

RADCLIFF/ELIZABETHTOWN
METROPOLITAN PLANNING ORGANIZATION

METROPOLITAN TRANSPORTATION PLAN
2015- 2040



Planning for the transportation
needs of the region.

JANUARY 2015



LINCOLN TRAIL AREA DEVELOPMENT DISTRICT
P. O. BOX 604
613 COLLEGE STREET ROAD
ELIZABETHTOWN, KENTUCKY 42702-0604



Planning for the transportation
needs of the region.

Radcliff/Elizabethtown Metropolitan Transportation Plan

January 2015

Preparation of this report has been financed by the Federal Highway Administration, the Kentucky Transportation Cabinet, and the Radcliff/Elizabethtown MPO. The financial assistance notwithstanding, the contents of this report do not necessarily reflect the official views or policies of all of the funding agencies. Accuracy of the information presented herein is the responsibility of the Radcliff/Elizabethtown MPO.



Planning for the transportation
needs of the region.

**RESOLUTION OF THE POLICY COMMITTEE OF THE
RADCLIFF/ELIZABETHTOWN METROPOLITAN PLANNING ORGANIZATION
APPROVING THE
2015-2040 METROPOLITAN TRANSPORTATION PLAN**

WHEREAS, Section 134, Title 23, USC requires a continuing comprehensive transportation planning process be carried on cooperatively in areas of more than 50,000 population and that the urban transportation planning process shall include development of a 20 year, fiscally balanced plan of transportation improvement projects; and

WHEREAS, the Policy Committee is the official decision making body of the Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) for the Radcliff/Elizabethtown Urbanized Area, and is responsible for developing a Transportation Plan; and

WHEREAS, the 2015-2040 Metropolitan Transportation Plan was developed by the Radcliff/Elizabethtown MPO and reviewed by the Kentucky Transportation Cabinet and appropriate federal, state and local officials; and

WHEREAS, the transportation planning process is being carried on in conformance with all Federal requirements and has been so certified; and

WHEREAS, the Radcliff/Elizabethtown Urbanized Area has been found to be in attainment of national air quality standards;

THEREFORE BE IT RESOLVED, that the MPO Policy Committee, at its regular public meeting of January 29, 2015, approves the 2015-2040 Metropolitan Transportation Plan for the Radcliff/Elizabethtown Urbanized Area.

Harry L. Berry, Chairperson
Hardin County Judge/Executive

January 29, 2015

Date



TABLE OF CONTENTS

Chapter 1. Introduction

A. Study Area.....	1
B. Metropolitan Planning Organization.....	3
C. Purpose and Plan Objectives	3
D. Project Participants	8

Chapter 2. Public Involvement and Agency Consultation

A. Technical Advisory Committee (TAC).....	1
B. Public Information Meeting	1
C. Survey/Questionnaire	1
D. Agency Consultation	2
E. Public Review & Comment on Draft MTP	2

Chapter 3. Existing Transportation System

A. Highways	1
B. Multi-Modal Transportation.....	6

Chapter 4. Socioeconomic and Environmental Overview

A. Demographics.....	1
B. Title VI Analysis.....	2
C. Land Use and Development.....	3
D. Environmental and Cultural Resource Features.....	4
E. Environmental Mitigation Measures.....	4

Chapter 5. Model Technical Document Summary

A. Basic Model Development	2
B. Traffic Model Results.....	2

Chapter 6. Plan Development

A. Goals and Objectives	1
B. KYTC Highway Plan.....	3
C. KYTC Unscheduled Project List (UPL).....	6
D. Evaluation & Scoring Process for Highway Projects	9
E. Past MPO Studies.....	11
F. Public Feedback.....	13

Chapter 7. 2040 Transportation Plan

A. Financial Constraint Analysis.....	1
B. 2040 Transportation Plan	2
Safety.....	2
Highways.....	3
Table 1. Highway Improvements, 2014-2020.....	4
Table 2. Highway Improvements, 2021-2040.....	6
Highway Maps.....	9
Transportation System Operations and Maintenance.....	14
Grouped Projects.....	14
Table 3. Grouped Projects.....	16
Public Transportation.....	17
Pedestrian & Bicycle Facilities.....	23
Aviation.....	30
Aviation Improvements Table.....	30
Rail.....	30
Riverport.....	30
Freight.....	31
Transportation Alternatives Program/Transportation Enhancement/Safe Routes to School Projects.....	31
Summary.....	32

APPENDICES

- Appendix A. Policy Committee & Technical Advisory Committee Membership Lists
- Appendix B. Highway Data
- Appendix C. Socioeconomic Data

1. INTRODUCTION

This Radcliff/Elizabethtown Metropolitan Transportation Plan (MTP) is a long-range plan that considers transportation needs for the region through the year 2040 and includes a range of transportation issues. This plan presents recommendations for the development of an improved transportation system. The Plan also identifies available financial constraints, based primarily on federal and state funding, and presents recommendations for future scheduling of proposed projects. As required by federal law, the MTP is reviewed and updated every five (5) years.

A. Study Area

The Radcliff/Elizabethtown Metropolitan Planning Organization was officially established in 2003. The original urbanized area established in the 2000 Census included Radcliff and Elizabethtown, along with portions of Fort Knox and unincorporated Hardin and Meade counties. For simplification purposes, the planning area for the MPO includes all of Hardin and Meade counties. The study area for the Plan is shown in **Figure 1**.

Hardin County includes the urbanized areas of Radcliff and Elizabethtown, and the incorporated cities of Sonora, Upton, West Point, and Vine Grove. Meade County includes the county seat of Brandenburg, and the incorporated cities of Ekron and Muldraugh. The MPO planning area also includes the Fort Knox Military Reservation.

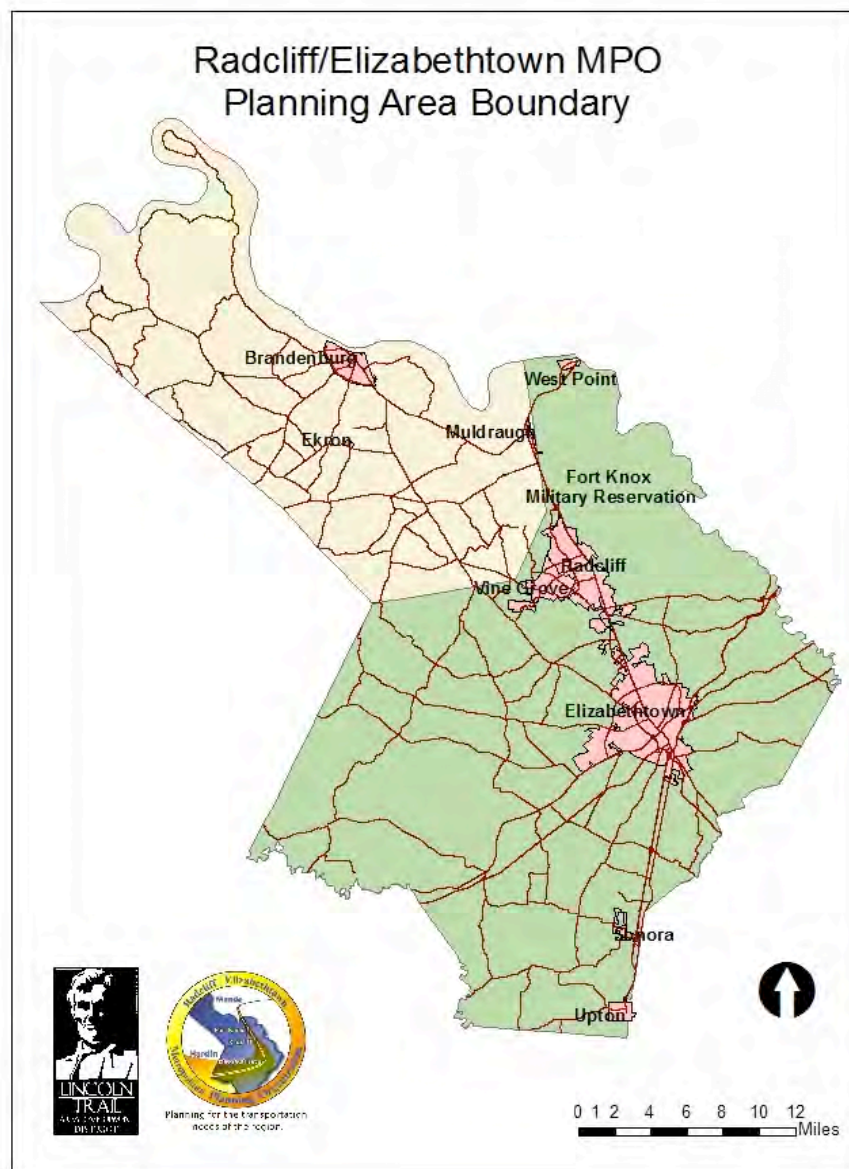
In many respects, the area is a “cross-roads” of regional highways, railroads, waterways, and other systems. The 2010 Census shows the MPO planning area has a population of 134,145 with significant growth expected to occur over the 25-year horizon of the Metropolitan Transportation Plan (MTP).

The Radcliff/Elizabethtown MPO planning area serves as a regional economic and services center for people who live inside the area and in surrounding counties and who travel to local communities for government services, jobs, commercial services, health and human services, and higher education. It is also an attractive residential location for people who live in MPO area communities, but commute to jobs in Louisville and other locations outside the area. In recent years, new residential areas have been developed along or near major arterials in the region.

The area is home to Fort Knox, a major military installation that has its own special transportation needs and problems that affect not only the military post, but also the surrounding communities. Following the implementation of the Base Realignment and Closure (BRAC), Fort Knox realized a significant increase in permanent positions on post. The surrounding communities also experienced significant growth in population and jobs. In terms of transportation, the Commonwealth of Kentucky and the surrounding communities banded together to ensure that necessary improvements were made to the transportation network. These included road improvements such as the construction of Patriot Parkway (KY 361), extension of KY 313 to Brandenburg, Wilson Road improvements in Radcliff, and the extension of Ring Road (KY 3005) to the Western Kentucky Parkway. The Transit Authority of Central Kentucky (TACK) also coordinated with Fort Knox to provide park and ride shuttles to bring employees to the post. TACK also coordinates several vanpools from Hardin, Meade, and surrounding counties.

Economic development growth in the area continues to increase, and this will require careful planning for infrastructure improvements. Of special note, an area of approximately 1500 acres south of Glendale has been targeted for future industrial development. The site lies west of I-65, south of KY 222, north of KY 1136, and east of the railroad. The MPO completed a transportation study of the Glendale area to determine where improvements need to be made when development occurs at the site.

Figure 1. MPO Planning Boundary



B. Metropolitan Planning Organization

The Federal Surface Transportation Assistance Act of 1973 required the formation of a Metropolitan Planning Organization (MPO) for an urbanized area with a population greater than 50,000. After the compilation of the 2000 Census data, the Census Bureau designated the Radcliff/Elizabethtown area as an urbanized area, thus, requiring the formation of an MPO for these communities. The Lincoln Trail Area Development District (LTADD) was designated as the administrative agency for the Radcliff/Elizabethtown MPO in 2003 by the Commonwealth of Kentucky, with approval by the United States Department of Transportation. The MPO oversees the use of Federal funds for transportation projects in the region.

MPOs were created to ensure that existing and future expenditures for transportation projects and programs were based on a comprehensive, cooperative, and continuing (3C) planning process. The MPO works in coordination with the local governments in the region and the Kentucky Transportation Cabinet (KYTC) to plan and coordinate the development of transportation projects and programs in the designated transportation planning study area.

The Radcliff/Elizabethtown MPO is governed by a Policy Committee that includes the chief-executives representing the following local jurisdictions and organizations:

- Hardin County
- Meade County
- City of Elizabethtown
- City of Radcliff
- City of Vine Grove
- City of Brandenburg
- Ft. Knox Military Reservation (U.S. Army)
- Kentucky Transportation Cabinet
- Federal Highway Administration, KY Division Administrator

The Radcliff/Elizabethtown MPO also maintains a Technical Advisory Committee comprised of transportation officials, community representatives, Kentucky Division of the Federal Highway Administration and the Kentucky Transportation Cabinet who work to provide guidance and assistance to the Policy Committee on project development and technical issues.

Current members of the MPO Policy Committee and Technical Advisory Committee are included in **Appendix A**.

C. Purpose and Plan Objectives

The purpose of the Metropolitan Transportation Plan for the Radcliff/Elizabethtown MPO is to guide the development and future updates of the MPO's Transportation Improvement Program (TIP). The TIP is a compilation of short-range transportation improvements that is updated every five years, as required by federal law. The 2040 MTP is built upon previous planning efforts by the MPO, including the original transportation plan and several studies conducted by the MPO over the past few years. More detailed information on each study and the plan development process can be found in **Chapter 6** of this document.

Federal Planning Requirements

The Radcliff/Elizabethtown MPO is required to develop transportation plans and programs for the MPO planning area that are in accordance with federal legislation and mandates. This plan responds to the federal planning requirements established by the Moving Ahead for Progress in the 21st Century (MAP-21) of 2005.

Planning Factors: The following statewide and metropolitan planning factors are contained in the MAP-21 legislation:

- Support the economic vitality of the United States, the States, non-metropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety of the transportation system for motorized and non-motorized users;
- Increase the security of the transportation system for motorized and non-motorized users;
- Increase the accessibility and mobility of people and for freight;
- 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;
- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
- Promote efficient system management and operation; and
- Emphasize the preservation of the existing transportation system.

These eight (8) planning factors formed the basis for the goals of the *2040 Radcliff/Elizabethtown Metropolitan Transportation Plan*, as discussed in **Chapter 6** of this document.

Transportation Plan Requirements: 23 CFR 450C, Sec.450.322 imposes specific requirements for the development of the Metropolitan Transportation Plan as part of the metropolitan planning process. The following **Table 1** identifies the page number that references where in the MTP the federal requirements have been addressed:

Livability Principles

On June 16, 2009, the U.S. Department of Transportation, the U.S. Department of Housing and Urban Development, and the U.S. Environmental Protection Agency announced an Interagency Partnership for Sustainable Communities and set forth six 'livability principles' to coordinate policy. The principles were adopted to help the agencies guide the allocation of funds to communities that manage their financial and physical resources in a manner that creates a dynamic environment that is efficient in its function, livable for its residents, enduring in its viability and results in a sense of well being of its citizens. The principles are:

1. Provide more transportation choices.

Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.

2. *Promote equitable, affordable housing.*

Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.

3. *Enhance economic competitiveness.*

Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.

4. *Support existing communities.*

Target federal funding toward existing communities – through such strategies as transit-oriented, mixed-use development and land recycling – to increase community revitalization, improve the efficiency of public works investments, and safeguard rural landscapes.

5. *Coordinate and leverage federal policies and investment.*

Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.

6. *Coordinate and leverage federal policies and investment.*

Enhance the unique characteristics of all communities by investing in healthy, safe and walkable neighborhoods – rural, urban or suburban.

Livability in transportation is defined as connecting the quality, location, and modal composition of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, and safe streets. This includes addressing road safety and capacity issues through better planning and design, maximizing and expanding new technologies such as intelligent transportation systems (ITS) and using travel demand management approaches to system planning and operations. It also includes developing high quality public transportation to foster an overall community design and public/private investments, which offer residents and workers the full range of transportation choices. And, it involves fully integrating the modal pieces - bikeways, pedestrian facilities, transit services, and roadways - into a truly intermodal, interconnected system.

Incorporation of the Livability Principles into the Radcliff/Elizabethtown Metropolitan Transportation Plan is not a mandate of current highway funding legislation or a planning regulations requirement, but the Radcliff/Elizabethtown MPO acknowledges that the concepts of livability and sustainability are integrated within the goals and objectives which have guided the MPO's decision-making and overall transportation vision. Although the published principles are new, they are reflective of a continual desire of the community's leadership to plan for a sustainable future for the Radcliff/Elizabethtown area and are inherently incorporated into the planning for its growth and development.

Table 1
Radcliff/Elizabethtown MPO
Metropolitan Transportation Plan Checklist

Date Draft MTP Completed:

MTP Approval Date:

450.322 Development and content of the metropolitan transportation plan ...

	Yes/No/NA	Page #
(a) Does the MTP address no less than a 20-year planning horizon?	Yes	Ch. 1, Pg. 1
(b) Does the MTP include both long-range and short-range strategies/actions?	Yes	Ch. 7, Pgs. 3-30
(c) The MTP shall be reviewed and updated every five (5) years ...	Yes	Ch. 6, Pg. 14
(d) In non-attainment areas, the MPO shall coordinate the development of the MTP with the proces for developing transportation control measures (TCMs) in a State Implementation Plan (SIP).	NA	Ch. 1, Pg. 8
(e) Is the MTP update based on the latest available estimates & assumptions for population, land use, travel, employment, congestion, and economic activity?	Yes	Ch's. 4/5
(f) The MTP shall, at a minimum, shall include:		
(1) Does the MTP update include the projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan?	Yes	Ch's. 5-7
(2) Does the MTP update include existing & proposed transportation facilities ...?	Yes	Ch's. 6/7
(3) Does the MTP update include Operational and Management Strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods?	Yes	Ch. 7, Pg. 14
(4) Does the MTP include consideration of the results of the congestion management process ...?	NA	-
(5) Does the MTP update include an assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure and provide for multimodal capacity increases base on regional priorities and needs?	Yes	Ch. 7
(6) Does the MTP update include sufficient detail for all proposed improvements to develop project cost estimates?	Yes	Ch. 6

(7) Does the MTP update include a discussion of potential environmental mitigation activities and potential areas to carry out these activities ...?

Yes	Ch. 4, Pgs. 4-5
-----	-----------------

(8) Does the MTP update include pedestrian and bicycle transportation facilities in accordance with 23 U.S.C. 217(g)?

Yes	Ch. 7
-----	-------

(9) Does the MTP update include Transportation and Transit Enhancement activities?

Yes	Ch. 7
-----	-------

(10) Does the MTP update include a **Financial Plan** that demonstrates how the adopted transportation plan can be implemented?

Yes	Ch. 7, Pg. 1
-----	--------------

(i) Does the financial plan contain system-level estimates of costs and revenue sources?

Yes	Ch. 7, Pgs. 6-8
-----	-----------------

(ii) Were the estimates of funds developed cooperatively between the MPO, KYTC, and public transportation operator(s)?

Yes	Ch. 7
-----	-------

(iii) Does the financial plan include recommendations on any additional financing strategies to fund projects and programs included in the MTP?

Yes	Ch. 7
-----	-------

(iv) Does the financial plan take into account all projects and strategies proposed for funding under title 23 U.S.C. , title 49 U.S.C. chapter 53 or with other Federal funds; State assistance; local sources; and private participation?

Yes	Ch. 7
-----	-------

(v) For the outer years of the MTP (i.e., beyond the first 10 years), the financial plan may aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.

Yes	Ch. 7
-----	-------

(vi) For nonattainment & maintenance area, the financial plan shall address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP.

NA	-
----	---

(vii) For illustrative purposes, the financial plan may (but is not required to) include additional projects that would be included in the adopted MTP if additional resources beyond those identified in the financial plan were to become available.

-	-
---	---

(viii) In cases that FHWA and FTA find a MTP to be fiscally constrained and a revenue source is subsequently removed or substantially reduced, FHWA and FTA will not withdraw the original determination of fiscal constraint; however, in such cases, FHWA and FTA will not act on an updated or amended MTP that does not reflect the changed revenue situation.

-	-
---	---

(g) Has the MPO cosulted with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the MTP? The consultation shall involve, as appropriate: (1) comparison of transportation plans with State conservation plans or maps, if available; or (2) comparison of transportation plans to inventories of natural or historic resources, if available.

Yes	Ch. 2, Pg. 1
-----	--------------

(h) Does the MTP include a Safety Element that incorporates or summarizes the priorities, goals, countermeasures, or projects for the MPA contained in the SHSP?

Yes	Ch. 7, Pgs. 2-3
-----	-----------------

(i) Did the MPO provide citizens, affected public agencies, reps of public trans employees, freight shippers, providers of freight trans services, private providers of trans, reps of users of public trans, reps of users of pedestrian walkways & bicycle trans facilities, reps of the disabled, and other interested parties with a reasonable opportunity to comment on the trans plan using the participation plan developed under 450.316(a)?

Yes	Ch. 2, Pg. 1
-----	--------------

(j) Was the MTP published and made readily available by the MPO for public review, including in electronically accessible formats and means, such as the WWW?

Yes	Ch. 2, Pg. 2
-----	--------------

(k) A State or MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan under paragraph (f)(10) of this section.

-	-
---	---

(l) Related to air quality and conformity determination ...

NA	-
----	---

Air Quality

Currently, the planning area for the Radcliff/Elizabethtown MPO is in attainment with all Federal air quality regulations. An attainment area is an area considered to have air quality that meets or exceeds the U. S. Environmental Protection Agency (EPA) health standards used in the Clean Air Act.

According to recent (2011-2013) air quality data, Hardin County had one exceedence of the EPA air quality standards for Ozone. This occurred in 2012 with a value of 0.0790 parts per million (ppm). To be considered attainment, the value must be under 0.0750 ppm. The three year average for Hardin County is 0.070 parts per million (ppm), which does meet the current Ozone standards.

The EPA is currently considering developing new standards for Ozone. In fact, EPA is under a court order to propose a new standard by December 1, 2014 and finalize the new rule by October 1, 2015. EPA is looking at setting the standard between 0.070 and 0.060. The Clean Air Scientific Advisory Committee (CASAC), which is a group of professional scientists that advise EPA on this type of issue, recommends a number less than 0.070. Depending on the standard that is set by EPA, there is a potential that Hardin County could become non-attainment. The MPO will continue to monitor information and data as it is provided.

Transportation Plan Development Process

As a result of these requirements and considerations, the plan development process includes the following activities that served to produce the 2040 Radcliff/Elizabethtown Metropolitan Transportation Plan:

- A data collection program to identify existing conditions, compile regional information, and forecast future population and employment, including identification of major growth areas;
- A public involvement and outreach program;
- Recent transportation-related studies completed by the MPO;
- The identification of regional transportation needs for the present and future;
- The development and analysis of realistic transportation improvement alternates and strategies to meet the identified needs, as appropriate for the size and complexity of the area;
- The development of a funding and financial plan to meet the costs of transportation system operations, maintenance, and capital improvements; and
- The development of a long-range transportation plan document.

D. Project Participants

This Plan was developed in coordination with a number of individuals, or stakeholders, representing various interests and organizations throughout the area. These groups included representatives of the MPO staff, the MPO Technical Advisory Committee, the MPO Policy Committee, the Kentucky Transportation Cabinet, and interested citizens and groups.

The Radcliff/Elizabethtown MPO, Kentucky Transportation Cabinet, and the Federal Highway Administration are the official sponsors of the 2040 Radcliff/Elizabethtown Metropolitan Transportation Plan.

2. PUBLIC INVOLVEMENT & AGENCY CONSULTATION

This chapter provides a brief overview of the community involvement activities undertaken for the 2040 Radcliff/Elizabethtown Metropolitan Transportation Plan. One aspect of the community involvement process was to obtain local input through the MPO Technical Advisory Committee. Through a series of advisory committee meetings, agency consultation, a public meeting, and survey questionnaires and comment forms, representatives of local agencies and interests were able to provide input to the study process and ultimately to the development of the 2040 MTP. The public involvement process helped provide a study process and transportation plan that is responsive to local transportation needs, thus fostering a sense of local ownership of both the process and the plan.

A. Technical Advisory Committee (TAC)

The Radcliff-Elizabethtown MPO Technical Advisory Committee (TAC) serves as an advisory panel on technical decisions for the MPO. The TAC is responsible for recommendations regarding the type and extent of transportation improvements for the MPO. The transportation improvements are then submitted to the MPO Policy Committee for review and approval. Representatives from the Kentucky Transportation Cabinet (KYTC), local planning agencies, city and county governments, Fort Knox, the Elizabethtown/Hardin County Airport Board, and the Transit Authority of Central Kentucky (TACK) currently serve on the TAC. A list of TAC members is shown in **Appendix A**.

This committee provided oversight and guidance for the *Metropolitan Transportation Plan* update by providing technical input and different local perspectives throughout the duration of the project. Six (6) meetings were held with the TAC on the following dates during 2014: February 5, April 2, August 6, September 11, October 22, and December 10.

B. Public Information Meeting

A public information meeting was held on June 5, 2014 at the Lincoln Trail Area Development District office in Elizabethtown. At the meeting, the participants were provided an overview of the transportation planning process for updating the Metropolitan Transportation Plan. Beyond a brief presentation, the meeting was an "open house" with MPO staff available to answer questions and discuss transportation-related issues with attendees. Public Comment sheets were also available at the meeting for anyone interested in providing feedback in writing.

During FY 2014, the MPO completed a Public Transportation Implementation Study. A public survey was distributed during the study process giving the public an opportunity to provide feedback concerning transportation issues. A public meeting for this study was also held on June 27, 2013 to present the study finding to the public and to obtain further feedback from local citizens.

C. Public Comment Forms

Public comment forms were developed by the MPO to assist in obtaining public input into the 2040 Metropolitan Transportation Plan update. The form was available on the MPO website (www.ltadd.org/mpo) for download. The comment forms were also made available at the June 5 public meeting. As mentioned previously, a public survey was made available for the Public Transportation Implementation Study. A full summary of public feedback can be found

on pages 13-14 of **Chapter 6**, which discusses the process for developing the Metropolitan Transportation Plan.

D. Agency Consultation

The MPO Participation Plan contains a list of agencies that the MPO consults concerning major development in the transportation planning process. During the update of the MTP, the MPO consulted with these local, state, and federal agencies through an email message requesting feedback into the plan update. As required by Federal law, the MPO requested any available plans, maps, or inventories from local, state and federal agencies that the MPO should consider during the MTP update process. No comments were received.

E. Public Review & Comment on Draft Metropolitan Transportation Plan (MTP)

The 2040 Metropolitan Transportation Plan (MTP) was made available for public review and comment between Thursday, November 20 through Monday, December 22, 2014. The MTP was available for review at the Lincoln Trail Area Development District office, the public libraries in Hardin and Meade counties, and online via the Radcliff/Elizabethtown MPO webpage. No public comments were received.

PUBLIC MEETING
Radcliff/Elizabethtown Metropolitan Planning Organization
2040 Metropolitan Transportation Plan Update

The Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) will hold a public meeting on Thursday, June 5 from 5:00 to 7:00 pm at the Lincoln Trail ADD office at 613 College Street Road in Elizabethtown. The MPO is currently in the process of updating its long-range Metropolitan Transportation Plan (MTP). At the meeting, the MPO staff will present proposed projects for all modes of transportation and receive feedback from the public. Any questions concerning the meeting should be directed to Mike Skaggs at 270-769-2393.



Radcliff/Elizabethtown MPO
P. O. Box 604
613 College Street Road
Elizabethtown, Kentucky
Phone: 270-769-2393
Fax: 270-769-2993



Press Release

FOR IMMEDIATE RELEASE

Contact: Mike Skaggs
Lincoln Trail ADD
(270) 769-2393
mskaggs@ltadd.org

May 28, 2014

Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) To hold Public Meeting to discuss Metropolitan Transportation Plan Update

The Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) will hold a public meeting on Thursday, June 5 from 5:00 to 7:00 pm at the Lincoln Trail Area Development District (LTADD) office at 613 College Street Road in Elizabethtown. The meeting will be held to discuss and receive feedback from the public regarding the update of the Radcliff/Elizabethtown Metropolitan Transportation Plan (MTP).

The Metropolitan Transportation Plan (MTP) update will include an overview and recommendations for all modes of transportation including highways, public transportation, and bicycle/pedestrian. The MTP will cover a planning period from 2015-2040, projecting the transportation needs of Hardin and Meade counties over this timeframe.

The public meeting will have an open house format with a brief formal presentation to be given at approximately 5:30 pm. Maps displaying transportation-related data and projects will be available for review and discussion with MPO and Kentucky Transportation Cabinet staff.

Radcliff/Elizabethtown Metropolitan Planning Organization NEEDS YOUR INPUT!

Concerning the Metropolitan Transportation Plan Update

PUBLIC INFORMATION MEETING OPEN HOUSE FORMAT



Thursday, June 5, 2014

Drop in anytime from

5:00 p.m. to 7:00 p.m.

**Lincoln Trail Area Development District
at 613 College Street Road in
Elizabethtown**



Planning for the transportation
needs of the region.

**A Brief Formal Presentation will be
given at 5:30 p.m.**

For more information,
contact the **Lincoln Trail Area Development District** at
270-769-2393, or go to the MPO web site at
<http://www.ltadd.org/mpo>

Public Review and Comment
Radcliff/Elizabethtown Metropolitan Planning Organization
2015-2040 Metropolitan Transportation Plan

In accordance with Moving Ahead for Progress in the 21st Century (MAP-21), the Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) is seeking public comment on the DRAFT 2015-2040 Metropolitan Transportation Plan (MTP). The MTP has been developed in conjunction with the Federal Highway Administration, the Federal Transit Administration and the Kentucky Transportation Cabinet. The MTP document will be available for public review from November 20 through December 22, 2014 from 8:00 am to 4:30 pm, Monday-Friday, at the Lincoln Trail ADD office at 613 College Street Road in Elizabethtown or at the local public libraries in Hardin and Meade counties. The MTP is also available for download from our website at <http://www.ltadd.org/mpo/documents>. Please send comments to LTADD, Attn: MPO Public Comments at P. O. Box 604, Elizabethtown, KY 42702-0604 or by email to mskaggs@ltadd.org.

3. EXISTING TRANSPORTATION SYSTEM

An evaluation of the existing transportation system is a crucial element in determining the future needs of the area. The Radcliff/Elizabethtown urbanized area has a very diverse transportation system including airports, waterways, railroads, public transportation, highways, and freight.

This chapter will discuss each of these modes of transportation and the existing facilities and services within each one. A larger emphasis is placed on the roadway network since that is the prevailing mode of travel in the region. The analysis of the existing system will provide a basis for understanding the mobility deficiencies and needs and help guide decisions for improving the transportation system.

HIGHWAYS

The Radcliff/Elizabethtown urbanized area has a very diverse highway network that serves a variety of uses including the Fort Knox Military Reservation, commercial corridors, industries, schools, medical facilities, and residential areas. The highway system includes Interstate 65 and the Western Kentucky and Bluegrass Parkways, which make the area very accessible for tourist travelers, commercial vehicles for the movement of freight, and citizens of the area. The highway network serves as the dominant mode of transportation in the area and much of the growth in the area can be attributed to the accessibility of local communities by highway.

Below is a list of highways that have been analyzed during the development of the Metropolitan Transportation Plan:

Hardin County

-I-65	-KY 251
-Bluegrass Parkway (BG 9002)	-KY 313
-Western Kentucky Parkway (WK 9001)	-KY 361
-US 31W	-KY 391
-US 31W Bypass	-KY 434
-US 62	-KY 447
-KY 61	-KY 567
-KY 84	-KY 1136
-KY 86	-KY 1357
-KY 144	-KY 1500
-KY 210	-KY 1600
-KY 220	-KY 1646
-KY 222	-KY 1815
-KY 224	-KY 3005

Meade County

-US 31W	-KY 313	-KY 1238
-US 60	-KY 448	-KY 1600
-KY 79	-KY 933	-KY 1638
-KY 144	-KY 1051	

Highway Systems

All highways are classified in the State System and the Functional Highways Classification System. Many area roadways are also part of the National Truck Network (NN) and the National Highway System. A summary of the highway systems is found in **Appendix B**. This summary also includes the truck weight class for each highway. Below is a synopsis of the highway systems:

- State-maintained roads in Kentucky are classified into one (1) of six (6) categories under the State Primary Road System (SPRS) according to the degree to which they provide a statewide mobility purpose. Classifications include: Supplemental Roads, Rural Secondary, State Secondary, State Primary (Other), State Primary (Toll Road) and State Primary (Interstate). On the low end of the system, Supplemental Roads primarily provide a local access purpose, while State Primary roads at the high end of the system primarily serve a statewide mobility purpose. While the state's Parkways in the area are no longer operated as Toll Roads, they are still considered as part of the State Primary classification.
- The National Truck Network (NN) includes roads that have been specifically designated for use by commercial trucks with increased dimensions (102 inches wide; 13 feet, six (6) inches high; semi-trailers up to 53 feet long; trailers up to 28 feet long – not to exceed two (2) trailers per truck). In the MPO area, portions of I-65, Bluegrass Parkway, Western Kentucky Parkway, US 31W, US 31W Bypass, US 60, KY 61, KY 79, KY 144, KY 313, KY 448, and KY 1051 are part of the National Truck Network.
- The National Highway System (NHS) was established by the Intermodal Surface Transportation Efficiency Act (ISTEA). It includes the Interstate Highway System and other significant principal arterial roads important to the nation's economy, defense, and mobility. In the MPO area, all or portions of I-65, Bluegrass Parkway, Western Kentucky Parkway, US 31W, US 31W Bypass, and KY 313 are part of the National Highway System.
- The Federal Functional Highway Classification System defines the purpose of the road using one of 13 functional classification categories. It establishes a hierarchical structure to assess whether the purpose of the road is to provide mobility, access, or some combination of the two. At the high end of the functional classification system are roads with the primary purpose of providing mobility between regions, cities, or major developed areas. They are classified as Interstates and Other Expressways and Other Principal Arterials. At the other extreme are functionally classified Local Roads, which have the primary purpose of providing access to properties in an area. Between these groups are Minor Arterials, which primarily provide mobility but also some minor access, and Collectors, which primarily provide access but also some minor levels of mobility between the Locals and the Arterials.

