Counties). This analysis was based upon crash data for the years of 2009-2011. KY 61 from Blue Lick Road to Outer Loop was ranked 13th with an average daily traffic (ADT) of 31,500 and crash rate of 10.6 (crashes per million vehicle miles traveled). KY 61 from Fern Valley Road to East Indian Trail was ranked 19th with an ADT of 28,100 and crash rate of 6.7. KY 61 from Gilmore Lane to Grade Lane was ranked 39th with an ADT of 27,300 and crash rate of 5.3. KY 61 from Outer Loop to McCawley Road was ranked 41st with an ADT of 24,500 and crash rate of 7.5. Additionally, the following intersections have been identified by KIPDA in the Transportation Analysis District (TAD) Reports as being high-crash intersections: KY 61/Commerce Crossings Drive, KY 61/KY 1065, KY 61/KY	Roadway	Jefferson	KYTC	\$26,400,000	2031	HIGH

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PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 841/Renaissance Park	2606	80006.00	KYTC Highway Plan (June, 2018): Construct new interchange on KY 841 at the Renaissance South Business Park. Project length is 1 mile. CHAF ID: 20190131. Additional Considerations: Construct new interchange on KY 841 at the Renaissance South Business Park.
KY 864	269	00481.00	Reconstruct and widen KY 864 (Cedar Creek Road) from 2 to 3 lanes (3rd lane will be a center turn lane) from Mount Washington Road to Cooper Chapel Road and reconstruct and widen KY 864 (Cooper Chapel Road) from 2 to 3 lanes from Cedar Creek Road to Beulah Church Road. Add pedestrian accommodations on both sides of the roadway for the length of the project.
KY 864	357		Improve safety and reduce congestion on KY 864 (Fegenbush Lane) from KY 864 (Beulah Church Road) to KY 1747 (Fern Valley Road/South Hurstbourne Parkway). Project design will evaluate 3-lane widening with two-way center turn lane and consider accommodations for bicycle and pedestrian modes. CHAF IP20080205.
KY 864	1879	00481.00	KY 864 - Widen Beulah Church Road from 2 to 3 lanes from I-265 to Cedar Creek Road. Project length 1.627 miles. CHAF IP20080206.
KY 907	465	00437.00	Improve safety and reduce congestion on KY 907 (Southside Drive) from KY 1865 (New Cut Road) to KY 1020 (National Turnpike). The design will evaluate 3-lane widening or other lower impact solutions and include consideration of bicycle & pedestrian facilities. CHAF IP20080208.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>CHAF Purpose: Relieve negative congestion and safety impacts to the existing transportation infrastructure surrounding the Renaissance South Business Park by improving access and upgrading facilities to current design and safety standards. Supplement future success of the Business Park by providing additional ingress and egress.</p> <p>CHAF Need: Congestion and freight delays along Outer Loop, I-65 and Gene Snyder freeway in the vicinity of and accessing Louisville International Airport, Ford's Louisville Assembly Plant and Renaissance South Business Park (UPS). Limited freight access to Renaissance South Business Park.</p>	Interstate/ Interchange	Jefferson	KYTC	\$33,408,000	2024	FURTHER REVIEW
This project will reduce traffic congestion and improve safety for vehicles and pedestrians around McNeely Lake Park.	Roadway	Jefferson	Louisville Metro	\$6,900,000	2040	LOW
The purpose of this project is to improve safety and reduce congestion on KY 864 (Fegenbush Lane) from KY 864 (Beulah Church Road) to KY 1747 (Fern Valley Road/South Hurstbourne Parkway). The Critical Rate Factor (CRF) for the longest section of this KY 864 segment (MP 4.391 to MP 6.596) is 1.68 using 2012 to 2016 data. This route connects I-265 and KY 1747 (Hurstbourne Parkway).	Roadway	Jefferson	KYTC	\$15,880,000	2028	MEDIUM
<p>Improve the access, safety and mobility of Beulah Church Road south of the Gene Snyder Freeway. The Beulah Church Road (KY 864) corridor is a rapidly developing section of Louisville with increasing traffic demand. KY 864 is classified as an urban collector and has many access points. It carries traffic from growing residential suburbs to the Gene Snyder Freeway (I-265) with growth expected to continue. According to the 'Traffic Forecast Report, Jefferson County, Widen KY 864, Item No. 5-481.00', which was published January 25, 2013, the 2012 Average Daily Traffic (ADT) Count was 7,600 vehicles per day (vpd), and the projected 2035 ADT is 9,600 vpd. Additionally, the Cooper Chapel Road extension (5-404.01) to Bardstown Road (US 31E) which is currently under design, is anticipated to bring additional traffic to the route once constructed. Safety is also a primary concern within the project corridor. Between January 2010 and February 2015, there have been 27 collisions in the project corridor, 19 with property damage, and 8 collisions with 11 with injuries.</p>	Roadway	Jefferson	KYTC	\$11,575,000	2025	LOW
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. Existing and future traffic estimates show high traffic volumes creating congestion and reduced safety associated with the many entrances along the roadway. Adjacent roadways that have been improved to meet this traffic demand include New Cut Road (5 lanes) and National Turnpike (5 lanes). Both roadways intersect with Southside Drive in the project area and create bottleneck issues at the intersections.	Roadway	Jefferson	KYTC	\$4,770,000	2026	MEDIUM

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PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 907	481		Improve safety and reduce congestion along KY 907 (Valley Station Road/3rd Street Road) from US 31W (Dixie Highway) to KY 1865 (New Cut Road). Project will evaluate 3-lane widening and consider bicycle and pedestrian facilities. CHAF IP20080209.
KY 907	2017		KY 907 at James Hill Road intersection curve improvements - long term horizontal and vertical curve reconstruction. CHAF ID: IP20110104.
KY 1020	1817	08502.00	Improve safety and mobility on KY 1020 (National Turnpike) from Fairdale Road (CR1005M) MP 0.615 to South Park Road (CR1001M /KY 1020) MP 2.669. Design will include consideration for a 2-lane to a 3-lane widening with 11' lanes, 2' curbed shoulders, and a 13' two way center left turn lane with 5' sidewalks on both sides of the road. CHAF ID 20190134/KIPDA ID #1817.
KY 1065	256		Improve safety and reduce congestion on KY 1065 (Beulah Church Road) from KY 864 (Fegenbush Lane) to US 31E (Bardstown Road). Project will evaluate 3-lane widening or other lower impact solutions and consider accommodations for bicyclists and pedestrians. CHAF ID: IP20080213."

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The purpose of this project is to: 1) Improve safety for vehicular, bicycle, and pedestrian traffic, 2) Improve bicycle and pedestrian network and TARC access points, 3) Improve Drainage, 4) Reduce congestion, 5) Improve signage and 6) Focus on low cost solutions. Major issues are deep drainage ditches, substandard shoulders, limited sidewalks, and a lack of adequate lane capacity. There are no bicycle facilities. Average Daily Traffic (ADT) ranges from 5,760 to 22,100 Vehicles per Day (VPD), while the percentage of truck traffic ranges from 4.3% to 7.7%. The corridor has one high crash area that extends south of the Stonestreet Road intersection and ends at the East Pages Lane Intersection (Mile Point [MP] 1.915-2.090), totaling a distance of 0.175 miles. A critical rate factor greater than 1 indicates a high crash area. In this case, the critical rate factor is 1.224.	Roadway	Jefferson	KYTC	\$104,760,000	2030	MEDIUM
The purpose of this project is to reduce congestion and improve safety in the long term on the KY 907 (Third Street) and James Hill Road intersection. The roadway network in this area was established many years ago with few major improvements other than some widening and resurfacing. Consequently, some major issues are deep drainage ditches, substandard shoulders, limited sidewalks, and a lack of adequate lane capacity. Throughout the study area, Average Daily Traffic (ADT) ranges from 5,760 to 22,100 Vehicles per Day (VPD), while the percentage of truck traffic ranges from 4.3% to 7.7%. There were several safety concerns identified by the project team based upon analysis of the crash data, public input, and field reviews. Most of these locations were found to coincide with locations that had the worst combinations of horizontal and vertical deficiencies. The data analysis validated the public-identified high crash locations in the absence of a high number of recorded crashes.	Roadway	Jefferson	KYTC	\$1,500,000	2030	FURTHER REVIEW
The purpose of this project is to improve safety and mobility along KY 1020 (National Turnpike). Sections of this roadway have Excess Expected Crashes (EEC) greater than 75%.	Roadway	Jefferson	KYTC	\$14,960,000	2030	LOW
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Modal access and choice. KY 1065 from MP 10.009 to MP 11.858 (from KY 864 to US 31E) is located in south eastern Jefferson County. Surrounding land use is primarily medium density residential with some commercial. Data suggest less-than-optimum pavement condition and that congestion is an issue currently, as are crashes. Additional development is planned along the US 31E corridor as well as to the south, potentially contributing to the congestion issue in the future.	Roadway	Jefferson	KYTC	\$16,660,000	2020	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 1065	435		Improve safety, access, and mobility for all modes along KY 1065 (Outer Loop) from KY 907 (3rd Street Road) to KY 1865 (New Cut Road). Project will consider 3-lane widening and accommodations for bicyclists and pedestrians. CHAF IP20080212.
KY 1065	436		Improve safety and reduce congestion on KY 1065 (Outer Loop) from I-65 to KY 2052 (Shepherdsville Road). Project will evaluate the addition of one travel lane in each direction and consider accommodations for bicyclists and pedestrians. CHAF IP20080211.
KY 1065	453		Improve safety and reduce congestion at the KY 1065 and KY 61 intersection. Project will consider adding a right turn lane on westbound KY 1065 (Outer Loop) at KY 61 (Preston Highway). CHAF IP20080210.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>The purpose of this project is to improve safety, targeting major intersections (New Cut Road), and improve mobility for travelers. Safety is the primary concern along the corridor. The New Cut Road and National Turnpike intersections are identified as numbers one and nine, respectively, on the region's 2011 Top 40 High Crash Intersections list supplied by the KIPDA MPO. Records show 283 reported crashes along Outer Loop during 2014-2016. This number included three fatal and 51 injury collisions. Five high crash spots were identified on Outer Loop. Current crash trends mirror KIPDA's earlier findings with high crash spots at New Cut Road and National Turnpike. Business entrances and exits too close to the major intersections contribute to angle crashes as motorists must negotiate through traffic in as many as three lanes when turning left. Additional high crash spots occur at 3rd Street Road and the signalized Walmart entrance. Mobility is another concern along Outer Loop. Annual average daily traffic (AADT) ranges from 14,000 vehicles per day (vpd) at the western end of the study area to 17,600 vpd near the eastern end. Four percent of those volumes are trucks. Travel times along the corridor range from 5 minutes in morning hours to nearly 9 minutes in evening hours. Average travel speeds along the corridor range from 17 to 30 mph during peak periods, well below the posted 45 and 55 mph speed limits. Motorists often drive into opposing travel lanes to avoid long queues and access the short left turn lanes at National Turnpike, and are also often seen using the shoulders to pass stopped, left-turning vehicles.</p>	Roadway	Jefferson	KYTC	\$26,470,100	2026	MEDIUM
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. KY 1065 from MP 4.930 to MP 7.655 (from I-65 to KY 2052) is located in south-central Jefferson County. Surrounding land use is primarily medium density commercial with some residential uses. These adequacy rating data suggest high crash potential, rough pavement condition and congestion may become an issue should the area to the south continue to develop at the current rate it is now. Additional commercial development has been planned along this corridor.</p>	Roadway	Jefferson	KYTC	\$35,430,000	2030	MEDIUM
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. There is currently insufficient right turn capacity on westbound Outer Loop approaching KY 61. The intersection has had a total of 98 crashes between 5/1/2011 and 4/30/2016, including 44 injuries and one fatality. The highest crash types are angle (44) and rear end (43). It is ranked the #5 for crash amount in Jefferson County.</p>	Roadway	Jefferson	KYTC	\$2,075,000	2024	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 1065	2782		Improve safety, access, and mobility for all modes along KY 1065 (Outer Loop) from KY 1865 (New Cut Road) to KY 1020 (National Turnpike). Project will consider 5-lane widening and accommodations for bicyclists and pedestrians. MP 1.00 to MP 2.53.
KY 1408	2778		Improve safety, access, and address geometric deficiencies along KY 1408 (Floydsburg Road) from Old Floydsburg Road to KY 146 (in and near Crestwood). Includes consideration of a three lane widening with a two way left turn lane. CHAF IP20130133.
KY 1447	484		Improve safety and reduce congestion on KY 1447 (Westport Road) from Murphy Lane to KY 146. Project design will evaluate 3-lane widening with two-way center turn lane and consider bicycle and pedestrian facilities. CHAF IP20080214.
KY 1450	154	00247.10/ 00247.11	KYTC Highway Plan (June, 2018): Widen Blue Lick Road from Snyder Freeway north to KY 61 (LOU T.I.P.) (Section 2) (RU-04DEOB)(08CCR)(12CCR)(16CCR) CHAF ID: IP20160190 Additional Considerations: Widen KY 1450 (Blue Lick Road) from 2 to 3 lanes (3rd lane will be a center turn lane) from I-265 (Gene Snyder Freeway) to KY 61 (Preston Highway). Approximately 1.669 miles. From MP 1.873 to MP 3.542.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>The New Cut Road and National Turnpike intersections are identified as numbers one and nine, respectively, on the region's 2011 Top 40 High Crash Intersections list supplied by the KIPDA MPO. Records show 283 reported crashes along Outer Loop during 2014-2016. This number included three fatal and 51 injury collisions. Current crash trends mirror KIPDA's earlier findings with high crash spots at New Cut Road and National Turnpike. Business entrances and exits too close to the major intersections contribute to angle crashes as motorists must negotiate through traffic in as many as three lanes when turning left. Additional high crash spot occurs at the signalized Walmart entrance. Annual average daily traffic (AADT) ranges from 14,000 vehicles per day (VPD) at the western end of the study area to 17,600 VPD near the eastern end. Four percent of those volumes are trucks. Travel times along the corridor range from 5 minutes in morning hours to nearly 9 minutes in evening hours. Average travel speeds along the corridor range from 17 to 30 mph during peak periods, well below the posted 45 and 55 mph speed limits. Motorists often drive into opposing travel lanes to avoid long queues and access the short left turn lanes at National Turnpike, and are also often seen using the shoulders to pass stopped, left-turning vehicles. Outer Loop traffic volumes are not forecasted to grow; however, existing volumes on New Cut Road and National Turnpike are expected to increase from 22,000 to 28,000 vpd and from 25,000 to 34,000 vpd, respectively, by 2035. These increased volumes will contribute to intersection congestion, resulting in Level of Service (LOS) E on Outer Loop in 2035. In addition to the needs above, goals for the project include: -Improve drainage, as much of the corridor lies within the 100-year floodplain; the road is often closed due to flooding following heavy rain events.-Improve pedestrian safety through improved sidewalk condition and connectivity.</p>	Roadway	Jefferson	KYTC	\$23,528,000	2031	LOW
<p>The purpose of this project is to improve safety, access, and address geometric deficiencies along KY 1408 (Floydsburg Road) from Old Floydsburg Road to KY 146 (in and near Pewee Valley). This project is needed because of a high crash rate, substandard grades, curves, lane widths, and shoulders along KY 1408 (Floydsburg Road) from Old Floydsburg Road to KY 146 (in and near Pewee Valley).</p>	Roadway	Oldham	KYTC	\$5,300,000	2030	LOW
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. KY 1447 from MP 7.641 to MP 8.141 is located in eastern Jefferson County. This area is undergoing development currently: residential, commercial, and industrial. This area also contains a Ford auto plant with a large number of employees as well as freight interaction. These data suggest very rough pavement condition and current congestion issues.</p>	Roadway	Jefferson	KYTC	\$5,470,000	2030	MEDIUM
<p>CHAF Purpose: The purpose of this project is to improve safety and relieve congestion while accommodating pedestrian traffic. CHAF Need: Blue Lick Road (KY 1450) from I-265 to Preston Highway is currently a two lane road with narrow driving lanes, no shoulders, and steep roadside ditches. The crash rate in the project area is approximately double the statewide average for similar facilities.</p>	Roadway	Jefferson	KYTC	\$25,952,125	2023	MEDIUM

APPENDICES

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 1450	229	08907.00	Widen Blue Lick Road from Bullitt County line north to the Snyder Freeway (LOU T.I.P.)(SEE 5-8010.00 AND 5-8907.00)(08CCR)(10CCR) CHAF IP20150309
KY 1450	2020		Improve safety and reduce congestion at the intersection of KY 1450 and KY 1526 east of the I-65/KY 1526 interchange. CHAF ID: IP20130131.
KY 1450 Blue Lick Road Widening	2758		Widen KY 1450 (Blue Lick Road) from 2 to 4 lanes from Bullitt/Jefferson County line to KY 1526 John Harper Way.
KY 1531	411		Relocate and reconstruct KY 1531 (Johnson Road) as a 2 lane road (no additional lanes) with improved geometry and a 4 to 6 foot shoulder from US 60 (Shelbyville Road) to Aiken Road.
KY 1747	359	00344.01	Widen southbound Hurstbourne Lane to 3 lanes from Linn Station Road (CS-1004H) to Eden Avenue (CS-1660H). (06CCR)(03KYD)(2006BOPP)(See 5-344.02 for KYD C phase)(14CCR). CHAF IP20150293.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. Blue Lick Road (KY 1450) from Bullitt County line north to the Snyder Freeway is currently a two lane road with narrow driving lanes, no shoulders, and steep roadside ditches. The crash rate in the project area is approximately double the statewide average for similar facilities. Also, there are no accommodations for left turning vehicles or pedestrians for the majority of the corridor. The purpose of this project is to improve safety and relieve congestion while accommodating pedestrian traffic.</p>	Roadway	Jefferson	KYTC	\$49,993,000	2028	LOW
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. The following needs have been identified at the KY 1450 and KY 1526 intersection as a result of significant commercial and residential growth in the Brooks, KY area: 1) Improve Capacity, 2) Provide an improved highway that meets current safety design standards, 3) Enhance network connections, 4) Increase freight capacity, 5) Serve recent and planned growth.</p>	Roadway	Bullitt	KYTC	\$6,700,000	2024	LOW
<p>Congestion, visibility, intersection realignment, and safety are all issues needing to be addressed that have created the need for this project.</p>	Roadway	Bullitt	Bullitt Co.	\$8,000,000	2024	LOW
<p>Johnson Road and its surrounding roads of Aiken Road and Shelbyville Road have been several subdivisions/growth within the last few years. With the added traffic along Johnson Road, the better alignment in various locations along and added shoulders will increase safety amount the traveling public.</p>	Roadway	Jefferson	Louisville Metro	\$35,000,000	2030	LOW
<p>This project is to improve safety and reduce congestion. Hurstbourne exists today as a highly congested corridor that serves as a commuter route as well as a regional shopping/entertainment destination. The purpose of this project is to reduce congestion and traffic conflict points. The need for this project is demonstrated by the existing traffic congestion that has been quantified as Delay and Queue Length in the project traffic studies. Intersection queue lengths in excess of 800 feet and delays in excess of 60 seconds are common for the design year. The proposed increase in capacity by the addition of a southbound lane including optimization of signal timing is calculated to provide a reduction of these mobility indicators of up to 78%. It is anticipated that additional mobility improvements will be realized by eliminating the numerous conflict points, particularly unsignalized left turn movements, at entrances between signalized intersections. The accident rates in the project area also indicate a need for improvement. The Shelbyville Road Intersection was identified as a Hazard Elimination and Safety Program (HES) project with a Critical Crash Rate Factor greater than 1.0. The crash rate for the remainder of the corridor between Linn Station Road and Whittington Parkway is approximately 60% higher than the statewide average for urban four lane divided roadways (2002-2006). In addition, the proposed project is needed to meet state and local transportation planning goals. The proposed project is part of the Kentucky Transportation Cabinet's 2016 - 2022 Six-Year Highway Plan. The project is also connected to another project, which as a whole will help meet these planning goals. The other project is the reconstruction of the interchange of I-64 and Hurstbourne Lane (KYTC Item No. 5-52.00).</p>	Roadway	Jefferson	KYTC	\$5,910,000	2024	HIGH

APPENDICES

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 1747	386		Widen KY 1747 (Hurstbourne Parkway) from 4 to 6 lanes with a center turning lane from US 31E (Bardstown Road) to KY 155 (Taylorsville Road).
KY 1747	2607	00555.00	KYTC Highway Plan (June, 2018): Reduce congestion and improve safety along KY 1747 (Hurstbourne Parkway) from Stony Brooke Drive to I-64. Project length is 1.495 miles. CHAF ID: IP20130135. Additional Considerations: This project has been treated as a study only.
KY 1747 (Fern Valley Road/Hurstbourne Parkway) Complete Street	2766		Complete bicycle/pedestrian connections along Fern Valley Road and Hurstbourne Parkway.
KY 1747/US 60	2384	08953.00	Improve the Hurstbourne Parkway (KY 1747) at Shelbyville Road (US 60) intersection to increase capacity, reduce delays, and improve safety. (See 5-344.02) (16CCN). Project length is 0.2 miles. KY 1747 MP 13.4-13.6. US 60 MP 7.709-7.960. CHAF IP20080218.
KY 1819	233	00373.00	Reconstruct and widen Watterson Trail from Plantside Drive to Blankenbaker Parkway. (98CCR). CHAF IP20150319

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Modal access and choice. KY 1747 from MP 0.000 to MP 3.540 is located in eastern Jefferson County. This area is experiencing growth at this time and additional development is planned. Residential and commercial uses are prominent in this area, with commercial and multi-family residential uses directly abutting the corridor. The adequacy rating data indicates potential crash issues, rough pavement condition, and congestion. These issues are likely to grow with the additional planned development.	Roadway	Jefferson	KYTC	\$25,000,000	2030	HIGH
CHAF Purpose: Reduce congestion and improve safety along KY 1747 (Hurstbourne Parkway) from Stony Brook Drive to I-64. CHAF Need: The Critical Rate Factor (CRF) for this section from 2012 to 2016 ranges from 3.18 to 5.01."	Roadway	Jefferson	KYTC	\$3,475,000	2026	MEDIUM
Implement complete streets to support active transportation modes and enhance transit.	Bike & Pedestrian	Jefferson	Louisville Metro	\$16,500,000	2035	MEDIUM
Reduce congestion and improve safety at the KY 1747/US 60 intersection. This project is needed because development in this part of Jefferson County, and additional planned development is contributing to congestion issues at the KY 1747/US 60 intersection, especially at peak hour, where motorists may wait between two to three signal cycles before making it through the intersection. The development of the University of Louisville Shelby Campus (to the west on US 60, in close proximity) will contribute directly to the congestion at this intersection.	Roadway	Jefferson	KYTC	\$4,490,000	2022	MEDIUM
Improve safety and mobility. This section of Watterson Trail has many vertical curves that do not meet minimum sight distance criteria for the design speed of the road. Improvements to the horizontal alignment also need to be made, especially at the north end of the project where a 140' radius curve exists. Existing traffic volumes have exceeded the roadway's capacity and future traffic volumes are predicted to increase significantly. In addition, the intersections named above have less than desirable sight distance and turn radii. The Critical Rate Factors on sections of this roadway are above 0.60 (2012 to 2016).	Roadway	Jefferson	KYTC	\$15,280,000	2024	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 1819	257	08203.00	Widen KY 1819 (Billtown Road) from 2 to 3 lanes (3rd lane will be a center turn lane) from I-265 (Gene Snyder Freeway) to KY 1819 (Watterson Trail). Project length is 3.8 miles.
KY 1819	1819	08203.00	6YP DESC - Reconstruct Billtown Road from north of Colonnades Place to south of Easum Road. (04CCN)(06CCN)(08CCR)(10CCR)(12CC) CHAF DESC - The purpose of this project is to bring geometric deficiencies up to modern roadway standards and improve corridor wide capacity and operations. CHAF ID: IP20160185. Travel Model Info - KIPDA ID 257 overrides this project as far as any model changes are concerned. Model reflects KIPDA ID 257 beginning in the 2020 scenario, which is a widening to 3 lanes from I-265 to Watterson Trail. No additional changes to Billtown Rd. are assumed to occur when KIPDA ID 1819 is OTP in 2025. KYTC needs to clarify (should consider removing KIPDA ID 257 from the MTP).
KY 1931	128	00323.01/ 00323.03	6YP DESC: Widen Greenwood Road from Greenbelt Highway to Dixie Highway (US 31W) (3-lane improvement) from MP 0.54 to MP 3.148. (98CCR)(R-04DEOB)(04CCR)(BOP2006P)(10CCR)(12CCR). CHAF DESC: Improve safety and mobility on Greenwood Road (KY 1931) between Greenbelt Highway (KY 1934) and Dixie Highway (US- 31W) by providing operational improvements and safety countermeasures for vehicles, pedestrians and bicyclists. CHAF IP20160186. Additional Considerations: Widen KY 1931 (Greenwood Rd) from 2 to 3 lanes (3rd lane will be a center turn lane).

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. The corridor has limited right-of-way and narrow shoulders that are under three feet. Historic traffic volumes have shown strong growth along Billtown Road with traffic volumes expected to increase by 7.5% per year along the length of Billtown Road; with the exception of the Ruckriegel Parkway intersection which is expected to increase by 8.0% per year. A speed study showed that most drivers exceed the speed limit, particularly in the north end of the study area. There are several intersections where, as of 2006, there were poor levels of service. In 2010, all intersections have at least one or more approaches with a poor level of service. At the intersection of Gellhaus Lane and Billtown Road, the queue length of the westbound left turn exceeds the available storage. At the intersection of Ruckriegel Parkway and Billtown Road, the queue lengths during peak periods exceed the available storage for the westbound left and the northbound right turn. The entire corridor operates at LOS E in 2006 and 2010. All sections except the portion of Billtown Road between Shady Acres Lane and Ruckriegel Parkway operate at LOS E in 2030. The Shady Acres Lane to Ruckriegel Parkway section operates at LOS F. There is a high crash area between Shady Acres Lane and Ruckriegel Parkway. The intersection of Saint Rene Road with Billtown Road is a high crash spot. The most frequent crash type was rear end crashes on Billtown Road. There are no bicycle or transit facilities along the corridor. Sidewalks are present but only intermittently and they do not exceed the length of the corridor.</p>	Roadway	Jefferson	KYTC	\$27,120,000	2020	MEDIUM
<p>Reconstruct Billtown Road from north of Colonnades Place to south of Easum Road. (04CCN)(06CCN)(08CCR)(10CCR)(12CCR). Limited right-of-way and narrow shoulders (three feet or less) exists along the length of the corridor. Historic traffic volumes have shown strong growth along Billtown Road with traffic volumes expected to increase by 7.5% per year along the length of Bi</p>	Roadway	Jefferson	KYTC	\$2,700,000	2025	FURTHER REVIEW
<p>CHAF Purpose: Widen Greenwood Road from Greenbelt Highway to Dixie Highway (US 31W) (3-lane improvement) from MP 0.54 to MP 3.148. (98CCR)(R-04DEOB)(04CCR)(BOP2006P)(10CCR)(12CCR). CHAF NEED: Accident data for the last five years show that there have been close to 300 accidents, with an additional 95 accidents involving injuries. Cyclists and pedestrians have few accommodations.</p>	Roadway	Jefferson	KYTC	\$23,890,000	2024	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 1931	446		Improve safety and reduce congestion on KY 1931 (Manslick Road) from KY 1931 (St. Andrews Church Road) to I-264 (Henry Watterson Expressway). Project will evaluate 3-lane widening and consider accommodations for bicyclists and pedestrians. CHAF IP20080221.
KY 1931	2147	08810.00	Three lane widening along KY 1931 from the Doss High School entrance to Palatka Road, including intersection improvements with Palatka Road and turn lanes.
KY 1931	2214	00536.00	Widen KY 1931 (Manslick Road) from 2 to 3 lanes from US 31W (Dixie Highway) to Doss High School. (2014BOP). Project length is 1.739 miles. CHAF IP20080220.
KY 1932	213	00531.00	KYTC Highway Plan (June, 2018): Improve the safety and congestion of KY 1932 (Chenoweth Lane) from US 60 (Shelbyville Road) to US 42 (Brownsboro Road). Approximately 1.07 miles (2014BOP). CHAF ID: IP20080223 Additional Considerations: From: MP 5.523 To: MP 6.590.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The purpose of the proposed KY 1931 project is to improve safety and local traffic operations along this route between Dixie Highway and I-264. Other project goals include accommodating bicyclists and pedestrians, improving emergency response time, minimizing impacts to the environment, and ensuring any improvement can handle traffic from other planned improvements. The need is expressed through above average crash rates, substandard geometric features, and congested traffic operations. Existing traffic volumes range from 11,100 to 18,200 vehicles per day, with the heavier volumes in the middle section between Palatka Road and Hazelwood Avenue. Existing volume-to-capacity ranges from 0.60 to 0.96, largely controlled by signalized intersections. Three intersections (Blanton Lane, Palatka Road, and Hazelwood Avenue) operate at an unacceptable LOS (E or F) during the AM or PM peak hour. The segment of the corridor between Arnoldtown Road and Blanton Lane has the highest crash frequencies; in four years, 65 total reported crashes occurred. This equates to a Critical Rate Factor of 1.92, indicating crashes are happening more often than can be attributed to random occurrence. The entire corridor south of Hazelwood Avenue exhibit CRFs over 1.00. A review of existing plans and where necessary, field observations, identified a deficient horizontal curve, several deficient vertical curves that limit headlight sight distance, and several sections where the cross-section does not meet current standards.	Roadway	Jefferson	KYTC	\$29,709,950	2030	MEDIUM
Improve safety and local traffic operations along KY 1931 (Saint Andrews Church Road) between Doss High School/Trunnell Elementary and KY 1142 (Palatka Road). This project is needed because KY 1931 (Saint Andrews Church Road) between Doss High School/Trunnell Elementary and KY 1142 (Palatka Road) experiences frequent congestion during peak hours and needs significant improvements in safety and local traffic operations. There are above average crash rates, substandard geometric features, and traffic is expected to continue to increase along this stretch of roadway.	Roadway	Jefferson	KYTC	\$11,790,000	2026	LOW
The purpose of the project is to improve safety, local traffic operations, and mobility for all modes along KY 1931 (Manslick Road) from Dixie Highway (US 31W) to Doss High School. The Critical Rate Factor (CRF) along this segment is greater than 1.0 and over half of the crashes throughout the corridor are rear end collisions, with the next highest type being angle crashes at 20%. This segment experiences congested traffic operations. The KY 1931 corridor links US 31W an Urban Principal Arterial to I-265. Medium density commercial and residential uses abut this segment.	Roadway	Jefferson	KYTC	\$14,971,000	2027	MEDIUM
CHAF Purpose: The purpose of the Chenoweth Lane project - from the CSX railroad (just north of Shelbyville Road) to Brownsboro Road is to 1) Improve sight distance and safety for all users, 2) Improve drainage along the corridor and 3) Improve pedestrian safety and mobility CHAF Need: The needs stem from a higher than average crash rate in the southern section, pedestrian strike history, sight distance obstructions, obstructions in the clear zones, inadequate drainage in the corridor, substandard shoulders, and narrow (east side) and i	Roadway	Jefferson	KYTC	\$4,522,000	2025	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
KY 1932	2016		Reduce congestion, improve safety, and provide mobility for all users along KY 1932 (Breckenridge Lane) from Hikes Lane to Kresge Way (Hikes Point to DuPont). Project design will evaluate addition of one travel lane in each direction and consider bicycle, pedestrian, and transit facilities. CHAF IP20140002.
KY 2049	2014		Reduce congestion and improve safety on KY 2049 (Crums Lane) from I-264 underpass to US 31W. Includes consideration of pedestrian facilities, consider bike lane, provide access management and safety improvements from I-264 underpass to US 31W. CHAF IP20130134.
KY 2050	2114		Reduce congestion and improve safety along KY 2050 (Herr Lane) from KY 1447 (Westport Road) to KY 22 (Brownsboro Road). Project will evaluate 3-lane widening and consider accommodations for bicyclists and pedestrians. CHAF IP20140033.
KY 2052	464		Widen KY 2052 (Shepherdsville Road) from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 2845 (Manslick Road) to Applegate Lane and build sidewalks.
KY 2053	1396	08205.00	Improve Mt. Washington Road from Penn Run Creek Bridge to Cedar Creek Road. (10CCN) (Same as 5-8612.00) CHAF IP20150272.
KY 2053	2148	08205.00	CHAF: Improve Mt. Washington Road from Preston Highway to Penn Run Creek Bridge. (10CCN)(12CCR). Same as 5-8611.00 Section 1 - Current project design is 3-lane widening with two way center turn lane. CHAF ID: IP20150290.
KY 2845	961		Reconstruct KY 2845 (Manslick Road) from KY 61 to KY 864 (Beulah Church Road). Project will evaluate 3-lane widening with two-way center turn lane and consider accommodations for bicyclists and pedestrians. CHAF IP20080224.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. Route is an unimproved two lane local urban arterial road with deficient roadway geometrics not meeting current roadway design standards resulting in higher than average crash rates. Issues include insufficient lane and shoulder widths, deficient vertical and horizontal curves, limited and disconnected bike/ped facilities, faulty or insufficient drainage features, insufficient sight distance at intersections and/or curves.</p>	Roadway	Jefferson	KYTC	\$26,750,000	2035	HIGH
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. Route is an unimproved two lane local urban arterial road with deficient roadway geometrics not meeting current roadway design standards resulting in higher than average crash rates. Issues include insufficient lane and shoulder widths, deficient vertical and horizontal curves, limited and disconnected bike/ped facilities, faulty or insufficient drainage features, insufficient sight distance at intersections and/or curves.</p>	Roadway	Jefferson	KYTC	\$9,170,000	2032	MEDIUM
<p>The purpose of this project is to reduce congestion and improve safety along KY 2050 (Herr Lane) from KY 1447 (Westport Road) to KY 22 (Brownsboro Road). The Herr Lane project corridor is a two-lane, 1.15 mile-long, high-traffic section of road in an area of eastern Jefferson County that is almost totally developed. Average daily traffic (ADT) volumes on Herr Lane range from 11,300 to 13,800 vehicles per day (VPD). The primary land uses along the road are several traditional neighborhoods and four schools. Throughout a typical day, sections of the project corridor experience significant congestion. The southern end of the corridor has a higher than average crash rate. Two notable land use changes on the horizon could exacerbate current traffic problems- Midlands, proposed site of the new Veterans' Administration (VA) Hospital; and the Providence Point development along Herr Lane across from Ballard H.S. The planning process for this Corridor Study has taken into account these proposed changes. As the only north-south connector between Westport Road and Brownsboro Road east of I-264 in the study area, Herr Lane is used as a cut-through route.</p>	Roadway	Jefferson	KYTC	\$5,280,000	2030	MEDIUM
<p>This project will reduce traffic congestion and improve safety.</p>	Roadway	Jefferson	Louisville Metro	\$24,000,000	2035	LOW
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.</p>	Roadway	Jefferson	KYTC	\$11,400,000	2036	MEDIUM
<p>CHAF Purpose: The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, and 3) Air quality. CHAF Need: The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.</p>	Roadway	Jefferson	KYTC	\$28,375,000	2020	LOW
<p>The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Modal access and choice. KY 2845 from MP 0.00 to MP 3.776 is located in southern Jefferson County. Surrounding land uses are primarily medium density residential with some commercial nodes. Data suggest this segment has crash issues, and a very rough pavement condition. Current lane width and geometry does not meet current standards.</p>	Roadway	Jefferson	KYTC	\$16,460,000	2020	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
L&I Railroad Intersections: Montgomery Avenue and South Clark	2744		Part 1: Overhead L&I Railroad Bridge at Montgomery Avenue is a safety hazard. Clearance is only 10' and the structure is in bad shape, Montgomery Avenue is typically closed for Jeffersonville bound traffic and vice versa. Montgomery Avenue needs to be lowered at a 2-3% decline/incline to allow for an 18' clearance on Montgomery Avenue below the railroad overpass. In order to reach appropriate grade, 1/4 mile of Montgomery Avenue will need to be reconstructed, from Marriott Drive to latitude 38.278284 longitude -85.751269. Propose two 11' lanes, sidewalk on southern side, sharrow on southern side, curb and gutter, and pump station. Part 2: Overhead L&I Railroad Bridge at S Clark: clearance needs to be widened to allow for safe travel of bike/ped."
LaGrange Road Bicycle & Pedestrian Improvements	1634		Increase the pavement width along LaGrange Road by 8 feet to provide two 4' on-street bicycle lanes from Lakeland Road to Whipps Mill Road and add bicycle facilities on New LaGrange Road from Lyndon Lane to Whipps Mill Road.
LaGrange Road Pedestrian Facilities Project	1791		Construction of sidewalks along LaGrange Road from Lyndon Lane to Bowen Elementary School.
LaGrange Underpass West of LaGrange	321	00434.00	Construction of an uninterrupted rail underpass west of LaGrange on Allen Lane. The project will widen Allen Lane between KY 146 and Commerce Parkway aligning across from the I-71 Overpass.
Lewis and Clark Road Diet	2752		Segment is 6th worst on KIPDA's Top Crash List for Indiana. Will complete a traffic study in 2019 to confirm, but Town staff feels this segment could warrant a road diet. Currently configured as six 12' lanes of two-way traffic with turning lanes dispersed throughout and 6 11' lanes divided by a 3' curb median for 2-way traffic. Two lanes could be sacrificed in order to make room for more attractive streetscape: 6'+ sidewalks, 6'+ vegetative buffer and two 14 to 15' travel lanes. Segment is host to several dangerous intersections and prone to accidents. Staff consensus is that a road diet will likely be prescribed, the Town will be completing a traffic study for this segment in 2019 to confirm. Road diet, if confirmed by traffic study, will remove at least one traveling lane (likely two) to mitigate and discourage vehicles from dangerous maneuvers, and perhaps widen the lanes to 12 or 13'. Currently there are sidewalks on the north and south side of Lewis and Clark, but they are only 4-5' and the northern side lacks a plant buffer in some areas. The road diet will widen current sidewalks, improve and add crossings, and provide a vegetative buffer between vehicle traffic and pedestrian users in this busy shopping corridor.
Little Indian Creek Trail - Phase 1	2103		Project is a multi-use path connecting connecting Highlander Point commercial area to Floyds Knobs commercial area. Path will go along Indian Creek stream system.
Louisville Loop Northeast Shared-Use Path System	1856		Design and construction of a shared-use path connecting Miles Park on Shelbyville Road to River Road. Approximately 18 miles.
Louisville Loop Ohio River Levee Shared-Use Path System	2771		Design and construct an accessible shared-use path system connecting the Riverwalk section of the Louisville Loop from West Broadway and Southwestern Parkway at Shawnee Park to the Southern section of the Louisville Loop at Watson Lane at the LG&E Mill Creek Generating Plant. This corridor is approximately 17.0 miles of the 100+ mile Louisville Loop.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Town applied for LTRAX grant but was denied as the project did not fit the prototypical requirements for the grant process, i.e. not removing railroad tracks or improving traffic crossings. As area develops, South Clark will become a dangerous bottleneck and Montgomery Avenue will become a serious safety hazard. As currently configured, freight traffic cannot enter this corridor from Montgomery Avenue. Important to complete both projects concurrently as both will require railroad coordination.	Roadway	Clark	Clarksville	\$7,500,000	2026	LOW
Addition of bicycle and pedestrian facilities.	Bike & Pedestrian	Jefferson	Louisville Metro	\$1,035,000	2020	MEDIUM
Addition of pedestrian facilities.	Bike & Pedestrian	Jefferson	Louisville Metro	\$1,695,500	2021	LOW
The project will allow traffic to be unimpeded by the very heavily used CSX rail line improving congestion. It will also provided enhanced safety as emergency vehicles will be able to bypass the rail line.	Roadway	Oldham	Oldham Co.	\$16,710,000	2025	LOW
Currently a dangerous segment, road diet should serve to significantly alter traffic behavior, extra vegetative buffer and lane reduction will increase safety of maneuvering vehicles within this busy commercial corridor. This segment of Lewis and Clark hosts the 7th Top Crash List for Indiana Intersections (Triangle/ Blackiston Mill Road) and the 18th Top Crash List for Indiana Intersections (Greentree North), likely because this segment is 6-lanes wide and runs through a major commercial corridor. Lanes are 11'.	Roadway	Clark	Clarksville	\$6,000,000	2025	LOW
Project was identified in the Floyd County Major Thoroughfare Plan to provide multi-modal access and recreation opportunity between the two commercial nodes. Currently, no multi-modal access or trail system exists in unincorporated areas of Floyd County.	Bike & Pedestrian	Floyd	Floyd Co.	\$2,000,000	2027	LOW
The northeastern corridor of the Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists.	Bike & Pedestrian	Jefferson	Louisville Metro	\$40,000,000	2035	MEDIUM
The Ohio River Levee Trail corridor of the Louisville Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists.	Bike & Pedestrian	Jefferson	Louisville Metro	\$34,000,000	2025	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Louisville Loop Riverwalk Shared-Use Path System	2234		<p>Design and construct an accessible shared-use path system connecting the Ohio River Valley Northeast section of the Louisville Loop from Big Four Bridge in Waterfront Park to the Olmsted Parkways shared use path system and the Ohio River Levee Trail section of the Louisville Loop at West Broadway and Southwestern Parkway. This corridor is approximately 8.0 miles of the 100+ mile Louisville Loop.</p> <p>There are significant lengths of this part of the Louisville Loop that are seasonally flooded. To accommodate the extensive use of the Loop during those seasons, there needs to be a detour alternate route. Northwestern Parkway parallels this section of the Loop and has appropriate ROW for design and construction of bicycle and pedestrian facilities. The improvements vary over 4 distinct zones on Northwestern Parkway:</p> <p>Zone 1 - from West Market Street to Bank Street includes a 10' wide shared use path, restriping pavement dedicated bicycle lanes, signage, and other bicycle and pedestrian facilities, and remains two-way with 2 vehicular travel lanes.</p> <p>Zone 2 - from Bank Street to 39th Street includes 10' shared use path, restriping pavement, dedicated bicycle lanes, signage, and other bicycle and pedestrian facilities, and will be reduced from 2 one-way lanes to 1 lane.</p> <p>Zone 3 - from 39th Street to 33rd Street includes restriping pavement, dedicated bicycle lanes, a cycletrack, signage, and other bicycle and pedestrian facilities, and will be reduced from 4 one-way lanes to 2 one-way lanes.</p> <p>Zone 4 - from 33rd Street to 31st Street includes restriping pavement, dedicated bicycle lanes, a cycletrack, signage, and other bicycle and pedestrian facilities, and remains as two-way traffic with 2 vehicular lanes.</p>
Louisville Loop Southern Shared-Use Path	1857		<p>Design and construct a shared-use path system connecting the Ohio River Levee Trail section of the Louisville Loop at Watson Lane to the Parklands of Floyds Fork section of the Louisville Loop at Bardstown Road. This corridor is approximately 33 miles of the 100+ mile Louisville Loop.</p>
Luther Luckett Collector	1188		<p>Construct new 2 lane road along Corrections Department Property from the main entrance of the KY State Reformatory at KY 146 to Dawkins Road. The road will have restricted access for public safety and the lanes will be 12' wide.</p>
Main Street/Story Avenue Intersection	2388	00561.00	<p>Intersection rebuild at Main Street/Story Avenue/Baxter Avenue including transitions between Wentzel Street to the west and Johnson Street to the east, taking an unsignalized intersection that accommodates three one-way segments and transforming it into a more traditional four-legged intersection; including a new traffic signal, lane markings, crosswalks, and related lane-assignment signage .</p>
Market Street Revitalization Project	2760		<p>Following full closure and cleanup of the Jeff Boat Facility, reconstruct Market Street from Spring Street to Blanchel Terrace. Reconstruction will include new pavement, curb, gutter, sidewalks, and sharrows. In addition to sidewalks, street trees, benches, pedestrian lighting and other amenities shall be provided to create a pleasant walkable connection from Downtown Jeff to future riverfront development at the former Jeff Boat site.</p>
Marriott Drive Improvements	2764		<p>Streetscape improvements for entirety of Marriott Drive: 14'+ two-way traffic lanes (nearby RV sales), 5' sidewalk, curb and gutter, sharrows or designated bike lanes.</p>