- Kentucky Revised Statutes require weight limit restrictions on the state's highway system. There are three weight classification limits: 1) AAA – 80,000 lbs. gross vehicle weight; 2) AA – 62,000 lbs. gross vehicle weight; and 3) A – 44,000 lbs. gross vehicle weight. The majority of study area routes evaluated in the planning study process are classified as AAA.

Geometric Characteristics

Geometric characteristics for major routes in the study area, listed in **Appendix B**, include the number of lanes, lane widths, shoulder widths, route speed limits, roadway type, terrain, and pavement condition. This information is summarized below:

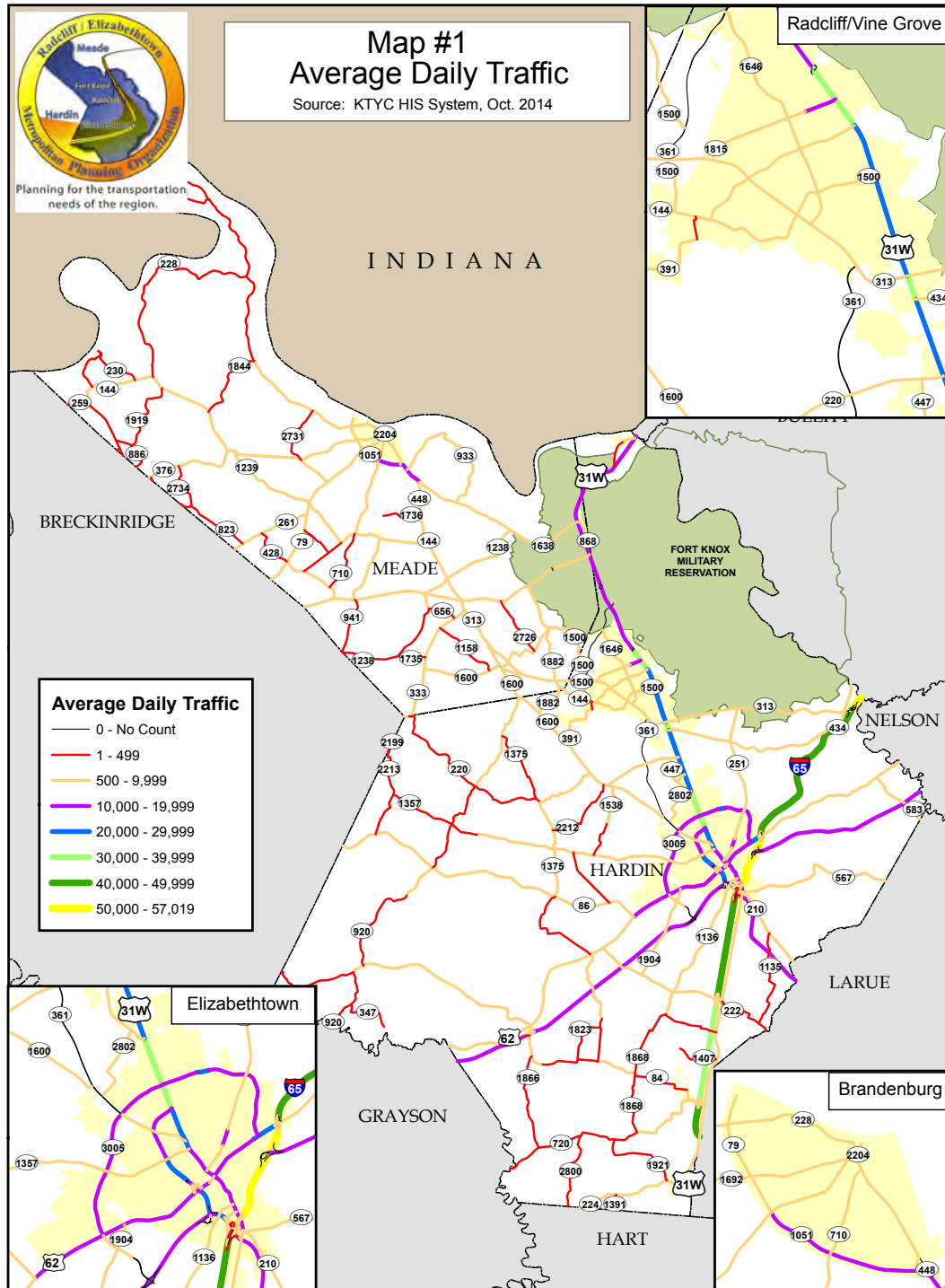
- The majority of study routes have lanes between 9 and 12 feet in width. The most narrow lane widths of 7 feet are found on KY 84 between MP 0.000 and MP 0.225.
- Shoulder widths vary between 0 and 12 feet throughout the study area.
- Posted Speed limits range from a low of 25 mph in some parts of the "urban" areas to 70 mph on interstates and parkways in the study area.
- The majority of study routes are undivided roadways.
- Terrain in the study area is mostly rolling, with some flat areas.
- A variety of pavement types exist in the study area, including bituminous penetration, composite, high flexible, high rigid, and mixed bituminous.

Traffic and Operational Conditions

The traffic counts utilized for the purpose of this transportation plan update reflect 2013 data from the Kentucky Transportation Cabinet's (KYTC) Highway Information System (HIS) database. The traffic volumes shown in **Map 1** and **Appendix B** represent the average daily traffic (ADT) along roadway segments for each of the highways analyzed for this plan. The greatest traffic volumes in the Radcliff/Elizabethtown MPO planning area occur along Interstate 65 and US 31W. The highest volume along I-65 is approximately 57,000 near the interchange with the Bluegrass Parkway. The intersection of US 31W and Ring Road has an ADT of near 40,000.

The traffic along I-65 is monitored continuously through the use of Automated Traffic Recorder (ATR) stations. On other routes, the KYTC conducts traffic volume counts along state roadways in Kentucky on a two-to-four year cycle, depending on the roadway classification. Traffic volumes are estimated for routes when counts are not conducted in a particular year.

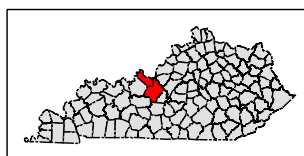
As a measure of operational conditions, the KYTC HIS database maintains a volume-to-service flow (VSF) ratio for most of the state maintained routes. **Map 2 and Appendix B** depicts ranges for the volume-to-service flow (VSF) ratio for several routes in the MPO planning area. For the purposes of this plan, it was decided that a VSF ratio of or below 0.6 indicates relatively free flow conditions, whereas a VSF ratio above 1.0 indicates congestion. As shown in **Map 2**, I-65, US 31W, KY 144, KY 1815, and KY 3005 experience the greatest amount of congestion in Hardin County. No routes in Meade County have a VSF over 1.0.



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

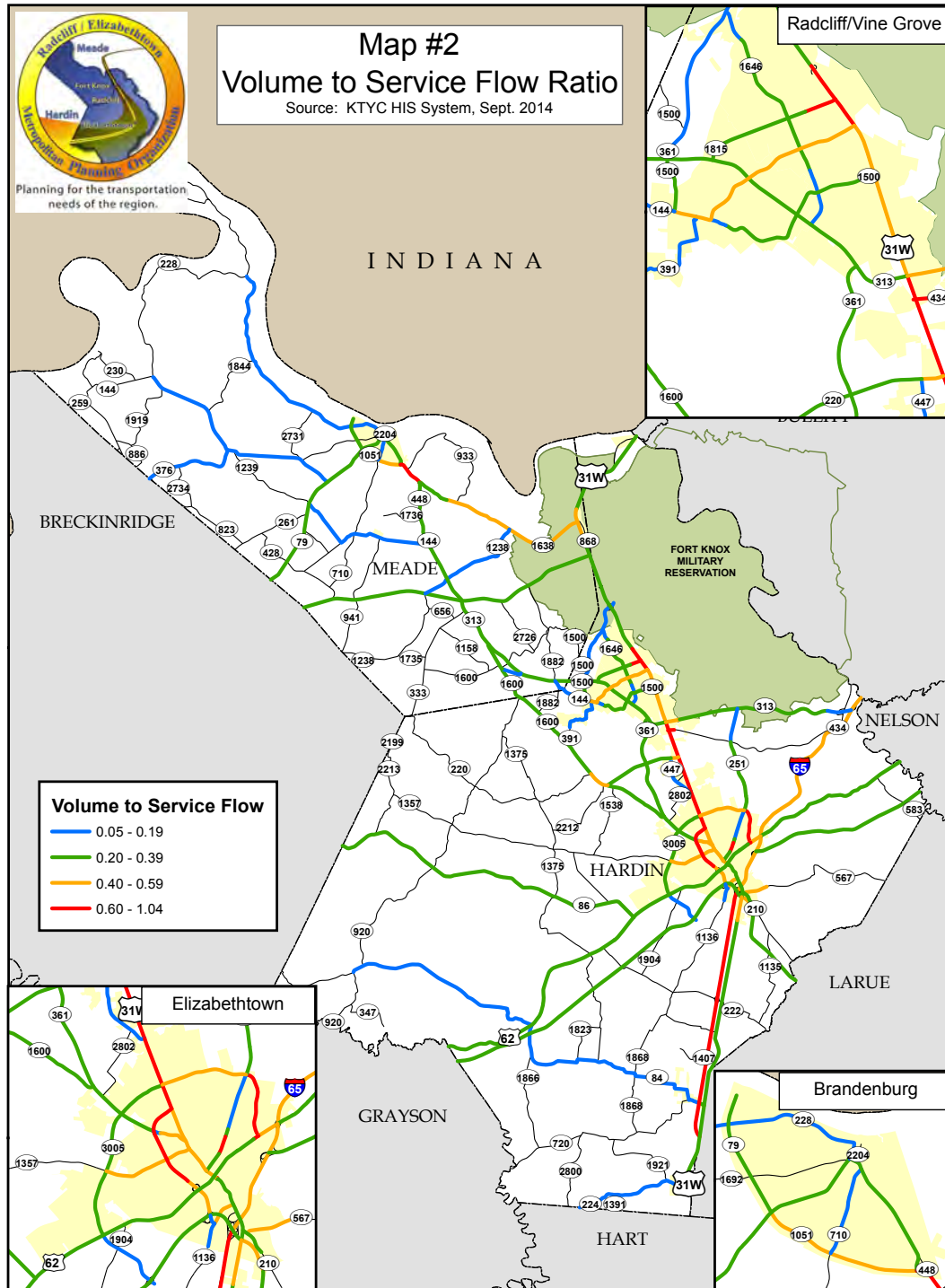
Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.



0 2 4 6 8 10
Miles



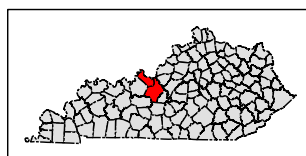
LTADD20150107



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.



0 2 4 6 8 10
Miles



LTADD20150107

Crash Analysis

Map 3 analyzes roadway spots and segments to determine areas of potential high crashes. The Critical Rate Factor (CRF) is the data utilized to determine high crash locations. The CRF evaluates roadways based on comparisons to roadways of similar type. A spot location or segment of roadway is considered to have a high crash rate when the total crash rate is higher than the critical crash rate for similar roads throughout the state. When a spot location or segment has a CRF greater than 1.00, the number of crashes at this location may not be occurring randomly and further evaluation is needed to identify and analyze the problem at this location. The CRF data utilized in this plan is from Kentucky's 2013 Highway Adequacy Ratings.

The following tables detail the past four years of crash data for Hardin and Meade counties:

2009-2012 Crash Data, Hardin & Meade Counties

Year	Hardin County			Meade County		
	Total	Fatal	Injury	Total	Fatal	Injury
2009	2829	19	459	435	9	147
2010	3057	15	503	491	8	128
2011	2882	10	470	490	4	138
2012	2913	18	470	448	5	128

Adequacy Ratings

The KYTC HIS database provides an adequacy-rating percentile for many of the study area routes. The rating is based on the Condition, Safety, and Service of the route. Condition considers the state of repair of the roadway's pavement. Safety is evaluated based on lane width, shoulder width, median type, alignment, and crash rate. Service considers the routes volume-to-service flow ratio and type of access control. Ratings are determined for each of these components and are then added together to develop the Composite Index, which is generally referred to the Adequacy Rating. The index of a road or road segment is then compared to similar roads throughout the state to determine if it falls into a low, medium, or high percentile grouping. For purposes of the planning process, an adequacy-rating percentile below 25% was considered as a potential problem location that required further investigation and consideration.

Map 4 depicts the adequacy ratings assigned to various study area routes. As shown in this figure, no routes in the study area have an adequacy rating under 25%.

MULTIMODAL TRANSPORTATION

Freight

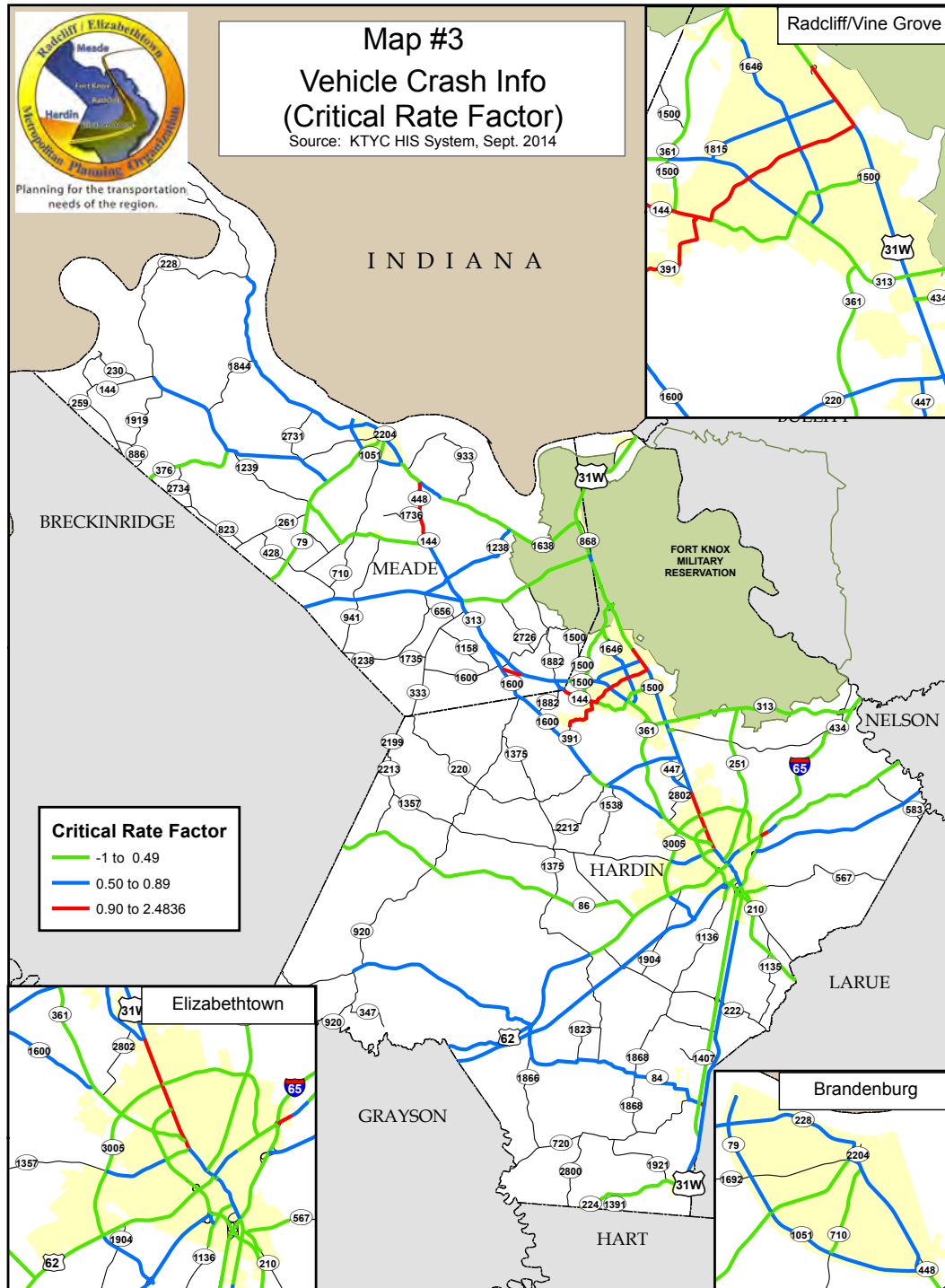
The movement of goods is an important component of the transportation system. As discussed above, the air, water, and rail modes play an important role in the movement

of freight through the Radcliff/Elizabethtown area. According to the Federal Highway Administration's Freight Analysis Framework (FAF), almost three quarters (73%) of the shipments by weight within Kentucky were shipped via truck in 2002. It is estimated that as much as 98% of freight movement in the MPO planning area is transported by truck. These figures are expected to remain steady over the next 30 years. This fact places tremendous importance on a highway network that can handle this level of freight movement. It also expresses the importance of improving these other modes of transportation to help take the strain off of the highway system.

The top commodities, by weight, transported in Kentucky include: coal, gravel, waste/scrap, and gasoline. The top products by value that are transported through the state include: motor vehicles, machinery, and transportation equipment. **Map 5** shows the percentages of truck traffic on area roadways.

Highways

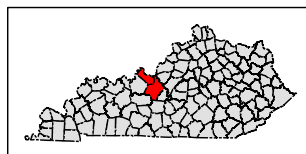
Interstate 65 is the major interstate route for regional and national truck movements within the Radcliff/Elizabethtown MPO area. In addition, the Wendell Ford Western Kentucky Parkway carries freight to and from the MPO area and provides western connections to Interstate 24 and the proposed I-66 and I-69 corridors. The Martha Layne Collins Bluegrass Parkway provides connections to the east. A number of industries and businesses in the MPO area rely on trucks for their primary form of shipping and delivery and are dependent on these key Interstate and Parkway facilities as well as US 31W and other National Truck Network highways in the region.



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

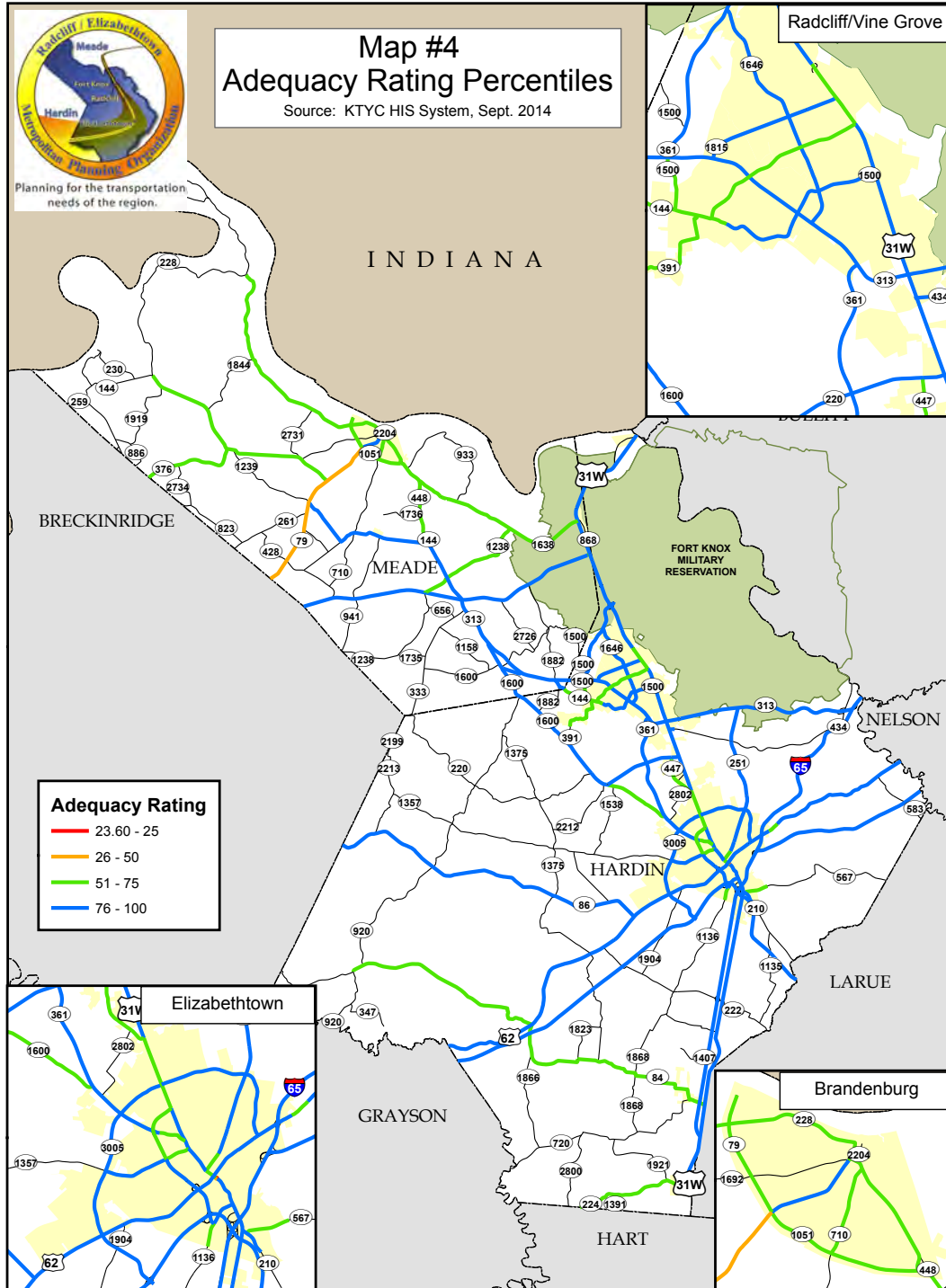
Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.



0 2 4 6 8 10
Miles



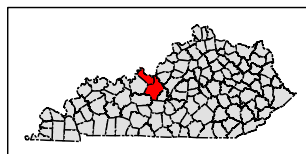
LTADD20150107



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

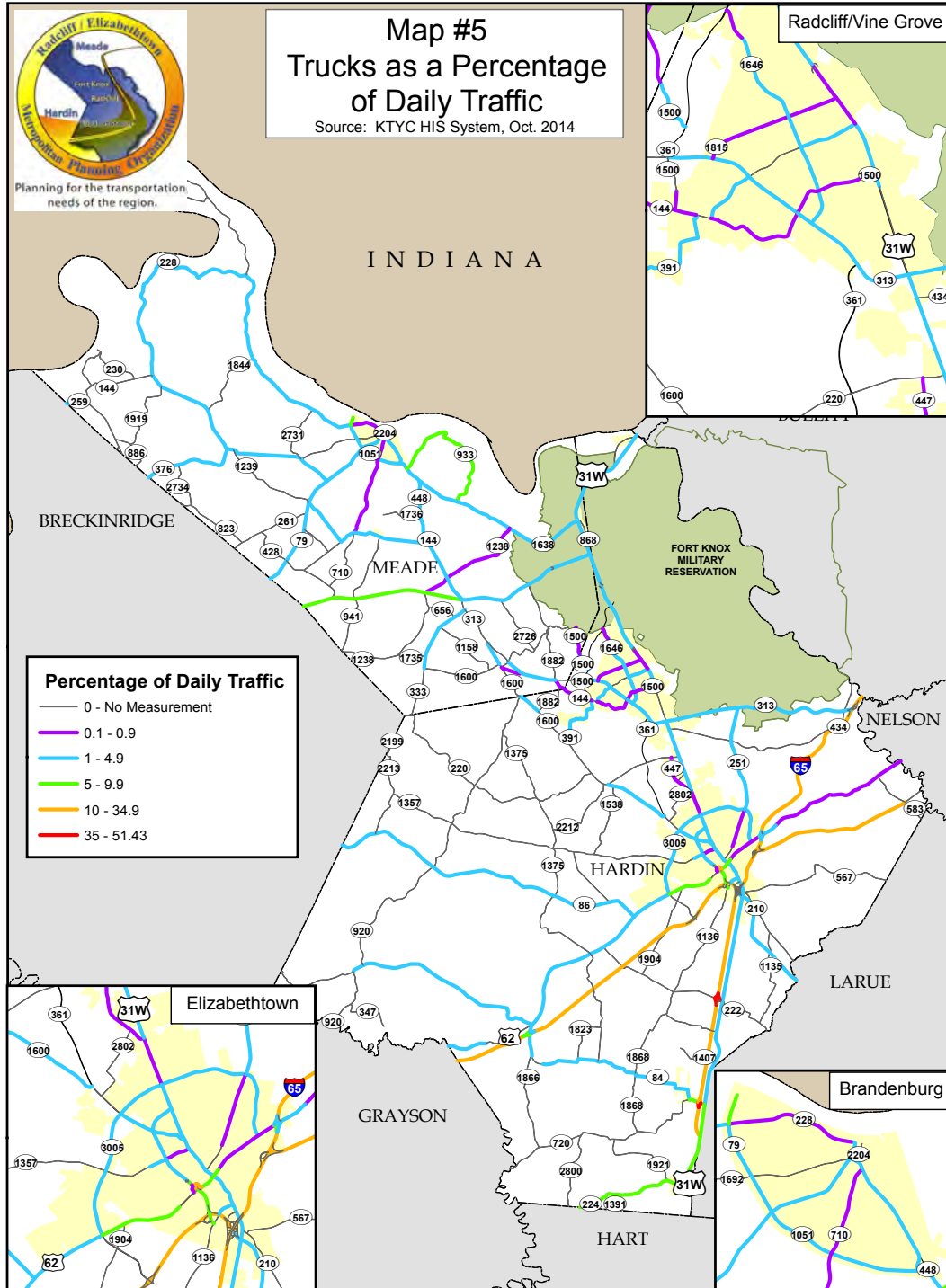
Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.



0 2 4 6 8 10
Miles



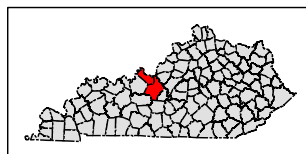
LTADD20150107



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.



0 2 4 6 8 10
Miles



LTADD2015017

Airports

The Elizabethtown Regional Airport at Addington Field is a Class C2 general aviation airport. The airport has an 18,000 square foot general aviation terminal with maintenance and shops facilities. The Elizabethtown Regional Airport has a 15,000 square foot hangar for corporate aircraft storage. T-hangars are also provided for aircraft. The airport's runway is currently 6,001 feet long by 100 feet wide with a parallel taxiway.

The Elizabethtown Regional Airport is one of the busiest general aviation airports in Kentucky. It supports business and industry locally and in surrounding communities. Business and industry jet aircraft utilizing the airport facilities currently exceeds 1,500 jet aircraft operations. The airport is also home to the aircraft and crews of Life Net Air Medical Services, a 24-hour emergency regional air medical evacuation service.

In recent years, the Elizabethtown Airport Board (EAB), in response to numerous inquiries and in recognition of the substantial growth that is occurring throughout Central Kentucky, has embarked on a project to restore passenger airline service at the Elizabethtown Regional Airport. To accomplish this initiative, the EAB contracted with a consultant in 2006 to conduct a market feasibility study. A 24 county market area with a population of approximately 610,000 was identified.

Other phases of this project have included regional outreach, airline recruitment, airport infrastructure issues, and passenger recruitment. The infrastructure needs identified include: completion of the Instrument Landing System, which has been partially completed; a rework and expansion of the safety area on Runway 23; necessary weight bearing loads for the runway, taxiway, and ramp areas; and the construction of a passenger terminal facility, which has been designed by a local architectural firm.

The other airport in within the Radcliff/Elizabethtown urbanized area is Godman Army Airfield on the Fort Knox Military Reservation. Godman is utilized primarily for military purposes. The Louisville International Airport is located approximately 40 miles from the Radcliff/Elizabethtown area and has numerous options for passenger air service. It is also the central hub for United Parcel Service's (UPS) national and international airfreight shipments.

Chapter 7 contains more information on proposed airport facility improvements.

Waterways

Kentucky is second to only Alaska in the number of miles of navigable waterways. Kentucky has 1,070 miles of navigable waterways with the Ohio River making up the largest portion as it provides the entire northern boundary of the Commonwealth, including Meade County. The Meade County Riverport Authority was established in 2001 to begin the process of developing a riverport along the Ohio River near Brandenburg. The Meade County Riverport Board currently owns a 50-acre site just east of Brandenburg next to Arch Chemicals, Inc. In 2014, ground was broken for the construction of the regional port facility for area producers to market their grain,

including specialty grain crops. The completed terminal will provide the agriculture community with a more economical way of processing and storing multiple commodities, separating specialty grains for export and loading commodities onto barges. The project will include grain handling facilities and related equipment, including scale and sampling capabilities. The facility will be designed so that future upgrades and expansion will be economical.

Railroads

Two major rail lines extend through the Radcliff/Elizabethtown urbanized area. CSX Transportation (CSX) is a Class I carrier that operates approximately 23,000 miles serving every major market east of the Mississippi River. Within Kentucky, CSX operates approximately 1,700 route miles, making it Kentucky's largest railroad company. One CSX rail line runs east-west through Meade County and provides connection between Louisville and Henderson, KY. The other CSX rail line runs through Hardin County and provides connection between Louisville and Nashville. This rail line is also a part of the Strategic Rail Corridor Network (STRACNET) providing a connection between national military facilities.

The Paducah and Louisville (PAL) Railroad is classified as a regional carrier and operates approximately 270 miles of rail line within Kentucky between Paducah and Louisville. In Paducah, the PAL connects to the Burlington Northern Santa Fe and Illinois Central. Connections to Norfolk Southern Railway, CSX, and Canadian Pacific are provided in Louisville. Within the study area, the PAL passes through Hardin County in close proximity to Meade County along portions of the route. The PAL serves local industries, as well as Fort Knox. A portion of the line between Fort Knox and Louisville is designated as a STRACNET connector.

There are no major truck-rail intermodal transfer facilities within the Radcliff/Elizabethtown urbanized area; however, existing rail lines and highways provide connection to a variety of intermodal facilities in the Louisville area. In addition, it is anticipated that the proposed Meade County Riverport would have a rail connection and be served by CSX Transportation.

Public Transportation

The Transit Authority of Central Kentucky (TACK) is the primary provider of public transportation services in the Radcliff/Elizabethtown area.

Currently, TACK is working jointly with the Fort Knox Military Reservation to provide Park and Ride Express service for employees working on Post. This program began in early 2008 and has continued to grow. The park and ride service is currently utilizing six buses from the parking lot at the Elizabethtown Christian Academy to Fort Knox. The program has interim stops in Elizabethtown and Radcliff. The program is also utilizing 9 vanpools originating in six outlying counties.

The park and ride express currently has 160 riders and is anticipating continued growth as employment opportunities continue to grow on Fort Knox due to Base Realignment. TACK and Fort Knox are positioning themselves to meet the growing demand.

In 2012-2013, the Radcliff/Elizabethtown MPO hired The Corradino Group to conduct a Public Transportation Implementation Study for the Radcliff/Elizabethtown urbanized area. The study was conducted to develop a fixed-route public transportation system that will connect Elizabethtown, Radcliff, and Fort Knox. The study proposes circulator routes in Elizabethtown and Radcliff and a connector route utilizing US 31W between the two cities. More information on public transportation can be found in Chapter 7.

Bicycle/Pedestrian

Bicycle signage exists in several Elizabethtown neighborhoods; however, minimal system continuity or connectivity exists between neighborhood routes. A state-designated bicycle-touring route exists in southern Hardin County along KY 84 and portions of KY 567, KY 1136, KY 1868, and some local roads.

Existing sidewalks are available on many local streets and roads throughout the MPO planning area to encourage pedestrian travel, but they are not provided on many of the major study routes. In addition, a trail system along existing green space areas is located in Elizabethtown. The Elizabethtown Greenbelt is more than 13 miles of trails around Freeman Lake, Buffalo Lake, Fisherman's Lake, and the streams flowing between each.

More information on bicycle/pedestrian facilities can be found in Chapter 7.

4. SOCIOECONOMIC AND ENVIRONMENTAL ISSUES

The development of a long-range vision for the regional transportation system requires an accurate view of the socioeconomic and environmental conditions of the planning area. This chapter provides an overview of the current and projected socioeconomic data for the MPO planning area. A Title VI analysis, a discussion of land use conditions, environmental and cultural resources, and environmental mitigation measures are also included in this chapter.

Demographics

Population plays a key role in the transportation planning process. Population characteristics for the MPO area are outlined in **Tables 1** through **3** below. The socioeconomic data in these tables was originally based on Census estimates and estimates developed by the Kentucky State Data Center.