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The Riverwalk corridor of the Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists. The proposed detour alternate route - which currently has limited and disconnected pedestrian facilities - will accommodate pedestrians as well as all categories of bicyclists along the local streets in the Portland and Shawnee neighborhoods.	Bike & Pedestrian	Jefferson	Louisville Metro	\$16,000,000	2028	MEDIUM
The southern corridor of the Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists.	Bike & Pedestrian	Jefferson	Louisville Metro	\$66,000,000	2035	MEDIUM
The road will allow restricted access to the prison for transport of prisoners, staff, and trucks for supplies, maintenance, etc. This need is reduce congestion at the existing entrance and to provide a second entrance to the facility.	Roadway	Oldham	Oldham Co.	\$1,500,000	2026	FURTHER REVIEW
Project will enhance pedestrian and bicycle safety and mobility by signaling the intersection and eliminating free flow conditions.	Roadway	Jefferson	Louisville Metro	\$4,582,899	2021	LOW
Following the closure and full cleanup of the Jeff Boat Facility, it is anticipated that some quantity of riverfront development will happen on this site. Currently much of the street is in disrepair due to years of freight traffic in the area and general disinvestment in an industrial area. Improvements to this street will be needed to support new development and ensure that there is a safe, accessible, and pleasant pedestrian connection to Downtown Jeffersonville.	Roadway	Clark	Jeffersonville	\$6,000,000	2028	LOW
Segments on this road are currently dangerous for pedestrians and motorists. Road lacks sidewalks. Nearby hotel guests and other pedestrians walk in the road, causing potential hazards within this commercial section.	Bike & Pedestrian	Clark	Clarksville	\$1,500,000	2023	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
McNeely Lake Park Road and Shared Use Path System	1823	08400.00	This project will design and construct a new road and shared use path system to connect the north, south, and east sections of McNeely Lake Park. The road will connect Cooper Chapel Road on the north through Quail Chase Golf Course east of McNeely Lake, to Cedar Creek Road (KY 864) on the southeast at the soccer complex and to Mount Washington Road (KY 2053) on the southwestern portion of McNeely Lake Park. The shared use path system will connect Cooper Chapel Road on the north to the Louisville Loop in McNeely Lake Park on the east and west sides of McNeely Lake, and connect Mount Washington Road to the Louisville Loop in McNeely Lake Park, and connect the Cooper Farms neighborhood and the Washington Green neighborhood to the McNeely Lake Park shared use paths. Bicycling and pedestrian facilities will be designed and built as a part of this project.
Mount Tabor Road	309	0710808	Phase I - Reconstruct as a two lane road (no additional lanes) from Grantline Road to just west of Klerner Lane intersection including new full depth pavement section, stabilization of adjacent hillsides to arrest slides, slightly narrower reconstructed travel lanes, curb/gutter/drainage system installation, and provision of sidewalks on each side separated from the curb/gutter by a 5' grass strip. Phase II - Klerner Lane to Charlestown Rd. is forthcoming and will include the same improvements as above. A new intersection control at the Klerner Lane intersection will be part of this phase, including new crosswalks."
Mud Lane	449		Widen Mud Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 1450 (Blue Lick Road) to Brookley Drive. Project will provide sidewalks and review for a bicycle facility.
New Cut Road Complete Street	2769		New Cut Road is a four lane cross section from Southern Parkway to Palatka Road, 5 lane cross section from Palatka Road to I-265 and from I-265 to Mitchell Hill Road, 2 lanes with a turn lane at intersection. This project would reconstruct New Cut Road/West Manslick Road, adding access management, sidewalks and bicycle accommodations. We would review for the appropriateness of road re-configurations to achieve better pedestrian accommodations, fill in sidewalk gaps and create bike lanes.
North Clarksville Multi-Use Trail	2750		10' Multi-use bike and ped trail that follows a sewer easement, 8' to 10' separation between multi-use path and vehicular traffic when no curb is in place, minimum 5' required separation between multi-use path and vehicular traffic when curbs are in place.
Northwest Mt. Washington Connector	2070	08710.00	New route northwest of Mt. Washington from US 31E to KY 2706. (12CCN)(14CCN). CHAF ID: IP20150164.
Ohio River Greenway Extension	2762		Following full cleanup of the Jeff Boat Facility, this project will extend the existing Ohio River Greenway from Walnut Street, upriver, to Arctic Springs Road and up to Utica Pike.
Old Heady Road	1325		Reconstruct and widen Old Heady Road from 2 to 3 lanes (3rd lane will be a center turn lane) from KY 155 (Taylorsville Road) to Chenoweth Run Road. Add pedestrian accommodations on both sides of Old Heady Road for the length of the project.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
This project will provide new and improved accessible bicycle, pedestrian and vehicular access to and within McNeely Lake Park. McNeely Lake Park is an 847 acre park in south Louisville Metro which has never had internal park connectivity for vehicles, pedestrians, or bicyclists. In order to use the various sections of the park, users would have to drive miles along county roads from the north section to the southeast section and to the southwest section.	Roadway	Jefferson	Lou. Metro Parks	\$15,000,000	2035	LOW
Where Mt. Tabor Road is very near Rail/Slate Run Creek, this project will preserve the road by stabilizing the creek embankments and to continue to provide vehicular access to the elementary school at Mt. Tabor Road and Grantline Road and shopping areas at each end of Mt. Tabor Road. Sidewalks will provide pedestrian access for the first time along this road. Travel lane width will be slightly reduced. This project will add a school flasher, upgrade the signal at Grant Line Rd, and add audible pedestrian signals.	Bike & Pedestrian	Floyd	New Albany	\$11,000,000	2025	LOW
As planned development occurs along KY 1450 (Blue Lick Road), Mud Lane will increasingly serve as a much needed outlet for traffic. Mud Lane is also a high accident corridor which will worsen as traffic volumes increase. This project will reduce traffic congestion and improve safety.	Roadway	Jefferson	Louisville Metro	\$11,000,000	2035	LOW
New Cut Road was widened from a 3 lane section to a 5 lane section from just north of the railroad tracks to I-265 in 2004, with anticipation of traffic growth. ADT's along New Cut Road in this segment have been stagnate to date according to KYTC traffic historic counts. There is opportunity to create a complete streets and take some of the unneeded excess right-of-way from the 2004 widening as well as north and south of that segment. The Fairdale round-about was open in 2017 and a greenspace beside the round-about with a Louisville Loop/Jefferson Memorial Forest trailhead installation. This will be a great opportunity to connect pedestrian and bicycle gaps to reach the proposed shared used paths on both sides of the terminus of this project (Southern Parkway and Jefferson Memorial Forest).	Roadway	Jefferson	Louisville Metro	\$15,000,000	2035	HIGH
Northern Clarksville currently lacks bike and pedestrian facilities, and access to parks and greenspace in general, a multi-use trail will rectify the lack of recreation activities and provide connectivity to other corridors.	Bike & Pedestrian	Clark	Clarksville	\$14,000,000	2028	LOW
The purpose of this project is to better facilitate traffic movement between Eastern Jefferson and Bullitt Counties, as well as to reduce traffic congestion in downtown Mt. Washington. The need of improved mobility in north Mt. Washington by providing an alternate route between KY 2706 (Wales Run) and US 31E (Bardstown Road) will serve to alleviate traffic congestion (due to future increased traffic volumes and current roadway conditions) in downtown Mt. Washington, while better facilitating the transitioning traffic between US 31E and KY 2706. Increased connectivity will also allow for enhanced public safety by reducing traffic congestion, and decreasing the response time of emergency personnel.	Roadway	Bullitt	KYTC	\$13,773,000	2030	LOW
The Ohio River Greenway extends from Downtown Jeffersonville to Downtown New Albany. With the closure of the Jeff Boat facility there is now an opportunity to extend the Greenway another 1.3 miles up river.	Bike & Pedestrian	Clark	Jeffersonville	\$4,000,000	2026	LOW
Improve roadway to current standards and increase safety for motorized traffic. Increase pedestrian safety and connectivity from Taylorsville Road to existing and proposed residential development.	Roadway	Jefferson	Louisville Metro	\$45,620,937	2040	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Old Henry Road	198	00367.00	New route between the KY 362 (Ash Avenue) in Pewee Valley and KY 22 (Ballardville Road) / KY 329B (KY 329 Bypass) in Crestwood. Project is Section 2 of the 5-367.00 Crestwood Bypass parent project. Section 1, KY 3084 (Old Henry Road) from I 265 (Gene Snyder Freeway) to KY 362 (Ash Avenue), being constructed under 5-367.20. Project design will evaluate 3-lane roadway section with two-way center turn lane and will consider accommodations for bicyclists and pedestrians. IP20110079."
Old Henry Road	1936	00367.20/ 00367.21	Extension of Old Henry Road east to Ash Avenue (KY 362) (12CCR). CHAF IP20160276.
Old Vincennes Road Reconstruction Phase 3	542		Phase 3 of Reconstruction of Old Vincennes Road from south of Luther Road to US 150 in Floyds Knobs. Reconstruction includes widening of lanes/shoulders, drainage infrastructure, and reduction of unsafe sight lines. Improvement of intersections at Schrieber Road with turn lanes, and reconfiguration at Duffy Road/Highlander Point Drive.
Oldham County Bicycle & Pedestrian Trail	327	00410.00	Construct a non-motorized corridor from LaGrange to Jefferson County line along the Buckner Connector, the new 393 alignment to Wendell Moore Park and/or along KY 146 at the new pedestrian bridge over I-71.
Olmsted Parkways Bicycle/ Pedestrian Improvements	2142	03213.00	This project will provide planning, design, and implementation phases for Olmsted Parkways Bicycle and Pedestrian Improvements to rehabilitate Eastern Parkway to modern standards, including lane reductions and complete street elements of bicycle lanes, shared use paths, and sidewalks.
Olmsted Parkways Multi-Use Path System	1273	00506.00, 03709.00	Construct a multi-use path system connecting Algonquin, Southwestern and Southern Parkways with existing trails to create a continuous 8 miles of connected paths for pedestrians and bicyclists. Change from 4 lanes to 3 lanes (3rd lane will be a center turn lane) on Southwestern Parkway from Shawnee Park to I-264, Algonquin Parkway from I-264 to Winkler, Southern Parkway from New Cut Road to South 3rd Street.
On-board Intelligent Transportation Systems	2787		Replacement and expansion of Automatic Vehicle Location (AVL), on-board passenger information including next stop announcement, mobile surveillance and other Intelligent Transportation System (ITS) technologies.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The purpose of this project is to improve mobility and reduce congestion between the KY 3084 (Old Henry Road) interchange at I-265 (Gene Snyder Freeway) and KY 329B (KY 329 Bypass) in Crestwood. This project is needed to improve mobility between the KY 3084 (Old Henry Road) interchange at I-265 (Gene Snyder Freeway) and KY 329B (KY 329 Bypass) in Crestwood. The existing two-lane KY 146 through Pewee Valley has poor roadway geometrics, numerous roadside obstacles, and high traffic volumes contributing to unsafe travel conditions.	Roadway	Jefferson, Oldham	KYTC	\$47,330,000	2030	LOW
The purpose of this project is to provide improved access to the I-265/Old Henry Road (KY 3084) interchange for vehicles traveling from Oldham County, Shelby County, and far eastern Jefferson County. This project is needed because vehicles are using a residential street, Village Green Boulevard, to access Old Henry Road and the interchange. Roadway deficiencies include 10' lanes, 1' shoulders, and substandard geometrics.	Roadway	Jefferson, Oldham	KYTC	\$18,180,000	2024	LOW
Old Vincennes Road is the main route from US 150 to Floyd Central High School and Highland Hills Middle School. This section is also used for one of Floyd County's main commercial nodes, Highlander Point. Current infrastructure does not meet growing needs of area.	Roadway	Floyd	Floyd Co.	\$5,000,000	2026	LOW
The project will allow alternative transportation, calm traffic, build transit oriented development, improve the environment, encourage healthy lifestyles through safer bike and pedestrian access, and link parks, schools, neighborhoods, and commercial areas throughout the County.	Bike & Pedestrian	Oldham	Oldham Co.	\$1,225,000	2025	MEDIUM
Eastern Parkway is one of the original historic Olmsted Parkways - now over 100 years old - and the most heavily used parkway in Louisville (as Alt US 60, part of the Federal Highway System). Age and use have brought on serious deterioration of an underdesigned facility for current conditions. This project intends to evaluate existing conditions of roadway construction, curbing, drainage, bicycle and pedestrian facilities, and other parkway corridor elements to determine the extent of rehabilitation items required to bring Eastern Parkway up to modern standards and implement the recommendations of the 2009 Olmsted Parkways Shared Use Pathways master plan, which include lane reductions, bicycle lanes, shared use paths, and sidewalks.	Bike & Pedestrian	Jefferson	Lou. Metro Parks	\$15,000,000	2035	MEDIUM
Implement recommendations of Olmsted Parkways Shared-Use Pathway System Master Plan to enhance bicycle and pedestrian opportunities along parkways that extend and link to existing and proposed Louisville Loop. This project will provide an accessible shared-use pathway system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Olmsted Parkways Shared-Use Pathway System intends to serve all categories of bicyclists.	Bike & Pedestrian	Jefferson	Louisville Metro	\$25,000,000	2024	MEDIUM
Continual improvement of reliability, safety, and convenience of service for transit customers.	Program*	Bullitt, Jefferson, Oldham	TARC	\$13,075,000	2040	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
One-Way Street Conversion to Two-Way Phase 1	1809	00470.00	Design and construction for the conversion of the following one-way streets in downtown Louisville to two-way traffic flow: Jefferson Street (Floyd to Baxter Avenue); Liberty Street (Jackson to Baxter); Muhammad Ali Blvd. (Jackson to Chestnut Connector); Chestnut Street (Jackson to Chestnut Connector); 8th Street (Kentucky to Main); 7th Street (Oak to Main); Shelby Street (Gray to Main Street); and Campbell Street (Chestnut to Main Street).
One-Way Street Conversion to Two-Way Phase 2	1810	0470.10	Design and construction for the conversion of the following one-way streets in downtown Louisville to two-way traffic flow: 3rd Street (Market Street to Main Street); and Main Street (2nd Street to Story Avenue). Project length is 1.14 miles.
Outer Loop Circulator	2667		"The Outer Loop Circulator trips will complement and enhance the existing level of service and ridership on the connecting routes: Route 4 - 150 weekday trips, 3,500 average weekday boardings, 85,000 total monthly boardings; Route 6 - 61 weekday trips, 1,700 average weekday boardings, 40,000 total monthly boardings; Route 18 - 146 weekday trips, 7,000 average weekday boardings, 180,000 total monthly boardings; Route 45X - 10 weekday trips, 75 average weekday boardings, 2,000 total monthly boardings. Funding for service begins FY 2020."
Outer Loop, Fegenbush Lane, and Beulah Church Intersection	365	00122.00	Major revision of the intersection located at the Outer Loop, Fegenbush Lane, and Beulah Church Road. Turn lane to be completed by Transportation Cabinet per agreement. (04CCN) (08CCR)(10CCR)(12CCR) CHAF IP20160080.
PARC and Ride	455		Construct and operate Park & Ride lots that would tie directly into Express or Limited Stop transit service on interstates and highways. These lots would serve as route transfer points and bus layover locations as needed.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
One-way streets make for efficient movers of traffic, but can often introduce safety concerns for motorists, bicyclists and pedestrians because they tend to provide for higher travel speeds than two-way streets and in some cases hinder opportunities for economic development as certain businesses have a formal policy against locating on one-way streets. The benefits of two-way streets are numerous. They tend to have slower travel speeds than one-way streets, they reduce confusion for motorists unfamiliar with the area, they provide better access to both businesses and residential areas, and in some circumstances they can reduce the traffic load on other one-way streets.	Roadway	Jefferson	Louisville Metro	\$4,390,000	2020	LOW
One-way streets make for efficient movers of traffic, but can often introduce safety concerns for motorists, bicyclists and pedestrians because they tend to provide for higher travel speeds than two-way streets and in some cases hinder opportunities for economic development as certain businesses have a formal policy against locating on one-way streets. The benefits of two-way streets are numerous. They tend to have slower travel speeds than one-way streets, they reduce confusion for motorists unfamiliar with the area, they provide better access to both businesses and residential areas, and in some circumstances they can reduce the traffic load on other one-way streets.	Roadway	Jefferson	Louisville Metro	\$825,000	2025	LOW
TARC will implement an Outer Loop circulator route to add an estimated 8 peak morning and 8 peak afternoon weekday trips along the corridor from Iroquois Park to Renaissance Business Center and Commerce Crossings via National Turnpike, Outer Loop, and Preston Highway. This new service will add connections to high frequency routes 4 and 18, local route 6, and express route 45X. TARC will work closely with area businesses to address their specific needs, shifts, and hours of operations.	Transit	Jefferson	TARC	\$1,389,000	2022	LOW
The primary purpose of the project is to relieve the vehicle delay and improve safety while considering the possible residential, commercial, environmental, and historical impacts of any solution. Currently KY 1065 (Outer Loop), Fegenbush Lane, Beulah Church Road, and Watterson Trail (CR-1005H) converge within 900' of each other. The junction is controlled by two signalized intersections. Both are plagued by excessive vehicle delay during the morning and evening peak periods. The Critical Rate Factor (CRF) for this section of KY 1065 is 1.817 from 2012 to 2016.	Roadway	Jefferson	KYTC	\$6,270,000	2026	MEDIUM
To improve mobility options through the implementation of alternate travel modes and improvement to existing alternate travel modes by increasing the number of ways that people can access express transit service. To reduce the demand placed on roadways and interstates by single occupant vehicles by moving commuter and functional trips to transit by improving the ways that people can access express transit service. To improve traffic flow on roadways and interstates by moving single occupant vehicle trips to transit and thus increase the people-carrying capacity of the roadway. To improve air quality by lowering the emissions per person by shifting people in single occupant vehicles to transit vehicles by increasing the number of passengers accessing service at Park & Ride lots.	Transit	Bullitt, Jefferson, Oldham	TARC	\$11,960,000	2025	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Park Hill Streetscape Improvements	1864		Create pedestrian-friendly streetscapes in the Park Hill Corridor, namely 9th and 7th Streets and Kentucky Street.
Plantside Drive	2608	80003.00	Extend Plantside Drive from Rehl Road to Taylorsville Road.
Port of Indiana Truck-to-Rail and Rail-to-Water Improvements	2231		Completion of a waterfront rail loop, construction of a rail-to-barge transfer facility with mini-rail loop, extension of rail within the existing port boundaries, construction of an additional rail siding adjacent to the existing rail yard that will allow rail carriers to deliver a 90 car unit train to the port, and construction of a 3 acre truck-to-rail paved intermodal yard. All projects are proposed to be constructed within the existing port boundary.
Portland Neighborhood Transportation Plan	1332		Convert existing, arterial one-way streets in Portland to two-way operation.
Progress Way Reconstruction	2741		Progress Way is utilized by UPS and several industrial users, it is also used by RVs stemming from nearby Cunningham campers, yet majority of road is 2-way traffic with only 10' lanes. Road will need to be widened in order to provide a middle turning lane, all lanes need to be at least 12'. 6-7' sidewalk improvements with 5-6' planting space will be constructed on the southern portion of Progress Way and will connect to existing sidewalk improvements at Sam Gwin Dr and extend to I-65 Overpass. 2' curb and gutter will also be constructed throughout. 4-way stop sign may be needed at Sam Gwin intersection. I-65 overpass will require restoration as it is showing wear and tear.
Rangeland Road	2153	08801.00	Widen Rangeland Road from 2 to 3 lanes from Poplar Level Road to Shepherdsville Road, for 1.23 miles.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Improvements within the right-of-ways and public spaces in the Industrial Corridor have an impact beyond simply improving the visual appeal. Streetscape features and open spaces play a key role in defining a location's sense of place, positively or negatively. Currently, the deteriorated sidewalks, nonexistent street trees, and inhospitable open spaces contribute to perceptions that the Industrial Corridor is a forgotten place. In addition, the lack of bus shelters hinders the potential for increased transit ridership; the impervious character of the streetscape compounds the combined sewer overflow issue; and the lack of shade increases the urban heat island effect, affecting Louisville Metro air quality. Strategic public realm improvements within the priority focus area can improve quality of life for local businesses and residents, attracting future investment. Create Pedestrian-friendly Streetscapes Streetscapes that address the needs of pedestrians create the kind of atmosphere and sense of place businesses are looking for. Pedestrian-oriented streetscapes include features like street trees to create shade, seating areas for respite, and sidewalks buffered from vehicular lanes by a landscape strip. More and more, employees are looking for exercise opportunities at lunch. A walkable network of streets can address that need without occupying the valuable land of an individual company. Pedestrian-oriented lighting creates even illumination levels, making it easier to recognize faces, leading to a safer pedestrian environment.	Bike & Pedestrian	Jefferson	Louisville Metro	\$2,000,000	2030	LOW
CHAF Purpose: The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, and 4) Mobility within designated freight corridors. CHAF Need: The following needs have been identified for this project: 1) Improve Roadway Safety, 2) Improve Access and Increase Capacity for all vehicle types.	Roadway	Jefferson	KYTC	\$34,150,745	2026	LOW
The purposes of the project are to to improve efficiency of rail operations along the Port of Indiana - Jeffersonville waterfront, provide the ability to accommodate delivery of a 90 car unit train, allow the transfer of cargo efficiently between rail cars and trucks, and increase the Port of Indiana - Jeffersonville's bulk commodity capacity by providing a direct rail-to-water facility to help the port meet increasing global demand for agricultural commodities and other bulk materials.	Roadway	Clark	Ports of Indiana	\$17,000,000	2020	FURTHER REVIEW
Recent studies by Metro have identified a number of benefits to converting one-way streets to two-way operation, especially in neighborhood settings such as Portland Avenue and Bank Street. These facilities will be slower, safer, and more active. They will support more direct connections for all modes of travel.	Roadway	Jefferson	Louisville Metro	\$1,500,000	2030	LOW
Current configuration is dangerous, pedestrian vehicles and industrial users both utilize this busy road, the narrow lanes and lack of safety improvements aren't currently sustainable with the amount of traffic.	Roadway	Clark	Clarksville	\$8,000,000	2028	LOW
Reduce congestion and improve safety on Rangeland Road for 1.23 miles.	Roadway	Jefferson	Louisville Metro	\$5,670,000	2025	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Reconstruction Existing Interchange from Northbound KY 1747 to I-64	181	00052.00	Reconstruct existing interchange including construct ramp 7 ""flyover"" from northbound KY 1747 (Hurstbourne Parkway) to westbound I-64 and re-time signals along KY 1747 (Hurstbourne Parkway). Existing Studies done by MPO MTP (10/02, 12/05, 10/10).
Reconstruction of South Clark Boulevard	2772		The proposed reconstruction of South Clark Boulevard project will implement complete street principles to enhance pedestrian circulation, provide a safe and buffered above grade cycle track, improve vehicular movement, and add landscaping along the existing corridor. The segment from Missouri Avenue to the Louisville and Indiana Railroad overpass would become a four-lane divided median roadway. The intersection with Missouri Avenue will require a traffic light as current configuration is somewhat confusing/dangerous. The portion from the railroad overpass to Montgomery Avenue would become a two-lane road with a parking lane on each side. The section from Montgomery Avenue to South Sherwood Avenue would be a sidewalk component to connect to existing pedestrian facilities. Improvements to the L&I overpass may be constructed as part of a separate project. The project includes new curb and gutter with sidewalks and planting strips on each side of the roadway. An above grade cycle track would be included on one side of the roadway. The intersection at Missouri Avenue would need to be rebuilt and realigned to allow for better traffic flow and a safer pedestrian, cyclist, and motorist environment.
Reeds Lane Extension	2763		This plan will improve the geometry of the Reeds Lane and 10th Street intersection and extend Reeds Lane through the existing Shopping Center. The extension will connect to the existing Kehoe Lane and create a new north-south connection across 10th street at a signalized intersection.
Regional Connector	2609	00564.00	KYTC Highway Plan (June, 2018): Study new connection between I-65 in Bullitt County to I-64 in Shelby County to I-71 in Oldham County. Additional Considerations: Study new connection between I-65 in Bullitt County to I-64 in Shelby County to I-71 in Oldham County.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. This project will reduce traffic congestion and delay by improving ramp and intersection operating conditions, improve vehicular safety by reducing potentially dangerous uncontrolled vehicle conflict points and providing safe access between local and regional highway systems, and will enhance the existing system to provide more efficient connections between local and regional highway systems and promote better use of the existing transportation infrastructure. Current and projected traffic conditions within the study area do not meet the minimum acceptable operating standards. Many of the study intersections operate at poor or failing levels of service during morning and afternoon peak hours. Traffic volumes in the corridor are expected to grow by approximately 28% by 2025. The current roadway design combined with excessive traffic congestion creates a situation where drive safety could be compromised. Significant traffic congestion also leads to longer emergency vehicle response.	Interstate/ Interchange	Jefferson	KYTC	\$82,596,000	2028	MEDIUM
The project area is located in the South Clarksville corridor which has been targeted for key development activities.	Roadway	Clark	Clarksville	\$8,500,000	2026	LOW
The 10th Street Strategic Investment Plan (2018) identified several opportunities to help revitalize the aging commercial corridor. One concept presented is to create a new north-south spine through the existing (and aging) Jeff Plaza Shopping Center, that can be used as a catalyst for redevelopment of the site. The plan developed creates not only a through road that better connects the north and south sides of 10th street, but also creates a small community greenspace around which new buildings can be constructed.	Roadway	Clark	Jeffersonville	\$3,000,000	2027	LOW
The purpose of the 65-71 Regional Connector project is to: 1. Improve regional connectivity and mobility. 2. Improve accessibility to and within growing counties and communities. 3. Reduce congestion on existing routes by improving traffic flow on and between major arterials and interstates 4. Provide opportunities for economic development and support land use, development, and growth objectives.	Program	Bullitt, Oldham, Shelby	KYTC	\$2,000,000	2020	FURTHER REVIEW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Reimagine 9th Street	2733		<p>This project is a major complete street re-design of 9th Street just west of the Central Business District of Louisville from the Ohio River south to its intersection with Broadway. Ninth Street was originally designed to serve as a freight route with a right of way that ranges from 125 to 206 feet wide with 4-6 lanes and 45-foot medians. This project would redesign the six-lane cross section as a four lane urban arterial with turn lanes and transform the underutilized right of way into a linear park experience that accommodates all users. This project will include:</p> <ul style="list-style-type: none"> A Redesign of the six-lane cross-section as a four-lane urban arterial with turn lanes, Use of the reclaimed right-of-way for an urban trail, off-street bicycle facilities, wider sidewalks, and transit amenities, Narrowed travel lanes that use a wider outside lane to accommodate trucks and buses, Calmed traffic with maintained roadway efficiency, using upgraded signals and optimized timing on 9th Street and Broadway, Enhanced corridor for non-vehicular users through landscaping, green infrastructure, and a linear park with inviting gathering spaces, Reduced roadway width to facilitate safe crossings by pedestrians and cyclists, New recreational facilities, event space, community gardens, and open space, and A new pedestrian connection to River Road and the planned fourth phase of Louisville's Waterfront Park.
River Falls Mall: Ring Road Extension	2735		<p>The northern leg of the River Falls Mall's Ring Road will be reconstructed and extended to create a continuous east-west connection between Greentree Boulevard and Broadway Street. The road will extend on new alignment to the east to cross Cedar Street and then into Broadway. The Bass Pro round-about will remain. Typical sections would be 2' buffers, one 7' cycle track, two 5' sidewalks, two 5-7' landscape buffers, two 2-3' curb and gutter, and two 12' lanes. The northern portion of Horn Street will be vacated after completion of this project, Woodstock Drive has already been vacated from Cedar Street to Broadway Street.</p>
River Road	163	00091.02	<p>Widen River Road from 2 to 4 lanes from east of Beargrass Creek near Pope Avenue to Zorn Avenue. To include bike lanes and shared use path. Project length is 1.3 miles.</p>
River Road Bicycle & Pedestrian Improvements	1423	00499.00	<p>Design and construct an accessible shared-use path system connecting the Riverwalk section of the Louisville Loop from Big Four Bridge in Waterfront Park to the Northeast section of the Louisville Loop in Prospect at River Road and US 42. This corridor is approximately 8.5 miles of the 100+ mile Louisville Loop.</p>
River Road Extension	1338	00091.08	<p>Extend River Road west from 7th Street to Northwestern Parkway. The project is feasible using a low design speed criteria and a two-lane section.</p>
River Road Multi-Modal Improvements - 3rd Street to 7th Street	2540	03217.00	<p>Re-allocation of the northern most lane traveling in the west bound direction and relocation of the existing barrier wall to expand the existing separated multi-use path of sub-standard width. In addition, street lighting would be updated and placed into the relocated barrier wall to reduce maintenance costs and better illuminate the path beneath the shadow of the interstate. This would be accomplished by transitioning the two westbound lanes between 3rd Street and 4th Street from 13 feet in width to 11 feet in width at 4th Street. This will allow the barrier wall to be moved south four (4) feet, increasing the width of the current shared use path from a sub-standard width of six (6) feet to a conforming width of ten (10) feet. Between 4th Street and 6th Street, we propose to reduce from two westbound lanes to a single westbound lane with a shoulder, allowing the multimodal path to increase to 14 feet in width. This project dovetails with the planned 4th Street bike connection improvement projects which will feed cyclists directly into this project via actuated loops and allow seamless interaction for traffic coming from downtown that desire to travel west along the riverfront. Additionally, the junction at 6th Street will be improved to provide better connectivity with dedicated bicycle facilities on 6th Street. Pedestrian improvements are intended as well at the intersections of River Road with 3rd Street, 4th Street, and 6th Street."</p>