Table 1

Annual Estimates of the Resident Population for Kentucky, ADDs, and Counties: April 1, 2010 to July 1, 2013						
	April 1, 2010		Population Estimates (as of July 1)			
	Census	Estimate Base	2010	2011	2012	2013
Kentucky	4,339,367	4,339,357	4,347,698	4,366,869	4,379,730	4,395,295
Counties						
Hardin	105,543	105,549	106,996	107,463	107,153	108,191
Meade	28,602	28,597	28,700	29,605	29,220	29,210
TOTAL	134,145	134,146	135,696	137,068	136,373	137,401
Source: U.S. Census Bureau, Population Division Release Date: March 27, 2014						

Table 2

Total Population, Census 2000 and 2010, Projections 2015-2050: State, ADDs, and Counties										
	Census 2000	Census 2010	Projections							
			2015	2020	2025	2030	2035	2040	2045	2050
Kentucky	4,041,769	4,339,367	4,509,429	4,672,754	4,820,390	4,951,178	5,063,331	5,162,292	5,254,876	5,349,720
Counties										
Hardin	94,174	105,543	111,225	116,612	121,541	125,898	129,612	132,691	135,310	137,667
Meade	26,349	28,602	29,819	30,901	31,801	32,481	32,934	33,186	33,285	33,305
TOTAL	120,523	134,145	141,044	147,513	153,342	158,379	162,546	165,877	168,595	170,972
Kentucky State Data Center, University of Louisville, 2011										

Table 3

Annual Estimates of the Resident Population for Incorporated Places in Kentucky:						
April 1, 2010 to July 1, 2013						
	Census	Population Estimates (as of July 1)				Rank
	2010	2010	2011	2012	2013	2013
Kentucky	4,339,367	4,347,698	4,366,869	4,379,730	4,395,295	
Brandenburg city	2,643	2,694	2,802	2,827	2,883	111
Ekron city	135	154	157	155	154	395
Elizabethtown city	28,531	28,933	29,186	29,413	29,948	10
Muldraugh city	947	948	1,074	1,051	1,043	203
Radcliff city	21,688	22,605	23,032	23,050	23,113	17
Sonora city	513	519	507	498	497	300
Upton city	683	695	688	678	678	266
Vine Grove city	4,520	5,024	5,220	5,239	5,384	76
West Point city	797	807	790	775	773	244
Source: U.S. Census Bureau, Population Division						
Release Date: May 2014						

Title VI Analysis

In 1994, President Clinton issued an Executive Order to address Environmental Justice in minority and low-income populations. The Executive Order focused attention on Title VI of the Civil Rights Act of 1964, which states, "No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." The Executive Order provided that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." In support of the Executive Order, the United States Department of Transportation (DOT) issued an Order on Environmental Justice in 1997, followed by a Federal Highway Administration (FHWA) Order on Environmental Justice in 1998.

Over the years, US DOT and FHWA have encouraged a proactive approach to the implementation of Title VI, aimed at preventing discrimination in its programs, policies, and activities. This proactive approach can reduce conflicts and also reinforce compliance with other related requirements; such as, the National Environmental Policy Act (NEPA) of 1969 (which addresses social and economic impacts), and public involvement in statewide and metropolitan planning and project development. The Socioeconomic Data related to Title VI can be found in Appendix C.

The total population of the Radcliff/Elizabethtown MPO "Urbanized Area" is 73,467 based on the 2010 Census. The MPO "Planning Area" is comprised of Hardin and Meade counties, which have 2010 populations of 105,543 and 28,602 respectively.

An analysis of the population shows that approximately 83% of the population in the MPO planning area is white. Hardin County has an African-American population at 11.63%. The African-American population in the MPO planning area is nearly 10%. All other races in the

planning area represent less than 3% of the total population. The male-female breakdown in the MPO area is nearly 50/50.

The evaluation of language skills within the Radcliff/Elizabethtown MPO planning area shows less than one (1%) percent of the population speaks English less than well. Likewise, the analysis of literacy skills illustrates that less than 5% of the population has less than a 9th grade education.

According to Census 2010 figures, 17.72% percent of the population in the MPO area is disabled. This amounts to 16,459 persons, 12,666 in Hardin County and 3,793 in Meade County.

The poverty level of persons age 18 and over in the MPO planning area is 12.45%, a total of 12,106 persons. The percentage of persons below the poverty level in Meade County is 15.46%, while Hardin County is 11.6 percent. These numbers are lower than the state and national averages.

Finally, the assessment of occupied housing units with no vehicle shows that 2,391, or 4.81%, of occupied housing units do not have a vehicle. This compares to 7.80% for the state overall and over 9% in the United States.

The data from the Title VI analysis gives the MPO a snapshot of the populations that should be considered from targeted outreach for public involvement and consultation. While the majority of the figures in this analysis show that the MPO area falls below state and national averages, the MPO will make efforts to be sure that all citizens are given ample opportunity to comment on MPO plans and programs. The tables in Appendix C highlight these figures.

Land Use and Development

Transportation and land use are interwoven in a continuous cycle. The construction or improvement of roadways improves accessibility, which leads to development, which increases traffic demand, and so on. Land use development plays a prominent role in the development of the Metropolitan Transportation Plan (MTP). Local development patterns were discussed and documented as part of the update of the travel demand model. Discussions with local planning officials have taken place throughout the development of the MTP through the MPO's Technical Advisory Committee (TAC). This helped to ensure that the transportation plan was sensitive to current land use, current and foreseen development trends, and desired future land use of the area. Beyond the travel demand model, local land use officials played prominent roles in the development of the following elements of the MTP:

- Identification and prioritization of proposed improvement projects, presented in **Chapter 6**, and
- Development of the recommendations presented in **Chapter 7**.

One of the critical issues discussed in the original MTP for the Radcliff/Elizabethtown MPO was communication between transportation and land use decision-makers. The US 31W Access Management Study that was completed in 2006 has helped to facilitate better communication between these two groups. A memorandum of understanding has been developed to help bring local planning and transportation officials together to discuss the impact of land use changes on highway access, and vice-versa, on US 31W and other local roadways.

Environmental and Cultural Resource Features

The study area for this Metropolitan Transportation Plan is rich with historic landmarks and natural resources.

Elizabethtown, the county seat of Hardin County, features Freeman Lake Park, Swope's Cars of Yesteryear Museum, the Hardin County History Museum, the Brown-Pusey House, the Lincoln Heritage House, Sarah Bush Johnston Lincoln Memorial, and the One-Room Schoolhouse, to name a few.

Just four miles south of Elizabethtown is the Glendale historic district, which has developed into a tourist attraction with its antique shops and unique dining establishments.

Fort Knox is home to the U.S. Bullion Depository, which stores 100 billion dollars worth of gold bullion, and the General George S. Patton Museum of Leadership, which contains personal artifacts of General George S. Patton and one of the most extensive collections of tanks and armored vehicles in the world.

West Point, in northern Hardin County, is home to Tioga Falls and Bridges to the Past, two historic walking trails. West Point is also the home of Civil War Fort Duffield.

The City of Brandenburg, the county seat of Meade County, is located on the Ohio River, and the downtown area is the only one in Kentucky to have a Main Street that leads directly to the River. The historic downtown area, located between two high cliffs, hosted General John Hunt Morgan and his troops as they crossed the Ohio River into Indiana in 1863. General Morgan's home, which overlooks the Ohio, was almost completely destroyed by the 1974 tornado that devastated Meade County, but was rebuilt to its original state and is now a private home. Brandenburg City Park spans the width of the downtown area.

These are only a few of the many significant environmental and cultural features in Hardin and Meade County. To identify other environmental features and cultural resources in the study area, a local area Geographic Information System (GIS) data set and map were developed using environmental resource information data collected from numerous sources, including: federal, state, and local databases; agency contacts; field investigations; and existing in-house data provided by the consultant.

Environmental Mitigation Measures

The implementation of transportation improvements is the responsibility of the Kentucky Transportation Cabinet. As projects advance into the preliminary engineering and environmental stage, KYTC will determine proper environmental mitigation measures to reduce the impact of a transportation project on the surrounding natural and human environment. The following is an overview of mitigation measures employed by KYTC.

Transportation projects may impact elements of the natural and human environment. Kentucky incorporates measures to minimize or mitigate those impacts that cannot otherwise be

avoided. Mitigation measures vary depending upon resource affected, severity of impact, and other factors.

Kentucky has successfully created advance wetland mitigation sites across the Commonwealth. The objective to develop a "wetland bank" within each major watershed to offset wetland impacts within that region has been achieved. Approximately 300 acres of wetlands have been restored by KYTC through this mitigation initiative. Credits generated from these activities are used by KYTC to offset impacts authorized under 404 permits issued by the US Army Corps of Engineers and 401 Water Quality Certifications issued by the Kentucky Division of Water. A similar program for mitigation of stream impacts related to Transportation projects is currently being implemented by KYTC. Furthermore, Best Management Practices (BMP) are applied to construction projects in order to minimize the impacts of erosion and sedimentation on streams.

KYTC follows its established Noise Policy in assessing the noise impacts of its projects on adjacent properties. When impacts are determined to exceed established threshold criteria and when economically justifiable, mitigation measures are incorporated within developing projects. These measures may include the construction of noise walls, installation of insulating materials in affected buildings, or minimization techniques such as alignment adjustment, lowering of grades into cut sections, construction of berms, etc.

Evaluation of historic properties in accordance with the National Historic Preservation Act is conducted for developing projects. When impacts are unavoidable, mitigation and minimization measures including, but not limited to, documentation of affected structures, enhancement and/or preservation initiatives, etc., are undertaken. Concerns for the loss of historic bridges have prompted KYTC to initiate an update of the statewide Historic Bridge Inventory. Important archaeological resources, eligible for the National Register for their data content, are investigated for the furtherance of our understanding of past cultures. Such investigations routinely include a public education component to disseminate the information gathered to the general public.

The KYTC and US Fish and Wildlife Service have worked cooperatively to address impacts to the Indiana bat that may result from KYTC projects. The Indiana Bat Conservation Fund has been established for the advancement of meaningful preservation or protective measures, research, etc. for this species. Funds are deposited within the fund based upon summer habitat loss resulting from transportation projects. KYTC also routinely consults with Federal, State, and local agencies concerning the impacts of transportation projects on their conservation plans or maps. An example of such a plan is the "Kentucky Comprehensive Wildlife Conservation Strategy" developed by the Kentucky Department of Fish and Wildlife Resources.

KYTC also utilizes Geographic Information Systems to evaluate the impacts of proposed projects on the human and natural environment. Information in the GIS layers includes wetlands, hazardous materials, archaeology, historical sites, Outstanding Resource Waters, Special Waters, designated critical habitat, etc. Many of these GIS layers or data sources are directly obtained from the responsible agencies. This allows KYTC to evaluate project areas and minimize or avoid impacts early in project or corridor planning efforts. This information is also shared with the public as well as Federal, State, and local agencies to gain their input on the importance of and how best to minimize impacts to the resource. These efforts are

documented, shared, and carried forward through the remainder of project development to more closely link Planning and National Environmental Policy Act (NEPA) activities.

Summary

There are several locations with environmental justice issues, and there are many sensitive social, community, environmental, and cultural resources in the study area that have special significance for the region. These issues will need to be addressed in any future project development phases resulting from the 2035 Transportation Plan presented in **Chapter 7**.

5. MODEL TECHNICAL DOCUMENT SUMMARY

A new Travel Demand Forecasting Model (model) has been developed for the Radcliff/Elizabethtown MPO planning area, which includes the Fort Knox military post. The model is calibrated to the 2013 base year and provides forecasts for future year 2040. The model incorporates the basic model structure of other small area models used by KYTC, including KYTC's preferred standard user interface (TransCAD) for managing scenarios. In addition, the new model was one of the first three models developed using a new, standardized modeling process which is being implemented on any new small MPO model developed in Kentucky by KYTC. The other two models include the Bowling Green MPO and the Owensboro MPO. The model study area was expanded to include a one-county buffer around the two counties with the Radcliff/Elizabethtown MPO. This expansion of the model was intended to help capture longer distance trips within the model associated with any planned roadway, especially those close either the Hardin or Meade county lines.

Vehicle flow data is assigned for both passenger cars and commercial trucks. While the model follows the conventional four-step process of trip generation, trip distribution, mode choice, and highway assignment, the mode choice step is limited to conversion of person trips to vehicular trips via an auto-occupancy procedure, as there is no transit or non-motorized component to this model. The model performs these four steps, as well as network building and post-assignment analysis, through the course of six model stages, some of which include multiple steps. These stages and steps are processed in a serial fashion to complete the travel demand simulation. The stages and steps are briefly described below.

1. Trip Generation – This stage contains two steps: "Cross Class Trip Generation" and "Area Type Model." The trip generation model uses a household stratification routine that outputs the number of cross-classified households (by persons and vehicles present) per TAZ. Trip productions and trip attractions are calculated for each TAZ according to the number of different household types and employee types. The model calculates truck trips using TAZ employment data and parameters adapted from FHWA's Quick Response Freight Manual (QRFM). The area type model identifies Traffic Analysis Zones (TAZs) with area types not classified as a business district (central, fringe, or outlying) and reclassifies these TAZs as either rural or residential according to their residential and employment density.
2. Highway Net & Skims – This stage also contains two steps: "Create Network" and "Free Flow Skims." The first step prepares the network, using a look-up table to assign speed and capacity values to each link in the network according to its area type and facility type. The second step uses the updated network to produce impedance matrices of distance and free-flow time between every combination of TAZ-to-TAZ pairs, for use in the trip distribution and highway assignment steps.
3. Distribution – In this stage, the trip productions and trip attractions from the trip generation stage are distributed between pairs of TAZs via a gravity model, which uses the impedance matrices created in the highway net and skims stage. external-to-external (E-E) and external-to-internal (E-I) trips were derived from the Kentucky Statewide Traffic Model (KYSTM). This stage produces a Production-Attraction (P-A) matrix of persons trips and truck trips between each pair of TAZs.
4. Auto Occupancy – In this stage, auto person trips are converted to vehicle trips using auto occupancy conversion factors. E-E trips are added to both the auto trip and truck

trip matrices. These P-A matrices are then converted to Origin-Destination (O-D) matrices for autos and truck, which will be used in the traffic assignment step.

5. Traffic Assignment – In this stage, trucks are assigned to the network via an “All or Nothing” assignment procedure. Next, auto trips are assigned using a user-equilibrium procedure that incorporates a volume-delay function. This stage produces a network loaded with traffic volumes for both trucks and autos.

6. Evaluation – This stage has two steps: “RMSE” (Root Mean Square Error), and “Volume Capacity.” Both steps summarize model statistics. However, RMSE also prepares the statistics used to evaluate the model’s ability to match observed data in the base year. The statistics include Volume-to-Count ratios by area type, facility type, and screen line, as well as percent Root Mean Square Error (RMSE) values by volume group.

Basic Model Development

As previously stated, this model uses the same basic model structure as several recent models prepared for the smaller MPOs and county level models in Kentucky. Like these models, the model uses a new standard user interface adopted by Kentucky and shares much of the internal logic of these models. In fact, it was the goal of the KYTC that the script and user interface of each model be standardized so that the naming conventions, input files, etc be consistent.

Another key update to the Radcliff/Elizabethtown model was the purchase of AirSage mobile phone data. This data captures origins and destinations of mobile phone users within a defined study area for a given period of time. The data is also broken into time of day as well as trip purpose. For this model update, information such as number of trips by trip purpose, trip length frequency distribution, and time of day factors were derived from the data.

As with earlier models, a significant aspect of this model is the presence of Fort Knox. While the internal workings of the base are not a part of this model, special attention was paid to accurately matching traffic volumes taken at the three gates to the base. Further, special generators were included, although not used, to allow model users to manipulate traffic flows to and from the base as necessary.

The basic model validation statistics for this model suggest that the overall calibration effort was successful. The ratio of overall assigned Vehicle Miles Traveled (VMT) to observed VMT is 1.00, although these assignments differ according to facility type and area type. The Percent Root Mean Square Error (RMSE) is 30.1 for trucks and 30.2 for all traffic, which is very close to the 30 percent desirable target, and well below the acceptable 35 percent threshold. The average trips per household is 9.7, which is within the desirable range of 9.2 to 10.2.

Traffic Model Results

The Radcliff/Elizabethtown traffic model shows 4,950,000 vehicle miles of travel in the MPO planning area in 2010. The VMT is expected to grow to 6,510,000 by the end of the planning cycle of this plan in 2040. This represents a 32% increase in VMT and demonstrates the importance of investing in the transportation system in this Radcliff/Elizabethtown area. The projects identified in Chapter 7 will have a tremendous impact on the safety and efficiency of the highway network over the next 25-year period, therefore, it will be very important for the MPO to continue to focus on moving these projects forward over the next several years.

6. PLAN DEVELOPMENT

This Plan Development chapter provides an overview of all of the elements that have gone into the development of the *2040 Radcliff/Elizabethtown Metropolitan Transportation Plan* (MTP). The process includes the development of MPO goals and objectives, a review of projects in the current KYTC Highway Plan, the development of highway improvement alternatives, past studies conducted by the MPO, public feedback, evaluation and ranking of projects, and the process for selecting recommended improvements for the MTP.

A. Goals and Objectives

The MPO's Goals and Objectives are based on the eight (8) planning factors in the federal transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21). The goals and objectives provide focus and direction for the MPO's decision-making process. The goals and objectives have served as a guide throughout the process of updating the MTP. They were most importantly utilized to evaluate and rank projects to determine the projects to be included in the 2040 MTP. The listing of goals and objectives follows below.

Radcliff/Elizabethtown Metropolitan Transportation Plan Goals and Objectives

Vision

The vision of the Radcliff/Elizabethtown Metropolitan Planning Organization is to provide a safe and efficient transportation system that is inclusive of all modes of transportation and enhances the quality of life of the citizens of this region.

Transportation Study Goals & Objectives

1. Promote Transportation Safety

- Reduce the number and severity of traffic accidents by improving existing and potential high crash locations
- Improve substandard roadway geometrics where necessary
- Support and/or undertake public education programs to emphasize safety and promote safe driving practices
- Provide improved conditions to enhance emergency services

2. Preserve Existing Transportation Facilities & Systems

- Consider costs and benefits of improvements in the MPO planning process
- Emphasize reconstruction and upgrades to existing highway systems
- Apply access management principles to aid in preserving the existing highway network
- Identify and implement minor construction and traffic operational improvements to improve traffic flow and safety

3. Provide an Efficient Transportation System

- Reduce traffic congestion and improve travel times in the region
- Plan for both existing and future travel demand
- Promote cost efficiency in the implementation and/or operation of transportation facilities and/or improvements
- Encourage the implementation of access management policies to improve the overall efficiency of the transportation system
- Improve the overall capacity of the highway network

4. Enhance Connections Between Transportation Systems

- Provide for frequent and convenient transfer between all modes of transportation
- Where justified, provide new highway connections to provide improved access and mobility for the overall transportation system in the area
- Promote improved access to intermodal transportation facilities

5. Support Community Development & Economic Growth

- Provide transportation service for areas of new growth and potential development
- Provide transportation service to aid in preserving existing communities and developments
- Where possible, provide transportation improvements to areas experiencing economic decline

6. Increase access and mobility for the movement of freight

- Provide new or improved transportation options and/or connections for economic centers that depend on freight

7. Provide a Balance Between Development and Quality of Life

- Recognize the need for transportation improvements, but be sensitive to environmental, social, and cultural resources in doing so

8. Enhance alternatives to traditional automobile/highway travel, such as transit, bicycle, and/or pedestrian travel

- Where possible and warranted, encourage the incorporation of bicycle/pedestrian facilities into major improvement projects
- Continue to pursue the need and possible implementation of a public transportation system in the Elizabethtown/Fort Knox/Radcliff/ Vine Grove area
- Coordinate MPO planning efforts with the expansion efforts of the local airport board

9. Promote the security of the transportation system

- Where and when possible, utilize Intelligent Transportation Systems (ITS) to enhance the security, safety, and efficiency of the transportation network
- Support and encourage the utilization of TRIMARC's Notify Every Truck program along the Interstate 65 corridor
- Coordinate MPO planning efforts with the District 4 Incident Management Team

B. KYTC Highway Plan

To address needs on the state and federal highway systems, the development of the Radcliff/Elizabethtown MTP included a review of the KYTC Highway Plan, which was approved by the Kentucky General Assembly in 2014. The Highway Plan is the Cabinet's official programming document and is part of the state budget. The Plan is updated by the legislature every two years and is therefore a constantly changing document. Project funds are scheduled and set aside for improvements listed in the first two years of the Plan and estimated, subject to change, for the latter years of the Plan. The tables on the following pages detail the Highway Plan projects for Hardin and Meade counties.

**RADCLIFF/ELIZABETHTOWN METROPOLITAN TRANSPORTATION PLAN
HIGHWAY IMPROVEMENTS, 2015-2020**

ITEM NO.	COUNTY	ROUTE	LENGTH	DESCRIPTION	TYPE OF FUNDS	PHASE	FY 2015 (incl. 2014 Projects)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Future Year (Cost)	TOTAL PROJECT COST
4-1077.00	HARDIN	US 62	0.400	Hardin I-65; Widen I-65 to 6 Lanes Replace Bridge over Unnamed Stream 0.65 miles southwest of KY 1375 (S Long Grove Road)	NH	R		\$530,000						\$680,000
					BRO	R	\$80,000							
					BRO	U	\$110,000							
					BRO	C			\$490,000					
4-7020.00	HARDIN	KY 1600	0.200	Relocate Intersection of Woodland	BR2	C	\$2,710,000							\$2,710,000
4-8801.00	HARDIN	KY 1357	1.678	Address Safety, Geometric Deficiencies and Maintenance Issues along KY 1357 (St. John Road) from US 31W Bypass to KY 3005 (Ring Road)	SPP	D	\$1,100,000							\$1,100,000
4-134.00	MEADE	CR 1031	1.000	Extension of Buttermilk Falls Road to provide access to the Meade County Riverport	KYD	C	\$441,690							\$441,690
4-297.65	MEADE	KY 313	2.300	KY 313 Extension from the northern KY 448 Buck Grove Connector to KY 1638	SPP	C	\$9,740,000							\$9,740,000
4-1088	MEADE	KY 823	0.010	Replace Bridge over Unnamed Stream on KY 823 0.5 miles west of KY 2734.	BRX	D					\$125,000			\$125,000
4-8702.00	MEADE	KY 79	3.148	Reconstruct KY 79 from KY 428 to KY 144	SPP	D		\$1,040,000						\$15,340,000
					SPP	R			\$3,100,000					
					SPP	U			\$1,700,000					
					SPP	C			\$9,500,000					
4-8704.00	MEADE	-	-	Construct a New Route between Berryman Road and KY 933	SPP	C	\$400,000							\$400,000
4-8705.00	MEADE	KY 79	3.826	Reconstruct KY 79 from KY 144 to KY 1051	SPP	R		\$3,530,000						\$17,650,000
					SPP	U			\$2,000,000.00					
					SPP	C				\$12,120,000				

C. KYTC Unscheduled Needs List (UNL)

The majority of projects considered for the MTP update are found on KYTC's Unscheduled Needs List (UNL). The UNL is a compilation of highway project needs for all counties in Kentucky. The Unscheduled Needs List contains project descriptions, cost estimates, and local/regional/Highway District priorities. The UNL is the basis for the Statewide Transportation Planning process and all projects on the UNL are prioritized every two years by local entities, Area Development Districts (ADDs) and MPOs, and the KYTC Highway Districts. The prioritization of UNL projects occurs the year prior to the development of the new Highway Plan that was discussed in the section above. The UNL project listing and priorities were used as a starting point in identifying project alternates for inclusion into the Radcliff/Elizabethtown Metropolitan Transportation Plan. The table on the following pages is a compilation of the unscheduled projects for Hardin and Meade counties.

Project Rank	Project	Cost	Year of Expenditure Cost	Local/Regional Priority	Safety	Critical Rate Factor	Project's Impact on Safety	Security	Roadway Classification	System Preservation	Efficiency (Level of Service)	Project's Impact on LOS	Average Daily Traffic (ADT)	Connectivity (Intermodal/Hwy)	Alternative Modes of Trans.	Economic Vitality	Freight Movement (Truck Volumes)	Quality of Life (Title VI/EJ)	Feasibility	Sub-Total Score	Benefit/Cost Index	Total Score
				High=10 Medium=5 Low=0	KYTC Safety Project or Eliminate Existing Hazard=5	CRF>1=5 CRF 0.76-0.99=4 CRF 0.50-0.75=3 CRF 0.26-0.49=2 CRF 0-0.25=1	High=5 Medium=3 Low=1	Enhance System Continuity =5	I'state/Pkwy=5 Principal Art.=4 Minor Art.=3 Collector=2 Local=1	100% Replace=5 75% Rep/25%Exp=4 50% Rep/50%Exp=3 25% Rep/75% Exp=2 100% Expansion=1	E/F=5 D=4 C=3 B=2 A=1	High=5 Medium=3 Low=0	Over 25,000=5 Over 20,000=4 Over 15,000=3 Over 10,000=2 Less than 10,000=1	New Connections=5 Maintains Existing=3 Eliminates Conn.=0	Does this project enhance an alternative mode of transportation? Total=5	Enhancement Significant=5 Some=3 No=0	25% or greater=5 20 to <25%=4 15 to <20%=3 5 to <10%=2 <5%=1	Overall benefits (Excellent)=5 Overall benefits (Good)=3 Overall benefits (Fair)=1 No benefits=0 Negative Impact=-1	High=10 Med=5 Marginal=0		> 1000=10 > 100=8 > 10=6 > 5=4 > 1=2	
1	KY 1357 - From US 31W Bypass to Ring Road	\$21,700,000	\$29,697,948	10	5	3	3	5	3	3	3	5	2	3	5	5	1	3	10	69	2	71
2	LOCAL - Realignment of S Wilson Road to create a new intersection with N Wilson Realignment	\$6,750,000	\$9,237,841	10	0	-	5	5	1	3	3	5	1	5	5	5	-	5	10	63	4	67
3	US 62 - from I-65 to Upper Colesburg Rd	\$16,300,000	\$22,307,676	10	5	4	3	5	3	3	2	3	4	3	5	3	2	3	5	63	4	67
4	US 31W - Access management improvements from US 31W Bypass to Knox Blvd	\$8,650,000	\$11,838,122	0	5	5	5	0	4	5	4	5	5	0	5	3	2	3	10	61	4	65
5	KY 144 - Reconstruct Intersection of KY 144 and Woodland Drive	\$1,270,000	\$1,738,083	10	5	4	5	0	2	5	4	3	1	3	0	0	2	3	10	57	6	63
6	LOCAL - Reconstruct Pear Orchard Rd and NW from KY 3005 to US 31W	\$10,000,000	\$13,685,691	10	5	1	3	5	2	3	1	3	1	3	5	3	-	3	10	58	4	62
7	US 62 - Intersection at Tunnel Hill Rd	\$350,000	\$478,999	10	5	4	5	0	3	5	2	0	1	3	0	0	2	3	10	53	8	61
8	US 62 - Reconstruct from Upper Colesburg Rd to Stovall Rd	\$14,200,000	\$19,433,681	10	5	4	3	5	2	3	2	3	1	3	5	3	2	3	5	59	2	61
9	KY 144 - Access Management from KY 1646 to US 31W	\$1,640,000	\$2,244,453	0	5	4	5	0	3	5	4	5	1	0	5	0	2	3	10	52	6	58
10	KY 1815 - Access Management from US 31W to KY 313	\$1,975,000	\$2,702,924	0	5	4	5	0	3	5	4	5	2	0	5	0	1	3	10	52	6	58
11	KY 313 - Widen between KY 361 and Bullion Blvd	\$18,800,000	\$25,729,098	10	0	2	1	5	3	3	1	0	2	5	5	3	2	3	10	55	2	57
12	US 31W - Non-traversable median from KY 1600 to KY 447	\$2,330,000	\$3,188,766	0	0	4	3	0	4	5	4	5	4	3	0	3	2	3	10	50	6	56
13	LOCAL - New Connector between S Wilson and US 31W at Centennial Ave	\$1,000,000	\$1,368,569	10	0	-	3	5	4	3	-	3	-	5	0	3	-	3	10	49	6	55
14	KY 222 - Widen from proposed partial Glendale Bypass to the KY 222/I 65 interchange	\$1,600,000	\$2,189,710	10	0	1	1	5	2	3	1	0	1	3	5	5	1	5	5	48	6	54
15	KY 1904 - Intersection at Cecilia Smith Road	\$675,000	\$923,784	10	5	1	5	0	2	5	1	0	1	3	0	0	1	3	10	47	6	53
16	KY 222 - Intersection with KY 1136	\$725,000	\$992,213	10	0	1	5	0	2	5	1	0	1	3	5	3	1	3	5	45	6	51
17	KY 1600 - From W intersection of KY 220 to KY 1882	\$20,200,000	\$33,634,485	10	5	3	3	0	2	3	2	3	1	3	5	0	1	3	5	49	2	51
18	KY 1600 - From KY 361 to Roundabout at KY 220 in Rineyville	\$19,000,000	\$31,636,397	10	5	3	3	0	2	3	2	3	1	3	5	0	1	3	5	49	2	51
19	KY 1600 - From KY 1882 to KY 144 at Flatherty	\$17,000,000	\$28,306,250	10	5	3	3	0	2	3	2	3	1	3	5	0	1	3	5	49	2	51
20	NEW - Construct a new approach to Boone Rd from KY 447 at WA Jenkins Rd	\$1,200,000	\$1,642,283	10	5	1	5	5	1	1	1	0	1	5	0	0	1	3	5	44	6	50
21	LOCAL - NE Bypass of Glendale	\$1,750,000	\$2,394,996	10	0	-	1	5	1	1	-	0	-	5	5	5	-	5	5	43	6	49
22	US 31W - Ramps at B'burg Station Road	\$4,900,000	\$6,705,988	5	0	2	1	5	4	4	2	3	3	3	0	0	2	0	10	44	4	48
23	KY 1136 - Extension of New Glendale Road from US 31W to Commerce Drive	\$12,000,000	\$19,980,882	10	0	2	1	5	3	1	1	0	1	5	5	3	1	3	5	46	2	48
24	KY 1136 - Widen from proposed partial Glendale Bypass to the US 31W Bypass	\$20,750,000	\$34,550,275	10	0	2	1	5	2	1	3	0	1	3	5	5	-	3	5	46	2	48
25	US 31W - KY 84 intersection at Sonora	\$1,525,000	\$2,087,068	0	5	4	5	0	3	5	1	0	1	3	0	0	2	3	10	42	6	48
26	KY 86 - Planning Study	\$500,000	\$684,285	0	0	2	3	5	3	4	1	0	1	3	5	0	1	3	10	41	6	47
27	LOCAL - Extend Knox Blvd from US 31W to KY 361	\$14,050,000	\$23,394,283	10	0	-	1	5	1	1	-	0	-	5	5	3	-	3	10	44	2	46

D. Evaluation and Scoring Process for Highway Projects

The Radcliff/Elizabethtown MPO Technical Advisory Committee (TAC) developed an evaluation and scoring process for highway projects being considered for inclusion in the 2040 Radcliff/Elizabethtown Metropolitan Transportation Plan (MTP). The evaluation and scoring process is based on the MPO goals and objectives with some additional criteria added for project priority, feasibility, and benefit versus cost. The values in the tables on pages 7 and 8 represent a composite score for all projects evaluated for inclusion in the 2040 Metropolitan Transportation Plan. Below is a summary of the scoring criteria:

POINTS

CRITERIA

	<u>Local/Regional Priority</u> (New Projects - Priority will be determined by MPO Staff & TAC)
10	High Priority
5	Medium Priority
0	Project is currently a low priority (UPL Process)
5	<u>Safety</u> (5 Points will be awarded if, at least, ONE criteria is met. Otherwise, 0 points will be awarded) Project is a "Safety" project (as defined by KYTC) Does the project eliminate an existing hazard? (pavement condition, drainage problem, geometrics, etc.)
	<u>Safety</u> (based on Critical Rate Factor)
5	CRF >4
4	CRF >3
3	CRF >2
2	CRF ≥1
1	CRF <1
	<u>Impact on Safety</u>
5	High Impact
3	Medium Impact
1	Low Impact
	<u>Security</u>
5	Will this project enhance the continuity of the system during a time of crisis? (emergency services)
	<u>Roadway Classification</u>
5	Interstate/Parkway or Principal Arterial
4	Principal Arterial
3	Minor Arterial
2	Collector
1	Local
	<u>System Preservation</u>
5	100% Replacement
4	75% Replacement/25% Expansion
3	50% Replacement/50% Expansion

- 2 25% Replacement/75% Expansion
- 1 100% Expansion

Efficiency (based on Existing Level of Service)

- 5 E/F
- 4 D
- 3 C
- 2 B
- 1 A

Project Impact on LOS

- 5 High Impact
- 3 Moderate Impact
- 0 Low Impact

Average Daily Traffic

- 5 Over 25,000
- 4 Over 20,000
- 3 Over 15,000
- 2 Over 10,000
- 1 Less than 10,000

Connectivity (Intermodal & Highway)

- 5 Creates new connections
- 3 Maintains existing conditions
- 0 Eliminates connections

Alternative Modes

- 5 Could a bicycle/pedestrian facility possibly be implemented into this project? (Yes=5; No=0)
- 5 Does this project have the potential to improve accessibility to transit services or mobility for transit vehicles? (Yes=5; No=0)

Economic Vitality

- 5 Significant Enhancement
- 3 Some Enhancement
- 0 No Significant Enhancement

Freight Movement (based on truck traffic volumes)

- 5 25% or greater
- 4 20 to <25%
- 3 15 to <20%
- 2 5 to <10%
- 1 <5%

Quality of Life/Environmental Justice

- 5 Overall benefits (Excellent)
- 3 Overall benefits (Good)
- 1 Overall benefits (Fair)
- 0 No benefit
- 5 Negative Impact

	Feasibility (likelihood of funding availability, consider economic/social issues, political/public will and ROW/environmental issues)
10	High
5	Moderate
0	Marginal

	Benefit/Cost Index (Subtotal Points/Cost in Millions)
5	> 1000
4	> 100
3	> 10
2	> 5
1	> 1

E. Past MPO Studies

Over the past several years, the MPO has conducted several studies regarding relevant issues identified in the original transportation plan and to address important issues that have arisen. Each of these studies has played an important role in the development of the 2040 Metropolitan Transportation Plan (MTP). The public transportation study has more details in **Chapter 7**, while the other four studies have identified important highway improvements that are included with the projects that have been evaluated for inclusion in the MTP.