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Eliminate the physical and psychological barrier that the "9th Street divide" creates between Louisville's Central Business District and the West End neighborhoods; create a safe and accessible travel experience for all users including pedestrians, cyclists and transit riders; increase economic vitality through creating a safe, attractive and comfortable environment; provide opportunities for parks and open spaces, playgrounds, recreation access, street tree canopy and storm water management features; and provide a safe and efficient corridor for vehicle and freight travel.	Roadway	Jefferson	Louisville Metro	\$13,000,000	2025	MEDIUM
The reconstruction will will transform Ring Road into a public urban street, instead of a mall access road, and should encourage more diverse types of development.	Roadway	Clark	Clarksville	\$2,000,000	2024	LOW
This project will improve access to downtown Louisville and the waterfront.	Roadway	Jefferson	Louisville Metro	\$24,270,000	2021	LOW
The Ohio River Valley Northeast corridor of the Loop will provide an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because the Loop intends to serve all categories of bicyclists.	Bike & Pedestrian	Jefferson	Louisville Metro	\$17,000,000	2035	MEDIUM
Project will extend roadway corridor.	Roadway	Jefferson	Louisville Metro	\$19,577,400	2024	FURTHER REVIEW
Improve safety and comfort of walkers, joggers, and cyclists along the riverfront by re-allocating the northern most travel lane of River Road, relocating the barrier wall and adding street lighting to illuminate the path beneath the shadow of the interstate. The existing path forces users of the path into blind-spots behind the supporting structure of I-64 above. This project allows us to make a safe connection for all users while not adversely impacting operating conditions of motor vehicles.	Bike & Pedestrian	Jefferson	Louisville Metro	\$854,635	2022	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Riverport Circulator - Access to Jobs in Southwest Louisville	2463	03717.00	The Riverport Circulator Project will expand public transportation service in the Riverport employment center, and connect homes to jobs in the Southwest Metro Area, adding connections to arterial routes 19 and 63, crosstown route 29, express route 50X, local route 18-Dixie-Preston Hwy, and the proposed BRT service on Dixie Highway. Funding for service begins in FY 2018.
Riverside Drive	2393	1700725	Reconstruct Riverside Drive from the town limits to Ashland Park, including sidewalks and parking on both sides of roadway, and an elevated cycle track on the south side of roadway. 0.25 miles.
Salem-Nobel Road	539	0400935	Reconstruct Salem-Nobel Road as a 2 lane (no additional lanes) road from IN 62 to IN 403.
Sam Gwin Extension	2739		Extension of Sam Gwin Drive to Leisure Way: 2-12' Lanes, curb and gutter, 6' grass strips and 6' sidewalks on each side.
Section 5310 Program	2291		TARC is the designated recipient of federal Section 5310 grant funds for the Louisville Urbanized Area (UZA). TARC distributes these funds to private nonprofit groups that are meeting the transportation needs of older adults and people with disabilities when normal transportation service is unavailable, insufficient, or inappropriate to meeting these needs.
Smyser Avenue Relocation	2749		New road project connecting South Clark Boulevard to Riverside Drive. Project extends through flood-wall (requires new gate) to connect with Riverside Drive. Two 11' traffic lanes, curb and gutter, bike/ped, 3-way stop or traffic light at junction with Center Street/Court Avenue.
South Louisville Loop Connector	1425		This design-build project is for contextually appropriate bicycle and pedestrian connections along 3rd Street and Southern Parkway up to the intersection of New Cut Road. This multi-modal connection links Downtown, UofL, Iroquois Park, and the Louisville Loop. A mix of on-road and off-road facilities will be required to make an all ages and abilities facility.
Spring Street - Eastern Boulevard Intersection	2756		This project will fully reconstruct the Spring Street and Eastern Boulevard intersection.
Spring Street - Eastern Boulevard to Dutch Lane	2757		Reconstruct Spring Street from Eastern Boulevard to Dutch Lane as a two lane road with bicycle lanes, new curb and gutter, and sidewalks. Provide turn lanes where necessary.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The TARC Riverport Circulator project will significantly improve transit connectivity and increase people-moving capacity to this employment center. Trips made by bus to the southwest neighborhoods and Riverport businesses will be more convenient and attractive for all users, especially commuters, which will increase ridership while reducing vehicle miles traveled, saving energy and improving the air quality/reducing greenhouse gas emissions.	Transit	Jefferson	TARC	\$3,180,000	2020	MEDIUM
Reconstruction of the existing roadway, improving the safety of the corridor and improving pedestrian and bicycle facilities.	Roadway	Clark	Clarksville	\$7,854,394	2024	LOW
Road improvements to make road safe; horizontal and vertical alignment. The area is rural in nature with residential and commercial subdivisions springing up along the route. The terrain is rolling to steep in some areas with trees lining the road, which creates a safety hazard for the traveling public. There is also a sharp "S" curve within the project limits with very limited visibility and substandard geometry.	Roadway	Clark	Clark Co.	\$12,900,000	2021	FURTHER REVIEW
Helps achieve more of a complete streets design, provides easier access to town's hotel corridor, and will help continue economic development within Broadway District.	Roadway	Clark	Clarksville	\$1,200,000	2020	LOW
Transit improvements for seniors and individuals with disabilities.	Program*	Bullitt, Jefferson, Oldham	TARC	\$8,468,000		LOW
Project has been highlighted as crucial to spur redevelopment within the area and will serve as an additional entrance to the mixed-use South Clarksville corridor.	Roadway	Clark	Clarksville	\$7,000,000	2022	LOW
This corridor is an important connection between Downtown, UofL, Iroquois Park, and will connect to another MTP project along New Cut Road to the round-about in Fairdale which will have a trailhead to the Louisville Loop for Jefferson Memorial Forest. It runs through many dense urban neighborhoods.	Bike & Pedestrian	Jefferson	Louisville Metro	\$2,000,000	2030	MEDIUM
The irregular geometry of the Spring Street/Eastern Boulevard intersection creates a number of safety issues for drivers, cyclists, pedestrians, and commercial freight traffic. The goal of this project is to reconfigure the geometry of the intersection, and fully improve all signalization, crosswalks, and handicapped ramps for increased safety for all users. The plan for this project is outlined in the Spring Street Master Plan (2017).	Roadway	Clark	Jeffersonville	\$1,200,000	2025	LOW
The segment of Spring Street between Eastern Boulevard and Dutch Lane is in rather poor condition and has a narrow, rural cross section with no curb, gutters or sidewalk. This is in stark contrast to the wider and more urban sections to the North and South. As a noted "Minor Arterial" that sees a good deal of freight traffic in this area, the current conditions do not meet the acceptable standards for the road's classification.	Roadway	Clark	Jeffersonville	\$1,500,000	2028	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Spring Street Revitalization and Enhancement	2754		This project will completely reconstruct Spring Street through Downtown Jeffersonville. The project will include the addition of bicycle lanes, turn lanes where necessary, transit stop enhancements and improved pedestrian infrastructure.
Stansifer Avenue Improvements	2768		This segment of Stansifer Avenue is 84 feet wide at some points, yet is only used as a 2-way road. Road diet may be required. Current configuration is not clearly delineated. Intersection with South Clark Boulevard is a 4-way stop in need of improvements. Curb and gutter needed throughout. Pedestrian sidewalk upgrades and widening to at least 5', designated bike lanes or sharrows, landscaping improvements, pedestrian/bike crossing at I-65/US-31 needs safety improvements, L&I railroad intersection that leads into Jeffersonville lacks pedestrian and bicycle access entirely. The L&I railroad overpass would require modifications not included in this cost estimate to ensure bike/ped accessibility for both communities.
TARC Cross River Connectors	2408	1801625	Implementation of 2 routes to improve cross river mobility over the Kennedy/Lincoln bridges and the Lewis and Clark Bridge to provide access to jobs between Louisville Metro and River Ridge Commerce Center in Southern Indiana. Funding for service begins in FY 2019.
TARC Fleet Replacement & Expansion	1315		Annual replacement of fixed route and paratransit vehicles that have reached the end of their useful life with clean diesel, hybrid electric, full battery electric or other vehicles.
TARC High Capacity Corridors	1825		Provide increased frequency TARC service along two high capacity corridors: Broadway-Bardstown Road Corridor and the Dixie Highway-Preston Highway Corridor, increasing frequency from 15 minutes to 10 minutes.
The Park and Ride at Apple Patch	1826	00468.10	Construction of a park and ride facility including a parking lot, shelter, playground, bike lockers, walkways, and a 1000' access road located on Apple Patch Way off of KY-329 near I-71 Exit 14 in Crestwood.
Three Forks of Beargrass Creek Greenways	2753		This project will plan, design, and construct an accessible shared-use path system in the three forks of Beargrass Creek watershed, which will provide connections among the existing trails in the watershed. The Muddy Fork Beargrass Creek extends from the confluence at the Ohio River next to Eva Bandman Park northeastward to Indian Hills Trail. The Middle Fork Beargrass Creek extends from its confluence with Muddy Fork near Brownsboro Road and Story Avenue eastward to Shelbyville Road at Oxmoor Mall. The South Fork Beargrass Creek extends from its confluence with Middle Fork near East Main Street southward to Bardstown Road near Bashford Manor Mall.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Since the opening of the Big Four Bridge, Downtown Jeffersonville has come alive with new restaurants, stores, and housing. With the revitalization has come a larger number of pedestrians, bicycles and transit users in the Downtown Area. While the buildings along Spring Street have been fixed up and reactivated, the street itself is in need of repaving and the sidewalks need a great deal of work. This project, outlined in the Spring Street Master Plan adopted in 2017, aims to create Jeffersonville's first "Complete Street" - designed specifically for all modes of travel. This complete street will extend northward to connect the Clark Memorial Hospital and the Claysburg Neighborhood to the Downtown. Three blocks in Claysburg (north of the Hospital will be completed in 2019; these are not a part of this project).	Roadway	Clark	Jeffersonville	\$3,500,000	2030	MEDIUM
Predominantly residential neighborhood with a small section of local-serving commercial properties. This section is the northernmost boundary of South Clarksville, it has high development potential. Streetscapes, bike/ped, and other improvements will eventually be required.	Bike & Pedestrian	Clark	Clarksville	\$2,500,000	2023	LOW
To provide transit service to major destination points from western Louisville to River Ridge Commerce Center and from eastern Jefferson County to River Ridge Commerce Center.	Transit	Clark	TARC	\$3,000,000	2020	MEDIUM
Maintenance of the average age of TARC's fleet to maximize cost-effectiveness given the total cost of ownership and TARC useful life benchmarks.	Program	Bullitt, Clark, Floyd, Jefferson, Oldham	TARC	\$325,408,080	2040	HIGH
Dixie Highway-Preston Highway Corridor and Broadway-Bardstown Road Corridor serve as the major transportation corridors in Louisville. The two bus routes, Route 18 and Route 23 respectively, that serve these corridors have heavy passenger loads throughout the day and often experience overcrowding during peak periods. The purpose of the project is to provide additional bus service on these major routes.	Transit	Jefferson	TARC	\$3,774,000	2022	MEDIUM
A permanent parking facility will be built for Oldham County residents to use for parking their cars and bicycles while commuting to metro Jefferson County by TARC, carpool or vanpool. It will also provide a convenient alternative for one car families to drop off and pick-up commuters.	Transit	Oldham	Oldham Co.	\$2,357,299	2020	LOW
The corridors along the three forks of Beargrass Creek provide the route for an accessible shared-use path system to allow pedestrians and bicyclists to safely connect from neighborhoods to parks, schools, workplaces, and other community facilities on mostly off-road facilities in the heavily urbanized eastern section of Louisville. It will provide safe alternative transportation routes for pedestrians and bicyclists such as younger children and families who prefer not to ride on the road. On-street bike facilities will also be incorporated where possible to accommodate more experienced riders who prefer to ride on roadways, because this shared-use path system intends to serve all categories of bicyclists. There are significant lengths of the three forks of Beargrass Creek that can be seasonally flooded. To accommodate the use of this corridor during those seasons, detour alternate routes will be planned for.	Bike & Pedestrian	Jefferson	Louisville Metro	\$75,000,000	2035	MEDIUM

APPENDICES

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Tucker Station Road	472		Reconstruct Tucker Station Road as a 2 lane road (no additional lanes) from Rehl Road to Ellingsworth Lane and improve intersections (South Pope Lick, Rehl Road and Ellingsworth Lane). Construct pedestrian accommodations for the length of the project.
University Corridor Fourth Street Intersection Improvements	1799		Widen South 4th Street between Industry Road to Central Avenue (no additional travel lanes) to provide a center median, sidewalk improvements, and bicycle accommodations. The project includes intersection improvements at Industry Road and Central Avenue to facilitate truck movements.
Urbanized Area Capital Funding for Transit	585		Annual federal formula funding allocations to TARC that provide revenue for vehicle maintenance, contracted service, facility rehabilitation, equipment, and for replacement of vehicles.
Urton Lane	474		Extend and widen Urton Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from north of I-64 to Seatonville Road.
US 31 Intersection Improvement	2618	1800375	There is a pattern of rear-end crashes with a railroad running parallel to US 31. When a train is crossing Bud Prather Rd (east approach), there is not a large amount of room to store vehicles and a southbound vehicle may not have a safe storage place. Project length is 0.08 miles.
US 31W	273		Transportation System Management improvements on US 31W (Dixie Highway) from KY 150 (Broadway) in the city of Louisville to KY 44 in southern Jefferson County to include consideration of access management. Approximately 17.7 miles.
US 31W	2779		Improve Dixie Highway between Greenwood Road (KY 1931) and Stonestreet Road (CR 1003). (14CCN).CHAF IP20150310.
US 31W Sidewalk and Pedestrian Improvements	1359		Design and construct pedestrian improvements on Dixie Highway between Broadway and Crums Lane to build upon the Transforming Dixie Highway Project. Improvements include construction of proposed pedestrian infrastructure, signalization upgrades, lighting improvements, and some transit improvements.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Tucker Station Road is a narrow 2 lane collector extending from U. S. 60 to KY 155 (Taylorsville Road). It is the only non-interstate route which crosses I-64 between Blankenbaker and English Station Roads. With planned development in the Urton Lane corridor, it should be able to relieve some traffic demand if an Urton Lane-Tucker Station Road-Ellingsworth Road connection is made. It would serve increased development south of I-64 near Rehl Road as well.	Roadway	Jefferson	Louisville Metro	\$14,409,290	2040	LOW
Phase I of plan to utilize Fourth Street as a transportation corridor in order to move various modes of traffic - motorists, bicyclists and pedestrians - to and from the city's industrial core, through the University of Louisville campus and the Old Louisville neighborhood to I-65 South.	Roadway	Jefferson	Louisville Metro	\$10,500,000	2020	MEDIUM
To improve mobility options by creating greater efficiency in transit service delivery by improving transit vehicles, equipment, and facilities.	Program*	Bullitt, Clark, Floyd, Jefferson, Oldham	TARC	\$461,181,245		HIGH
Urton Lane begins on the north at the US 60 - English Station Road intersection in Middletown, north of I-64. Several developments are currently planned between US 60 and I-64 along the route. Currently Urton Lane is a narrow 2 lane facility with poor geometrics. By extending Urton Lane south of I-64, traffic from the proposed developments could access Blankenbaker Road/I-64 via Rehl Road and I-265 via KY 155 (Taylorsville Road). An Urton Lane extension from north of I-64 to Seatonville Road would open hundreds of acres to development and provide a parallel route to I-265 which could be used to divert incident related traffic.	Roadway	Jefferson	Louisville Metro	\$100,000,000	2040	MEDIUM
The intent of this project is to improve the safety of the intersection and reduce the frequency and severity of crashes that occur by constructing left-turn lanes on US 31.	Roadway	Clark	INDOT	\$1,311,719	2023	LOW
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. While Dixie Highway is one of the busiest and most important transportation corridors in the region, it is also frequently congested (LOS E, F found at multiple intersections), has very high total and fatal crash rates, and passed through several low and moderate income neighborhoods. It also hosts the regions best performing transit route, Route 18, which serves the project corridor with over 4,800 daily riders. The high transportation demand by both vehicular and transit riders results in low speeds and long delays at critical locations; the volume of vehicular traffic coupled with numerous access points and intersections.	Roadway	Jefferson	KYTC	\$8,150,000	2028	MEDIUM
Improve safety by reducing the number of vehicular and pedestrian injuries, and improve mobility by reducing the travel times for both vehicular and transit users. The CFR for this section of roadway exceeded 1.0 for the years 2012 to 2016 including 5 fatal crashes. Existing sidewalks are discontinuous and in disrepair and not ADA Compliant. Intersections are often far apart resulting in unsafe mid-block crossings.	Roadway	Jefferson	KYTC	\$7,300,000	2020	HIGH
The Transforming Dixie Highway was a major improvement to the streetscape and transportation network; however, not all of the pedestrian improvements identified were able to be extended all the way to Broadway. This project would complete the pedestrian network connectivity along Broadway. These improvements are key to supporting the surrounding neighborhoods, the commercial vitality of the corridor, and the coming BRT and other transit investments being made.	Bike & Pedestrian	Jefferson	Louisville Metro	\$4,208,053	2030	MEDIUM

APPENDICES

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
US 42	230	00972.00	US 42 safety improvements from Harrods Creek Bridge to River Road (10CCR). CHAF IP20150155.
US 42	476		Improve safety and reduce congestion on US 42 (Brownsboro Road) from I-264 (Henry Watterson Expressway) to Seminary Drive. Project will evaluate one additional travel lane in each direction and consider accommodations for bicyclists and pedestrians. CHAF IP20080194.
US 42	1271	00441.01	KYTC Highway Plan (June, 2018): Reconstruct US 42 and widen from 2 lanes to 3 lanes (3rd lane will be a center turn lane) from Jefferson/Oldham County Line to Ridgemoor Drive. Project will include the consideration of improvements to the Hayfield Way intersection (2004BOPC). CHAF ID: IP20080245.
US 60	479		Improve safety and reduce congestion on US 60 from KY 1747 to Old Shelbyville Road (CS 3596). Project will evaluate the addition of one travel lane in each direction and will consider accommodations for bicyclists, pedestrians, and transit users. CHAF IP20080197.
US 60	480		Improve safety and reduce congestion on US 60 from I-264 to KY 1747. Project design will evaluate one added travel lane in each direction and consider bicycle and pedestrian facilities. CHAF IP20080196.
US 60	2598	08952.00	Widen US 60 to three lanes from Eastwood Cutoff (MP 14.7) to Rockcrest Way (MP 15.1). (16CCN) (Locals will do design for \$330,000). Project length is 0.396 miles. CHAF IP20160176.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Reduce traffic congestion and improve safety along US 42 from Harrods Creek Bridge to River Road. This project is needed because of current traffic congestion combined with the projected future volumes on US 42 from Harrods Creek Bridge to River Road. The traffic congestion also leads to an increase in crashes.	Roadway	Jefferson	KYTC	\$12,000,000	2035	MEDIUM
The purpose of the project is to limit the congestion and delay on US 42 and increase safety of I-264, while minimizing the right-of-way impacts to the community. The existing I-264/US 42 Interchange area does not have adequate capacity or storage to accommodate the current left-turn and through-traffic volumes during the peak hours. Commuters often sit through green phases at signalized intersections due to queues from other intersections. These delays cause long queues on the I-264 exit ramps, creating a safety concern. As normal growth and new developments occur in the project area, the problem will continue to degrade, resulting in longer travel times.	Roadway	Jefferson	KYTC	\$10,470,000	2030	HIGH
CHAF Purpose: The purpose of the project is to improve traffic flow, minimize congestion, and address safety issues on US 42 between the Jefferson County/Oldham County line and Ridgemoor Drive. CHAF Need: Due to an increase in commuters to and from Louisville and the development along the project corridor, the traffic volumes are expected to double in the next 20 years. The accident data for the last 3 years shows that there are between 10 and 14 rear end	Roadway	Oldham	KYTC	\$10,284,000	2021	LOW
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. US 60 from MP 7.857 to MP 11.100 is located in eastern central Jefferson County. This area is developed with primarily commercial uses directly abutting the corridor and residential uses either abutting the corridor or located directly behind the commercial uses. These adequacy rating data suggest rough pavement conditions and congestion. There are a number of destinations located along this corridor, and with the additional development at US 60 and KY 1747 as well as other development to the east will worsen congestion along the corridor. Certain solutions need to be found that work with the recent improvements made in the City of Middletown along the US 60 corridor.	Roadway	Jefferson	KYTC	\$54,883,000	2030	HIGH
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. US 60 from MP 5.529 to MP 7.857 is located in eastern central Jefferson County. This area is developed with primarily commercial uses abutting the corridor and residential uses either abutting the corridor or located directly behind the commercial. These adequacy rating data point to rough pavement conditions, crash issues, and congestion. There are a number of regional destinations located along this corridor, such as Oxmoor Mall and the University of Louisville Shelby Campus. In addition, there is development planned for the vacant portion of Shelby Campus, which will put more demand on surrounding roadways, including this corridor.	Roadway	Jefferson	KYTC	\$26,890,000	2035	HIGH
Improve safety and mobility. The Critical Rate Factor (CRF) along this segment of US 60 is 0.53. The KY State Data Center Report shows an employment annual growth rate in this area ranging from 1.6% to 2.9% and a population annual growth rate ranging from 0.4% to 2.6%.	Roadway	Jefferson	KYTC	\$2,200,000	2024	LOW