Radcliff/Elizabethtown Public Transportation Study

The MPO contracted with Wilbur Smith Associates in 2004 to conduct a public transportation study to determine the feasibility for public transportation services and to determine the best method for meeting the need for transit services in the MPO area. To determine the feasibility and need for transit in the region, the following questions were to be answered:

- What transportation services are currently available in the MPO area?
- Is there a need for public transportation?
- What types of public transportation services should be offered?
- How would public transportation be operated and administered?
- What are the cost requirements of a transit system?
- What transit facilities are needed?

US 31W Access Management Study

The US 31W Access Management Study was conducted for the purpose of improving safety and mobility along US 31W in Hardin and Meade counties. US 31W, locally referred to as "Dixie Highway," is an economic lifeline through the communities of Elizabethtown, Radcliff, Fort Knox, Muldraugh, Sonora and Upton. The highway not only serves as a connection between Louisville and Bowling Green, but it also provides access to businesses, industries, public buildings, homes and farms.

The study was needed because traffic and congestion have increased steadily over the

years and land use changes throughout the corridor ensure that this trend will continue. Along the 41-mile study section, from West Point at the Hardin/Jefferson county line to Upton in southern Hardin County, nearly 1,000 vehicle crashes occur every year. Many of these are related to an overabundance of driveways, intersections and median openings.

The study was undertaken with its objective to seek feasible strategies to more effectively manage access along US 31W and, in doing so, improve the safety and efficiency of the highway. It was conducted through a collaborative effort between the Radcliff/Elizabethtown Metropolitan Planning Organization (MPO), the Kentucky Transportation Cabinet, local government agencies, and the public. The MPO Technical Advisory Committee served as an advisory group to the study.

The desired outcome of the study was two-fold. First, a list of access management retrofit projects was desired that could be implemented by the Kentucky Transportation Cabinet or local governments. Second, it was desired to have an overall access management plan that would provide tools for implementation and an overall framework for applying access management practices in the corridor.

Fort Knox Highway Access Study

The Fort Knox Highway Access Study was conducted to identify and address anticipated traffic problems relating to the U.S. Department of Defense 2005 Base Realignment and Closure (BRAC) Report. The BRAC Report included a number of changes that will take place on the Fort Knox Military Reservation that will affect the post and the surrounding region. The study is needed because the Radcliff-Fort Knox area has experienced significant growth in recent years. With existing roadways already experiencing capacity issues, particularly US 31W ("Dixie Highway"), the BRAC changes will only compound the issue. The study was conducted to determine projected traffic impacts that the BRAC will have on the community and to recommend improvements that will mitigate these impacts.

The study area was centered around US 31W from just south of Lincoln Trail Boulevard (KY 1815) to north of Brandenburg Station Road. Other key roads included in the analysis were North Wilson Road, Bullion Boulevard, and Logsdon Parkway (KY 1646). The study also included the three existing access gates to the post at North Wilson Road, Chaffee Gate at Bullion Boulevard, and Brandenburg Station Road.

Glendale Area Transportation Study

Looming large adjacent to historic Glendale is the Glendale Economic Development Site; one of the primary economic development sites in the Commonwealth. Identified as site 093-005 by the Kentucky Economic Development Cabinet, this 1,551-acre parcel of land is zoned for Heavy Industrial District (I-2) use. Several years ago this site was a candidate for a Hyundai automotive manufacturing plant, but was not selected. Since then, state and local officials have continued to market this site. A restrictive covenant requires that the property be used for a single manufacturing, processing or assembly plant. It cannot be subdivided into an industrial or office park without legislative action.

With the proper roadway infrastructure and buffers in place, the site can blend into the surrounding rural area without compromising area mobility. This report sets forth short, medium and long-range projects that can be constructed over time to distribute costs, making the plan both fiscally responsible and scalable to grow as development occurs.

Fort Knox Regional Highway Capacity Study

The Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) and the Lincoln Trail Area Development District (LTADD) conducted the Fort Knox Regional Highway Capacity Study in order to focus on the growth at Fort Knox and the resultant impacts on corridor capacity surrounding the installation. Primarily, the study was to identify potential improvements to aid in traffic flow and provide better connections to major roadways on a regional level.

The Lincoln Trail region has experienced higher-than-average growth in recent years. This increase has had an effect on the current roadway system. The 2005 Base Realignment and Closure (BRAC) Report included a number of considerable changes that took place on the Fort Knox military post that will further affect the surrounding region.

This study broadened the study area to analyze the impact of BRAC on the region surrounding the immediate impact area of Fort Knox. It focused on land use impacts as well as those to the transportation system. The regional study confirmed the needs previously identified in the previous Fort Knox study and other BRAC-related planning activities but also identified additional projects that will have an impact on the movement of traffic, including a new Fort Knox access road along South Boundary Road.

Public Transportation Implementation Study

In 2013, the Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) contracted with The Corradino Group to complete a study on the potential implementation of a public transportation system. The purpose of this study was to develop a plan for a fixed-route public transportation system that will connect Elizabethtown, Radcliff, and Fort Knox. The system would also include routes that circulate within each city. The study included: refining the routes for the transit system, determining locations for stops along the routes, establishing the cost for shelters at the stops, determining the capital and operating costs for the system, determining the match required for each local government, and any other elements necessary to complete the study.

F. Public Feedback

Public participation and feedback is a critical element to the 2040 Metropolitan Transportation Plan (MTP) update. A public information meeting was held on June 5, 2014 to discuss the update to the MTP and received feedback from the public. At the public meeting, MPO staff gave a brief presentation and was available to discuss issues and projects and to answer questions. No major issues were raised at the public meeting.

At the public meeting and on the MPO website, comment forms were available to give the public with the opportunity to provide feedback in writing. The MPO received a couple of

comment forms from citizens expressing a need for public transportation to serve our aging population and to provide transportation to work, doctor appointments, and school.

The MPO also reviewed comments from Hardin and Meade Counties on the Kentucky Transportation Cabinet (KYTC) Your Turn Survey that was also completed in 2014.

This plan takes all public comments into account and strives to address as many issues as possible within available funding constraints. **Chapter 7** outlines the plan for improving the transportation system in the Radcliff/Elizabethtown MPO Planning Area. Projects identified are outlined within the projected funding for the next 25-year period. Projects identified in the plan are not guaranteed for completion. The MTP is updated every five years and priorities are subject to change, funding may not be available, or other issues such as environmental concerns may cause a project to be delayed or removed from the plan.

Below is a summary of the responses to the KYTC Your Turn survey:

- Synchronization of lights particularly along US 31W is needed
- Widen US 31W between Elizabethtown and Fort Knox
- Public Transportation, especially in rural areas, needs to be developed
- Our aging population is stuck. Too old to drive, Doctors are miles away
- Enforce vehicle safety through appropriate laws
- Prevent large commercial trucks from using the left lane of a four lane highway within the city limits.
- Crosswalks are almost non-existent in Radcliff and Elizabethtown and non-existent in smaller towns.
- Would like to see faster/real time information regarding accidents on major highways. Also need to keep construction information more up-to-date.
- I-65 to six lanes between E'town and Bowling Green
- A turn light at the intersection of St. John Road and Ring Road in Elizabethtown is needed.

7. 2040 TRANSPORTATION PLAN

This chapter presents the 2040 Radcliff/Elizabethtown Metropolitan Transportation Plan, as well as the financial constraints under which it was developed. It is intended to guide the development and updates of the Transportation Improvement Program (TIP) for the MPO, as required by the Federal Highway Administration, and can be revised at any time with approval from the MPO Policy Committee.

A. Financial Constraint Analysis

In Kentucky, there is no distribution of allocated funds to MPO areas with a population of less than 200,000. Therefore, these MPOs, including Radcliff/Elizabethtown, must compete for project funding with all other parts of the state, both urban and rural. For this reason, historical records of spending have been reviewed and considered in helping to determine future funding levels for the Radcliff/Elizabethtown planning area.

The table below shows revenue projections for the 2014-2040 planning horizon of the Radcliff/Elizabethtown plan. During the first six years (2014-2020), it is assumed that all current projects in the Kentucky Transportation Cabinet (KYTC) Highway Plan will be completed (or have funding programmed). Therefore, the funding amounts for the 2014-2020 period reflect the costs to complete the projects currently in the KYTC Highway Plan.

For years 2021-2040, revenue assumptions were based on an analysis of historical expenditures for highway improvement projects. Data for past expenditures of federal and state funding were available for the 21-year period from 1993 to 2013. An analysis revealed that the relative percentage of funding expended annually on projects within the Radcliff/Elizabethtown planning area (Hardin and Meade counties) ranged from a low of 1.07% to a high of 4.35% - with an average of 2.21%. This average percentage of statewide funding was assumed to be a reasonable estimate of future funding allocations (or revenues) for the 2021 – 2040 planning period.

Also, as part of the financial analysis, federal regulations require that all projects costs be shown in Year of Expenditure (YOE) dollars. In order to accomplish YOE, the Radcliff/Elizabethtown MTP followed KYTC guidance and used a 4% escalation per year in both costs and revenues. To calculate YOE costs, current project costs were inflated to the mid-point of the 5-year period in which projects are scheduled. Therefore, for a project scheduled between 2021-2025, the cost was increased to the mid-year 2018. The figures in the table below reflect revenues that have been estimated as described above and adjusted for YOE over the planning horizon.

5-Year Period Cumulative Total Revenues	
2014 - 2020	\$241,206,670
2021 - 2025	\$165,851,698
2026 - 2030	\$201,783,950
2031 - 2035	\$245,501,028
2036 - 2040	\$298,689,538
	\$1,153,032,884

B. 2040 Transportation Plan

The 2040 Radcliff/Elizabethtown Metropolitan Transportation Plan is comprised of the following elements:

- Safety
- Highway Improvements
- Grouped Projects
- Public Transportation
- Pedestrian & Bicycle Facilities
- Aviation
- Rail
- Riverport
- Freight
- Transportation Enhancement Projects

Safety

The Radcliff/Elizabethtown MPO is fully supportive of and committed to the mission, vision, goals, and strategies outlined in the Kentucky Transportation Cabinet's Strategic Highway Safety Plan (SHSP). The SHSP states its mission, vision, and goal as follows:

Mission: To reduce Kentucky's highway fatalities and injuries.

Vision: Through public and private partnerships, achieve the most improved and sustainable downward trend in highway fatalities and injuries in the nation.

Statewide Goal: To reduce the number of highway fatalities toward zero by December 31, 2014.

The Kentucky Transportation Cabinet has identified ten (10) emphasis areas in the SHSP. These include:

- Impaired Driving
- Roadway Departure
- Distracted Driving
- Aggressive Driving
- Young Drivers
- Occupant Protection
- Incident Management
- Commercial Vehicle Safety
- Intersections
- Motorcycles

The Radcliff/Elizabethtown MPO fully supports these emphasis areas and makes safety a top priority in the transportation planning process. While the statewide goal is to reduce the number of fatalities toward zero by December 31, 2014, it is a constant goal of the MPO to work to reduce fatalities and injuries on roadways throughout the region. The Drive Smart Safety Corridor in the Radcliff/Elizabethtown planning area is US 31W. Over the past several years, US 31W has been a major focus for the MPO. The US 31W Access Management Study

was completed in 2006 and identified several projects that will help to improve both traffic flow and safety along US 31W.

The MPO's project scoring process, as described in Chapter 6, identifies projects that directly address safety issues and projects that potentially have high impacts for improving safety conditions of roadways.

In addition, the Grouped Projects section of this chapter includes several categories of safety-related projects. The inclusion of these project types in the MTP Grouped Projects table demonstrates the consistency of such projects with the goals and objectives of the MPO and consistency with the MTP. It is the intent of the MPO and the MTP to assist project sponsors seeking funding for such safety initiatives with obtaining and expediting project funding.

Highways

The Highway Element of the 2040 Metropolitan Transportation Plan is summarized in the tables on the following pages. **Table 1** represents the projects that are expected to be constructed between 2015-2020. These projects are currently scheduled in the Kentucky Transportation Cabinet Highway Plan. The projects listed in **Table 1** are depicted just as they are in the KYTC Highway Plan. Therefore, some years may not have projects listed. However, it is expected that it will take the first six years (2015-2020) to complete the projects in the current KYTC Highway Plan. **Table 2** shows the projects the Radcliff/Elizabethtown MPO has recommended for the financially constrained portion of the MTP. These projects were evaluated and scored based on the criteria described in Chapter 6. Some projects were moved either up or down in 5-year priority grouping based on available funding as determined by the financial analysis and year of expenditure dollar amounts. The maps on pages 9-13 of this chapter depict the location of projects listed in **Table 2**. The map identification letters are found in column 3 of **Table 2**.

The priorities and scheduling of highway projects reflect the current conditions of the Radcliff/Elizabethtown MPO. They are subject to change as conditions warrant.

**Table 1
RADCLIFF/ELIZABETHTOWN METROPOLITAN TRANSPORTATION PLAN
HIGHWAY IMPROVEMENTS, 2015-2020**

ITEM NO.	COUNTY	ROUTE	LENGTH	DESCRIPTION	TYPE OF FUNDS	PHASE	FY 2015 (incl. 2014 Projects)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Future Year (Cost)	TOTAL PROJECT COST
4-18.00	HARDIN	I - 65	4.200	Hardin I-65; Widen I-65 to 6 Lanes from 0.6 miles north of Old Sonora Road to 0.7 miles north of KY 222; includes Nolin River Bridge.	NH	R		\$530,000						\$10,640,000
					NH	U			\$110,000					
					IM	C				\$10,000,000				
4-18.01	HARDIN	I - 65	4.200	Hardin I-65; Widen I-65 to 6 Lanes from 0.6 miles north of Old Sonora Road to 0.7 miles north of KY 222; includes Nolin River Bridge.										\$18,100,000
					IM	C				\$18,100,000				
4-18.02	HARDIN	I - 65	4.200	Hardin I-65; Widen I-65 to 6 Lanes from 0.6 miles north of Old Sonora Road to 0.7 miles north of KY 222; includes Nolin River Bridge.										\$22,100,000
					IM	C				\$22,100,000				
4-19.00	HARDIN	I - 65	4.700	Hardin I-65; Widen I-65 to 6 Lanes from 0.7 miles north of KY 222 to Western Kentucky Pkwy.										\$20,220,000
					NH	R			\$110,000					
					NH	U				\$110,000				
					STP	C				\$20,000,000				
4-19.01	HARDIN	I - 65	4.700	Hardin I-65; Widen I-65 to 6 Lanes from 0.7 miles north of KY 222 to Western Kentucky Pkwy.	STP	C					\$16,600,000			\$16,600,000
4-20.01	HARDIN	I - 65	0.751	Improve the safety and increase the capacity of the I-65/KY 222 interchange based on existing and future needs of the area.	NH	C					\$32,450,000			\$32,450,000
4-153.01	HARDIN	KY 251	3.600	Safety and Spot Improvements to KY 251 and KY 434 as recommended by the 2012 Planning Study	BR2	D	\$955,000							\$12,450,000
					BR2	R	\$1,345,000							
					BR2	U	\$1,395,000							
					BR2	C	\$8,755,000							
4-198.00	HARDIN	KY 3005	-	Extend Ring Road from the Western Kentucky Parkway to I-65	SPP	R		\$2,760,000.00						\$34,450,000
					SPP	U		\$1,690,000						
					SPP	C			\$30,000,000					
4-199.00	HARDIN	US 31W	0.4	Replace Bridge over P&L and CSX Railroads (MP 36.4 to 36.8 in West Point).	STP	R	\$120,000							\$9,460,000
					STP	U	\$110,000							
					STP	C			\$9,230,000					
4-286.10	HARDIN	I - 65	0.100	I-65 Southbound Port of Entry for a Commercial Vehicle Monitoring Station	IM	D	\$550,000							\$550,000

**Table 1
RADCLIFF/ELIZABETHTOWN METROPOLITAN TRANSPORTATION PLAN
HIGHWAY IMPROVEMENTS, 2015-2020**

ITEM NO.	COUNTY	ROUTE	LENGTH	DESCRIPTION	TYPE OF FUNDS	PHASE	FY 2015 (incl. 2014 Projects)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Future Year (Cost)	TOTAL PROJECT COST
4-1077.00	HARDIN	US 62	0.400	Replace Bridge over Unnamed Stream 0.65 miles southwest of KY 1375 (S Long Grove Road)	BRO	R	\$80,000							\$680,000
					BRO	U	\$110,000							
					BRO	C			\$490,000					
4-7020.00	HARDIN	KY 1600	0.200	Relocate Intersection of Woodland Drive at US 31W. City of Elizabethtown is responsible for all phases.	BR2	C	\$2,710,000							\$2,710,000
4-8801.00	HARDIN	KY 1357	1.678	Address Safety, Geometric Deficiencies and Maintenance Issues along KY 1357 (St. John Road) from US 31W Bypass to KY 3005 (Ring Road)	SPP	D	\$1,100,000							\$1,100,000
4-134.00	MEADE	CR 1031	1.000	Extension of Buttermilk Falls Road to provide access to the Meade County Riverport	KYD	C	\$441,690							\$441,690
4-297.65	MEADE	KY 313	2.300	KY 313 Extension from the northern KY 448 Buck Grove Connector to KY 1638	SPP	C	\$9,740,000							\$9,740,000
4-1088	MEADE	KY 823	0.010	Replace Bridge over Unnamed Stream on KY 823 0.5 miles west of KY 2734.	BRX	D					\$125,000			\$125,000
4-8702.00	MEADE	KY 79	3.148	Reconstruct KY 79 from KY 428 to KY 144	SPP	D		\$1,040,000						\$15,340,000
					SPP	R		\$3,100,000						
					SPP	U		\$1,700,000						
					SPP	C		\$9,500,000						
4-8704.00	MEADE	-	-	Construct a New Route between Berryman Road and KY 933	SPP	C	\$400,000							\$400,000
4-8705.00	MEADE	KY 79	3.826	Reconstruct KY 79 from KY 144 to KY 1051	SPP	R		\$3,530,000						\$17,650,000
					SPP	U		\$2,000,000.00						
					SPP	C				\$12,120,000				

<p style="text-align: center;">Table 2 RADCLIFF/ELIZABETHTOWN METROPOLITAN TRANSPORTATION PLAN HIGHWAY IMPROVEMENTS, 2021-2040</p>															
MTP PROJECT NUMBER	PROJECT SCORE	MAP ID	CONTROL NUMBER	COUNTY	ROUTE	MILES	DESCRIPTION	PLANNING COST	DESIGN COST	RIGHT-OF- WAY COST	UTILITY COST	CONST COST	TOTAL COST	YEAR OF EXPEND. COST	PLANNING
2021-2025															
15-001	71		04 047 D1357 1.00	HARDIN	KY 1357		ADDRESS SAFETY, GEOMETRIC DEFICIENCIES AND MAINTENANCE ISSUES ALONG KY 1357 (ST. JOHNS RD) FROM US 31W BYPASS TO KY 3005 (RING ROAD) IN ELIZABETHTOWN	\$0	\$1,100,000	\$5,000,000	\$2,500,000	\$13,100,000	\$21,700,000	\$29,697,948	
15-002	67		04 047 E9999 8.00	HARDIN	LOCAL		REALIGNMENT OF SOUTH WILSON ROAD IN RADCLIFF TO CREATE A NEW INTERSECTION WITH THE NORTH WILSON ROAD REALIGNMENT AT WEST LINCOLN TRAIL BLVD	\$0	\$600,000	\$2,400,000	\$1,250,000	\$2,500,000	\$6,750,000	\$9,237,841	Fort Knox Highway Access Study
15-003	67	GG	04 047 B0062 2.00	HARDIN	US 62		ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG US 62 FROM INTERSTATE 65 TO UPPER COLESBURG ROAD	\$200,000	\$900,000	\$2,400,000	\$4,100,000	\$8,700,000	\$16,300,000	\$22,307,676	
15-004	65	CC	04 047 B0031W 42.00	HARDIN	US 31W		Access Management Improvements from the US 31W Bypass in Elizabethtown to Knox Blvd in Radcliff	\$0	\$1,025,000	\$0	\$0	\$6,490,000	\$7,515,000	\$10,284,796	2006 US 31W ACCESS MANAGEMENT STUDY
15-005	63	MM	04 047 D0144 47.50	HARDIN	KY 144		RECONSTRUCT INTERSECTION OF KY 144 AND WOODLAND DRIVE IN RADCLIFF.	\$50,000	\$120,000	\$300,000	\$200,000	\$600,000	\$1,270,000	\$1,738,083	
15-006	62	J	04 047 E9999 12.00	HARDIN	LOCAL		RECONSTRUCT PEAR ORCHARD ROAD AND PEAR ORCHARD ROAD NW FROM KY 3005 TO US 31W IN ELIZABETHTOWN.	\$0	\$250,000	\$1,500,000	\$1,250,000	\$7,000,000	\$10,000,000	\$13,685,691	Fort Knox Highway Access Study
15-007	61	Q	04 047 B0062 3.00	HARDIN	US 62		RECONSTRUCT THE INTERSECTION OF US 62 (BARDSTOWN ROAD) AND TUNNEL HILL ROAD TO IMPROVE THE ANGLE OF THE INTERSECTION.	\$0	\$50,000	\$50,000	\$50,000	\$200,000	\$350,000	\$478,999	
15-008	61	GG	04 047 B0062 4.00	HARDIN	US 62		RECONSTRUCT US 62 EAST OF ELIZABETHTOWN FROM UPPER COLESBURG ROAD TO STOVALL ROAD	\$200,000	\$1,500,000	\$1,750,000	\$750,000	\$10,000,000	\$14,200,000	\$19,433,681	
15-009	58	LL	04 047 D0144 47.00	HARDIN	KY 144		ACCESS MANAGEMENT IMPROVEMENTS ALONG KY 144 IN RADCLIFF FROM KY 1646 TO US 31W.	\$100,000	\$140,000	\$400,000	\$200,000	\$800,000	\$1,640,000	\$2,244,453	MPO LRP (04/05)
15-010	58	L1	04 047 D1815 10.00	HARDIN	KY 1815		ACCESS MANAGEMENT ALONG KY 1815 (WEST LINCOLN TRAIL BLVD) IN RADCLIFF FROM US 31W TO KY 313	\$100,000	\$150,000	\$500,000	\$425,000	\$800,000	\$1,975,000	\$2,702,924	MPO LRP (04/05)
15-011	57	HH	04 047 B0313 1.00	HARDIN	KY 313		WIDEN KY 313 TO 4 LANES BETWEEN THE ELIZABETHTOWN-RADCLIFF CONNECTOR AND THE BULLION BLVD CONNECTOR. ADDRESS CAPACITY ISSUES TO IMPROVE LEVEL OF SERVICE AND ENHANCE SAFETY AND FLOW OF TRAFFIC TO AND FROM THE FORT KNOX MILITARY RESERVATION.	\$0	\$400,000	\$200,000	\$200,000	\$18,000,000	\$18,800,000	\$25,729,098	Fort Knox Highway Access Study
15-012	56	CC	04 047 B0031W 41.00	HARDIN	US 31W		Construct a non-traversable median to improve traffic flow, safety, and provide a refuge for pedestrians crossing the roadway from Cardinal Drive (KY 1600) to South Wilson Road (KY 447).	\$0	\$250,000	\$0	\$0	\$2,080,000	\$2,330,000	\$3,188,766	2006 US 31W ACCESS MANAGEMENT STUDY
15-013	55	M1	04 047 E9999 2.00	HARDIN	LOCAL		CONSTRUCT A CONNECTOR ROAD IN RADCLIFF BETWEEN SOUTH WILSON ROAD AND US 31W AT CENTENNIAL AVENUE AND ELIMINATE CROSSOVERS ON US 31W TO THE NORTH AND SOUTH.	\$0	\$100,000	\$300,000	\$100,000	\$500,000	\$1,000,000	\$1,368,569	
15-014	54	G	04 047 D0222 3.00	HARDIN	KY 222		WIDEN KY 222 FROM THE PROPOSED PARTIAL GLENDALE BYPASS TO THE KY 222/I65 INTERCHANGE PROJECT LIMITS (4-20.00). SEE 2008 GLENDALE AREA TRANSPORTATION STUDY	\$0	\$100,000	\$400,000	\$100,000	\$1,000,000	\$1,600,000	\$2,189,710	2007 GLENDALE AREA TRANS STUDY
15-015	53	E	04 047 D1904 1.00	HARDIN	KY 1904		RECONSTRUCT THE INTERSECTION OF KY 1904 (BACON CREEK ROAD) AND CECILIA SMITH MILL ROAD JUST NORTH OF THE BRIDGE OVER WK PARKWAY TO INCREASE SIGHT DISTANCE AND IMPROVE SAFETY.	\$0	\$75,000	\$100,000	\$100,000	\$400,000	\$675,000	\$923,784	
15-016	51	H	04 047 D0222 2.00	HARDIN	KY 222		RECONSTRUCT THE INTERSECTION OF KY 222/KY 1136 IN GLENDALE. SEE GLENDALE AREA TRANSPORTATION STUDY	\$0	\$75,000	\$100,000	\$50,000	\$500,000	\$725,000	\$992,213	2007 GLENDALE AREA TRANS STUDY
15-017	50	JJ	04 047 C0000 2.00	HARDIN	NEW		CONSTRUCT A NEW APPROACH TO BOONE ROAD FROM KY 447 AT W.A. JENKINS ROAD.	\$0	\$150,000	\$75,000	\$75,000	\$900,000	\$1,200,000	\$1,642,283	Hardin County Planning Commission Recommendation
15-018	49	N	04 047 E9999 7.00	HARDIN	LOCAL		CONSTRUCT A NORTHEAST BYPASS OF GLENDALE FROM KY 1136 TO KY 222. SEE GLENDALE AREA TRANSPORTATION STUDY.	\$0	\$200,000	\$500,000	\$50,000	\$1,000,000	\$1,750,000	\$2,394,996	2007 GLENDALE AREA TRANS STUDY

<div>Table 2</div> <div>RADCLIFF/ELIZABETHTOWN METROPOLITAN TRANSPORTATION PLAN</div> <div>HIGHWAY IMPROVEMENTS, 2021-2040</div>															
MTP PROJECT NUMBER	PROJECT SCORE	MAP ID	CONTROL NUMBER	COUNTY	ROUTE	MILES	DESCRIPTION	PLANNING COST	DESIGN COST	RIGHT-OF- WAY COST	UTILITY COST	CONST COST	TOTAL COST	YEAR OF EXPEND. COST	PLANNING
15-019	48		04 082 B0031W 2.00	MEADE	US 31W		IMPROVE THE RAMPS AT THE US 31W/BRANDENBURG STATION ROAD INTERCHANGE AND WIDEN BRANDENBURG STATION ROAD FROM US 31W TO THE FORT KNOX ENTRANCE GATE.	\$0	\$750,000	\$50,000	\$100,000	\$4,000,000	\$4,900,000	\$6,705,988	Fort Knox Highway Access Study
15-020	48		04 047 B0031W 4.00	HARDIN	US 31W		IMPROVE THE INTERSECTION OF US 31W AND KY 84 AT SONORA TO INCREASE SAFETY	\$0	\$100,000	\$375,000	\$250,000	\$800,000	\$1,525,000	\$2,087,068	
15-021	47	KK	04 047 D0086 45.00	HARDIN	KY 86		PLANNING STUDY FOR KY 86 FROM US 62 TO BRECKINRIDGE C/L	\$500,000					\$500,000	\$684,285	
15-022	45	PP	04 047 D0222 1.00	HARDIN	KY 222		ADD CURB AND GUTTER TO IMPROVE DRAINAGE ALONG KY 222 IN GLENDALE FROM KY 1136 TO RAILROAD TRACKS	\$0	\$75,000	\$200,000	\$125,000	\$400,000	\$800,000	\$1,094,855	2007 GLENDALE AREA TRANS STUDY
15-023	43	F	04 082 D0710 10.00	MEADE	KY 710		CONSTRUCT A RIGHT TURN LANE ON KY 710 AT KY 448 IN BRANDENBURG	\$0	\$75,000	\$50,000	\$80,000	\$500,000	\$705,000	\$964,841	
15-024	39	OO	04 047 D0144 49.00	HARDIN	KY 144		RECONSTRUCT GRADE ON KY 144 AT RR CROSSING IN VINE GROVE	\$0	\$75,000	\$200,000	\$125,000	\$400,000	\$800,000	\$1,094,855	
15-025	38	C	04 047 D1357 2.00	HARDIN	KY 1357		RECONSTRUCT THE INTERSECTION OF KY 1357 (ST. JOHN ROAD) AND CECILIA ROAD WEST OF ELIZABETHTOWN TO INCREASE SIGHT DISTANCE AND IMPROVE SAFETY.	\$0	\$75,000	\$200,000	\$100,000	\$300,000	\$675,000	\$923,784	
2026-2030															
15-026	51	D1	04 047 D1600 44.20	HARDIN	KY 1600		ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG KY 1600 FROM THE WESTERN INTERSECTION OF KY 220 AT RINEYVILLE TO KY 1882	\$0	\$1,200,000	\$3,500,000	\$1,500,000	\$14,000,000	\$20,200,000	\$33,634,485	
15-027	51	B1	04 047 D1600 44.10	HARDIN	KY 1600		ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG KY 1600 FROM KY 361 TO THE ROUNDABOUT AT KY 220 IN RINEYVILLE	\$250,000	\$1,000,000	\$3,500,000	\$2,000,000	\$12,250,000	\$19,000,000	\$31,636,397	
15-028	51	H	04 047 D1600 44.30	HARDIN	KY 1600		RECONSTRUCT KY 1600 FROM KY 1882 TO KY 144 AT FLAHERTY	\$0	\$2,000,000	\$3,500,000	\$1,500,000	\$10,000,000	\$17,000,000	\$28,306,250	
15-029	48	WW	04 047 D1136 1.00	HARDIN	KY 1136		EXTENSION OF NEW GLENDALE ROAD FROM US 31W TO COMMERCE DRIVE IN ELIZABETHTOWN.	\$300,000	\$1,200,000	\$2,500,000	\$2,000,000	\$6,000,000	\$12,000,000	\$19,980,882	
15-030	48	B	04 047 D1136 4.00	HARDIN	KY 1136		WIDEN KY 1136 FROM THE PROPOSED PARTIAL GLENDALE BYPASS TO THE US 31W BYPASS IN ELIZABETHTOWN.	\$0	\$1,000,000	\$4,500,000	\$2,250,000	\$13,000,000	\$20,750,000	\$34,550,275	2007 GLENDALE AREA TRANS STUDY
15-031	46	L	04 047 E9999 3.00	HARDIN	LOCAL		EXTEND KNOX BOULEVARD IN RADCLIFF FROM ITS CURRENT TERMINUS AT US 31W TO KY 361 (BULLION BLVD).	\$0	\$750,000	\$3,500,000	\$2,000,000	\$7,800,000	\$14,050,000	\$23,394,283	Fort Knox Highway Access Study
15-032	46	FF	04 047 B0062 1.00	HARDIN	US 62		CONSTRUCT CURB AND GUTTER ALONG US 62 FROM NEAR BROOKS STREET TO I-65 IN ELIZABETHTOWN. CONNECTS TWO EXISTING CURB AND GUTTER SECTIONS (DRAINAGE IMPROVEMENT).	\$0	\$600,000	\$1,000,000	\$900,000	\$3,000,000	\$5,500,000	\$9,157,904	
15-033	46	K1	04 047 E9999 10.00	HARDIN	LOCAL		RECONSTRUCT PEAR ORCHARD ROAD IN ELIZABETHTOWN FROM KY 251 TO KY 3005.	\$100,000	\$1,000,000	\$1,400,000	\$1,500,000	\$5,700,000	\$9,700,000	\$16,151,213	MPO LRP (04/05)
2031-2035															
15-034	45	M	04 047 E9999 5.00	HARDIN	NEW		CONSTRUCT A NEW ACCESS ROAD ALONG SOUTH BOUNDARY ROAD ON FORT KNOX FROM KY 434 TO NORTH WILSON ROAD AND EXTEND EAST LINCOLN TRAIL BLVD IN RADCLIFF TO THE ACCESS ROAD.	\$0	\$2,300,000	\$200,000	\$1,500,000	\$22,200,000	\$26,200,000	\$53,076,393	Fort Knox Highway Access Study
15-035	44	H1	04 047 D3005 35.00	HARDIN	KY 3005		CONSTRUCT BIKEWAY (STRIPING AND SIGNS) ALONG KY 3005 (RING ROAD) IN ELIZABETHTOWN	\$200,000	\$1,000,000	\$1,500,000	\$1,000,000	\$5,000,000	\$8,700,000	\$17,624,604	MPO LRP (04/05)
15-036	44	R	04 047 B9001 1.00	HARDIN	WK 9001		CONSTRUCT A TRUCK PARKING FACILITY FOR OVERNIGHT PARKING OF SEMI TRACTOR TRAILERS (LOCATION TO BE DETERMINED)	\$0	\$500,000	\$100,000	\$500,000	\$5,000,000	\$6,100,000	\$12,357,481	Hardin County Water District #2 Recommendation
15-037	42	II	04 047 B9002 41.10	HARDIN	BG 9002		CONSTRUCT EASTBOUND ON AND WESTBOUND OFF RAMPS ON THE BLUEGRASS PARKWAY AT KY 583.	\$100,000	\$300,000	\$700,000	\$400,000	\$1,500,000	\$3,000,000	\$6,077,450	
15-038	42	NN	04 047 D0144 48.00	HARDIN	KY 144		CONSTRUCT CURBS, GUTTERS & SIDEWALKS ALONG KY 144 IN VINE GROVE FROM KY 313 TO KY 1500	\$0	\$750,000	\$275,000	\$500,000	\$4,000,000	\$5,525,000	\$11,192,636	
														Total 2021-2026	
														Costs	Revenues
														\$163,797,187	\$165,851,698
														Total 2026-2030	
														Costs	Revenues
														\$196,811,689	\$201,783,950

Table 2 RADCLIFF/ELIZABETHTOWN METROPOLITAN TRANSPORTATION PLAN HIGHWAY IMPROVEMENTS, 2021-2040															
MTP PROJECT NUMBER	PROJECT SCORE	MAP ID	CONTROL NUMBER	COUNTY	ROUTE	MILES	DESCRIPTION	PLANNING COST	DESIGN COST	RIGHT-OF- WAY COST	UTILITY COST	CONST COST	TOTAL COST	YEAR OF EXPEND. COST	PLANNING
15-039	42		04 082 E9999 2.00	MEADE	LOCAL		ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG OLD EKRON ROAD BETWEEN KY 448 AND KY 1051.	\$0	\$350,000	\$1,150,000	\$1,150,000	\$4,100,000	\$6,750,000	\$13,674,261	
15-040	41	D	04 047 D0144 50.00	HARDIN	KY 144		EXTEND KY 144 (VINE STREET) FROM ITS TERMINUS AT US 31W IN RADCLIFF, EAST TO THE PROPOSED EAST LINCOLN TRAIL EXTENSION TO CONNECT WITH THE PROPOSED FORT KNOX ACCESS ROAD.	\$0	\$250,000	\$500,000	\$150,000	\$3,500,000	\$4,400,000	\$8,913,593	Fort Knox Highway Access Study
15-041	41	O	04 047 E9999 6.00	HARDIN	LOCAL		CONSTRUCT A NORTHWEST BYPASS AROUND GLENDALE FROM KY 222 TO KY 1136. SEE GLENDALE AREA TRANSPORTATION STUDY.	\$0	\$200,000	\$450,000	\$600,000	\$1,500,000	\$2,750,000	\$5,570,995	2007 GLENDALE AREA TRANS STUDY
15-042	36	II	04 047 C0000 1.00	HARDIN	NEW		CONSTRUCT A NEW CONNECTOR FROM EXISTING JAGGERS ROAD TO KY 222 EAST OF GLENDALE.	\$0	\$350,000	\$250,000	\$200,000	\$1,700,000	\$2,500,000	\$5,064,541	2007 GLENDALE AREA TRANS STUDY
15-043	39		04 082 E9999 3.00	MEADE	LOCAL		ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG OLD EKRON ROAD BETWEEN KY 1051 AND KY 1736.	\$0	\$800,000	\$1,860,000	\$1,060,000	\$6,100,000	\$9,820,000	\$19,893,518	
15-044	34	A	04 047 D1136 2.00	HARDIN	KY 1136		WIDEN KY 1136, SOUTH OF GLENDALE FROM US 31W TO JAGGERS ROAD INCLUDING RECONSTRUCTION OR REPLACEMENT OF THE BRIDGE OVER I65.	\$0	\$300,000	\$900,000	\$500,000	\$3,000,000	\$4,700,000	\$9,521,338	2007 GLENDALE AREA TRANS STUDY
15-045	31	P	04 047 B0031W 45.00	HARDIN	US 31W		ADD SHOULDERS AND TURN LANES TO US 31W BETWEEN KY 1136 AND KY 222 EAST OF GLENDALE.	\$0	\$250,000	\$600,000	\$500,000	\$4,000,000	\$5,350,000	\$10,838,118	2007 GLENDALE AREA TRANS STUDY
15-046	31	QQ	04 047 D0224 1.00	HARDIN	KY 224		WIDEN KY 224 FROM HART CIL TO PLEASANT HILL- UPTON RD	\$500,000	\$4,000,000	\$3,500,000	\$2,000,000	\$20,000,000	\$30,000,000	\$60,774,495	
15-047	30	A	04 082 B0031W 1.00	MEADE	US 31W		IMPROVE ROADWAY TO CORRECT DRAINAGE PROBLEMS ALONG US 31W BETWEEN CHENAULT ST AND PARK RIDGE RD IN MULdraugh	\$0	\$400,000	\$300,000	\$300,000	\$2,000,000	\$3,000,000	\$6,077,450	
2036-2040															
15-048	32	XX	04 047 D1136 2.00	H	KY 113	-	EXTENSION FROM KY 1868 S OF GLENDALE TO KY 220 AT KY 1600 N OF ELIZABETHTOWN	\$1,000,000	\$20,000,000	\$20,000,000	\$20,000,000	\$57,000,000	\$118,000,000	\$290,836,434	NONE
0.000															
\$474,680,000															

Map #1



- | | |
|-----------|--|
| XX | CONSTRUCTION OF A NEW NORTH-SOUTH CONNECTOR FROM NEW GLENDALE ROAD (KY 1136) AT KY 1868 SOUTH OF GLENDALE TO RINEYVILLE-BIG SPRINGS ROAD (KY 220) AT KY 1600 IN RINEYVILLE |
| B1 | ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG KY 1600 FROM THE ELIZABETHTOWN TO RADCLIFF CONNECTOR TO THE ROUNDABOUT AT KY 220 IN RINEYVILLE. |
| D1 | ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG KY 1600 FROM THE WESTERN INTERSECTION OF KY 220 AT RINEYVILLE TO KY 1882. |
| E1 | RECONSTRUCTION FROM KY 1882 TO KY 144 |
| I1 | BLUE GRASS PKY - CONSTRUCT EB ON & WB OFF RAMPS AT KY 583 |



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District,
Community Development Department, 2015.



MEADE COUNTY Unscheduled Needs

Map #2

- A** IMPROVE ROADWAY TO CORRECT DRAINAGE PROBLEMS BETWEEN CHENAULT ST AND PARK RIDGE RD IN MULDRAUGH
- B** MAJOR WIDENING TO 4 LANES FROM KY 1882 TO US 31W. SEE SEGMENT 12 IN JULY, 1998 ADVANCE PLANNING STUDY
- D** RECONSTRUCT CURVE AND BRIDGE ON KY-144 TO ADDRESS GEOMETRIC ISSUES
- F** CONSTRUCT RIGHT TURN LANE AT KY 448 IN BRANDENBURG
- H** RECONSTRUCTION FROM KY 1882 TO KY 144



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.



LTADD20150116

ELIZABETHTOWN AREA Unscheduled Needs

Map #3

- C** RECONSTRUCT THE INTERSECTION OF KY 1357 (ST. JOHN ROAD) AND CECILIA ROAD TO INCREASE SIGHT DISTANCE AND IMPROVE SAFETY
- J** RECONSTRUCTION OF PEAR ORCHARD ROAD AND PEAR ORCHARD ROAD NW FROM KY 3005 TO US 31W IN ELIZABETHTOWN
- Q** RECONSTRUCT THE INTERSECTION OF US 62 (BARDSTOWN ROAD) AND TUNNEL HILL ROAD TO IMPROVE THE ANGLE OF THE INTERSECTION (SAFETY IMPROVEMENT)
- FF** CONSTRUCT CURB AND GUTTER FROM NEAR BROOKS STREET TO I-65 IN ELIZABETHTOWN. CONNECTS TWO EXISTING CURB AND GUTTER SECTIONS (DRAINAGE IMPROVEMENT)
- GG** ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG US 62 FROM I-65 TO UPPER COLESBURG ROAD.
- WW** EXTENSION OF NEW GLENDALE ROAD FROM US 31W TO COMMERCE DRIVE IN ELIZABETHTOWN
- B1** ADDRESS SAFETY AND GEOMETRIC DEFICIENCIES ALONG KY 1600 FROM THE ELIZABETHTOWN TO RADCLIFF CONNECTOR TO THE ROUNDABOUT AT KY 220 IN RINEYVILLE.
- H1** RING RD - CONSTRUCT BIKEWAY (STRIPING AND SIGNS)
- K1** PEAR ORCHARD RD - RECONSTRUCTION FROM KY 251 TO RING ROAD (KY 3005) IN ELIZABETHTOWN)



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.

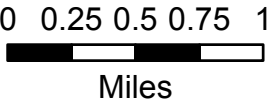


LTADD20150116

RADCLIFF AREA Unscheduled Needs

Map #4

- D** EXTENSION OF KY 144 (VINE STREET) EAST TO THE PROPOSED EAST LINCOLN TRAIL EXTENSION TO CONNECT WITH THE PROPOSED FORT KNOX ACCESS ROAD
- F** EXTENSION OF KY 220 FROM US 31W EAST TO KY 251 (SHEPHERDSVILLE ROAD)
- L** KNOX BLVD EXTENSION FROM ITS CURRENT TERMINUS AT US 31W TO LOGSDON PARKWAY (KY 1646)
- M** CONSTRUCT A NEW ACCESS ROAD ALONG SOUTH BOUNDARY ROAD ON FORT KNOX FROM KY 313 TO NORTH WILSON ROAD AND EXTEND EAST LINCOLN TRAIL BLVD IN RADCLIFF TO ACCESS ROAD
- CC** ACCESS MANAGEMENT IMPROVEMENTS ON US 31W FROM THE US 31W BYPASS IN ELIZABETHTOWN TO KNOX BLVD IN RADCLIFF.
- HH** WIDEN KY-313 BETWEEN THE PROPOSED ELIZABETHTOWN-RADCLIFF CONNECTOR AND THE PROPOSED KY-313 BULLION RD CONNECTOR. ADDRESS CAPACITY ISSUES TO IMPROVE LEVEL OF SERVICE AND ENHANCE SAFETY AND FLOW OF TRAFFIC TO AND FROM THE FORT KNOX MILITARY RESERVATION
- LL** ACCESS MANAGEMENT IMPROVEMENTS FROM KY 1646 TO US 31W IN RADCLIFF
- MM** RECONSTRUCT INTERSECTION AT WOODLAND DRIVE IN RADCLIFF
- NN** CONSTRUCT CURBS, GUTTERS & SIDEWALKS THRU VINE GROVE FROM KY 313 TO KY 1500
- OO** RECONSTRUCT GRADE AT RR CROSSING IN VINE GROVE
- VV** EXTENSION FROM US 31W TO PROPOSED ELIZABETHTOWN TO RADCLIFF CONNECTOR
- F1** LINCOLN TRAIL BLVD IN RADCLIFF - ACCESS MANAGEMENT FROM US 31W TO KY 313
- M1** CONSTRUCT CONNECTOR ROAD BETWEEN SOUTH WILSON ROAD AND US-31W AT CENTENNIAL AVENUE AND ELIMINATE CROSSOVERS TO THE NORTH AND SOUTH



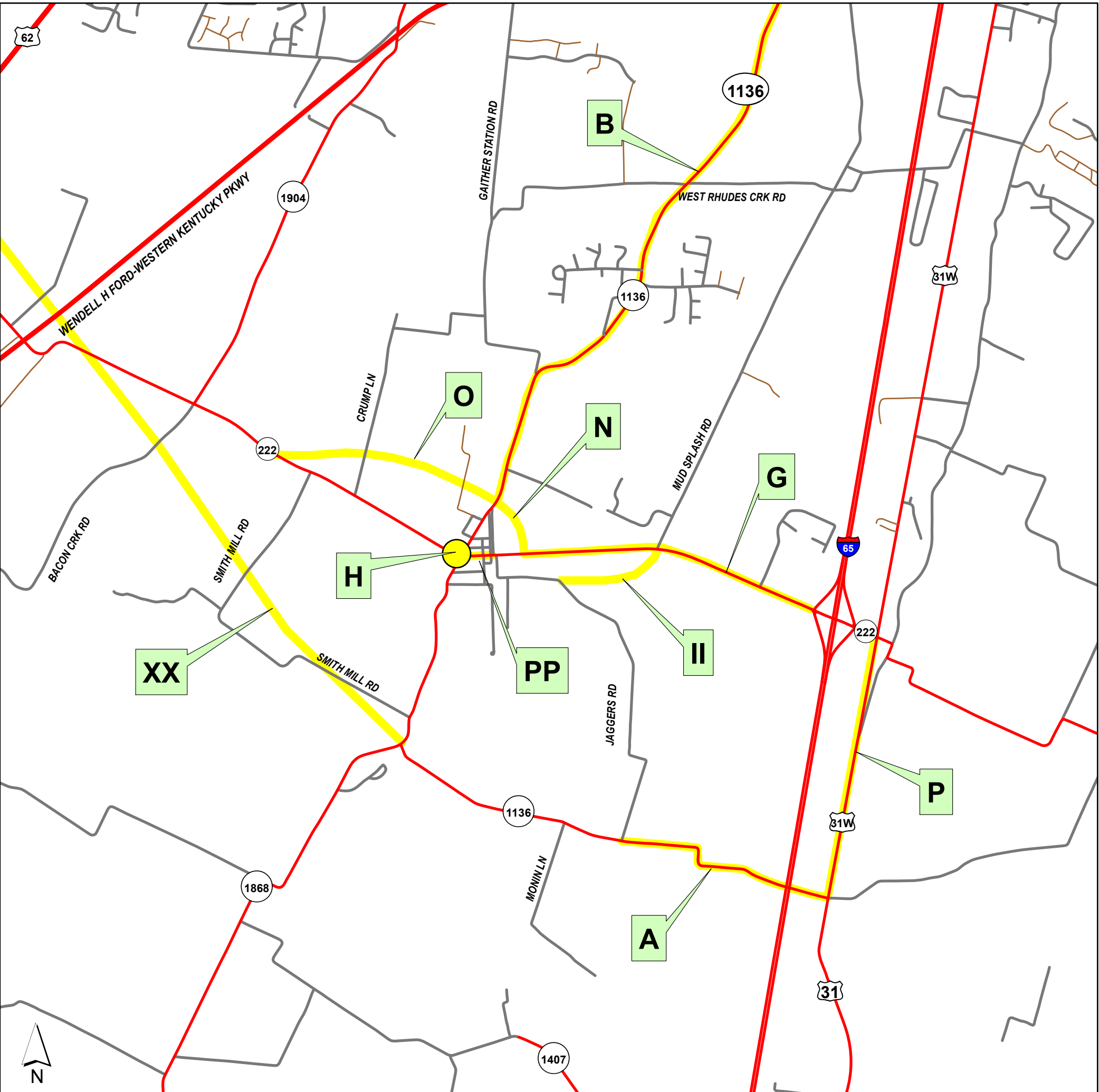
Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.



LTADD20150116



GLENDALE AREA

Unscheduled Needs

Map #5

- A

WIDEN KY 1136, SOUTH OF GLENDALE, FROM US 31W TO JAGGERS ROAD INCLUDING RECONSTRUCTION OR REPLACEMENT OF THE BRIDGE OVER INTERSTATE 65
- B

WIDEN KY 1136 FROM THE PROPOSED PARTIAL GLENDALE BYPASS TO THE US 31W BYPASS IN ELIZABETHTOWN
- G

WIDEN KY 222 FROM THE PROPOSED PARTIAL GLENDALE BYPASS TO THE KY 222/INTERSTATE 65 INTERCHANGE PROJECT LIMITS (4-20.00)
- H

RECONSTRUCT KY 222/KY 1136 INTERSECTION IN GLENDALE
- N

CONSTRUCT A PARTIAL BYPASS FROM KY 222 TO KY 1136, NORTHEAST OF GLENDALE
- O

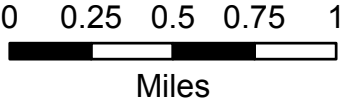
CONSTRUCTION OF A KY 222 NORTHWEST BYPASS AROUND THE COMMUNITY OF GLENDALE
- P

ADD SHOULDERS AND TURN LANES TO US 31W BETWEEN KY 1136 AND KY 222
- II

CONSTRUCT NEW CONNECTOR FROM EXISTING JAGGERS RD TO KY 222
- PP

ADD CURB AND GUTTER TO IMPROVE DRAINAGE IN GLENDALE FROM KY 1136 TO RR TRACKS
- XX

CONSTRUCTION OF A NEW NORTH-SOUTH CONNECTOR FROM NEW GLENDALE ROAD (KY 1136) AT KY 1868 SOUTH OF GLENDALE TO RINEYVILLE-BIG SPRINGS ROAD (KY 220) AT KY 1600 IN RINEYVILLE.



Copyright 2015, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District, Community Development Department, 2015.



Transportation System Operations and Maintenance

The nature of the metropolitan transportation planning process does not lend itself to specifically identifying future system operations and maintenance needs or projects over the period covered by the plan. Nevertheless, it is required that the MTP include system-level estimates of resources that are expected to be available to operate and maintain the transportation system.

Routine maintenance and operation of the state-maintained roadway network in the MPO area is accomplished by KYTC through the Highway District Office in Elizabethtown. Example activities include maintenance of pavement, guardrails and median cable barriers, drainage channels, and landscaping. Traffic operations are also a significant function of KYTC District Offices. Example activities include roadway lighting, traffic signals, signing and roadway striping. Over the last 10 years KYTC annual expenditures for operation and maintenance activities in Hardin and Meade Counties have ranged from a low of \$6,500,000 to a high of \$13,300,000. Approximately 65% of these amounts are applied toward the federal-aid system. For planning purposes, it should be reasonable to assume KYTC expenditures of approximately \$9,000,000 per year over the foreseeable future.

In addition to the KYTC operation and maintenance programs, the local governments within the MPO planning area also expend significant resources for the operation and maintenance of local streets and roadways. Based on information provided by these entities, it is estimated that approximately \$8,900,000 is spent annually. Approximately 40% of this total amount is provided by the KYTC through revenue sharing programs.

Combining KYTC and local government programs results in an annual expenditure of approximately \$17,900,000 for operation and maintenance of the transportation system.

Grouped Projects

Transportation planning regulations applicable to the development and content of Metropolitan Transportation Plans (MTP) allow that projects that are not considered to be of appropriate scale for individual identification in a given program year may be grouped by function, work type, and/or geographic area. Such projects are usually non-controversial and produce negligible impacts - other than positive benefits for safety, traffic operations, or preservation. Typically, these types of projects are not generated by the planning process; they are usually initiated by traffic operations or maintenance functions to correct existing problems or deficiencies, or they are the result of successful grant applications by local governments or entities. KYTC identifies many of these types of projects as "Z-Various" in the Statewide Transportation Improvement Program. For the reasons noted above, KYTC and FHWA have developed streamlined procedures for incorporating such projects into the MTP or Transportation Improvement Program (TIP). Individual projects from grouped project categories will be incorporated into the MTP and/or TIP by Administrative Modification as they are defined (in terms of project description, scope, and cost) and approved. Allowing such MTP and TIP changes to be made by Administrative Modification, rather than Amendment (and the corresponding requirement for public review), simplifies and streamlines MTP/TIP maintenance and project approval processes.

Grouped project categories utilized by the Radcliff-Elizabethtown MPO are shown in **Table 9**. The list of grouped projects utilized here is a combination and simplification of two lists recommended by the "KYTC and MPO Coordination – Final Recommendations of the Consolidated Planning Guidance Process Team document dated July 20, 2007. This was done for applicability to the Radcliff-Elizabethtown area and to facilitate understanding by MPO committee members and the public. By listing these project types in the MTP, planning process stakeholders and the general public are informed of the types of potential projects that may be added to the MTP in the future via streamlined procedures. MTP actions for these projects will not require additional public review, demonstration of fiscal constraint, or a conformity determination (if applicable).

With respect to financial constraint for grouped projects, the reader is referred first to the Financial Constraint section of the MPO TIP document on page 6 for a discussion of the relative roles of the MPO and the Kentucky Transportation Cabinet. The dollar amounts shown in the Grouped Projects Table are illustrative (and minimal) project cost amounts based on past experience and reasonableness. These numbers are included per recommended guidance and should not be interpreted as expected project awards or expenditures for any particular year. Similarly, the Grouped Projects line items in Table 1 of the MPO TIP should be interpreted in the same way. Rather than future commitments of funding, these numbers are illustrative of a reasonable level of total funding for the various types of grouped projects that, potentially, could be approved within a particular year. When projects are identified, with estimated costs, and funding decisions (type of funds and year) are made by the Transportation Cabinet (on an annual or ongoing basis), the Cabinet will forward the project to the MPO for inclusion in the TIP and MTP, if applicable - with a commitment of additional funding within financially constrained balances available on a statewide level. Financial constraint for grouped projects is maintained by the Cabinet on a statewide level and is demonstrated on an annual basis for the Statewide Transportation Improvement Program.

Table 3 Grouped Projects	
HSIP - High Cost Safety Improvements	\$100,000*
HSIP - Low Cost Safety Improvements	\$50,000
HSIP - Lane Departure Resurfacing Improvements	\$100,000
HSIP - Lane Departure Roadway Section Improvements	\$100,000
HSIP - Older Driver	\$25,000
HSIP - High Risk Rural Roads	\$100,000
Median Guardrail/Cable Projects	\$100,000
Rail Crossing Protection	\$50,000
Rail Crossing Separation	\$100,000
Intersection Improvements for Safety or Efficiency	\$25,000
Other Highway Safety Improvements	\$25,000
Intelligent Transportation System (ITS) Projects	\$50,000
Traffic Signal System Improvements	\$100,000
Highway Signing	\$10,000
Pavement Resurfacing, Restoration, and Rehabilitation	\$100,000
Pavement Markers and Striping	\$100,000
Bridge Replacement	\$500,000
Bridge Rehabilitation	\$100,000
Bridge Inspection	\$25,000
Bridge Painting	\$50,000
Recreational Trails Program	\$10,000
Transportation Alternatives Program (TAP)	\$100,000
Commuter Ridesharing Programs	\$25,000
Bicycle and Pedestrian Facilities**	\$25,000
Park & Ride Facilities	\$50,000
Purchase of New Buses (to replace existing vehicles or for minor expansion)	\$100,000
Rehabilitation of Transit Vehicles	\$25,000
Transit Operating Assistance	\$100,000
Transit Operating Equipment	\$50,000
Transit Passenger Shelters and Information Kiosks	\$25,000
Construction or Renovation of Transit Facilities	\$50,000
*Illustrative Costs Only - Please refer to text for explanation.	
**Including pedestrian facility improvements identified in Local Public Agency Transition Plans to meet requirements of the Americans With Disabilities Act (ADA).	

Public Transportation

The Radcliff/Elizabethtown Metropolitan Planning Organization (MPO) completed a Public Transportation Implementation Study in 2013. The purpose of this study was to develop a plan for a fixed-route public transportation system that will connect Elizabethtown, Radcliff, and Fort Knox.

ROUTING AND STOPS

Three routes have been proposed to address the goals of the study. These are the Elizabethtown-Radcliff-Fort Knox Connector, Elizabethtown Circulator, and the Radcliff Circulator.

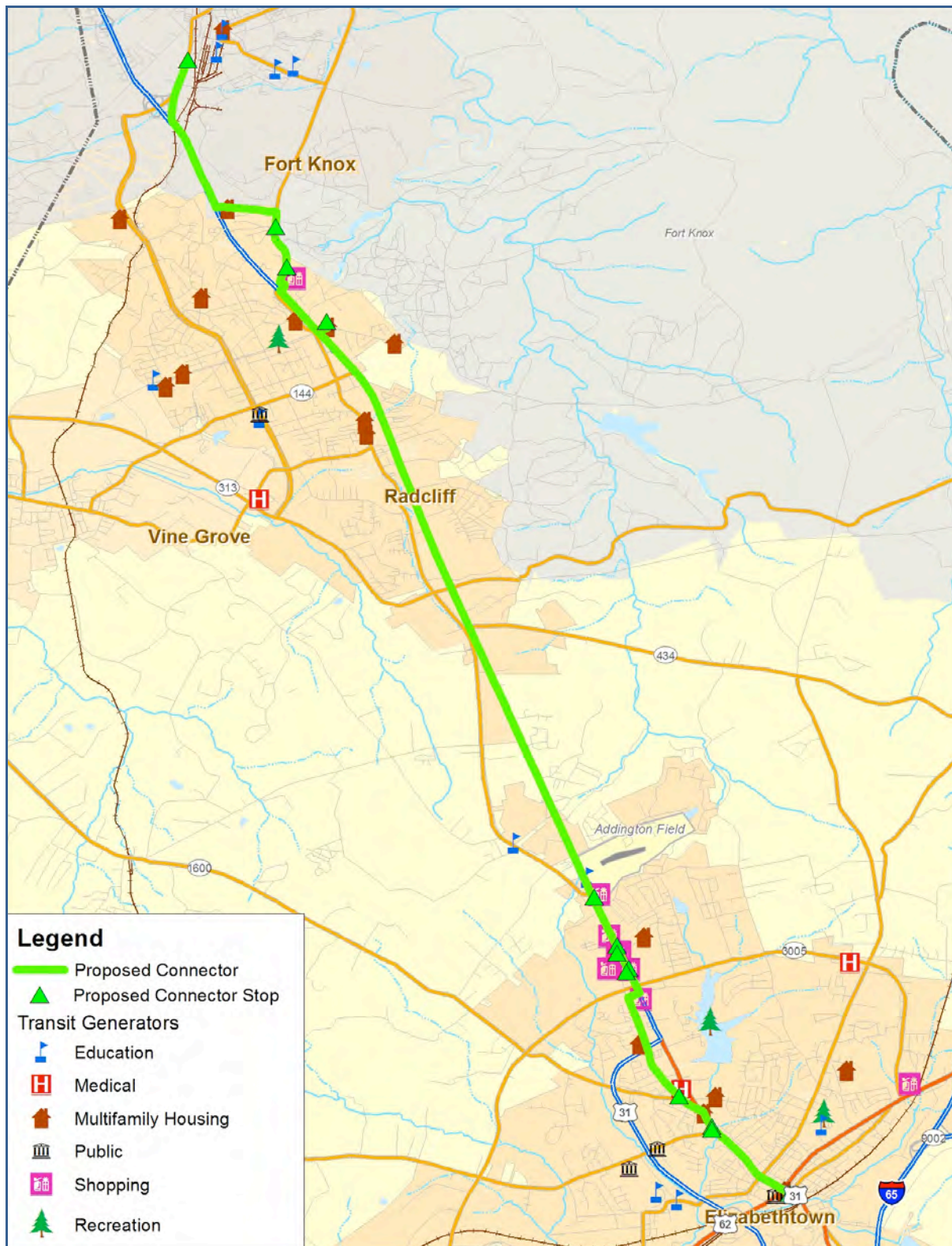
Elizabethtown-Radcliff-Fort Knox Connector

The purpose of the connector route is to connect Elizabethtown, Radcliff and Fort Knox. As noted under existing transportation resources, TACK currently provides a park-and-ride service that fills this function. The TACK service is targeted to the needs of those working at Fort Knox, operates only 6 trips per weekday and has only a few stops. The proposed connector route has more stops, somewhat different routing and includes connections to local circulator services in Elizabethtown and Radcliff.

As shown in the map on the following page, the Elizabethtown-Radcliff-Fort Knox Connector (connector) routing generally runs up and down US 31 W, but does make some deviations to accommodate additional key stops. Proposed stops along the corridor for both northbound and southbound service are in the general vicinity of the following:

- Hardin County Court House;
- Roses and Walgreen's;
- Hardin Memorial Health from Woodland Drive;
- Walmart Drive both north and southbound;
- Kmart Center and Towne Center Drive (near Kmart for northbound and Kroger for southbound);
- Childers Court at the entrance to the Mall Park Center
- Kohl's department store;
- Orscheln Farm & Home;
- Radcliff Walmart;
- Hardin County Health Center – Radcliff location; and, Fort Knox.

These stops have been identified to provide access to key transit generators and facilitate transfers to and from the local circulator routes. Passengers with Fort Knox as a destination will exit the vehicle at the gate and then may access the internal Fort Knox shuttle to get to their final destination.



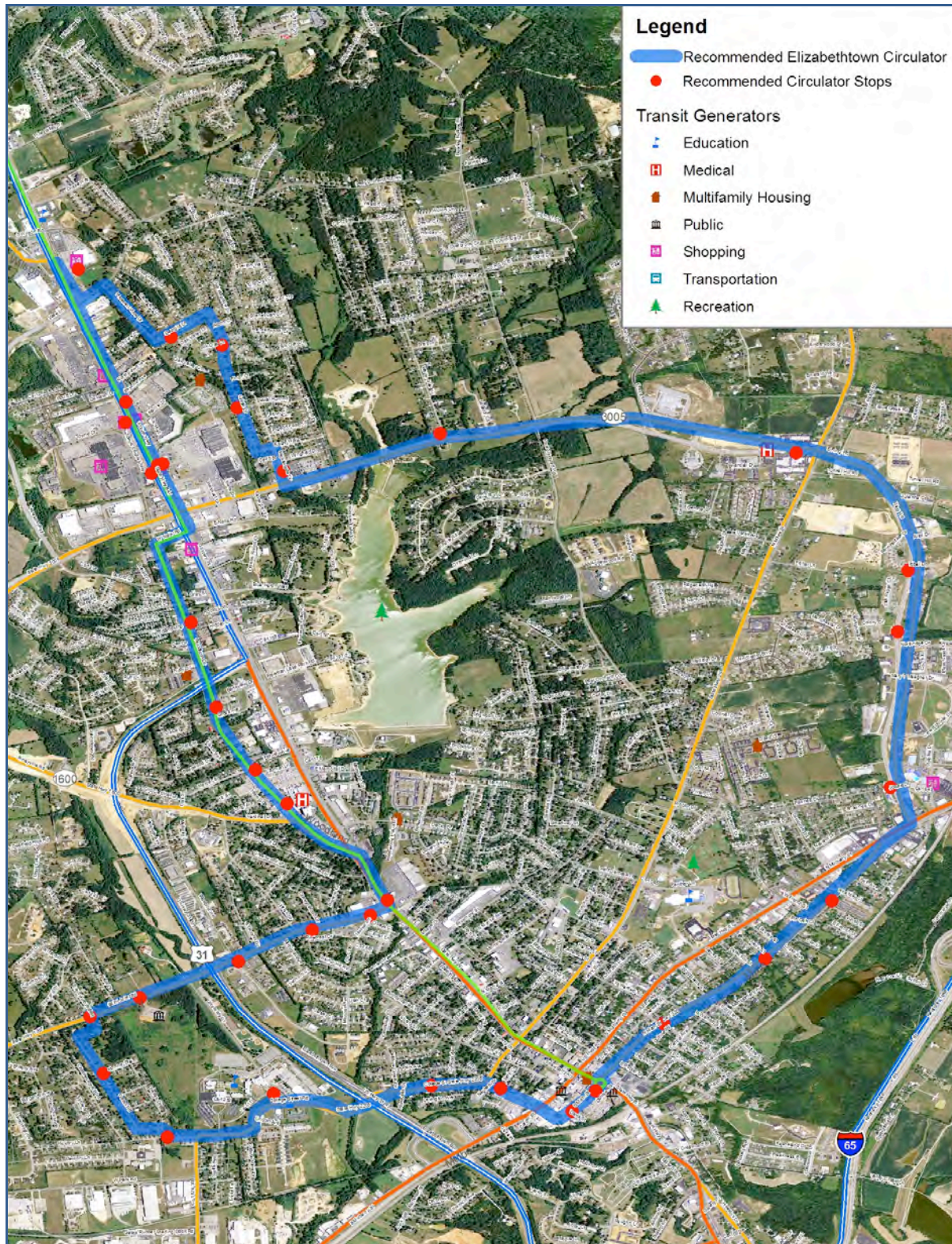
Elizabethtown Circulator

The following map shows a preliminary circulator route for Elizabethtown. Starting downtown near the city and county offices, the route would leave downtown with the proposed routing:

- Start at Hardin County Court House;
- Proceed northeast on Main Street;
- Right on Mulberry Street;
- Left on Ring Road;
- Right on Nightingale Drive;
- Left on Eagle Way;
- Right on Oriole Drive;
- Left on Georgia Lane
- Right on Pleasant View Drive;
- Left on Pear Orchard Road;
- Right on US 31 to Kohl's;
- Left from Kohl's back onto US 31;
- Right on Nalls Road;
- Left on Woodland Drive;
- Right on Dixie Highway;
- Right on St. John Rd;
- Left on Gates Road;
- Continue on Gates until it merges into College Street Road; and,
- Left on Main Street and back to the starting location.