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
US 60	2610	80001.00	Widen US 60 to 6 lanes from Old Shelbyville Road to North English Stations Road.
US 60	2776		Improve safety and reduce congestion on US 60 from Rockcrest Way (CS 3157) to Notting Hill Boulevard (CS 1224J) at the Jefferson/Shelby County line. Project design will evaluate 3-lane widening with a continuous two-way center turn lane and other lower impact alternatives. Design will also consider accommodations for bicyclists, pedestrians, and future transit users. CHAF IP20080198.
US 60 Premium Transportation Corridor Project - Section 1	1352		Conduct US 60 (Shelbyville Road) Corridor Transportation Management Study between KY 1747 (Hurstbourne Parkway) and English Station Road, approximately 4.1 miles.
US 150 Premium Transportation Corridor - Section 2	1354		The US 150 Premium Transportation Corridor Project - Section 2 - is a design-build project that will: 1) streamline transit service on a key corridor by upgrading bus stops and enhancing service; 2) bring intelligent signal upgrades, which will include upgraded traffic signals and communication equipment to overall mobility; 3) incorporate complete streets roadway improvements by including bicycle and pedestrian facilities, intersection safety improvements, access management strategies for surrounding land uses, and new streetscape design elements.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The following needs have been identified for this project: 1) Improve Capacity, 2) Provide an improved highway that meets current safety design standards, 3) Enhance network connections, 4) Serve recent and planned growth.	Roadway	Jefferson	KYTC	\$4,025,000	2025	MEDIUM
The purpose of this project is to improve: 1) Safety, 2) Traffic flow on roadways during peak travel hours, 3) Air quality, 4) Mobility within designated freight corridors, and 5) Modal access and choice. The Critical Rate for this section of US 60 is 0.53 from years 2012 to 2016. This area is developing with primarily residential uses with commercial nodes. Additional development in this area is expected. US 60 is a regionally significant route linking Louisville to Simpsonville, Shelbyville and beyond. US 60 provides an alternate east-west route to I-64 and is essential to I-64 incident management.	Roadway	Jefferson	KYTC	\$4,890,000	2026	LOW
The US 60 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan, as both a "Major Corridor" and a "Premium Transit Corridor." US 60's success as a commercial destination has led to major mobility challenges in the area. Transitioning from a "traditional neighborhood marketplace" to a "suburban marketplace corridor" about halfway through the project area, Section 1 of this project will need to account for various demands across its 7.84 mile length; however, these two sub-areas, despite their differences are united in their demand for significantly improved mass transit service and complete multi-modal connections. The vibrant commercial corridor, anchored by two of Louisville's three regional malls, needs investment and improvements to maintain its success over the years to come. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received 16.9 million in federal funds. US 60 generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. It also fails to provide complete pedestrian connections and few to no safe bicycle facilities. Taken together, these issues need to be addressed to ensure that the US 60 of the future continues to succeed while providing even greater access to people of all ages and abilities.	Roadway	Jefferson	Louisville Metro	\$16,000,000	2030	HIGH
The Second Section of the US 150 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan as a "Major Corridor." This section of US 150 is a commercial corridor for the surrounding residential areas. Residential growth in the area has strained the transportation network in the area. This "suburban marketplace corridor" needs to account for various future demands across its length. Improved mobility and accessibility for all users, including motorists, transit riders, pedestrians, and cyclists will be key to achieve Louisville Metro's long-term goals as outlined in the Move Louisville, Plan 2040, among others. This vibrant commercial corridor needs investment and improvement to enhance access and livability in this growing area of Louisville. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received \$16.9 million in federal funds. US 150 generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. It also fails to provide complete pedestrian connections and few to no safe bicycle facilities. Taken together, these issues need to be addressed to ensure that the US 150 of the future continues to succeed while providing even greater access to people of all ages and abilities.	Roadway	Jefferson	Louisville Metro	\$12,100,000	2030	MEDIUM

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
US 60 Premium Transportation Corridor Project - Section 2	1362		<p>The Second Section of the US 60 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan as a "Major Corridor." This section of US 60 is a commercial corridor for the surrounding residential areas. Residential growth in the area has strained the transportation network in the area. This "suburban marketplace corridor" needs to account for various future demands across its length. Improved mobility and accessibility for all users, including motorists, transit riders, pedestrians, and cyclists will be key to achieve Louisville Metro's long-term goals as outlined in the Move Louisville, Plan 2040, among others. This vibrant commercial corridor needs investment and improvement to enhance access and livability in this growing area of Louisville. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received \$16.9 million in federal funds. US 60 generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. It also fails to provide complete pedestrian connections and few to no safe bicycle facilities. Taken together, these issues need to be addressed to ensure that the US 60 of the future continues to succeed while providing even greater access to people of all ages and abilities.</p>
Utica Ridge Road	2775		<p>Install new connector road to lessen travel miles of east Utica residents, eliminate through traffic in central part of town, providing two lanes parallel to Highway 265 for local traffic. Right-of-way is preliminarily estimated to be 80 feet with 11-foot lanes and five-foot shoulders. Lighting and landscaping to be included in keeping with the character of the area being a gateway into Indiana.</p>
Veteran's Parkway & I-65 North	2738		<p>Segment of Veteran's Parkway is categorized as 10% worst level of service (D rating). During peak hours, traffic bottlenecks, specifically for I-65 N bound vehicles. Project will require removing the two left turning lanes between mile markers 1373 and 1389. Left turns in this section are both dangerous and an impediment to traffic during peak hours. Motorists will often stop to allow other motorists to make a left turn, usually into the Lowe's corridor, nearly colliding with unimpeded motorists in the other lane. Removing both left turn lanes will force drivers to utilize the much safer traffic lights. The removal of the left turn lanes will also allow for an additional 420' lane for I-65 N bound traffic. The area may also require a 4' median to discourage aforementioned left turns. Lanes will be demarcated accordingly. The next major road modification is to clearly delineate the northernmost I-65 N bound as left-turn only, the middle lane as left-turn optional, and the southernmost as right-turn optional. The final major modification will be the addition of a 2-lane I-65 N on-ramp to be extended at least 550' until forcing a merge into the existing one-lane I-65 N on-ramp.</p>
Watterson Trail Bicycle & Pedestrian Trail Phase II	2081		<p>The project will construct a 10 foot wide concrete multi-use trail along one side of Watterson Trail from Mansfield Estates Drive to Mulberry Row Way.</p>
Watterson Trail Phase I	1582	03031.00	<p>Construct new curb and gutters along the project corridor as well as all new sidewalks on both sides along with new ADA Compliant Ramps and MUTCD crosswalks at each street intersection. The proposed sidewalks will be a minimum of 5 feet wide and will exceed that in many areas. The project will relocate the overhead utilities to the secondary streets of Peach Street and Neal Street. New street lights will be constructed along the route in order to provide improved pedestrian and vehicular safety. Enhanced landscaping will also be installed in order to address the heat island effect and ozone alert days and improve air quality.</p>

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
The Second Section of the US 60 Premium Transportation Corridor Project will improve access and mobility along one of Louisville Metro's most heavily travelled corridors. It highly-prioritized in Move Louisville, Louisville Metro's 20-year transportation plan as a "Major Corridor." This section of US 60 is a commercial corridor for the surrounding residential areas. Residential growth in the area has strained the transportation network in the area. This "suburban marketplace corridor" needs to account for various future demands across its length. Improved mobility and accessibility for all users, including motorists, transit riders, pedestrians, and cyclists will be key to achieve Louisville Metro's long-term goals as outlined in the Move Louisville, Plan 2040, among others. This vibrant commercial corridor needs investment and improvement to enhance access and livability in this growing area of Louisville. The improvements outlined in this design-build project are comparable to those seen in the "Transforming Dixie Highway" project, which received \$16.9 million in federal funds. US 60 generally has poor access management, crash-inducing typical cross-sections, and poor transit accommodations and connections. It also fails to provide complete pedestrian connections and few to no safe bicycle facilities. Taken together, these issues need to be addressed to ensure that the US 60 of the future continues to succeed while providing even greater access to people of all ages and abilities.	Roadway	Jefferson	Louisville Metro	\$8,400,000	2030	HIGH
The project will lessen the drive distance to Highway 265 from the growing east side of Utica. As such it will lessen traffic and stopping within the central core of Utica. The road will be designed to agree with the projected commercial and mixed uses expected to be drawn to the area due to the improved access provided by Highway 265 and the Lewis and Clark Ohio River Bridge. Developers are increasingly being attracted to this area. There is presently a need for approximately 107,000 square feet of commercial space and residential expansions are continuing.	Roadway	Clark	Utica	\$1,219,600	2027	FURTHER REVIEW
Citizens, Town Council, and Staff have all highlighted this segment as congested. It is a top top priority for the safety and continued development of the area.	Roadway	Clark	Clarksville	\$5,000,000	2026	LOW
The city conducted a bicycle/pedestrian master plan for the city. As a result of the master plan the citizens desired to provide both bicycle and pedestrian facilities that are safe along this section of Watterson Trail. Given the high density of neighborhoods and no sidewalks existing along this section of roadway it was determined to construct a multi-use trail to connect with the central business district of the downtown as well as other segments of the city's trail system.	Bike & Pedestrian	Jefferson	Jeffersontown	\$1,320,000	2021	LOW
Citizens have voiced concern about the narrow sidewalks along the project corridor as well as the various tripping hazards created by the sidewalks and utility guy wires and poles. The current sidewalks are approximately 4 feet wide and do not meet current code requirements of 5 feet minimum. Relocating the overhead utilities will help create an expanded pedestrian zone there by creating a buffer between the pedestrians and the vehicular travel lane of Watterson Trail. The project will upgrade the pedestrian crossings with ADA Compliant ramps and tactile warning mats.	Bike & Pedestrian	Jefferson	Jeffersontown	\$4,432,096	2021	LOW

APPENDICES

PROJECT NAME	KIPDA ID	STATE ID	DESCRIPTION
Watterson Trail Phase II	1583	00518.00	Widen Watterson Trail from 2 to 3 lanes from Ruckriegel Parkway to Maple Road and widen Watterson Trail from 2 to 3 lanes from Old Taylorsville Road to Ruckriegel Parkway. Project will construct sidewalks on both sides of each roadway segment along with new curb and gutters. The project will also create on-street parking along one side of each segment. The project will also include landscape enhancements as well as pedestrian street lighting.
Watterson Trail South	1324		Reconstruct and widen from 2 to 3 lanes (3rd lane will be a center turn lane) Watterson Trail South from KY 1747 (Hurstbourne Parkway) to Glaser Lane. Add pedestrian accommodations on both sides of South Watterson Trail for the length of the project.
West Kentucky Street Project	1863		The West Kentucky Street Master Plan Project proposes sidewalk improvements, bicycle facilities, improvements to the rail crossing at 15th Street, the addition of street trees, and holistically analyzes connectivity impacts of nearby street closures. Traffic calming measures (bumpouts, signal upgrades, road realignments) are proposed at 5th, 9th, and 15th Streets.

PURPOSE & NEED	PROJECT TYPE	COUNTY	SPONSOR	PROJECT COST	OTP	PERF. RANK
Citizens have expressed desire to improve pedestrian safety and circulation along this corridor as well as address congestion at the Ruckriegel Parkway/Watterson Trail intersection. An additional lane width is desired in order to provide adequate turning movement and on-street parking demands.	Roadway	Jefferson	Jeffersontown	\$2,456,850	2022	MEDIUM
Improve roadway to current standards and increase safety for motorized traffic. Increase pedestrian safety and connectivity from Hurstbourne Parkway to residential development.	Roadway	Jefferson	Louisville Metro	\$47,109,148	2040	LOW
Kentucky Street is a critical east-west corridor connecting Old Louisville and the California neighborhoods. The Corridor is home to several major institutions such as Memorial Auditorium, Simmons College, and St. Stephen Church. It runs through several industrial areas and lower-income communities in need of investment.	Bike & Pedestrian	Jefferson	Louisville Metro	\$3,000,000	2030	LOW

APPENDIX I: AIR QUALITY TECHNICAL MEMO & IAC MINUTES

The Louisville, KY-IN transportation planning study area consists of Clark and Floyd counties and 0.1 square miles of Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties and approximately 4 square miles of Shelby County in Kentucky. Much of this area coincides with the local ozone nonattainment area. In the past, a portion of the planning study area also coincided with a local PM 2.5 nonattainment area, but that standard was revoked in April 2015. The Louisville, KY-IN maintenance area for the 1997 8-hour ozone standard consisted of Clark and Floyd counties, IN, and Bullitt, Jefferson, and Oldham counties, KY. It was designated as a basic nonattainment area in June 2004 and redesignated as an attainment area with a maintenance status in July 2007. The 1997 8-hour ozone standard was revoked for the local area in April 2015, and at that time, it was not necessary for the local area to determine conformity. (However, the local area was still eligible to receive Congestion Mitigation/Air Quality funding). In June 2018, the former Louisville, KY-IN 1997 ozone maintenance area was designated as a marginal nonattainment area for the 2015 8-hour ozone standard. One of the requirements of this designation as a nonattainment area is that it will once again be necessary to determine conformity for the local area.

KIPDA has updated the metropolitan transportation plan (MTP)--previously known as Horizon 2035—to become Connecting Kentuckiana 2040. The FY 2018 – FY 2021 Transportation Improvement Program (TIP) has also been updated to become the FY 2020 – FY 2025 TIP. This conformity analysis will support conformity determinations by the metropolitan planning organization and the U. S. Department of Transportation agencies for both documents. This analysis is intended to support determinations of conformity under both the 1997 and 2015 8-hour ozone standards.

CONFORMITY UNDER THE 1997 AND 2015 8-HOUR OZONE STANDARDS

When an area such as the Louisville area becomes nonattainment, the area must undertake a process known as conformity. This process provides a linkage between transportation planning and air quality planning. One of the key activities of conformity is to quantify the level of emissions of the air pollutant(s) and/or precursor(s) for certain analysis years and compare those levels to the motor vehicle emission budgets (MVEBs)—if they exist. The MVEBs limit the amount of a pollutant or precursor that can be emitted. If MVEBs do not exist, the area must rely on interim tests, such as comparing the emissions to the level of emissions in a baseyear, to determine conformity. The baseyear was set by US EPA when the standard is promulgated.

Subsequent to being designated as nonattainment of the 1997 8-hour ozone standard and prior to being redesignated as attainment of the standard, the Louisville area relied on the use of interim tests to demonstrate conformity. These tests had been established during a 2004 update to the federal conformity rule. When the Louisville area was designated as nonattainment of the 2015 8-hour ozone standard, there were no MVEBs for that standard. However, there were MVEBs for the 1997 8-hour ozone standard, and they were used in the process of determining conformity to both the 1997 and 2015 standards.

When the local area was designated as nonattainment of the 1997 8-hour ozone standard, the air quality agencies with responsibility for the local area were charged with the additional responsibility to develop a set of actions that could be taken to reduce pollutant/precursor emissions. These actions were to be included in air quality plans

known as State Implementation Plans (SIPs). Since the Louisville nonattainment area is a bi-state area, these sets of the actions to reduce precursor emissions were to be incorporated into the Indiana and Kentucky SIPs. It was during this process that MVEBs were established. Originally, the SIPs were to include sets of actions to bring the local area into attainment of the ozone standard. This type of SIP is known as an attainment demonstration. However, while these SIPs were being developed, the data from the air quality monitors in the area indicated that the 1997 8-hour ozone standard had been met. With this data in hand, the air quality agencies were able to submit a SIP known as a redesignation request instead. The establishment of the MVEBs was one of the components of the redesignation request. Since the SIPs were redesignation requests for ozone, the MVEBs were established for the precursors of ozone, volatile organic compounds and oxides of Nitrogen.

CONSULTATION FOR CONNECTING KENTUCKIANA 2040

The first step in determining conformity of *Connecting Kentuckiana 2040* was to consult with the interagency consultation (IAC/ICG) group concerning matters not explicitly determined by the conformity rule. Conformity under the 1997 8-hour ozone standard had been previously determined. Therefore, many of the issues normally arising in conformity had undergone consultation previously. Since these issues were not raised during consultation this time, the portions of the analysis involving those issues were accomplished consistent with established practice.

A consultation conference call was held on September 24 to discuss issues relative to the update of the MTP. It involved a review and discussion of the following items:

- (a) important dates in the schedule for the update;
 - October 9 - TTCC Review of Air Quality Analysis
 - October 24 - TPC Review of Air Quality Analysis
 - January 8, 2020 - Public Involvement begins.
 - February 27 - Action by the Transportation Policy Committee
 - February 28 - Federal review (for conformity determination) begins

- (b) a draft list of projects—sent to the IAC/ICG with consultation notice—included in accompanying documentation;
- (c) the horizon year of the transportation plan—2040;
- (d) the proposed conformity test methodology/ies and analysis years—2040 was added as an additional analysis year—otherwise, see the discussion of issues and ESTABLISHED PRACTICE sections below;
- (e) the pollutant(s)/precursor(s) of concern and the motor vehicle emissions budget(s), if applicable—see table 2 at the end of the report;
- (f) information concerning the inputs for the travel demand model and the approved emissions model—see the issues section below, the list of projects included in accompanying documentation, and the items concerning the travel demand model and emissions model under Other Planning Issues; and
- (g) a listing of any transportation control measures (TCMs) in SIPs, if applicable—there are none.

ISSUES

Discussion of Projects

KIPDA staff had provided the IAC/ICG with a list of 277 projects that will be included in *Connecting Kentuckiana 2040*. The projects are a mix of new projects and projects that were in KIPDA's previous MTP. Key details about the projects were presented, including information on how the projects were included in or excluded from the regional travel demand model.

There was discussion concerning various details of a few projects. The main discussion concerned which projects would be reflected in the modeling for the regional emissions analysis. KIPDA staff clarified that projects that are considered as exempt from the analysis were noted as such, and that when it was noted that there were no changes to the model for a project, this meant that the project will be represented in *Connecting Kentuckiana 2040* as it is currently in the existing MTP and in the existing model. A request was made that a footnote be added stating that all projects listed are modeled unless noted as Exempt or explicitly stated that the individual project is not modeled for another reason.

Other points of discussion of the projects included:

- It was requested that KIPDA staff be certain to note which projects are included in KIPDA's ITS Architecture.
- Bowling Blvd/Christian Way, KIPDA ID 260 and Bunsen Blvd/Christian Way, KIPDA ID 265: A question was asked about these projects. KIPDA staff reviewed the details of the projects and their locations. This response provided the information requested by the questioner. The way the project will be analyzed in the KIPDA travel demand forecasting model was not questioned.