Transfers to the Connector can be made at the Hardin County Court House, Walgreen's, Hardin County Memorial Hospital, Old Towne Mall, Kroger and Kohl's.

This routing provides access to and from residential areas and also city and county offices, Kohl's department store, the shopping destinations in and around the Old Towne Mall, Hardin County Memorial Hospital, the Library and the campus area of Elizabethtown Community and Technical College and the Western Kentucky University satellite campus. The route is approximately 13.5 miles long and 32 preliminary bus stop locations have been identified.

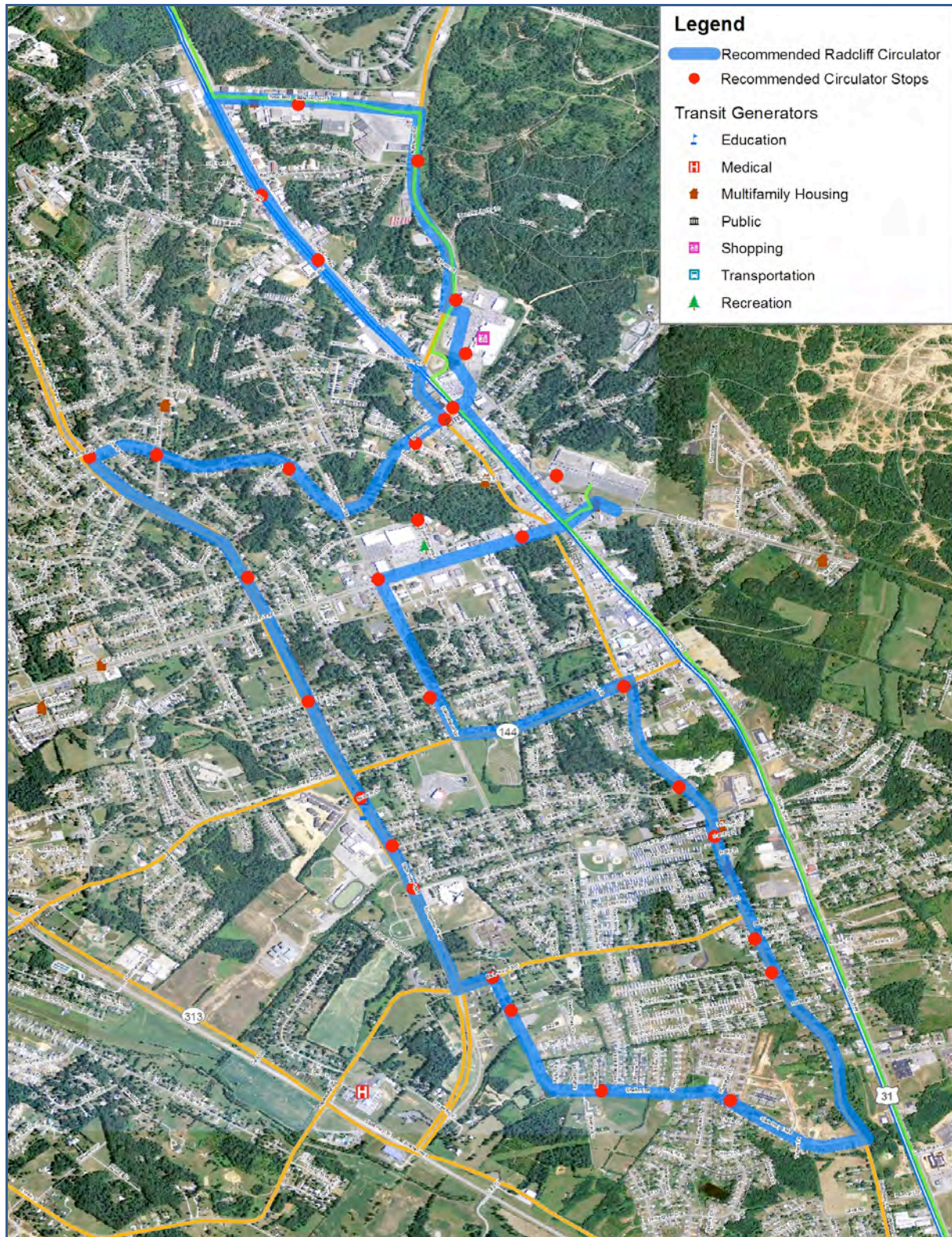


Radcliff Circulator

A preliminary Radcliff circulator is shown in the map below. Assuming a starting location of Orscheln's on Lincoln Trail just off of US 31. This is the location of the TACK park-and-ride stop in Radcliff. Preliminary routing is proposed as follows:

- Leave City Offices/Recreation and Community Center on Lincoln Trail Boulevard;
- Enter Orscheln Farm & Home parking lot;
- Leave parking lot and turn right on US 31;
- Right on Walmart Way;
- Through the Walmart parking lot;
- Exit parking lot turning left on Wilson Road;
- Left on Knox Boulevard;
- Left on Dixie Highway;
- Right on Wilson Road;
- Right on Elm Road;
- Right on Sunset Drive;
- Left on North Logsdon Parkway;
- Left on Rogersville Road;
- Right on Shelton Road;
- Left on Wilson Road;
- Left on East Vine Street;
- Right on Woodside Drive; and,
- Right on Lincoln Trail Boulevard back to City Offices/Recreation and Center.

This routing provides access to transit from residential areas and also serves shopping areas such as Orscheln's and Walmart; the library; city offices; the recreation and community center; and, the post office. The route is approximately 12.5 miles in length. Transfers to and from the connector can take place at Orscheln Farm and Home, Walmart and the Hardin County Health Center. There are approximately 30 preliminary bus stop locations along the route.



Operating and Capital Costs

The study shows a total cost estimate of \$585,000 in annual operating costs. These costs would be eligible for federal funding assistance with a required local match (50% Federal/50% Local). There will also be initial and subsequent capital costs associated with the fixed-route public transportation system. All capital costs are eligible for 80% in federal funding with a required 20% for local match.

Table 4 Annual Operating Costs			
Service	Daily Hours of Service	Annual Operating Costs	Assumptions
Elizabethtown-Radcliff-Fort Knox Connector	8	\$156,000	One vehicle, one roundtrip per hour
Elizabethtown Circulator	11	\$214,500	One vehicle, one roundtrip per hour
Radcliff Circulator	11	\$214,500	One vehicle, one roundtrip per hour

Pedestrian & Bicycle Facilities

Pedestrian Facilities

During 2009, the MPO conducted a Walkability Study of the cities of Radcliff and Elizabethtown. The study focused on key elements of walkable communities such as:

- Well connected pedestrian path networks;
- Land use patterns that provide access to “everyday” type destinations;
- A level of safety that makes people feel comfortable;
- Well-maintained pathways and landscaped features; and
- Aesthetically pleasing pathways that offer pleasant visual experiences.

Based on a full analysis of the pedestrian system, the following policy and program recommendations were included in the Walkability Study:

RECOMMENDED POLICIES & PROGRAMS

Zoning and Development Regulations

- Modify outdated Zoning Ordinances and Development Regulations to reflect current regulations.
- Amend Zoning Ordinances to include Kentucky Street Connectivity
- Incorporate “Complete Street” principles in subdivision regulations, such as routine accommodation for pedestrians and bicyclists, pedestrian scale lighting, and smaller building setback requirements.
- Include internal pathway connectivity requirement on new non-residential developments.
- Require a minimum sidewalk width of 5 feet. Depending on roadway classification, the sidewalks should be constructed with 4 to 8 foot buffer zones along all roadways.

Maintenance Requirements

- Dedicate funds from City's General Fund to maintain and repair sidewalks.

OR

- Develop database to inventory sidewalks that includes location, property owner information, quality, and repair costs assessed to owner (if applicable).
- Inspect all sidewalks within City limits on a 10-year cycle.
- Allocate funds for sidewalk maintenance grant program that pays 25-50% of repair costs.
- Enforce property owner sidewalk maintenance requirement.
- Allow "in-lieu-of" payments for sidewalk maintenance or sidewalk construction, especially when granting sidewalk installation waivers. These funds should be dedicated to the pedestrian infrastructure development.

Sidewalk Priority List

- Identify streets to be included on Sidewalk (or Complete Street) Priority List.
- Provide methods for residents to identify problem locations or potential areas to be improved and included on Priority List.
- Allocate percentage of Capital Improvement Program for pedestrian infrastructure, especially for those projects listed on Sidewalk Priority List.
- Hold Bicycle/ Pedestrian Forums to gather information on potential pedestrian districts and bicycle/ pedestrian corridors.
- Budget funds for Safe Routes to School and other grant programs to leverage financial resources and improve pedestrian infrastructure and associated landscaping.

Pedestrian Corridor Plans

- Annually fund and develop small scale Pedestrian (or Complete Street) Corridor Plans to inventory and evaluate existing infrastructure, develop specific improvement projects and implementation strategies.
- Coordinate with local Chambers of Commerce, Tourism Commissions, and Parks and Recreation staff to develop Corridor Plans.
- Incorporate Corridor Plans into Transportation Component of Comprehensive Plan and Capital Improvement Program.

Kid Safe Streets Program

- Develop and allocate funds for a Kid Safe Streets Program.
- Collaborate with local school districts and police departments in developing ways to increase the number of students walking to school.
- Identify target walking corridors/ areas for students.
- Identify elements of these areas that may be unsafe, serve as obstacles, or would otherwise need to be improved.
- Address issues along these corridors and construct or repair existing sidewalks near bus stops and schools.
- Install Kid Safe Street signage along routes.

Outreach Program

- Create and distribute brochures, fact sheets, flyers, etc. for students, parents, and recreation walkers and bicyclists explaining benefits and "stay safe" practices.
- Organize community-wide events, such as marathons, running and bicycle races, and

- other sporting events to raise awareness of the benefits of walking and bicycling.
- Distribute reflective belts, brochures, fact sheets, flyers, etc. at community-wide events.

RECOMMENDED PROJECTS

Crosswalk Projects

- Strategically locate and install a very limited number of crosswalks with differentiated paving across US 31W, Ring Road, Wilson Road, and Lincoln Trail Boulevard at low volume intersections or highly visible mid-block locations.
- Add cameras to existing traffic signals near these locations in an effort to reduce the number of vehicles running red lights.
- Modify signal timing near these locations to include delay for pedestrian crossings.

Sidewalk Construction/ Enhancement

- Identify and improve sidewalk internal and external connections and landscaping between high volume commercial and nearby residential areas. For example, pathways within and between the Old Navy Plaza and Towne Mall in Elizabethtown, and along Wilson Road in Radcliff.
- Enhance high volume or high visibility pedestrian facilities by strategically locating landscaped areas with pedestrian-scale lighting, street furniture, and public art.

Urban Core Development

- Hire a firm, specializing in pedestrian-oriented developments, to redesign the downtown centers of both Radcliff and Elizabethtown. Create and apply overlay districts for these downtown core areas.

Bicycle Facilities

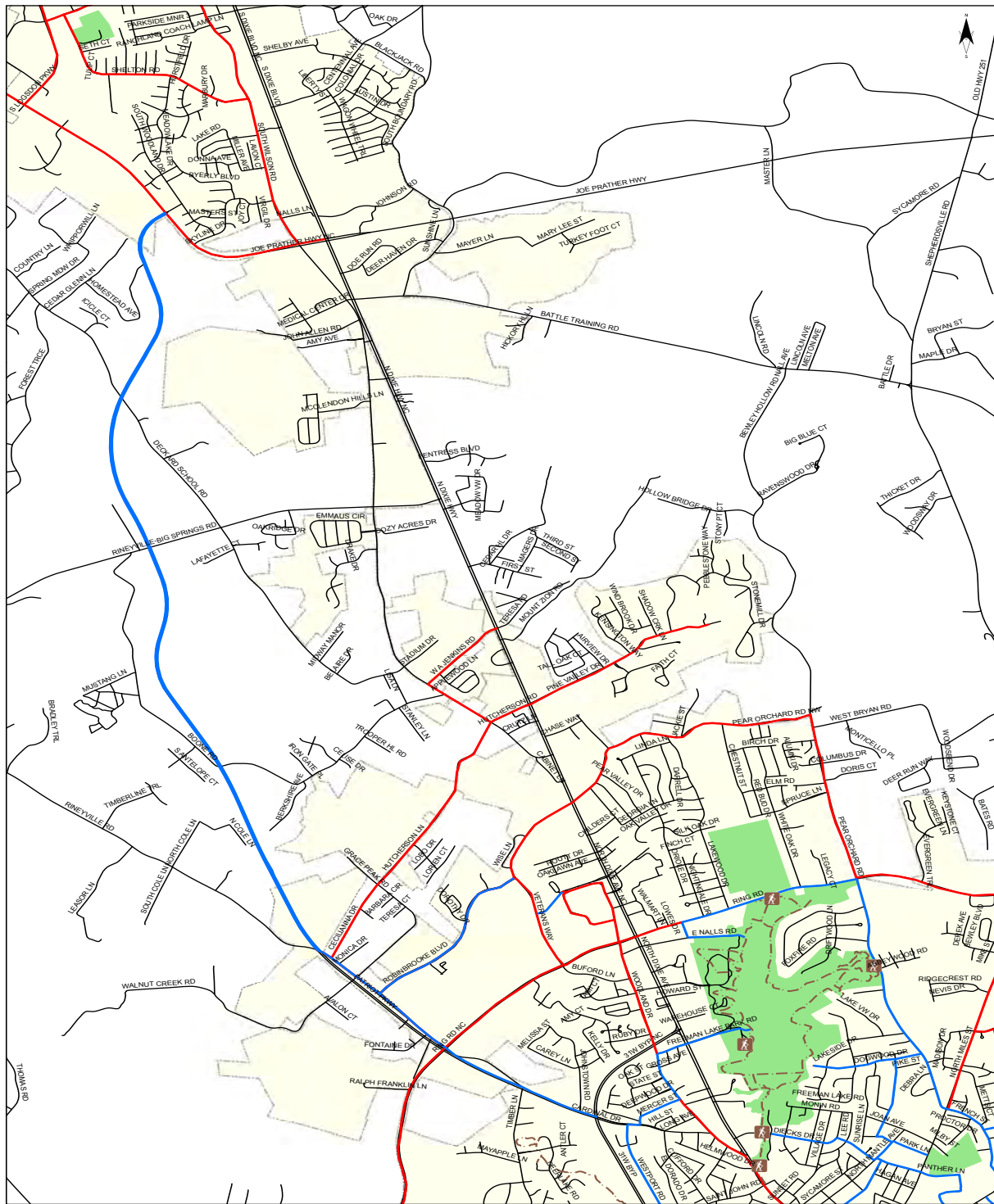
Existing bicycle facilities are identified throughout neighborhoods in the cities of Elizabethtown and Radcliff but there is no perceived continuity or connectivity to the system. Further, there is minimal signing or striping available on the neighborhood bicycle routes.

The state of Kentucky has also identified bicycle routes statewide and several of those routes traverse the central and southern sections of Hardin County. Just as with the locally designated bike routes, signage and striping is lacking.

Currently, the only designated on-road bicycle facilities in the MPO area are on KY 361 (Patriot Parkway), Robinbrooke Boulevard, and Towne Drive in Elizabethtown. The KY 361 route provides a connection between Elizabethtown and Radcliff. The MPO has developed recommendations to enhance connections to make the urbanized area more bicycle-friendly. The recommendations are highlighted in red on the maps on the following three pages.

The MPO recognizes that further study is needed to develop a fully integrated bicycle route system for the area. The MPO may consider, in the future, undertaking a bicycle transportation and trail study to identify major origins/destinations and a system of facilities and/or routes to provide better connectivity and continuity for bicyclists, both on-road and off-

road. This study would also include analysis of a separate bicycle facility or multi-use path along Ring Road (KY 3005) in the future.



Radcliff/Etown Connection Bikeway Connections

0 2,200 4,400 6,600 8,800 Feet

Legend

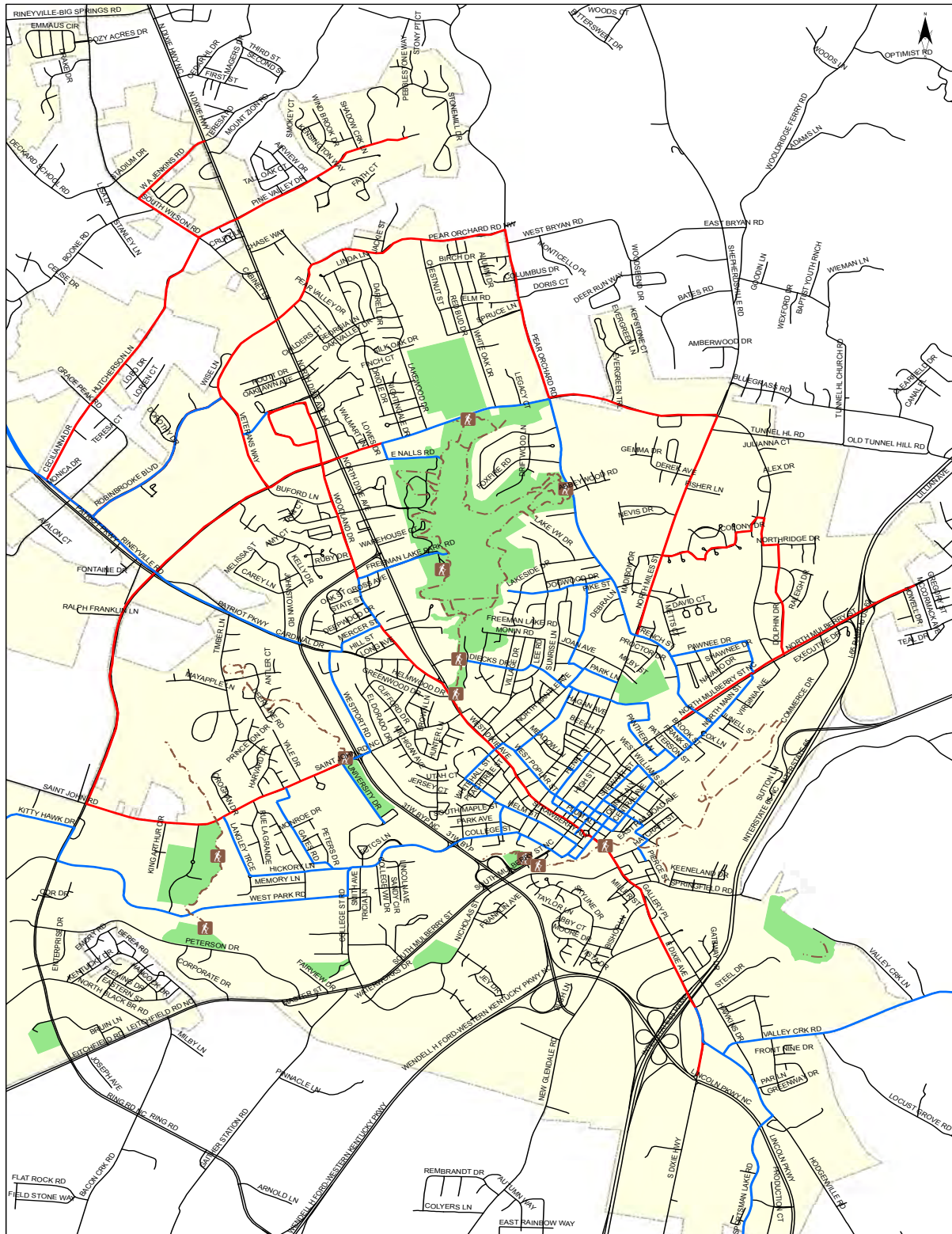
- TrailHead
- LocalTrail
- Bikeroute
- Potential Bikeroute
- Roads
- LocalPark
- Corporate Boundary
- County Boundary



Copyright 2014, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for general planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District, Community Development Department, 2014.



City of Elizabethtown Proposed Bikeway Connections

0 2,200 4,400 6,600 8,800 Feet

Legend

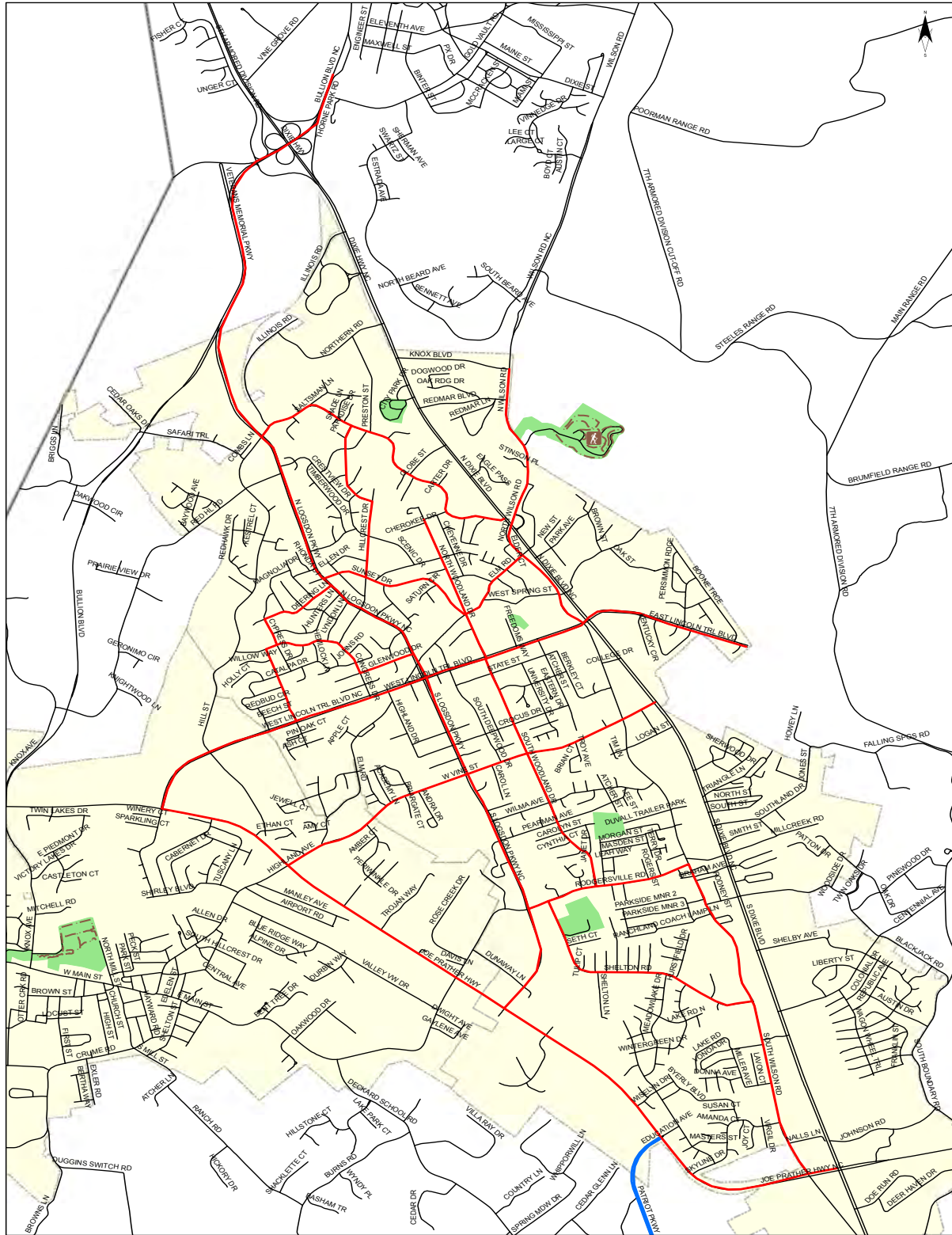
- Trail Head
- Local Trail
- Bikeroute
- Potential Bikeroute
- Roads
- Local Park
- Corporate Boundary
- County Boundary



Copyright 2014, Lincoln Trail Area Development District (LTADD)

This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.

Prepared by: Lincoln Trail Area Development District, Community Development Department, 2014.



City of Radcliff
Proposed Bikeway Connections

0 1,900 3,800 5,700 7,600 Feet

Legend

- TrailHead
- LocalTrail
- Potential Bikeroute
- Bikeroute
- Roads
- LocalPark
- Corporate Boundary
- County Boundary



Copyright 2014, Lincoln Trail Area Development District (LTADD)
This map is created for general planning purposes ONLY. This map is not legally recorded, surveyed, or intended to be used for purposes other than for generalized planning. Nor does it show all aspects or features of this particular area which may have changed over the years. For questions contact us at (270) 769-2393.
Prepared by: Lincoln Trail Area Development District, Community Development Department, 2014.

Aviation

The Elizabethtown Regional Airport (ERA) is a class III regional general aviation airport that lies just west of the City of Elizabethtown. Currently, the ERA has a 6,001-foot runway and serves both commercial and industrial uses.

The recent extension of Ring Road (KY 3005) to the Western Kentucky Parkway and, ultimately, to Interstate 65 will provide direct highway access from the ERA to the state's major expressway system.

Over the past few years, the ERA has been exploring opportunities to restore passenger airline service to the Elizabethtown/Central Kentucky area. The Radcliff/Elizabethtown MPO fully supports these efforts and will continue to work with the ERA and its board to fully implement its goals for growth and expansion. The table below details the future improvements currently proposed for the Elizabethtown Regional Airport.

Table 5. Airport Improvements

Radcliff-Elizabethtown Metropolitan Transportation Plan

Project Description	Total Cost
Additional Aircraft Hangars	\$700,000
Strengthening of Ramp Area to Accommodate Boeing 737	\$250,000
New Above Ground Fuel Farm	\$500,000
Instrument Landing System Glide Slope	\$700,000
New Signage	\$50,000
TOTAL	\$2,200,000
>All Projects are Estimated for Completion within 18 Months	

Rail

CSX, a Class I Carrier, and Paducah and Louisville, a Class II Carrier provides rail service to the MPO planning area. More detailed information on both of these companies can be found in Chapter 3.

Some of the major rail issues in the Radcliff/Elizabethtown area include: impacts on rail crossings, such as safety and highway traffic; providing rail access to the Meade County Riverport; and rail needs of the military at Fort Knox.

Currently, the MPO supports providing a railroad spur extension to the Meade County Riverport, east of Brandenburg. The MPO will also explore opportunities for railroad crossing closings and/or upgrades in the future as a means of ensuring a safer flow of both rail and vehicular traffic.

Riverport

The Meade County Riverport was approved for operation in 2001. The preliminary development plan and engineering analysis completed details a 50-acre site east of Brandenburg, next to Arch Chemicals, Inc. The site is accessed via highway KY 933. The riverport's business plan shows initial operations to concentrate on grain-loading, light cargo loading and off-loading. The initial service area will include Meade, Hardin, Breckinridge, and Larue counties.

The recently completed highway improvements to KY 933 and the future extension of KY 313 are crucial to the development of the Meade County Riverport. The other major transportation issue related to the riverport is the CSX railroad spur extension. In the future, it will also be important for the riverport to conduct an economic impact study to better define costs and benefits and to assist the riverport authority in making requests for additional funding.

Freight

Interstate 65 is a major interstate route for regional and national truck movements. The Radcliff/Elizabethtown planning area is fortunate to have a transportation system that consists of Interstate 65, the Bluegrass Parkway, the Western Kentucky Parkway, US 31W, US 62, KY 61, KY 313, KY 361, etc. While the majority of freight traverses the area on I-65, these other major routes play a significant role in the movement of freight in and through the area. There are numerous businesses and industries in the region that rely on trucks for shipping and delivery.

Freight is a major consideration for the MPO when prioritizing projects for inclusion in the MTP. First, increasing access and mobility for the movement of freight is one of the nine goals of the MPO. The MPO also evaluates all highway projects based on the percentage of truck traffic a particular segment of highway carries on a daily basis. The higher the volume of truck traffic the higher score the project will receive in the freight movement category.

While, it is a blessing to the area, it is also a concern. The movement of truck traffic through the cities has been an issue in recent years. It may become important for the MPO conduct a truck access study in the future to better define current and future trucking issues and needs, including better signage to direct trucks to major routes to keep them out of downtown areas.

Currently, planned improvements including I-65 widening, I-65 weigh station rehabilitation, KY 313 extension, KY 933 improvements, and the rail spur to the Meade County Riverport all have major impacts on freight movement in the MPO area. Freight considerations will continue to be a priority for the MPO in the future. The Glendale Industrial Site will become a major consideration for freight movement in the future and new projects will have to be considered to support any new industry that moves onto the Glendale site.

Transportation Alternatives Program (TAP)/Transportation Enhancement (TE)/Safe Routes to School Projects (SRTS)

The federal Transportation Enhancement (TE) program was developed in 1991 under Intermodal Surface Transportation Efficiency Act (ISTEA). The TE program was continued under the Transportation Equity Act for the 21st Century (TEA-21) in 1998 and a new

program, the Safe Routes to School Program (SRTS) was developed. With the implementation of Moving Ahead for Progress in the 21st Century (MAP-21), these programs have been included in a new program, the Transportation Alternatives Program (TAP).

TAP provides funding for surface transportation projects such as on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhancement mobility, community improvement activities, and environmental mitigation; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

Some funding for the TE and SRTS programs are still available in Kentucky. However, in the future most projects will be funded through the TAP program. The following table details the current list of funded TAP, TE, and SRTS projects in the Radcliff/Elizabethtown area:

There are currently no active TAP/TE/SRTS Projects in the MPO area.

Summary

This chapter provides a snapshot of the recommendations and challenges of the Radcliff/Elizabethtown MPO over the next 25-year period from 2015-2040. The Radcliff/Elizabethtown MPO will be faced with continuing its support for transportation improvements that keep our local communities viable well into the future. Fort Knox continues to bring opportunities and challenges and the potential for a major industrial/commercial employer to move onto the Glendale economic development site will further the need to improve the transportation system to meet the needs of the citizens of the MPO area. The next 25 years are sure to bring many challenges to the MPO and the Kentucky Transportation Cabinet to meet these needs. But the opportunities that lie ahead will allow the MPO to work toward the implementation of the improvements discussed throughout the 2040 Metropolitan Transportation Plan to ensure this region has an adequate transportation system.

Appendix A
MPO Committee
Membership

Appendix A
Radcliff/Elizabethtown
Metropolitan Planning Organization

Policy Committee Membership

Voting Membership

Honorable Harry Berry, Chairman
Hardin County Judge/Executive
Courthouse
100 Public Square
P.O. Box 568
Elizabethtown, KY 42702

Honorable Mike Weaver
Mayor, City of Radcliff
411 West Lincoln Trail Blvd
P. O. Drawer 519
Radcliff, KY 40160

Honorable Edna Berger
Mayor, City of Elizabethtown
200 West Dixie Avenue
P. O. Box 550
Elizabethtown, KY 42702

Honorable Gerry Lynn
Meade County Judge/Executive
516 Fairway Drive
Brandenburg, KY 40108

Honorable Blake Proffitt
Mayor, City of Vine Grove
300 West Main Street
Vine Grove, KY 40175

Honorable Ronnie Joyner
Mayor, City of Brandenburg
737 High Street
Brandenburg, KY 40108

Honorable Mike Hancock, Secretary
Kentucky Transportation Cabinet
Transportation Office Building
200 Mero Street
Frankfort, KY 40622

Ms. Patty Dunaway, P. E., Chief District
Engineer (Rep. of KYTC Secretary)
Department of Highways District 4
Kentucky Transportation Cabinet
P. O. Box 309
Elizabethtown, KY 42702

Non-Voting Members

Mr. Emmet Holley, Garrison Manager
Headquarters Garrison
UAARMC and Fort Knox (Attn: Emmet
Holley)
(ATZK-GC-118)
Fort Knox, KY 40121
(502) 624-2749/5597

Ms. Bernadette Dupont
Federal Highway Administration
330 West Broadway
Frankfort, KY 40601

Mr. Barry House
Transportation Engineer Specialist
Division of Planning
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, KY 40622

Ms. Jodi Alford
Transit Authority of Central Kentucky
1209 Freeman Lake Road
Elizabethtown, KY 42701

Mr. Joe Redmon, Acting Director
Transit Authority of Central Kentucky
1209 Freeman Lake Road
Elizabethtown, KY 42701

Appendix A
Radcliff/Elizabethtown
Metropolitan Planning Organization

***Technical Advisory Committee
(TAC) Membership***

Mr. Charlie Allen
Department of Planning
Department of Highways District 4
Kentucky Transportation Cabinet
P. O. Box 309
Elizabethtown, KY 42702

Mr. Kevin Young
Department of Planning
Department of Highways District 4
Kentucky Transportation Cabinet
P. O. Box 309
Elizabethtown, KY 42702

Ms. Bernadette Dupont
Research & Planning Engineer
Federal Highway Administration
330 West Broadway
Frankfort, KY 40601

Mr. Barry House
Transportation Engineer Specialist
Division of Multimodal Programs
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, KY 40622

Mr. Ed Poppe, Director
City of Elizabethtown Planning
And Development Department
200 West Dixie Avenue
P. O. Box 550
Elizabethtown, KY 42702

Mr. Scott Reynolds, City Engineer
City of Elizabethtown
200 West Dixie Avenue
P. O. Box 550
Elizabethtown, KY 42702

Mr. Toby Spalding, City Engineer
City of Radcliff
P. O. Drawer 519
Radcliff, KY 40160

Mr. Murray Wanner, City Planner
City of Radcliff
P. O. Drawer 519
Radcliff, KY 40160

Mr. Adam King, Assistant Director
Hardin County Planning and
Development Commission
Courthouse
100 Public Square
Elizabethtown, KY 42701

Ms. Vicki Meredith
Hardin County Engineer
Courthouse, 100 Public Square
Elizabethtown, KY 42701

Mr. Warren Clifford
Fort Knox Engineering
Fort Knox, KY 40121

Mr. Joe Yates
Base Operation Support
Environmental Management Division
Building 1110B
Fort Knox, KY 40121-5000

Mr. Mike Hall
Transportation Management Systems,
LLC
803 North Dixie, #212
Elizabethtown, KY 42701

Ms. Vickie Bourne, Director
Office of Transportation Delivery
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, KY 40622

Ms. Jodi Alford
Transit Authority of Central Kentucky
1209 North Dixie
Elizabethtown, KY 42701

Appendix A
Radcliff/Elizabethtown
Metropolitan Planning Organization

Mr. Joe Redmon, Acting Director
Transit Authority of Central Kentucky
1209 North Dixie
Elizabethtown, KY 42701

Mr. John Malcomson
Emergency Medical Services Director
Hardin Co. Emergency Services Center
170 North Provident Way
Elizabethtown, KY 42701

Appendix B Highway Data

RT_NE_UNIQUE	BEGIN_MP	END_MP	DISTRICT	COUNTY_NAME	COUNTY	RT_PREFIX	RT_NUMBER	RT_SUFFIX	RT_DESCR	BEGDESC	ENDDISC	LASTCNT	LASTCNTYR	TRUCK	PCT
047-BG-9002 -000	0	7.9	4	Hardin		47 BG	9002		MARTHA LAYNE COLLINS-BLUEGR I 65		KY 583	12029	2013		20.3
047-BG-9002 -000	7.9	8.837	4	Hardin		47 BG	9002		MARTHA LAYNE COLLINS-BLUEGR KY 583		NELSON COUNTY LINE	10590	2013		
047-CR-1016 -000	0.564	0.764	4	Hardin		47 CR	1016		TUNNEL HL RD			1853	2009		
047-CR-1084 -000	0.949	1.486	4	Hardin		47 CR	1084		MOUNT ZION RD			16	2009		
047-CR-1100 -000	0.949	1.149	4	Hardin		47 CR	1100		BEWLEY HOLLOW RD			1074	2009		
047-CR-1100 -000	1.399	1.599	4	Hardin		47 CR	1100		BEWLEY HOLLOW RD			1192	2009		
047-CR-1133 -000	0	0.146	4	Hardin		47 CR	1133		GAITHER STATION RD			782	2009		
047-CR-1153 -000	0.203	0.403	4	Hardin		47 CR	1153		VALLEY CRK LN			53	2009		
047-CR-1189 -000	0.139	0.339	4	Hardin		47 CR	1189		OLD SONORA RD			292	2009		
047-CR-1192 -000	1.819	2.019	4	Hardin		47 CR	1192		HORSESHOE BND RD			414	2009		
047-CR-1225 -000	2.936	3.065	4	Hardin		47 CR	1225		BACON CRK RD			178	2009		
047-CR-1288 -000	0.106	0.306	4	Hardin		47 CR	1288		OLD KENTUCKY 84 RD			229	2009		
047-CR-1298 -000	0.474	0.674	4	Hardin		47 CR	1298		ROCK CRK RD			414	2009		
047-CR-1322 -000	1.272	1.472	4	Hardin		47 CR	1322		LIMP RD			61	2009		
047-CR-1338 -000	1.312	1.512	4	Hardin		47 CR	1338		PIERCE MILL RD			132	2009		
047-CR-1338 -000	2.258	2.458	4	Hardin		47 CR	1338		PIERCE MILL RD			40	2009		
047-CR-1341 -000	0.244	0.444	4	Hardin		47 CR	1341		CONSTANTINE RD			287	2009		
047-CR-1346 -000	2.816	3.016	4	Hardin		47 CR	1346		LAUREL RDG RD			35	2009		
047-CR-1347 -000	1.833	2.033	4	Hardin		47 CR	1347		NEEDHAM RD			65	2009		
047-CR-1349 -000	0.715	0.915	4	Hardin		47 CR	1349		CANN SCHOOL LN			89	2009		
047-CR-1393 -000	0	0.158	4	Hardin		47 CR	1393		OLD KY 1500+KNOX AVE	RED HILL ROAD	KY 313	3030	2011		
047-CR-1395 -000	0.952	1.152	4	Hardin		47 CR	1395		CRISP RD			100	2009		
047-CR-1453 -000	0.041	0.241	4	Hardin		47 CR	1453		MEREDITH RD			40	2009		
047-CS-1002 -000	0	0.119	4	Hardin		47 CS	1002		EAST POPLAR ST			79	2009		
047-CS-1019 -000	0.065	0.265	4	Hardin		47 CS	1019		HAYCRAFT ST			937	2009		
047-CS-1124 -000	0	0.78	4	Hardin		47 CS	1124		COLLEGE ST RD	US 62 (SOUTH MULB GATES ROAD-HICKORY LA		4262	2013		
047-CS-1124 -000	0.78	1.473	4	Hardin		47 CS	1124		COLLEGE ST RD	GATES ROAD-HICKOR US 31W		8420	2011		
047-CS-1126 -000	0	0.229	4	Hardin		47 CS	1126		SOUTH MILES ST	US 31W	COLLEGE STREET	5025	2013		
047-CS-1193 -000	0	1.385	4	Hardin		47 CS	1193		WOODLAND DR	KY 3005 (RING ROAD KY 1600 (CARDINAL DRIV		5810	2013		
047-CS-1251 -000	0	1.699	4	Hardin		47 CS	1251		PETERSON DR	KY 3005 (RING ROAD US 62 (SOUTH MULBERRY		2420	2011		
047-CS-1320 -000	0	0.082	4	Hardin		47 CS	1320		NORTH MAIN ST	US 31 W (EAST DIXIE EAST POPLAR STREET		6365	2013		
047-CS-1320 -000	0.082	0.839	4	Hardin		47 CS	1320		NORTH MAIN ST	EAST POPLAR STREETLOGAN AVENUE		4820	2011		
047-CS-1320 -000	0.839	1.404	4	Hardin		47 CS	1320		NORTH MAIN ST	LOGAN AVENUE	US 62 (N MULBERRY STRE	3515	2012		
047-CS-1321 -000	0.005	0.202	4	Hardin		47 CS	1321		SOUTH MAIN ST	COLLEGE STREET RO/US 31W (EAST DIXIE AVE		3226	2013		
047-CS-1327 -000	0	1.642	4	Hardin		47 CS	1327		PEAR ORCHARD RD	KY 251 (NORTH MILE KY 3005 (RING ROAD)		4410	2011		
047-CS-1390 -000	0	0.646	4	Hardin		47 CS	1390		FRENCH ST	KY 251 (NORTH MILE US 62 (NORTH MULBERR		4494	2012		
047-CS-1418 -000	0	0.127	4	Hardin		47 CS	1418		W FRENCH ST	US 62 (NORTH MULBNORTH MAIN STREET		1415	2013		
047-CS-1553 -000	0.62	0.847	4	Hardin		47 CS	1553		HAWKINS DR		CONNECTOR TO US 31W	1901	2011		
047-CS-1573 -000	0.552	1.257	4	Hardin		47 CS	1573		WESTPORT RD	KY 1357 (SAINT JOHN KY 361		4670	2013		
047-CS-1652 -000	0	0.065	4	Hardin		47 CS	1652		NEW GLENDALE RD	US 31 W (EAST DIXIE HAWKINS DRIVE		1901	2011		
047-CS-1683 -000	0	1.294	4	Hardin		47 CS	1683		VETERANS WAY	KY 3005 (RING ROAD US 31W		7393	2013		
047-CS-1730 -000	0	0.676	4	Hardin		47 CS	1730		COLLEGE ST	US 31W	US 62 (N MULBERRY STRE	3515	2012		
047-CS-2014 -000	2.096	2.665	4	Hardin		47 CS	2014		SOUTH WOODLAND DR	KY 144 (VINEGROVE I KY 1815		2587	2013		
047-CS-2255 -000	0	0.216	4	Hardin		47 CS	2255		N WILSON RD+N WISLON RD+N V	KY 1815 (W LINCOLN WEST SPRING STREET		2902	2013		
047-CS-2255 -000	0.216	0.762	4	Hardin		47 CS	2255		N WILSON RD+N WISLON RD+N V	WEST SPRING STREE DIXIE HIGHWAY RAMP US		5583	2012		
047-CS-2255 -000	0.762	1.065	4	Hardin		47 CS	2255		N WILSON RD+N WISLON RD+N V	DIXIE HIGHWAY RAMSTINSON PLACE		11093	2013		
047-CS-2255 -000	1.065	1.699	4	Hardin		47 CS	2255		N WILSON RD+N WISLON RD+N V	STINSON PLACE	KNOX BOULEVARD	14100	2011		
047-CS-2256 -000	0	1.616	4	Hardin		47 CS	2256		HILL ST	US 31 W (DIXIE HIGH KY 1646		2320	2012		
047-CS-2405 -000	0	0.557	4	Hardin		47 CS	2405		KNOX BLVD	US 31W (DIXIE HIGH NORT	H WILSON ROAD				
047-CS-2415 -000	0	0.117	4	Hardin		47 CS	2415		WAGGONER WAY	HILL STREET	NORTH WOODLAND DRIV	1230	2011		
047-CS-2437 -000	0	0.825	4	Hardin		47 CS	2437		NORTH WOODLAND DR	KY 1815 (W LINCOLN WAGGONER WAY		1913	2012		
047-CS-2440 -000	0	2.051	4	Hardin		47 CS	2440		SOUTH WILSON RD	KY 220 (RINEYVILLE-E	NALLS LANE	3440	2010		
047-CS-2440 -000	2.051	2.868	4	Hardin		47 CS	2440		SOUTH WILSON RD	NALLS LANE	SHELTON ROAD	4780	2011		
047-CS-2440 -000	2.868	3.716	4	Hardin		47 CS	2440		SOUTH WILSON RD	SHELTON ROAD	KY 144	6480	2010		
047-CS-2440 -000	3.716	4.582	4	Hardin		47 CS	2440		SOUTH WILSON RD	SHELTON ROAD	KY 144	6480	2010		
047-CS-2440 -000	4.582	5.154	4	Hardin		47 CS	2440		SOUTH WILSON RD	KY 144	KY 1815 (W LINCOLN TRA	3220	2012		
047-I -0065 -000	78.661	80.457	4	Hardin		47 I	65		I-65	LARUE COUNTY LINE KY 84		43104	2013		34.115
047-I -0065 -000	80.457	85.686	4	Hardin		47 I	65		I-65	KY 84	KY 222	38941	2013		38.139
047-I -0065 -000	85.686	91.086	4	Hardin		47 I	65		I-65	KY 222	W KY PKWY (WAS P50)	41367	2013		30.742
047-I -0065 -000	91.086	93.345	4	Hardin		47 I	65		I-65	WESTERN KENTUCKY	BLUE GRASS PARKWAY	57019	2013		35.6
047-I -0065 -000	93.345	94.154	4	Hardin		47 I	65		I-65	BLUE GRASS PARKWA	US 62	53942	2013		31.99
047-I -0065 -000	94.154	102.533	4	Hardin		47 I	65		I-65	US 62	KY 313	45346	2013		31.2
047-I -0065 -000	102.533	103.308	4	Hardin		47 I	65		I-65	HARDIN COUNTY LIN	BULLITT COUNTY LINE	54102	2013		26.869
047-I -0065 -111	0	0.224	4	Hardin		47 I	65		I-65 RAMP to KY 84			1258	2013		52.431
047-I -0065 -121	0	0.21	4	Hardin		47 I	65		I-65 RAMP from KY 84			2262	2013		39.004
047-I -0065 -131	0	0.203	4	Hardin		47 I	65		I-65 RAMP to KY 84			1418	2013		28.996
047-I -0065 -141	0	0.248	4	Hardin		47 I	65		I-65 RAMP from KY 84			908	2013		51.601
047-I -0065 -211	0	0.277	4	Hardin		47 I	65		I-65 RAMP to KY 222			1893	2013		
047-I -0065 -221	0	0.336	4	Hardin		47 I	65		I-65 RAMP from KY 222			2229	2013		50.975
047-I -0065 -231	0	0.293	4	Hardin		47 I	65		I-65 RAMP to KY 222			2464	2013		48.403
047-I -0065 -241	0	0.355	4	Hardin		47 I	65		I-65 RAMP from KY 222			2197	2013		55.466
047-I -0065 -311	0	0.531	4	Hardin		47 I	65		I-65 RAMP to WENDELL H FORD	WESTERN KENTUCKY PKWY		448	2011		
047-I -0065 -312	0	0.405	4	Hardin		47 I	65		INTERSTATE 65 RAMP						
047-I -0065 -313	0	0.202	4	Hardin		47 I	65		I-65 RAMP from WENDELL H FORD	WESTERN KENTUCKY PKWY		5090	2011		
047-I -0065 -321	0	0.649	4	Hardin		47 I	65		I-65 RAMP from WENDELL H FORD	WESTERN KENTUCKY PKWY		4225	2011		
047-I -0065 -322	0	0.236	4	Hardin		47 I	65		INTERSTATE 65 RAMP			5394	2011		
047-I -0065 -323	0	0.269	4	Hardin		47 I	65		I-65 RAMP to WENDELL H FORD	WESTERN KENTUCKY PKWY		1238	2011		
047-I -0065 -331	0	0.652	4	Hardin		47 I	65		I-65 RAMP to WENDELL H FORD	WESTERN KENTUCKY PKWY		1086	2011		
047-I -0065 -332	0	0.169	4	Hardin		47 I	65		I-65 RAMP to WENDELL H FORD	WESTERN KENTUCKY PKWY		1011	2011		
047-I -0065 -333	0	0.531	4	Hardin		47 I	65		INTERSTATE 65 RAMP			3177	2011		
047-I -0065 -334	0	0.266	4	Hardin		47 I	65		I-65 RAMP from WENDELL H FORD	WESTERN KENTUCKY PKWY		348	2011		
047-I -0065 -341	0	0.754	4	Hardin		47 I	65		I-65 RAMP from WENDELL H FORD	WESTERN KENTUCKY PKWY		2814	2011		
047-I -0065 -342	0	0.232	4	Hardin		47 I	65		INTERSTATE 65 RAMP from	WENDELL H FORD- WESTERN KY PKWY		365	2011		
047-I -0065 -343	0	0.262	4	Hardin		47 I	65		I-65 RAMP to WENDELL H FORD	WESTERN KENTUCKY PKWY		3237	2011		
047-I -0065 -411	0	0.587	4	Hardin		47 I	65		I-65 RAMP to MARTHA LAYNE COLLINS	BLUEGRASS PKWY					
047-I -0065 -421	0	0.357	4	Hardin		47 I	65		I-65 RAMP from	MARTHA LAYNE COLLINS BLUEGRASS PKWY					
047-I -0065 -441	0	0.544	4	Hardin		47 I	65		I-65 RAMP from MARTHA LAYNE COLLINS	BLUEGRASS PKWY					
047-I -0065 -442	0	0.496	4	Hardin		47 I	65		I-65 RAMP to MARTHA LAYNE COLLINS	BLUEGRASS PKWY					
047-I -0065 -511	0	0.306	4	Hardin		47 I	65		I-65 RAMP to US 62			4456	2012		11.053
047-I -0065 -521	0	0.182	4	Hardin		47 I	65		I-65 RAMP from US 62						
047-I -0065 -531	0	0.263	4	Hardin		47 I	65		I-65 RAMP to US 62			4158	2012		8.211
047-I -0065 -541	0	0.18	4	Hardin		47 I	65		I-65 RAMP from US 62			3767	2012		11.029
047-I -0065 -621	0	0.609	4	Hardin		47 I	65		I-65 RAMP from KY 313						
047-I -0065 -622	0														

047-KY-0220 -000	10.375	12.307	4 Hardin	47 KY	220	RINEYVILLE-BIG SPRINGS RD+RINE	JENKINS ROAD	KY 1600	965	2010	
047-KY-0220 -000	12.307	13.377	4 Hardin	47 KY	220	RINEYVILLE-BIG SPRINGS RD+RINE	KY 1600	KY 1600	8570	2011	
047-KY-0220 -000	13.377	16.831	4 Hardin	47 KY	220	RINEYVILLE-BIG SPRINGS RD+RINE	KY 1600	KY 447/SOUTH WILSON R	4073	2012	
047-KY-0220 -000	16.831	17.191	4 Hardin	47 KY	220	RINEYVILLE-BIG SPRINGS RD+RINE	KY 447/SOUTH WILSON R	US 31W	3542	2013	
047-KY-0222 -000	0	2.453	4 Hardin	47 KY	222	W GLENDALE-HODGENVILLE RD+I	US 62	KY 1904	912	2011	
047-KY-0222 -000	2.453	4.243	4 Hardin	47 KY	222	W GLENDALE-HODGENVILLE RD+I	KY 1904	KY 1136	1574	2012	
047-KY-0222 -000	4.243	6.465	4 Hardin	47 KY	222	W GLENDALE-HODGENVILLE RD+I	KY 1136	I 65 BRIDGE	1960	2013	
047-KY-0222 -000	6.465	6.751	4 Hardin	47 KY	222	W GLENDALE-HODGENVILLE RD+I	I 65 BRIDGE	US 31W	6840	2011	
047-KY-0222 -000	6.751	9.956	4 Hardin	47 KY	222	W GLENDALE-HODGENVILLE RD+I	US 31W	LARUE COUNTY LINE	182	2012	
047-KY-0224 -000	0	2.053	4 Hardin	47 KY	224	MILLERSTOWN RD+GRAYSON ST	HART COUNTY LINE	KY 1391 (LONE STAR ROA	968	2013	11.4
047-KY-0224 -000	2.053	4.769	4 Hardin	47 KY	224	MILLERSTOWN RD+GRAYSON ST	KY 1391 (LONE STAR	KY 1921 (ZION CHURCH R	1060	2011	11.4
047-KY-0224 -000	4.769	5.921	4 Hardin	47 KY	224	MILLERSTOWN RD+GRAYSON ST	KY 1921 (ZION CHUR	US 31W	2378	2012	11.4
047-KY-0251 -000	0	0.765	4 Hardin	47 KY	251	NORTH MILES ST+SHEPHERDSVILL	US 31W (DIXIE AVEN	PANTHER LANE/ST JAMES	7960	2010	
047-KY-0251 -000	0.765	1.189	4 Hardin	47 KY	251	NORTH MILES ST+SHEPHERDSVILL	PANTHER LANE/ST JA	FRENCH ST/PEAR ORCHAI	10700	2011	2.6
047-KY-0251 -000	1.189	2.681	4 Hardin	47 KY	251	NORTH MILES ST+SHEPHERDSVILL	FRENCH ST/PEAR OR	KY 3005 (RING ROAD)	5444	2012	2.769
047-KY-0251 -000	2.681	3.929	4 Hardin	47 KY	251	NORTH MILES ST+SHEPHERDSVILL	KY 3005 (RING ROAD	WEST BRYAN ROAD	5320	2010	4.5
047-KY-0251 -000	3.929	6.288	4 Hardin	47 KY	251	NORTH MILES ST+SHEPHERDSVILL	WEST BRYAN ROAD	KY 434	4450	2011	4.5
047-KY-0251 -000	6.288	7.981	4 Hardin	47 KY	251	NORTH MILES ST+SHEPHERDSVILL	KY 434	KY 313	1216	2012	4.5
047-KY-0253 -000	0	3.153	4 Hardin	47 KY	253	BETHLEHEM ACADEMY RD	KY 86	KY 1357	438	2011	
047-KY-0313 -000	0	5.957	4 Hardin	47 KY	313	JOE PRATHER HWY	I 65 BRIDGE	KY 251	6810	2013	6.359
047-KY-0313 -000	5.957	9.581	4 Hardin	47 KY	313	JOE PRATHER HWY	KY 251	US 31W (DIXIE HIGHWAY)	5457	2012	6.359
047-KY-0313 -000	9.581	11.974	4 Hardin	47 KY	313	JOE PRATHER HWY	US 31W (DIXIE HIGH	KY 1500 (VINE GROVE RO	9810	2011	6.2
047-KY-0313 -000	11.974	13.022	4 Hardin	47 KY	313	JOE PRATHER HWY	KY 1500 (VINE GROV	KY 144	6341	2012	6.2
047-KY-0313 -000	13.022	14.534	4 Hardin	47 KY	313	JOE PRATHER HWY	KY 144	KY 1500	8367	2013	6.2
047-KY-0313 -000	14.534	15.238	4 Hardin	47 KY	313	JOE PRATHER HWY	KY 1500	MEADE COUNTY LINE	6083	2013	
047-KY-0347 -000	0	2.543	4 Hardin	47 KY	347	SOLWAY MEETING CREEK RD	KY 920	DRY RIDGE ROAD	164	2011	
047-KY-0361 -000	0	0.228	4 Hardin	47 KY	361	CARDINAL DR+PATRIOT PKWY+BU	US 31W	WOODLAND DRIVE	6590	2013	7.4
047-KY-0361 -000	0.228	0.877	4 Hardin	47 KY	361	CARDINAL DR+PATRIOT PKWY+BU	WOODLAND DRIVE	US 31W INTERCHANGE	6960	2009	7.4
047-KY-0361 -000	0.877	1.819	4 Hardin	47 KY	361	CARDINAL DR+PATRIOT PKWY+BU	US 31W INTERCHAN	KY 3005 (RING ROAD)	7710	2011	7.4
047-KY-0361 -000	1.819	2.844	4 Hardin	47 KY	361	CARDINAL DR+PATRIOT PKWY+BU	KY 3005 (RING ROAD	KY 1600			
047-KY-0391 -000	0	2.438	4 Hardin	47 KY	391	CRUME RD+HIGH ST+BROWN ST+K	Y 1600	CRUME ROAD	1597	2012	7.912
047-KY-0391 -000	2.438	2.872	4 Hardin	47 KY	391	CRUME RD+HIGH ST+BROWN ST+K	Y 1600	KY 144 (MAIN ST IN VINE	442	2013	7.912
047-KY-0434 -000	0	2.455	4 Hardin	47 KY	434	BATTLE TRAINING RD	WILSON ROAD (NEAF	BEWLEY HOLLOW ROAD	9040	2011	
047-KY-0434 -000	2.455	3.158	4 Hardin	47 KY	434	BATTLE TRAINING RD	BEWLEY HOLLOW R	KY 251 (NORTH MILL ROA	4167	2012	
047-KY-0434 -000	3.158	8.167	4 Hardin	47 KY	434	BATTLE TRAINING RD	KY 251 (NORTH MILL	HAPPY HOLLOW ROAD	1497	2013	
047-KY-0434 -000	8.167	11.305	4 Hardin	47 KY	434	BATTLE TRAINING RD	HAPPY HOLLOW ROA	BULLITT COUNTY LINE	938	2011	
047-KY-0447 -000	0	2.116	4 Hardin	47 KY	447	SOUTH WILSON RD X+SOUTH WIL	US 31W	KY 220	4276	2012	4.814
047-KY-0567 -000	0	0.643	4 Hardin	47 KY	567	VALLEY CRK RD	KY 210	LOCUST GROVE ROAD	3830	2013	
047-KY-0567 -000	0.643	3.45	4 Hardin	47 KY	567	VALLEY CRK RD	LOCUST GROVE ROA	FORD HIGHWAY	1860	2011	
047-KY-0567 -000	3.45	7.037	4 Hardin	47 KY	567	VALLEY CRK RD	FORD HIGHWAY	MACK THOMAS ROAD	752	2012	
047-KY-0567 -000	7.037	7.958	4 Hardin	47 KY	567	VALLEY CRK RD	MACK THOMAS ROA	LARUE COUNTY LINE	540	2013	
047-KY-0583 -000	0	3.217	4 Hardin	47 KY	583	YOUNGERS CRK RD	LARUE COUNTY LINE	US 62	546	2011	
047-KY-0720 -000	0	5.88	4 Hardin	47 KY	720	FLINT HL RD+W WESTERN AVE	GRAYSON COUNTY LI	KY 1921 (UPTON-MELRO	157	2012	
047-KY-0720 -000	5.88	7.115	4 Hardin	47 KY	720	FLINT HL RD+W WESTERN AVE	KY 1921 (UPTON-ME	KY 1868	422	2011	
047-KY-0720 -000	7.115	9.968	4 Hardin	47 KY	720	FLINT HL RD+W WESTERN AVE	KY 1868	UPTON ROAD	512	2013	
047-KY-0720 -000	9.968	10.802	4 Hardin	47 KY	720	FLINT HL RD+W WESTERN AVE	UPTON ROAD	KY 84	931	2012	
047-KY-0920 -000	0	3.321	4 Hardin	47 KY	920	SALT RIVER RD	GRAYSON COUNTY LI	KY 84 JUNCTION	394	2012	
047-KY-0920 -000	3.321	8.297	4 Hardin	47 KY	920	SALT RIVER RD	KY 84 DEPARTURE	LAUREL RIDGE ROAD)	420	2011	
047-KY-0920 -000	8.297	10.249	4 Hardin	47 KY	920	SALT RIVER RD	LAUREL RIDGE ROAD	KY 86	665	2013	
047-KY-0920 -000	10.249	15.275	4 Hardin	47 KY	920	SALT RIVER RD	KY 86	KY 220	452	2012	
047-KY-0920 -000	15.275	18.284	4 Hardin	47 KY	920	SALT RIVER RD	KY 220	KY 1375 (SALEM SCHOOL	514	2011	
047-KY-0920 -000	18.284	20.469	4 Hardin	47 KY	920	SALT RIVER RD	KY 1375 (SALEM SCH	MEADE COUNTY LINE	915	2010	
047-KY-1135 -000	0	4.035	4 Hardin	47 KY	1135	ROUNDTOP RD	KY 222	KY 61 (LINCOLN PARKWA	176	2013	
047-KY-1135 -000	4.035	5.047	4 Hardin	47 KY	1135	ROUNDTOP RD	KY 61 (LINCOLN PAR	KY 210	233	2011	
047-KY-1136 -000	0	2.768	4 Hardin	47 KY	1136	GILEAD CHURCH RD+NEW GLEND	US 31W	KY 1868	102	2012	
047-KY-1136 -000	2.768	3.942	4 Hardin	47 KY	1136	GILEAD CHURCH RD+NEW GLEND	KY 1868	KY 222 (IN GLENDALE)	811	2013	
047-KY-1136 -000	3.942	8.527	4 Hardin	47 KY	1136	GILEAD CHURCH RD+NEW GLEND	KY 222 (IN GLENDA	COLYERS LANE	1380	2011	
047-KY-1136 -000	8.527	10.197	4 Hardin	47 KY	1136	GILEAD CHURCH RD+NEW GLEND	COLYERS LANE	WEST KENTUCKY PARKW	3842	2012	
047-KY-1136 -000	10.197	10.655	4 Hardin	47 KY	1136	GILEAD CHURCH RD+NEW GLEND	WEST KENTUCKY PA	US 31 W	5180	2011	8.5
047-KY-1357 -000	0	3.375	4 Hardin	47 KY	1357	SAINT JOHN RD	KY 2213 (GRANDVIE	KY 920	254	2012	
047-KY-1357 -000	3.375	4.747	4 Hardin	47 KY	1357	SAINT JOHN RD	KY 920	HOWE VALLEY ROAD	481	2011	
047-KY-1357 -000	4.747	8.646	4 Hardin	47 KY	1357	SAINT JOHN RD	HOWE VALLEY ROAD	KY 1375	875	2013	
047-KY-1357 -000	8.646	12.874	4 Hardin	47 KY	1357	SAINT JOHN RD	KY 1375	THOMAS ROAD	1660	2012	
047-KY-1357 -000	12.874	14.614	4 Hardin	47 KY	1357	SAINT JOHN RD	THOMAS ROAD	KY 3005 (RING ROAD)	3260	2011	
047-KY-1357 -000	14.614	15.857	4 Hardin	47 KY	1357	SAINT JOHN RD	KY 3005 (RING ROAD	GATES ROAD	5460	2013	
047-KY-1357 -000	15.857	16.224	4 Hardin	47 KY	1357	SAINT JOHN RD	GATES ROAD	UNIVERSITY DRIVE	6710	2011	4.5
047-KY-1357 -000	16.224	16.329	4 Hardin	47 KY	1357	SAINT JOHN RD	UNIVERSITY DRIVE	US 31W BYPASS	6769	2012	4.5
047-KY-1357 -000	16.329	16.981	4 Hardin	47 KY	1357	SAINT JOHN RD	US 31W BYPASS	US 31W (WEST DIXIE AVE	9870	2013	3.3
047-KY-1375 -000	0	2.207	4 Hardin	47 KY	1375	S LONG GROVE RD+N LONG GROV	KY 84	WHITE MILLS-GLENDALE	284	2012	
047-KY-1375 -000	2.207	5.919	4 Hardin	47 KY	1375	S LONG GROVE RD+N LONG GROV	WHITE MILLS-GLEND	US 62	527	2013	
047-KY-1375 -000	5.919	8.339	4 Hardin	47 KY	1375	S LONG GROVE RD+N LONG GROV	US 62	FRANKLIN CROSSROADS F	230	2011	
047-KY-1375 -000	8.339	10.786	4 Hardin	47 KY	1375	S LONG GROVE RD+N LONG GROV	FRANKLIN CROSSROA	KY 86	361	2013	
047-KY-1375 -000	10.786	15.853	4 Hardin	47 KY	1375	S LONG GROVE RD+N LONG GROV	KY 86	KY 220 JUNCTION	606	2011	
047-KY-1375 -000	15.853	19.68	4 Hardin	47 KY	1375	S LONG GROVE RD+N LONG GROV	KY 220 DEPARTURE	KY 920	154	2012	
047-KY-1391 -000	0	0.778	4 Hardin	47 KY	1391	LONE STAR RD	HART COUNTY LINE	KY 224 (MILLERTOWN-UP	187	2012	
047-KY-1407 -000	0	2.047	4 Hardin	47 KY	1407	NOLIN RD	EAST EDGE OF RAILR	US 31W	288	2011	
047-KY-1500 -000	0	0.956	4 Hardin	47 KY	1500	KNOX AVE+E MAIN ST+RODGERS	RABBIT RUN ROAD	ORED HILL ROAD	2170	2011	8.8
047-KY-1500 -000	0.956	1.565	4 Hardin	47 KY	1500	KNOX AVE+E MAIN ST+RODGERS	KY 313	VINE GROVE URBAN BOU	4763	2012	
047-KY-1500 -000	1.565	1.891	4 Hardin	47 KY	1500	KNOX AVE+E MAIN ST+RODGERS	VINE GROVE URBAN	KY 144 JUNCTION (IN VIN	6000	2011	5.919
047-KY-1500 -000	1.891	2.164	4 Hardin	47 KY	1500	KNOX AVE+E MAIN ST+RODGERS	KY 144 DEPARTURE	CHERYL AVENUE	2448	2013	5.919
047-KY-1500 -000	2.164	5.197	4 Hardin	47 KY	1500	KNOX AVE+E MAIN ST+RODGERS	CHERYL AVENUE	SOUTH WILSON ROAD	4470	2010	3.246
047-KY-1500 -000	5.197	5.415	4 Hardin	47 KY	1500	KNOX AVE+E MAIN ST+RODGERS	SOUTH WILSON ROA	US 31 W	1664	2012	3.246
047-KY-1538 -000	0	1.806	4 Hardin	47 KY	1538	SAINT JOHN CHURCH RD	KY 1357	KRAFT ROAD	494	2010	
047-KY-1538 -000	1.806	3.804	4 Hardin	47 KY	1538	SAINT JOHN CHURCH RD	KRAFT ROAD	KY 1600	501	2012	
047-KY-1600 -000	0	3.083	4 Hardin	47 KY	1600	HWY 1600+RINEYVILLE RD	KY 361	KY 1538	6840	2013	4.745
047-KY-1600 -000	3.083	3.316	4 Hardin	47 KY	1600	HWY 1600+RINEYVILLE RD	KY 1538	KY 220 JUNCTION	8255	2012	4.745
047-KY-1600 -000	3.316	7.34	4 Hardin	47 KY	1600	HWY 1600+RINEYVILLE RD	KY 220 DEPARTURE	KY 1882/PICKERELL LANE	5880	2011	
047-KY-1600 -000	7.34	8.528	4 Hardin	47 KY	1600	HWY 1600+RINEYVILLE RD	KY 1882/PICKERELL	L K Y 920-MEADE COUNTY L	4210	2010	4.745
047-KY-1646 -000	0	1.017	4 Hardin	47 KY	1646	S LOGSDON PKWY+N LOGSDON P	KY 313 (JOE PRATHE	F PEARMAN PKWAY	2330	2013	6.581
047-KY-1646 -000	1.017	1.417	4 Hardin	47 KY	1646	S LOGSDON PKWY+N LOGSDON P	PEARMAN PKWAY	KY 144 (VINE STREET)	6198	2012	6.581
047-KY-1646 -000	1.417	3.63	4 Hardin	47 KY	1646	S LOGSDON PKWY+N LOGSDON P	KY 144 (VINE STREET	HILL STREET	6122	2013	6.581
047-KY-1646 -000	3.63	4.196	4 Hardin	47 KY	1646	S LOGSDON PKWY+N LOGSDON P	HILL STREET	END STATE MAINTENANC	4990	2011	3.2
047-KY-1815 -000	0	1.884	4 Hardin	47 KY	1815	WEST LINCOLN TRL BLVD	KY 313 (JOE PRATHE	F S WOODLAND DR/N WOC	8290	2010	3.5
047-KY-1815 -000	1.884	2.439	4 Hardin	47 KY	1815	WEST LINCOLN TRL BLVD	S WOODLAND DR/N	US 31W IN RADCLIFFE	12400	2011	3.5
047-KY-1823 -000	0	2.621	4 Hardin	47 KY	1823	WHITE MILLS-GLENDALE WEST	RE KY 84	KY 1375	114	2012	
047-KY-1866 -000	0	2.58	4 Hardin	47 KY	1866	COPELIN RD	KY 720	LAMBERT LANE	316	2013	
047-KY-1866 -000	2.58	4.838	4 Hardin	47 KY	1866	COPELIN RD	LAMBERT LANE	KY 84	461	2011	
047-KY-1868 -000	0	3.028	4 Hardin	47 KY	1868	NEW GLENDALE RD	KY 720	KY 84 JUNCTION	147	2012	
047-KY-1868 -000	3.028	6.606	4								