Conclusion: The IAC/ICG members, after discussing the details of the projects listed above, accepted the recommendations of KIPDA staff concerning the incorporation of these projects and the other projects described in the documentation into the regional emissions analysis.

Discussion of the Conformity Analysis

KIPDA Staff discussed the key components of the conformity analysis that are expected to be presented to the KIPDA TPC in October. The analysis will be virtually identical in process to recent analyses that were performed when the existing MTP was amended. One key change is that the horizon year of *Connecting Kentuckiana 2040* is 2040, which requires a new travel model and MOVES Model scenario to be created.

The Budget Test utilizing the Year 2020 Motor Vehicle Emissions Budgets created for the 1997 8-Hour Ozone Standard will continue to be used until a new set of budgets are established. By not exceeding these budgets in the year 2020, 2025, 2030, 2035, and 2040 travel model scenarios, *Connecting Kentuckiana 2040* will demonstrate conformity to both the 1997 and 2015 8-Hour Ozone Standards.

NOTE: (See also the "Analysis Years and Conformity Tests" portion of the "ESTABLISHED PRACTICE" section below for more information on these issues.)

Other Discussion

The Planning Assumptions, which were updated in July 2018 as a preliminary step in the update of the MTP, were discussed. KIPDA Staff will make some minor changes to the Planning Assumptions document indicating that: (1) the Base Year of the KIPDA Model is 2015, (2) the KIPDA Model was most recently updated and calibrated in 2018, and (3) the newest MOVES Model is now MOVES 2014b.

As is the standard practice, the outputs of the KIPDA Model will be used as inputs in the MOVES Model, which will be run by Louisville Metro Air Pollution Control District (LMAPCD). LMAPCD will provide KIPDA with the estimated VOC and NOx emissions to be included as the results of the regional emissions analysis. No changes are proposed to this process at this time.

KIPDA Staff offered the opportunity for any other business or questions to be brought to the IAC/ICG. There was no other business discussed.

ESTABLISHED PRACTICE

In addition to the issues discussed during consultation, there were several issues which were not explicitly discussed or received little discussion during the consultation call of September 24, but which had impacts on the analysis. Many of these issues had been discussed during previous consultations. These issues were handled in a manner consistent with the previous established practice. The more prominent issues are discussed below.

RELATIONSHIP OF MTP AND TIP FOR CONFORMITY PURPOSES

The Transportation Improvement Program (TIP) is maintained as a subset of the Metropolitan Transportation Plan (MTP). Therefore, the conformity determination for the MTP will serve as the conformity determination for the TIP.

Conclusion: The IAC/ICG members are informed of this from time to time in order to clarify the conformity determination for the MTP also serves as the conformity determination for the TIP.

ISSUES RELATED TO THE KIPDA TRAVEL DEMAND FORECASTING MODEL

During recent changes to the MTP, there were three changes of note to the KIPDA travel demand forecasting model.

(1) First, the census urbanized area has recently been updated to include a small area in northwest Shelby County, KY. The metropolitan planning area has been updated to reflect the 2010 census urbanized area. This area was added to the KIPDA travel demand forecasting model to be consistent with this update.

(2) Second, the proposed toll structure for the Louisville Southern Indiana Ohio River Bridges project changed. Changes were made to the KIPDA travel demand forecasting model to reflect the changes in the toll structure.

(3) During recent years, KIPDA staff have updated and calibrated the travel demand forecasting model. This activity involved updating the inputs to the model and developing new values for the parameters of the model. The resulting model was considered calibrated when the model outputs matched observed data (e.g. HPMS VMT), within reason, for the baseyear. This update established 2015 as the baseyear (the year on which calibration was based) for the model.

Conclusion: The IAC/ICG members have been informed that the KIPDA travel demand forecasting model has been updated and calibrated and that 2015 is now the baseyear for the model.

ANALYSIS YEARS AND CONFORMITY TESTS

Motor Vehicle Emissions Budgets (MVEBs) for the 1997 8-hour ozone standard were approved by EPA in July 2007. The MVEBs were for the precursors of ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NOx). The Federal Register notice can be found at 72 FR 36601. The budgets are shown in Table 2 at the end of this document. Since there are MVEBs for the ozone precursors, the conformity rule requires that ozone analyses be done for the attainment year and the last year of the transportation plan. In addition, other intermittent year(s) are required such that no two analysis years are more than ten years apart. The maintenance plan established when the local area was redesignated established MVEBs for VOCs and NOx for 2003 (the attainment year) and 2020 (the last year of the maintenance plan). Since the attainment year is now in the past, that year is no longer included in the analysis.

NOTE: Since the MTP is in the process of being updated, the horizon year is being changed to 2040, and that year is being added as an analysis year. This was obviously not “ESTABLISHED PRACTICE” but is a requirement of federal regulations/guidance.

Other than adding 2040, the analysis years remain as they have been in the recent past—ESTABLISHED PRACTICE as described in the following paragraph.

In order to have the required analysis years, several changes were made in recent years. During an amendment of the MTP in 2013, it was necessary to replace 2012 as an analysis year because it was in the past, and 2015 was chosen. When the MTP was updated in 2014, the horizon year of the plan was being changed to 2035, and that year had to be added to the analysis years. At the same time, in order to allow for more orderly transition as time progressed, 2025 was added as an analysis year. By having the analysis years five years apart throughout the life of the MTP, it was noted that there would always be an analysis year within five years of the time of the analysis. Further, when the horizon year of the MTP is extended, that year will be added as an analysis year. Otherwise, the analysis years can remain constant except for the removal of an analysis year when it was in the past. Recently, 2015 was being removed because it is in the past. Because of the previous practice to have analysis years five years apart, it was not necessary to add another analysis year. 2020 was already an analysis year and within five years of the present.

Conclusion: The established practice is that the analysis years and conformity tests for the regional emissions analysis are as shown in the tables below (with the exception of 2040 which is being added with the MTP update). Years prior to the present year have been removed from the list.

1997 8-HOUR OZONE STANDARD	
ANALYSIS YEAR	CONFORMITY TEST(S)
2020	Budget test using the 2020 MVEBs for the 1997 8-hour standard
2025	Budget test using the 2020 MVEBs for the 1997 8-hour standard
2030	Budget test using the 2020 MVEBs for the 1997 8-hour standard
2035	Budget test using the 2020 MVEBs for the 1997 8-hour standard
2040	Budget test using the 2020 MVEBs for the 1997 8-hour standard

VEHICLE REGISTRATION (FLEET MIX) DATA

At various times in the past, new vehicle registration data has been provided for use in developing pollutant emissions. This vehicle registration data has been reviewed and accepted by the IAC/ICG. The vehicle registration data now being used for the Indiana counties is for 2014, and the registration data now being used for the Kentucky counties is for 2016. This data represents the most recent information available for this issue.

Conclusion: Based on a consensus of the IAC/ICG members, vehicle registration data for 2014 for the Indiana counties and for 2016 for the Kentucky counties is now being used in developing emission estimates.

CONFORMITY OF CONNECTING KENTUCKIANA 2040

The MTP, *Connecting Kentuckiana 2040*, was examined to determine if it met the requirements of the conformity rule under the 1997 and 2015 8-hour ozone standards. In general, the process leading to a conformity determination has two major components:

- (1) a regional emissions (air quality) analysis to determine that air pollutant emissions do not exceed the budgets set in the SIPs, if applicable, or the emission levels for a given base year; and
- (2) a monitoring of the progress in implementation of the Transportation Control Measures (TCMs) contained in the SIPs.

In the past, consultation with the state and local air quality agencies and EPA had determined that there are no approved TCMs in the SIPs of Indiana and Kentucky. Therefore, it is possible to show conformity of *Connecting Kentuckiana 2040* simply by determining that the air pollutant emissions do not exceed the budgets in the SIPs or the base year emissions.

ANALYSIS PROCESS

The process of calculating the regional emissions for *Connecting Kentuckiana 2040* involved three main procedures. The first procedure was a review of the projects to determine which projects needed to be included in the regional emissions analysis. The second procedure was to perform the calculations necessary to quantify the certain measures of travel behavior. The third procedure was to calculate the pollutant / precursor emissions. These activities are discussed below in greater detail.

PROJECT REVIEW

The first procedure was to review the projects to determine which projects were exempt or non-exempt and which projects were “regionally significant.” The combination of these two considerations was the basis for determining which projects were recommended for inclusion in the regional emissions analysis. During the update of the MTP resulting in *Connecting Kentuckiana 2040*, a group of projects had been proposed for the plan. These projects were reviewed by KIPDA staff, who prepared a list of the projects with information about the projects and a staff recommendation concerning the project’s status relative to being exempt, non-exempt, etc. There is usually a straightforward explanation for why projects are included in or excluded from the analysis and why they are analyzed as they are. Most of the projects which were excluded were exempt projects as defined in the Code of Federal Regulations in 40 CFR 93.126 and 40 CFR 93.127.

During consultation, this list was reviewed and accepted by the IAC/ICG as described under the section entitled “CONSULTATION FOR CONNECTING KENTUCKIANA 2040.” (please see above.) Those projects in *Connecting Kentuckiana 2040* which were not changed will be analyzed as they were previously. The projects which were newly added to the MTP or had been changed from the previous MTP to *Connecting Kentuckiana 2040* were analyzed as indicated on the list provided to IAC/ICG.

In addition, there were several projects which could not be analyzed using the travel model. In the past, most of these projects had been evaluated using spreadsheet methods usually involving emission factors. Since the MOVES emissions model was being used in the inventory mode, emission factors were not available for this analysis. However, past experience had shown that the emission impacts for these projects were always small and positive (i.e. emission reducing). Therefore, it is reasonable to

predict that the emission impacts of these projects—if they could be quantified—would decrease the emissions shown in the tables at the end of this document.

Also, there was one project affecting Bullitt County that could not be included in the travel model. Unlike the projects described in the paragraph above, this project could have the potential to increase emissions. Therefore, a special effort was made to include its impacts in the analysis of travel behavior impacts and, consequently, in the regional emissions analysis. This project is the relocated (southern) section of US 31E. This project, which had been discussed during consultation in the past, involves the relocation of a small (approximately 0.2 mile) section of US 31E from Nelson County (outside of the nonattainment area) to Bullitt County (inside the ozone nonattainment area) during the reconstruction of that road. Estimates of the VMT for this project were developed using a spreadsheet approach. The VMT estimates were the product of the estimated traffic volumes for each of the analysis years and the length of the relocated section in Bullitt County. The VMT estimates for this project were then added to other Bullitt County VMT estimates of the same functional class. Consequently, the VMT estimates from this project were included with the other Bullitt County VMT, and the emissions in Bullitt County associated with this project were included in the overall emission estimates for Bullitt County.

CALCULATION OF TRAVEL-RELATED INFORMATION

The analysis of the travel behavior impacts for the nonattainment area primarily involved using the KIPDA travel demand forecasting model to determine measures of travel such as vehicle-miles-traveled (VMT) and speed. The method for determining these measures was to input the appropriate roadway and transit information into the model and to run the model using the appropriate socioeconomic information for a given analysis year. This analysis is explained below in further detail in the sections concerning the KIPDA travel demand forecasting model and adjustment factors for travel model output.

KIPDA Travel Demand Forecasting Model

The KIPDA travel demand forecasting model is a mathematical model which relates travel to the transportation system and basic socioeconomic information. The domain of the model is a study area which includes the Louisville (KY-IN) Metropolitan

Planning Area. The Louisville (KY-IN) Metropolitan Planning Area consists of Clark and Floyd counties, and 0.1 square miles in Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties and approximately 4 square miles in Shelby County in Kentucky. This area is divided into 984 smaller units called traffic analysis zones.

As previously mentioned, the KIPDA regional travel demand forecasting model was updated and calibrated recently. This update established 2015 as the new base year for the model. The model update utilized the information incorporated into the travel model during previous updates. In particular, information from the 2000 KIPDA Household Travel Survey, and the 2004 on-board survey of transit riders by the Transit Authority of River City had been previously incorporated. Information from 2010 Census, the 2012-2016 American Community Survey, the 1990 and 1995 National Personal Transportation Surveys, and the 2001 and 2009 National Household Travel Surveys was incorporated to update the previous source data, particularly the 2000 KIPDA Household Travel Survey. During the update, the model parameters were adjusted such that the model output matched—within reason—three main calibration criteria based on measured data. These criteria were: (1) the total daily VMT for all highway facilities except local roads for the region; (2) the distribution of trip lengths (duration in time) for each of the main trip purposes used in the model; and (3) highway traffic volumes crossing the Ohio River screenline. The result of the update was a travel model which generally replicated travel in the Louisville area for 2015. The updated travel model was used in the regional emissions analysis.

The KIPDA travel demand forecasting model uses the standard four steps of modeling: trip generation, trip distribution, mode choice, and trip assignment. In addition, it considers travel by vehicles entering, leaving, and crossing the study area. These types of trips are known as external-internal, internal-external, and external-external, respectively. The internal ends of these trips are determined by the methods described below for internal-internal travel. The external ends are determined from the volume of traffic crossing the study area boundary at any of the 46 external stations.

Trip generation is the process of determining the number of unlinked trip ends--called productions and attractions--and their spatial distribution based on socioeconomic variables such as households and employment. Trip rates used to define these relationships were derived from the travel data collection efforts described above. This information was supplemented by use of the National Cooperative

Highway Research Program Report #365 and the Institute of Transportation Engineers' Trip Generation Report. The KIPDA travel demand model uses three internal-internal trip purposes and utilizes different trip rates for each. Internal-internal trips are those which have both ends inside the modeling domain. The three purposes are home-based work, home-based other, and non home-based.

Trip distribution is the process of linking the trip ends thereby creating trips which traverse the area. The KIPDA travel model uses a gravity model to link all trips except the external-external ones. The gravity model is based on the principle that productions are linked to attractions as a direct function of the number of attractions of a zone and as an inverse function of the travel time between zones. This inverse function of travel time is used to generate parameters called friction factors which, in turn, direct the gravity model. The friction factors used in the gravity model were developed as part of the calibration effort performed during the model update. In addition, information from a study which investigated the behavior of travelers crossing the Ohio River and traffic count information from years near 2015 were utilized to develop additional parameters called K-factors. The K-factors are used by the model to ensure that it is predicting the correct volume of traffic crossing the Ohio River.

Mode choice is the process used to separate the trips which use transit from those which use automobiles. It is also used to separate the auto drive-alone trips from auto shared-ride trips. In some previous KIPDA travel demand models, mode choice was based primarily on information provided by the TARC Travel Forecasting Study. In that model, the user's benefit or utility was calculated for each mode based on zonal socioeconomic characteristics and the cost and time of the trip using the various modes. A nested logit model was used to determine the probability of the trip being made by each of the modes. This probability was then multiplied by the number of trips between zones to determine the number of trips by each mode.

As previously stated, the conformity analysis for *Connecting Kentuckiana 2040* utilizes transit information from the previous travel demand model. The results of the 2004 TARC on-board survey had been used to supplement the previous information. This was deemed acceptable for several reasons. The primary reason was that the transit network envisioned by *Connecting Kentuckiana 2040* is essentially the same as the existing one. In addition, the number of total trips from the two models was similar. Therefore, the use of the transit trip information from previous travel models did not change significantly

the proportion of trips allocated to transit. Finally, the proportion of trips utilizing transit is less than 2% of the total trips. So small differences in the number of transit trips should provide a negligible effect on overall travel.

Trip assignment is the process used to determine which links of the network a trip will use. There are several assignment schemes which may be used. Two of the more common schemes are All-or-Nothing (AON)--in which all trips between two zones follow the shortest time path--and Stochastic--in which trips between two zones may be assigned to several paths based on their impedances or travel times. It is not uncommon for travel models to use several assignment schemes in sequence to converge to a better assignment. A sequence commonly used involves using several AONs with the traffic volumes reported at the end of each scheme being a weighted average of the volumes from the most recent scheme and the volumes from the previous schemes. A capacity restraint provision is used to adjust travel times between assignment schemes. This sequence is called an equilibrium assignment. The KIPDA travel model uses an equilibrium assignment which converges when the change in system-wide travel time over successive iterations is estimated to be within 0.0001 or less.

Tolls are being used as a means of providing for a portion of the cost of the Louisville Southern Indiana Ohio River Bridges project. To reflect the effect of the tolls in the KIPDA travel model, time penalties have been used in the model on the bridges where tolls are being collected. As mentioned above, the toll structure was recently changed. To reflect this in the MTP update, the time penalties used in the KIPDA travel model were likewise changed to reflect the effect of the new toll structure.

The output from the KIPDA travel model is in the form of a series of links with each link having certain associated data such as number of lanes, capacity, facility type, area type, functional class, and volume. This data allows for the calculation of other link information such as vehicle-miles-traveled (VMT). The VMT can be calculated as the product of the volume of traffic using a link times the distance (length) of the link.

Adjustment Factors for Travel Model Output

The VMT and speeds from the travel demand model were adjusted before being used in the calculation of regional emissions. The purpose of these adjustments was to reconcile the model output with travel estimates from other sources, such as the Highway Performance Monitoring System (HPMS) estimates of VMT. To

perform this adjustment, factors were developed for the base year of the model using HPMS or other estimates and applied to model output for other years.

The development of the VMT adjustment factors involved comparing the VMT outputs of the travel demand model to the HPMS VMT estimates for 2015. Factors were developed to adjust the model output to account for variation between the model and HPMS within each of the counties. To do this, the VMT from the 2015 model run was tabulated by county and functional classification. The VMT estimates derived from the model were then compared to the HPMS VMT estimates for 2015 to develop adjustment factors to be applied to the model output for subsequent years. The 8-hour ozone analysis is based on a level of traffic and the accompanying emissions expected on a typical summer weekday. For that analysis, the adjustment factors were increased by 2.9% to reflect the higher volume of traffic that can be expected on a typical summer weekday relative to the annual average daily traffic. The adjustment factors for VMT were developed on a functional classification basis for each county.

The development of the speed adjustment factors involved a similar process. The outputs of the travel demand model were compared to estimates of speed based on the equations of the Highway Economic Reporting System (HERS).

The HERS equations were used to estimate speeds on 6239 sections for five functional classifications of urban roadways and 2278 sections for five functional classifications of rural roadways. The speeds from these roadway sections were used to determine the average speed for each of five rural and urban functional classes. The speeds used in the travel model were also averaged for each of the five rural and urban functional classes for which HERS estimates had been developed. The speed adjustment factor for each of these functional classes was calculated as the ratio of the average speed using the HERS equations to the average speed using the travel model data.

There were not many HPMS minor collector and local roadway sections with data that allowed for the calculation of adjustment factors. Since the model contained the minor collector roadways in the area and these roadways were similar to the major collector roadways in the area, the adjustment factor for the rural major collectors was used for the rural minor collector roadways, and the adjustment factor for the urban major collectors was used for the urban minor collector roadways.

The procedures described above produced speed adjustment factors for all functional classes except rural and urban local roads and ramps. (Ramps are not officially a separate functional class, but the speed behavior of traffic on ramps is not expected to be like that of any other functional class. Therefore, the ramps were treated as a separate “functional class.”) There was not sufficient data to estimate speeds for the roadways of these classes. For rural and urban local roads and ramps, the speeds in the travel model were used without adjustment (i.e. the speed adjustment factor for ramps = 1).

CALCULATION OF POLLUTANT/PRECURSOR EMISSIONS

The calculation of the pollutant/precursor emissions for the nonattainment area involved using the adjusted output data from the KIPDA travel demand forecasting model as input to the MOVES model. KIPDA staff provided adjusted travel model output data in the form of vehicle-miles-traveled (VMT), VMT by speed bin, and VMT fractions by speed bin by county and by MOBILE 6 facility type to the staff of the Louisville Metro Air Pollution Control District (LMAPCD). LMAPCD staff utilized this data along with other necessary inputs to run the MOVES model and develop emission estimates for volatile organic compounds (VOCs) and oxides of Nitrogen (NO_x). They then provided these estimates to KIPDA staff. This analysis is explained below in further detail in the section below.

MOVES Emissions Model

As previously mentioned, the Louisville region is a nonattainment area for the pollutant ozone and must therefore control the precursors of ozone, VOCs and NO_x. The emission estimates for VOCs and NO_x were determined using the MOVES emissions model. The Louisville Metro Air Pollution Control District (LMAPCD) produced the emissions for all of the counties in the nonattainment area. The methodology used in calculating these emission estimates is discussed below.

There are a number of factors affecting the emission estimates developed from the MOVES model. In the past, these factors included the presence of inspection/maintenance (I/M) programs in some of the counties. During that time period, the VMT generated in Clark, Floyd, and Jefferson (KY) counties came from some vehicles subject to an I/M program and from some

vehicles not subject to an I/M program. The I/M program in Clark and Floyd counties was discontinued at the end of 2006. The I/M program in Jefferson County (KY) was discontinued in 2003. Therefore, these programs are no longer a factor in estimating emissions.

One of the other factors is the fuel used by the vehicles in the various counties. The fuels which are used in Clark, Floyd, and Jefferson counties include reduced Reid vapor pressure gasoline (RVP) and reformulated gasoline (RFG). While RFG is used in some portions of Bullitt and Oldham counties, unregulated gasoline is used in the other portions of those counties as well as the areas adjacent to the nonattainment area. Vehicles from these other areas can be expected to travel in the Clark, Floyd, and Jefferson (KY) counties also. In the past, the emission factors (from the MOBILE 6 model) for Clark, Floyd, and Jefferson (KY) counties used in the air quality analysis varied by county because they represent a VMT-weighted composite based on an estimate of travel in each county by vehicles from the various portions of the region. For this analysis, the MOVES model was used in what is known as the inventory mode. Using the inventory mode, it is possible to define the fuel characteristics and the presence of an I/M program for each county, but it is not possible to represent the effect of travel in a county by vehicles from other counties. Therefore, the use of composite emission factors was not possible. Other than that, the assumptions used in the analysis were consistent with those of the appropriate air quality agency for each of the counties. For Clark and Floyd counties, the assumptions of the Indiana Department of Environmental Management (IDEM) were used. Some assumptions of LMAPCD were also used for Clark and Floyd counties. For Jefferson County (KY), the assumptions of the LMAPCD were used. These assumptions had been previously reviewed and accepted by the IAC/ICG partners.

The assumptions used in developing the emissions for Clark, Floyd, and Jefferson (KY) counties were the same as those that were used in developing the ozone budget update (for VOCs and NO_x) in 2003 with a few exceptions where newer data was incorporated. The changes which affected the VOC and NO_x emissions included:

- (1) the incorporation of newer vehicle registration data (for 2014) for Clark and Floyd counties (provided by IDEM), and
- (2) the development and use of newer vehicle registration data (for 2016) for Jefferson County (KY).

The emissions for Bullitt and Oldham counties were also developed by LMAPCD. Most of the inputs to the MOVES model were defaults and/or data used that was consistent with previous SIPs. As mentioned above, RFG is used in some portions (the “original” portions) of Bullitt and Oldham counties, and unregulated gasoline is used in the other portions (the “new” portions) of those counties as well as the areas adjacent to the nonattainment area. The “original” portions and “new” portions refer to whether a portion of these counties had originally designated as a nonattainment/ maintenance status for the 1-hour ozone standard or had only been designated under the 8-hour ozone standard. Neither portion of either county had an I/M program. So it was not necessary to have I/M input information for MOVES. However, it was possible that the gasoline formulation in the different portions of these counties could be different.

It was determined—based on data provided by US EPA for the MOVES model—that the gasoline formulation for Bullitt and Oldham counties is essentially the same as that for Jefferson County with respect to the use of RFG. Since the use of the MOVES model in the inventory mode does not allow for the characteristics of different blends of gasoline within the same county, the gasoline formulations of Bullitt and Oldham counties was modeled the same as for Jefferson County.

The assumptions used for Bullitt and Oldham counties were consistent with those for the 2003 ozone budget update with the following exceptions:

- (1) the choice of gasolines described in the previous paragraph and
- (2) new 2016 vehicle registration data for Bullitt and Oldham counties was developed and approved in 2017.

LMAPCD developed emission estimates of VOCs and NO_x using the MOVES model. To review, the following steps were undertaken.

- (1) LMAPCD staff received (from KIPDA staff) the adjusted travel model output in the form of VMT, VMT by speed bin, and VMT fractions by speed bin, all by county and by MOBILE facility type by analysis year.
- (2) LMAPCD reformatted the data from KIPDA to prepare it as input to the MOVES model. Other necessary data was also prepared.
- (3) The MOVES model was run in inventory mode to determine emission estimates of each precursor for each county for each analysis year.

(4) LMAPCD staff provided the emission estimates to KIPDA staff.

RESULTS OF THE ANALYSIS

The transportation plan, *Connecting Kentuckiana 2040*, has been examined to determine if it is in conformity with the SIPs of Indiana and Kentucky and fulfills the criteria in the federal conformity rule (found in 40 CFR 93). The examination has been based on an air quality analysis to determine that air pollutant emissions of the appropriate areas did not exceed the VOC and NO_x motor vehicle emission budgets.

As previously mentioned, the other criterion for determining conformity would have been the progress in implementation of the Transportation Control Measures (TCMs) contained in the SIPs. However, since previous consultation had determined that there were no approved TCMs, that criterion did not affect the determination of conformity. The results of the regional emissions analyses for ozone precursors are discussed below.

8-HOUR OZONE ANALYSIS

The eight-hour ozone maintenance SIPs of Indiana and Kentucky contain emission budgets for the precursors of ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NO_x). The regional emissions analysis was conducted to provide estimates of the levels of emissions of VOCs and NO_x for the various analysis years. These emission levels were then compared to the budgets in the SIPs to determine if the conformity tests were passed.

The results of the regional emissions analysis are summarized in Tables 1 and 2. Table 1 shows the summer weekday vehicle-miles-traveled from the analysis. Table 2 shows that for 2020, 2025, 2030, and 2035, the summer weekday VOC and NO_x emission levels for the 2015 8-hour nonattainment area are less than the emission budgets established in the 1997 8-hour ozone maintenance SIP.

CONCLUSIONS – 8-HOUR OZONE

The regional emissions analysis of *Connecting Kentuckiana 2040* indicates that the Metropolitan Transportation Plan is consistent with the goals and emission budgets established in the State Implementation Plans of Indiana and Kentucky. The cumulative effect of the results shown in Table 2 indicates that *Connecting Kentuckiana 2040* has met the requirements of conformity under the 1997 and 2015 8-hour ozone standards. In summary, it can be concluded that *Connecting Kentuckiana 2040* conforms to the SIPs and meets the requirements of the federal conformity rule.

SUMMER WEEKDAY VEHICLE-MILES-TRAVELED (VMT) ESTIMATED FOR THE 8-HOUR OZONE NONATTAINMENT AREA (in 1000's of vmt/day)			
YEAR	INDIANA	KENTUCKY	TOTAL
2020	7346	25935	33281
2025	7887	27300	35187
2030	8431	28718	37149
2035	8968	30057	39025
2040	9446	31178	40624

SUMMER WEEKDAY EMISSIONS FOR THE 8-HOUR NON-ATTAINMENT AREA (kg/day)				
EMISSION LEVELS FOR VARIOUS YEARS				
YEAR	Area	VOCs	NOx	PASS
2020	Regional	12719	26443	YES
2025		9441	16501	YES
2030		6916	11744	YES
2035		5434	9400	YES
2040		4834	8897	YES

IAC MINUTES



**Connecting Kentuckiana Metropolitan Transportation Plan Update
Interagency Consultation Group Conference Call Meeting Minutes
September 24, 2019
2:00 PM EDT**

Participants:

FHWA – Bernadette Dupont & Eric Rothermel
 KYTC – Tom Hall & Brennan Niehoff
 INDOT – Jay Mitchell
 EPA – Dianna Myers, Kelly Sheckler & Anthony Maietta
 KYDAQ – Ashlee Whisman, Anna Bowman, & Ben Cordes
 IDEM – Shawn Seals
 LMAPCD – Michelle King & Craig Butler
 Louisville Metro – Tammy Markert & Dirk Gowin
 TARC – Jeremy Priddy
 KIPDA – Sarah Baer, Elizabeth Farc, David Burton, Randy Simon, Nick Vail, & Andy Rush

Schedule Discussion:

KIPDA Staff discussed the anticipated schedule for the update of the Metropolitan Transportation Plan, *Connecting Kentuckiana*. Review of the Air Quality Conformity process by the KIPDA Committees is expected in October. The MTP is currently scheduled to be presented for adoption in February 2020. The anticipated schedule is shown below:

September 24, 2019: IAC Conference Call
October 9: TTCC Review of Air Quality Analysis
October 24: TPC Review of Air Quality Analysis Complete
January 8, 2020: Public Involvement begins for *Connecting Kentuckiana* MTP
February 27: TPC Adoption of *Connecting Kentuckiana* MTP
February 28: Federal review begins

Project Discussion:

KIPDA Staff presented the list of 277 projects that will be included in *Connecting Kentuckiana*. The projects are a mix of new projects and projects that are in KIPDA's existing MTP. Key details about the

projects were presented, including information on how the regional travel demand model was adjusted to account for the new projects and the projects that have changed.

There was discussion concerning various details of a few projects. KIPDA staff clarified that projects that are considered as exempt from the analysis were noted as such, and that when it was noted that there were no changes to the model for a project, this meant that the project will be represented in *Connecting Kentuckiana* as it is currently in the existing MTP and in the existing model.

It was requested that KIPDA Staff be certain to note which projects are included in KIPDA's ITS Architecture, and add a footnote stating that all projects listed are modeled unless noted as Exempt or explicitly stated that the individual project is not modeled for another reason.

Conformity Analysis Discussion:

KIPDA Staff discussed the key components of the conformity analysis that are expected to be presented to the KIPDA TPC in October. The analysis will be virtually identical in process to recent analyses that were performed when the existing MTP was amended. One key change is that the horizon year of *Connecting Kentuckiana* is 2040, which requires a new travel model and MOVES Model scenario to be created.

The Budget Test utilizing the Year 2020 Motor Vehicle Emissions Budgets created for the 1997 8-Hour Ozone Standard will continue to be used until a new set of budgets are established. By not exceeding these budgets in the Year 2020, 2025, 2030, 2035, and 2040 travel model scenarios, the *Connecting Kentuckiana* MTP will demonstrate conformity to both the 2015 and 1997 8-Hour Ozone Standards.

Other Discussion:

The Planning Assumptions that were updated in July 2018 as a preliminary step in the update of the MTP were discussed. KIPDA Staff will make some minor changes to the Planning Assumptions document indicating that: 1) the Base Year of the KIPDA Model is 2015, 2) the KIPDA Model was most recently updated and calibrated in 2018, and 3) the newest MOVES Model is now called MOVES 2014b.

As is the standard practice, the outputs of the KIPDA Model will be used as inputs in the MOVES Model, which will be run by Louisville Metro Air Pollution Control District. LMAPCD will provide KIPDA with the estimated VOC and NOx emissions to be included as the results of the regional emissions analysis. No changes are proposed to this process at this time.

KIPDA Staff offered the opportunity for any other business or questions to be brought to the IAC. There was no other business discussed.

APPENDIX J: AMENDMENT POLICY

The transportation needs of a community can change; therefore, *Connecting Kentuckiana 2040* must have the means to adapt to unforeseen changes. As a vehicle for addressing these changes, an amendment policy for *Connecting Kentuckiana 2040* was developed. This policy acknowledges that change in any environment is inevitable and ensures that any amendments will adhere to the intent of the plan. When an amendment to *Connecting Kentuckiana 2040* is necessary, the following policy will be observed. Please note, *Connecting Kentuckiana 2040* will not accept administrative modifications.

KIPDA staff will inform project sponsors and the members of KIPDA Committees what information is needed to complete an amendment to the metropolitan transportation plan and the time line for submitting the information. Amendments to the metropolitan transportation plan involve the same steps as used when completing updates of the entire plan. These steps are:

NEW PROJECTS

1. Utilizing data sources made available by KIPDA, complete project application through the KIPDA Transportation Planning Portal
2. Review of the project information for accuracy
3. Review project submission for Group Project Category association
4. Complete impact review and ranking of project submission
5. Project undergoes review by the Inter-Agency Consultation (IAC) Group to determine if project is exempt or nonexempt in terms of air quality analysis
6. Air Quality Analysis, if applicable
7. Congestion Management Process (CMP) Review
8. Public Review
9. Transportation Policy Committee (TPC) reviews project information, impact review, project ranking, public comments and any associated recommendations
10. TPC acts on proposed amendment
11. Complete Project Information Form, if applicable
12. Air Quality Conformity Determination, if applicable

EXISTING PROJECTS

1. Complete update to existing Project Information Form
2. Review of the project information for accuracy
3. Review prior impact review and ranking of proposed amendment
4. Project undergoes review by the Inter-Agency Consultation (IAC) Group to determine if proposed changes impact existing exempt or nonexempt status in terms of air quality analysis
5. Air Quality Analysis, if applicable
6. Congestion Management Process (CMP) Review
7. Public Review
8. Transportation Policy Committee (TPC) reviews project information, updated impact review, updated project ranking, any public comments submitted and any associated recommendations
9. TPC acts on proposed amendment
10. Air Quality Conformity Determination, if applicable

Frequent and unnecessary amendments may diminish the intent of planning. In the context of updating the plan, the process of identifying projects is comprehensive; project sponsors are afforded both the tools and the time to account for long-term transportation needs and wants. This amendment policy ensures that *Connecting Kentuckiana 2040* will retain integrity between updates.

Amendments should be submitted by sponsors only after considerable thought and coordination are given to the following:

- Identifying needs and wants
- Exploring alternatives

- Seeking opportunities to address safety concerns relative to High Crash Locations identified on the KIPDA On-Line Resource Center and other areas identified by state and local resources
- Assessing new projects and changes to existing projects relative to opportunities identified in the KIPDA On-Line Resource Center, including, but not limited to:
 - Providing multi modal improvements
 - Consideration of public comments
 - Addressing roadway and/or bridge maintenance needs
 - Enhancing freight mobility
- Conducting new proposed project and existing project review and analysis relative to planning concepts defined by the Transportation Policy Committee, including the Connecting Kentuckiana 2040 Vision Statement, Goals and Objectives, the KIPDA Performance Management Plan, and other associated planning tools, studies and resource guides (see Appendix K: Supplemental Links)
- Consideration of federal regulation and planning factors
- Consideration of National, State, and Local priorities, as applicable
- Following deliberate and extensive opportunities for the public to comment on proposed projects and the metropolitan transportation plan as a whole

APPENDIX K: SUPPLEMENTAL REPORTS

PARTICIPATION PLAN

The KIPDA [Public Participation Plan](#) is a guide for planning, improving and reporting public involvement. The purpose of this plan is to ensure opportunities of involvement for all citizens are identified and expectations are shared between decision makers and the community on what steps may be taken to engage the public in the transportation planning process. The goal is to provide ample opportunities and advance notice to the public in hopes of maximizing involvement.

PERFORMANCE MANAGEMENT PLAN

The KIPDA [Performance Management Plan](#) outlines both federally required and MPO-developed performance measures, targets, and baseline conditions that may impact project evaluation and subsequent funding within the MTP and the TIP.

ENVIRONMENTAL JUSTICE RESOURCE GUIDE

The [Environmental Justice Resource Document](#) describes KIPDA's process in defining Environmental Justice Study Areas, highlights those areas, and describes mitigation techniques to avoid negative or disproportionate impacts by transportation projects. KIPDA includes Environmental Justice principles and considers Environmental Justice study areas in many of its planning documents

COORDINATED HUMAN SERVICES TRANSPORTATION PLAN (CHSTP)

The KIPDA [Coordinated Human Services Transportation Plan \(CHSTP\)](#) serves as unified strategy for enhancing mobility and options to seniors and persons with disabilities as well as other populations that may benefit.

REGIONAL FREIGHT MOBILITY STUDY

KIPDA integrates freight mobility issues, policies, and projects into the planning process to guide investment in a sustainable multimodal transportation system. This is outlined in [The Regional Freight Mobility Study](#).

FREIGHT DESIGN GUIDE

[The Freight Design Guide](#) was developed in order to provide project sponsors and transportation related decision makers guidance on how to integrate freight into their project planning process and ultimately on the roadway.

ITS ARCHITECTURE

The [ITS Architecture](#) at KIPDA is a roadmap for transportation system integration. ITS uses electronic technologies and communications to improve the safety and efficiency of surface transportation.

PROJECT MANAGEMENT PROCESS

The [*Project Management Process*](#) is two separate documents specific to Kentucky and Indiana, due to their differentiation of funding source, that specify the process for planning, programming and prioritizing federal funds dedicated to the KIPDA MPO.

KIPDA PLANNING STUDIES

KIPDA collects and maintains a wealth of information from its planning studies and studies completed by member agencies and peer organizations. The [*studies*](#) serve as an ongoing resource for planning activities from throughout the region.

TAD REPORTS

[*Transportation Analysis District \(TAD\) Reports*](#) are for Clark and Floyd counties in Indiana and Bullitt, Oldham and Jefferson counties in Kentucky and take a close look at clusters of attractions and the transportation options and impedances that exist between different destinations.

CONGESTION MANAGEMENT PROCESS

The [*Congestion Management Process*](#) is a grouping of strategies that may improve the transportation network's system performance and reliability by reducing potential adverse impacts of congestion on the movement of people and goods.

BICYCLE AND PEDESTRIAN RESOURCE GUIDE

The KIPDA [*Bicycle and Pedestrian Resource Guide*](#) addresses existing bicycle and pedestrian facilities and gaps, safety performance targets, connectivity between other KIPDA planning documents and serves as a tool for Local Public Agencies to incorporate bicycle and pedestrian planning in an effort to create a cohesive regional network.



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