047-US-0031W -000	17.677	17.889	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 1357 (ST JOHNS R KY 1600 (CARDINAL DR-R	22114	2013	4.981
047-US-0031W -000	17.889	18.818	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 1600 (CARDINAL T US 31W BYPASS (ETOWN	24100	2011	4.981
047-US-0031W -000	18.818	19.478	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DI US 31W BYPASS (ETOKY 3005 (RING ROAD)	35465	2013	1.9
047-US-0031W -000	19.478	19.86	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 3005 (RING ROAD MAYS DRIVE	39345	2013	2.257
047-US-0031W -000	19.86	20.772	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DI MAYS DRIVE KY 447 (SOUTH WILSON F	36310	2013	2.257
047-US-0031W -000	20.772	23.967	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 447 (SOUTH WILS KY 434 (BATTLE TRAINING	24839	2012	7.83
047-US-0031W -000	23.967	24.408	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 434 (BATTLE TRAIIKY 313 (JOE PRATHER HIG	30747	2013	2.607
047-US-0031W -000	24.408	26.036	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 313 (JOE PRATHEFB LACK JACK ROAD	26294	2012	
047-US-0031W -000	26.036	27.167	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIBLACK JACK ROAD KY 144 (VINE GROVE RD)	29900	2011	2.607
047-US-0031W -000	27.167	27.732	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 144 (VINE GROVE KY 1815 (LINCOLN TRAIL I	30047	2013	3.498
047-US-0031W -000	27.732	28.438	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 1815 (LINCOLN TRHILL STREET	32747	2012	3.498
047-US-0031W -000	28.438	29.5	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIHILL STREET KNOX BOULEVARD	16304	2013	7.484
047-US-0031W -000	29.5	30.811	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKNOX BOULEVARD KY 1646 (BULLION BLVD)	16665	2013	3.9
047-US-0031W -000	30.811	31.88	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIKY 1646 (BULLION BLCHAFFEE AVENUE BRIDGI	12440	2013	3.9
047-US-0031W -000	31.88	33.243	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DICHAFFEE AVENUE BREXIT HARDIN CO-MEADE I	14700	2011	3.9
047-US-0031W -000	33.243	37.367	4 Hardin	47 US	31 W	S WALNUT ST+N WALNUT ST+S DIRE ENTER HARDIN CCJEFFERSON COUNTY LINE	19371	2012	8.668
047-US-0031W -070	0	0.141	4 Hardin	47 US	31 W	US 31W CONN to NORTH WILSON RD			
047-US-0031W -071	0	0.023	4 Hardin	47 US	31 W	US 31W CONN			
047-US-0031W -072	0	0.121	4 Hardin	47 US	31 W	US 31W CONN to NORTH WILSON RD			
047-US-0031W -321	0	0.216	4 Hardin	47 US	31 W	US 31W RAMP from CHAFFEE AVE			
047-US-0031W -341	0	0.191	4 Hardin	47 US	31 W	US 31W RAMP from CHAFFEE AVE			
047-US-0031WB-000	0	0.245	4 Hardin	47 US	31 WB	31W BYP KY 1136 (NEW GLENW WESTERN KENTUCKY PAR	6644	2012	11.3
047-US-0031WB-000	0.245	0.946	4 Hardin	47 US	31 WB	31W BYP WESTERN KENTUCKYUS 62 BRIDGE	25800	2011	11.3
047-US-0031WB-000	0.946	1.369	4 Hardin	47 US	31 WB	31W BYP US 62 BRIDGE COLLEGE ST/COLLEGE STF	19644	2012	11.3
047-US-0031WB-000	1.369	2.171	4 Hardin	47 US	31 WB	31W BYP COLLEGE ST/COLLEGIKY 1357	20722	2013	6.133
047-US-0031WB-000	2.171	3.758	4 Hardin	47 US	31 WB	31W BYP KY 1357 US 31W(NORTH)	15700	2011	6.133
047-US-0031WB-026	0	0.04	4 Hardin	47 US	31 WB	31W BYP Y			
047-US-0031WB-027	0	0.038	4 Hardin	47 US	31 WB	31W BYP Y			
047-US-0031WB-028	0	0.034	4 Hardin	47 US	31 WB	31W BYP Y			
047-US-0031WB-029	0	0.048	4 Hardin	47 US	31 WB	31W BYP Y			
047-US-0031WB-121	0	0.296	4 Hardin	47 US	31 WB	US 31WB RAMP from US 62	2462	2013	19.618
047-US-0031WB-123	0	0.28	4 Hardin	47 US	31 WB	US 31WB RAMP to US 62	1573	2013	5.902
047-US-0031WB-131	0	0.225	4 Hardin	47 US	31 WB	US 31WB RAMP to US 62	1287	2013	4.164
047-US-0031WB-133	0	0.228	4 Hardin	47 US	31 WB	US 31WB RAMP from US 62	1976	2013	21.718
047-US-0031WX-000	0	1.35	4 Hardin	47 US	31 WX	MAIN ST US 31W 13TH STREET	480	2012	
047-US-0031WX-000	1.35	1.988	4 Hardin	47 US	31 WX	MAIN ST 13TH STREET US 31W	1162	2013	
047-US-0062 -000	0	1.952	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER GRAYSON COUNTY LI ROCK CREEK ROAD	1650	2011	5.211
047-US-0062 -000	1.952	4.476	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER ROCK CREEK ROAD KY 84 (EASTVIEW-SONOR	2511	2012	
047-US-0062 -000	4.476	9.567	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER KY 84 (EASTVIEW-SO KY 1375 (STAR MILLS ROA	4333	2013	7.167
047-US-0062 -000	9.567	12.483	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER KY 1375 (STAR MILLS KY 86	6410	2011	7.167
047-US-0062 -000	12.483	14.58	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER KY 86 KY 3005 (RING ROAD WE	11868	2012	7.167
047-US-0062 -000	14.58	15.192	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER KY 3005 (RING ROAD KY 1904 (BACON CREEK R	12896	2013	11.921
047-US-0062 -000	15.192	16.233	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER KY 1904 (BACON CREGAITHER STATION ROAD	13664	2012	11.921
047-US-0062 -000	16.233	16.76	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER GAITHER STATION RCINDUSTRY DRIVE	19500	2011	11.6
047-US-0062 -000	16.76	17.418	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER INDUSTRY DRIVE US 31W BYPASS	17347	2013	
047-US-0062 -000	17.418	17.763	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER US 31W BYPASS COLLEGE STREET	13553	2013	11.6
047-US-0062 -000	17.763	17.965	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER COLLEGE STREET US 31W (DIXIE AVENUE)	9680	2012	11.6
047-US-0062 -000	17.965	18.178	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER US 31W (DIXIE AVEN ELIZABETH STREET	16100	2011	11.6
047-US-0062 -000	18.178	19.391	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER ELIZABETH STREET NORTH MAIN STREET	16300	2010	4.3
047-US-0062 -000	19.391	20.115	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER NORTH MAIN STREETI 65 BRIDGE	23255	2012	4.3
047-US-0062 -000	20.115	20.823	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER I 65 BRIDGE FOWLER LANE	9150	2011	6.5
047-US-0062 -000	20.823	21.006	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER FOWLER LANE TUNNEL HILL ROAD	7795	2012	8.744
047-US-0062 -000	21.006	26.896	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER TUNNEL HILL ROAD KY 583 (YOUNGERS CREEI	4240	2011	5.9
047-US-0062 -000	26.896	28.194	4 Hardin	47 US	62	LEITCHFIELD RD+SOUTH MULBER KY 583 (YOUNGERS C NELSON COUNTY LINE	1753	2012	5.9
047-WK-9001 -000	119.649	123.474	4 Hardin	47 WK	9001	WENDELL H FORD-WESTERN KEN GRAYSON COUNTY LI KY 84 U-PASS	12105	2013	25
047-WK-9001 -000	123.474	135.816	4 Hardin	47 WK	9001	WENDELL H FORD-WESTERN KEN KY 84 U-PASS US 31WB (ELIZABETH TOV	11919	2013	25
047-WK-9001 -000	135.816	136.545	4 Hardin	47 WK	9001	WENDELL H FORD-WESTERN KEN US 31WB (ELIZABETH I 65 BRIDGE	22242	2013	18.506
047-WK-9001 -000	136.545	136.796	4 Hardin	47 WK	9001	WENDELL H FORD-WESTERN KEN I 65 BRIDGE US 31W (MUNFORDVILLE	16663	2013	9.772
047-WK-9001 -111	0	0.324	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP to KY 84	480	2012	11.815
047-WK-9001 -121	0	0.25	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP from KY 84	582	2012	13.458
047-WK-9001 -131	0	0.236	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP to KY 84	606	2012	8.586
047-WK-9001 -141	0	0.322	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP from KY 84	575	2012	11.774
047-WK-9001 -211	0	0.445	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP to US 31WB			
047-WK-9001 -212	0	0.434	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP from US 31WB			
047-WK-9001 -231	0	0.368	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP to US 31WB			
047-WK-9001 -311	0	0.378	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP to KY 3005			
047-WK-9001 -321	0	0.507	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP from KY 3005			
047-WK-9001 -331	0	0.326	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP to KY 3005			
047-WK-9001 -341	0	0.569	4 Hardin	47 WK	9001	WENDELL H FORD WESTERN KENTUCKY PKWY RAMP from KY 3005			
082-CR-1023 -000	2.638	2.838	4 Meade	82 CR	1023	LONG BRANCH RD	85	2011	
082-CR-1300 -000	2.856	3.056	4 Meade	82 CR	1300	CROSIER BOTTOM RD	89	2011	
082-CR-1313 -000	3.454	3.654	4 Meade	82 CR	1313	LAPLAND RD	4	2011	
082-CR-1324 -000	0.349	0.487	4 Meade	82 CR	1324	WATSON RD	20	2011	
082-KY-0079 -000	0	3.86	4 Meade	82 KY	79	KY 79+BRANDENBURG BYP BRECKINRIDGE COUN KY 261 (SANDY HILL ROA	2980	2011	8.535
082-KY-0079 -000	3.86	5.834	4 Meade	82 KY	79	KY 79+BRANDENBURG BYP KY 261 (SANDY HILL F KY 144 WEST (PAYNEVILLE	3911	2012	8.535
082-KY-0079 -000	5.834	8.237	4 Meade	82 KY	79	KY 79+BRANDENBURG BYP KY 144 WEST (PAYNE KY 448 & KY 1051	4330	2013	8.535
082-KY-0079 -000	8.237	8.776	4 Meade	82 KY	79	KY 79+BRANDENBURG BYP KY 448 & KY 1051 KY 1692 (FAIRGROUNDS F	9260	2011	7.7
082-KY-0079 -000	8.776	9.516	4 Meade	82 KY	79	KY 79+BRANDENBURG BYP KY 1692 (FAIRGROUN KY 228	6266	2013	7.7
082-KY-0079 -000	9.516	9.912	4 Meade	82 KY	79	KY 79+BRANDENBURG BYP KY 228 S END OF MATTHEW WEL	4808	2012	11.417
082-KY-0144 -000	0	3.265	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I BRECKINRIDGE COUN KY 259	284	2012	
082-KY-0144 -000	3.265	7.479	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 259 KY 228 (WOLF CREEK ROA	564	2013	
082-KY-0144 -000	7.479	10.797	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 228 (WOLF CREEK KY 1844 (LIBERTY ROAD)	1350	2011	8.219
082-KY-0144 -000	10.797	12.944	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 1844 (LIBERTY RO KY 376 (AT PAYNEVILLE)	1916	2013	8.219
082-KY-0144 -000	12.944	16.73	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 376 (AT PAYNEVIL KY 1692 (FAIRGROUND R	2510	2011	8.219
082-KY-0144 -000	16.73	18.398	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 1692 (FAIRGROUN KY 79 JUNCTION	1122	2013	8.219
082-KY-0144 -000	18.398	20.945	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 79/KY 1239 DEPAI KY 2727 (HAYESVILLE-EKR	773	2011	5.636
082-KY-0144 -000	20.945	21.745	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 2727 (HAYESVILLE KY 710 (OLD STATE ROAD	1093	2012	5.636
082-KY-0144 -000	21.745	25.496	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 710 (OLD STATE R KY 448 (BRANDENBURG F	1617	2013	5.636
082-KY-0144 -000	25.496	28.745	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 448 (BRANDENBU US 60 JUNCTION	5903	2012	8.2
082-KY-0144 -000	28.745	29.928	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 313 DEPARTURE KY 1600	3226	2013	5.951
082-KY-0144 -000	30.114	31.167	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 1600 KY 313 JUNCTION	1746	2013	6.605
082-KY-0144 -000	31.167	31.858	4 Meade	82 KY	144	RHODELIA RD+PAYNEVILLE RD+S I KY 313 DEPARTURE HARDIN COUNTY LINE	1862	2013	4.951
082-KY-0228 -000	0	4.866	4 Meade	82 KY	228	WOLF CREEK RD+CEDAR FLAT RD+KY 144 (RHODELIA R (KNOB ROAD	486	2013	10.4
082-KY-0228 -000	4.866	11.109	4 Meade	82 KY	228	WOLF CREEK RD+CEDAR FLAT RD+KNOB ROAD KY 1047 (BIG BEND ROAD	131	2011	10.4
082-KY-0228 -000	11.109	15.713	4 Meade	82 KY	228	WOLF CREEK RD+CEDAR FLAT RD+KY 1047 (BIG BEND R KY 1844 (LIBERTY ROAD)	427	2012	10.4
082-KY-0228 -000	15.713	21.853	4 Meade	82 KY	228	WOLF CREEK RD+CEDAR FLAT RD+KY 1844 (LIBERTY RO KY 79 (BRANDENBURG BY	1092	2013	10.4
082-KY-0228 -000	21.853	23.542	4 Meade	82 KY	228	WOLF CREEK RD+CEDAR FLAT RD+KY 79 (BRANDENBURMONROE STREET	1030	2011	3.6
082-KY-0228 -000	23.542	23.812	4 Meade	82 KY	228	WOLF CREEK RD+CEDAR FLAT RD+MONROE STREET KY 448 (HIGH ST) IN BRAN	1463	2012	10.4
082-KY-0230 -000	0	4.747	4 Meade	82 KY	230	RIVER VIEW RD+CONCORDIA RD KY 144 KY 144	124	2011	
082-KY-0259 -000	0	1.026	4 Meade	82 KY	259	MOOLEVILLE RD CHENAULT SCHOOL F KY 144 (RHODELIA ROAD)	90	2012	6.5
082-KY-0261 -000	0	1.57	4 Meade	82 KY	261	SANDY HILL RD BRECKINRIDGE COUN KY 428(GUSTON ROAD)	662	2012	
082-KY-0261 -000	1.57	4.007	4 Meade	82 KY	261	SANDY HILL RD KY 428(GUSTON ROA KY 79 (IRVINGTON-BRANI	743	2011	
082-KY-0313 -000	0	0.626	4 Meade	82 KY	313	JOE PRATHER HWY HARDIN COUNTY LIN KY 1882/KY 144	6083	2013	
082-KY-0313 -000	0.626	3.219	4 Meade	82 KY	313	JOE PRATHER HWY KY 1882/KY 144 KY 1816	4310	2012	5.219
082-KY-0313 -000	3.219								

082-KY-0941 -000	0	2.865	4 Meade	82 KY	941	MILLER RD+STRINGTOWN RD	BRECKINRIDGE COUN	US 60 JUNCTION	340	2011	
082-KY-0941 -000	2.865	6.361	4 Meade	82 KY	941	MILLER RD+STRINGTOWN RD	US 60 DEPARTURE	KY 144 (HAYSVILLE ROAD)	517	2012	
082-KY-1047 -000	0	0.738	4 Meade	82 KY	1047	BIG BEND RD	KY 228 (WOLF CRK-B	PARADISE BOTTOM	156	2011	
082-KY-1047 -000	0.738	10.17	4 Meade	82 KY	1047	BIG BEND RD	PARADISE BOTTOM	KY 1047 SOUTH LEG (BIG	80	2012	
082-KY-1051 -000	0	0.944	4 Meade	82 KY	1051	BRANDENBURG BYP	KY 79/KY 448	KY 710 (OLD STATE ROAD)	12121	2013	7.864
082-KY-1051 -000	0.944	2.085	4 Meade	82 KY	1051	BRANDENBURG BYP	KY 710 (OLD STATE R	KY 448	13049	2012	7.864
082-KY-1158 -000	0	3.498	4 Meade	82 KY	1158	BEE KNOB HILL RD	KY 1600 NEAR FLAHE	KY 333 (BIG SPRING ROA	89	2013	
082-KY-1238 -000	0	5.889	4 Meade	82 KY	1238	STITH VALLEY RD+GARRETT RD	BRECKINRIDGE COUN	KY 656 (BLACK JACK ROA	184	2012	
082-KY-1238 -000	5.889	6.684	4 Meade	82 KY	1238	STITH VALLEY RD+GARRETT RD	KY 656 (BLACK JACK	I US 60 JUNCTION	582	2011	
082-KY-1238 -000	6.684	8.013	4 Meade	82 KY	1238	STITH VALLEY RD+GARRETT RD	US 60 DEPARTURE	KY 144 (AT GARRETT)	1040	2011	2.933
082-KY-1238 -000	8.013	12.352	4 Meade	82 KY	1238	STITH VALLEY RD+GARRETT RD	KY 144 (AT GARRETT)	KY 1638 (AT LICKSKILLET)	1404	2013	2.933
082-KY-1239 -000	0	4.768	4 Meade	82 KY	1239	N MIDWAY RD	KY 144 NEAR PAYNEV	KY 79/KY 144	608	2013	
082-KY-1500 -000	0	1.43	4 Meade	82 KY	1500	KNOX AVE	RABBIT RUN ROAD	O HARDIN COUNTY LINE	2170	2011	4.9
082-KY-1600 -000	0	1.705	4 Meade	82 KY	1600	RINEYVILLE RD+ST MARTIN RD	HARDIN COUNTY LIN	KY 144 WEST JUNCTION	2942	2013	
082-KY-1600 -000	1.705	2.279	4 Meade	82 KY	1600	RINEYVILLE RD+ST MARTIN RD	KY 144 EAST DEPART	KY 1158 (BEE KNOB HILL I	2400	2011	
082-KY-1600 -000	2.279	5.611	4 Meade	82 KY	1600	RINEYVILLE RD+ST MARTIN RD	KY 1158 (BEE KNOB	I KY 333 AT MAPLES CORNI	791	2012	
082-KY-1638 -000	0	5.103	4 Meade	82 KY	1638	OLD MILL RD	KY 448 (AT BRANDEN	KY 1238/DARNALL AVENL	7482	2013	5.731
082-KY-1638 -000	5.103	9.097	4 Meade	82 KY	1638	OLD MILL RD	KY 1238/DARNALL A\	US 31W & KY 868 (A	8870	2011	5.1
082-KY-1692 -000	0	3.018	4 Meade	82 KY	1692	FAIRGROUNDS RD+HILLCREST DR	KY 144 (PAYNEVILLE	I KY 79 (BRANDENBURG B\	2968	2013	
082-KY-1692 -000	3.018	4.313	4 Meade	82 KY	1692	FAIRGROUNDS RD+HILLCREST DR	KY 79 (BRANDENBUR	KY 448 IN BRANDENBURC	1890	2011	
082-KY-1726 -000	0	1.67	4 Meade	82 KY	1726	DOOLEY RD	KY 2727 (HAYSVILLE	I KY 79 (IRVINGTON-BRANI	113	2012	
082-KY-1735 -000	0	1.495	4 Meade	82 KY	1735	BALLMAN RD	KY 1238 (STITH VALLI	KY 333 (BIG SPRING ROA	256	2012	
082-KY-1736 -000	0	1.983	4 Meade	82 KY	1736	DOE RUN-EKRON RD	OLD EKRON ROAD	KY 448 (BRANDENBURG F	303	2012	
082-KY-1816 -000	0	3.714	4 Meade	82 KY	1816	RABBITT RUN RD	KY 144 AT FLAHERTY	KY 1882 (FORT AVENUE)	821	2011	
082-KY-1816 -000	3.714	4.848	4 Meade	82 KY	1816	RABBITT RUN RD	KY 1882 (FORT AVEN	END STATE MAINTENANC	864	2013	
082-KY-1844 -000	0	4.083	4 Meade	82 KY	1844	LIBERTY RD	KY 144 (RHODELIA R	KY 228 (BATTLETOWN RO	267	2013	
082-KY-1882 -000	0	0.201	4 Meade	82 KY	1882	HARGAN RD+FLAHERTY RD+FORT	KY 1600	KY 144 EAST JUNCTION	1810	2011	
082-KY-1882 -000	0.201	5.329	4 Meade	82 KY	1882	HARGAN RD+FLAHERTY RD+FORT	KY 144 WEST DEPART	US 60 (IRVINGTON-MULD	1590	2012	
082-KY-1919 -000	0	4.091	4 Meade	82 KY	1919	JARBOE-SINKS RD	KY 886 (POPHAM RO	KY 144 (RHODELIA ROAD)	103	2012	
082-KY-2204 -000	0	0.285	4 Meade	82 KY	2204	MAIN ST	KY 448 (BROADWAY I	END ST MAIN NEAR WAT	1269	2013	
082-KY-2726 -000	0	3.055	4 Meade	82 KY	2726	SHOT HUNT RD	KY 1816 (RABBIT RU	I US 60 (IRVINGTON-MULD	280	2011	
082-KY-2727 -000	0	2.322	4 Meade	82 KY	2727	HAYSVILLE - EKRON RD	KY 428 (GUSTON RO	KY 144 (HAYSVILLE ROAD)	335	2011	
082-KY-2731 -000	0	3.114	4 Meade	82 KY	2731	NEW HIGHLAND CHURCH RD	KY 144 (PAYNEVILLE	I KY 228 (BATTLETOWN RO	116	2012	
082-KY-2734 -000	0	2.373	4 Meade	82 KY	2734	NEW STATE RD	KY 823 (HARDESTY R	KY 376 (FRYMIRE-PAYNEV	83	2012	
082-KY-3139 -000	0	0.202	4 Meade	82 KY	3139	MAIN ST	KY 230 (RIVER VIEW	I END STATE MAINTENANC	82	2013	
082-US-0031W -000	0	0.38	4 Meade	82 US	31 W	DIXIE HWY	CHAFFEE AVENUE BR	US 60 (IRVINGTON-MULD	14700	2011	3.9
082-US-0031W -000	0.38	2.09	4 Meade	82 US	31 W	DIXIE HWY	US 60 (IRVINGTON-N	KY 1638 & KY 868	16393	2012	8.668
082-US-0031W -000	2.09	3.53	4 Meade	82 US	31 W	DIXIE HWY	RE ENTER HARDIN C	O HARDIN COUNTY LINE	19371	2012	8.668
082-US-0031W -111	0	0.101	4 Meade	82 US	31 W	US 31W RAMP to BRANDENBURG STATION RD					
082-US-0031W -121	0	0.153	4 Meade	82 US	31 W	US 31W RAMP from BRANDENBURG STATION RD					
082-US-0031W -141	0	0.115	4 Meade	82 US	31 W	US 31W RAMP from BRANDENBURG STATION RD					
082-US-0031W -142	0	0.121	4 Meade	82 US	31 W	US 31W RAMP to BRANDENBURG STATION RD					
082-US-0060 -000	0	2.577	4 Meade	82 US	60	OWENSBORO HWY+OWENSBORC	BRECKINRIDGE COUN	KY 941 (STRINGTOWN RO	4238	2013	13.143
082-US-0060 -000	2.577	7.95	4 Meade	82 US	60	OWENSBORO HWY+OWENSBORC	KY 941 (STRINGTOWI	KY 144 (FLAHERTY ROAD)	5570	2011	13.143
082-US-0060 -000	7.95	11.515	4 Meade	82 US	60	OWENSBORO HWY+OWENSBORC	KY 144 (FLAHERTY R	KY 1882/BASHAM CORNE	5633	2012	8.759
082-US-0060 -000	11.515	14.936	4 Meade	82 US	60	OWENSBORO HWY+OWENSBORC	KY 1882/BASHAM CC	US 31W (ELIZABETHTOWI	6822	2013	8.759
082-US-0060 -121	0	0.116	4 Meade	82 US	60	US 60 RAMP to PINWHEEL RD					
082-US-0060 -131	0	0.117	4 Meade	82 US	60	US 60 RAMP from PINWHEEL RD					

County_No	Route_Prefix	Route_No	Route_Suffix	Couplet_ID	BMP	EMP	Section_Length	F_System	Condition	Safety	Service	Composite	Percentile	IRI	VSF	CRF	Lane_Width	Access_Control	Median_Type	Median_Width
47	BG	9002		0	0	8.837	8.837	2	35	35	30	100	100	58	0.22	0.6090259	12	1	3	36
47	I	65		0	78.661	91.086	12.425	1	40	25	22.75	87.75	6.15	47	0.71	0.3924428	12	1	3	60
47	I	65		0	91.086	94.154	3.068	11	30	30	38	98	88.42	58	0.54	0.0745254	12	1	3	60
47	I	65		0	94.154	103.308	9.154	1	40	25	33.25	98.25	44.48	93	0.51	0.2834471	12	1	3	60
47	KY	61		0	0	4.263	4.263	6	30	45	23.5	98.5	100	47	0.22	0.1220465	12	2	3	52
47	KY	61		0	4.263	5.309	1.046	16	30	41	23.5	94.5	100	51	0.51	0.2600332	12	2	3	52
47	KY	84		0	4.185	18.595	14.41	7	22.5	35.4	15	72.9	25.24	131	0.07	0.741004	10	3	4	0
47	KY	84		0	18.595	25.754	7.159	7	22.5	33	15	70.5	20.53	139	0.05	0.7679208	8	3	4	0
47	KY	84		0	25.754	26.044	0.29	7	18	22	15	55	6.92	173	0.31	1.1458888	11	3	4	0
47	KY	86		0	0	16.145	16.145	6	30	31	20	81	43.32	96	0.21	0.3754738	9	3	4	0
47	KY	144		0	0	1.134	1.134	17	30	15	15	60	23.92	114	0.07	2.4836	9	3	4	0
47	KY	144		0	1.134	4.85	3.716	16	22.5	12	20	54.5	14.3	130	0.46	1.0102546	9	3	4	0
47	KY	210		0	0	0.751	0.751	17	30	34	15	79	77.17	101	0.24	0.3507301	10	3	4	0
47	KY	220		0	12.307	13.377	1.07	6	22.5	36.3	20	78.8	37.28	129	0.46	0.4480007	12	3	4	0
47	KY	220		0	13.377	16.831	3.454	7	24	41.5	15	80.5	52.68	129	0.34	0.4977452	12	3	4	0
47	KY	220		0	16.831	17.191	0.36	17	24	50	15	89	91.99	127	0.47	0.4977452	12	3	4	0
47	KY	224		0	0	5.921	5.921	7	18	38.5	15	71.5	22.18	162	0.12	0.2477295	9	3	4	0
47	KY	251		0	0	0.54	0.54	16	22.5	25.6	20	68.1	37.3	146	0.31	0.2640609	10	3	4	0
47	KY	251		0	0.54	0.993	0.453	16	30	40	19	89	71.82	98	0.66	0.171628	12	3	4	0
47	KY	251		0	0.993	1.189	0.196	16	30	40	20	90	89.89	108	0.34	0.2690666	12	3	4	0
47	KY	251		0	1.189	2.681	1.492	16	30	40	20	90	89.89	93	0.15	0.052854	12	3	4	0
47	KY	251		0	2.681	3.435	0.754	17	30	34	15	79	77.17	114	0.21	0.3871468	10	3	4	0
47	KY	251		0	3.435	6.288	2.853	7	30	43.4	15	88.4	88.34	98	0.38	0.16752	10	3	4	0
47	KY	251		0	6.288	7.981	1.693	7	30	33.4	15	78.4	41.97	99	0.11	0.16752	10	3	4	0
47	KY	313		0	0	1.237	1.237	2	35	35	28	98	78.65	90	0.12	0.2864861	12	2	2	31
47	KY	313		0	1.237	8.875	7.638	2	35	35	28	98	78.65	65	0.27	0.2320311	12	2	4	0
47	KY	313		0	8.875	9.581	0.706	14	22.5	30	31.8	84.3	58.08	101	0.49	0.2783678	12	2	4	0
47	KY	313		0	9.581	11.974	2.393	16	30	40.7	23.5	94.2	99.18	76	0.27	0.234267	12	2	3	26
47	KY	313		0	11.974	14.534	2.56	16	30	40.7	23.5	94.2	99.18	74	0.25	0.4977007	12	2	3	12
47	KY	313		0	14.534	15.238	0.704	6	30	37.5	23.5	91	70.09	100	0.28	0.1303699	12	2	4	0
47	KY	361		0	0	0.693	0.693	16	22.5	24	20	66.5	30.77	123	0.41	0.1303699	9	3	4	0
47	KY	361		0	0.693	0.877	0.184	16	22.5	40.7	20	83.2	67.74	123	0.18	0.1303699	12	3	3	30
47	KY	361		0	0.877	2.844	1.967	16	22.5	40.7	20	83.2	67.74	123	0.31	0.1303699	12	3	3	30
47	KY	361		0	2.844	8.082	5.238	6	30	39.5	20	89.5	65.46	100	0.23	0.1303699	12	3	3	26
47	KY	361		0	8.082	12.527	4.445	17	30	50	15	95	100	82	0.15	0.1303699	12	3	3	12
47	KY	391		0	0.648	2.872	2.224	17	22.5	15	15	52.5	16.12	131	0.12	0.9691197	8	3	4	0
47	KY	434		0	0	0.295	0.295	17	30	34	15	79	77.17	83	0.64	0.3985489	10	3	4	0
47	KY	447		0	0	2.116	2.116	17	24	34	15	73	66.08	123	0.16	0.7027795	10	3	4	0
47	KY	567		0	0	1.201	1.201	17	22.5	34	15	71.5	59.22	134	0.49	0.1456874	10	3	4	0
47	KY	1136		0	9.32	9.937	0.617	17	30	30	15	75	69.53	88	0.13	0.1456874	9	3	4	0
47	KY	1136		0	9.937	10.655	0.718	16	30	40	20	90	89.89	114	0.53	0.4577647	12	3	4	0
47	KY	1357		0	14.614	16.329	1.715	16	30	25.6	20	75.6	52.78	109	0.57	0.5894077	10	3	4	0
47	KY	1357		0	16.329	16.981	0.652	16	15	40	20	75	47.51	155	0.42	0.195068	12	3	4	0
47	KY	1500		0	0.956	1.891	0.935	17	24	34	15	73	66.08	126	0.3	0.3406799	10	3	4	0
47	KY	1500		0	1.891	2.168	0.277	17	18	34	15	67	40.58	174	0.09	0.3784185	10	3	4	0
47	KY	1500		0	2.168	5.197	3.029	17	30	34	15	79	77.17	103	0.36	0.3563235	10	3	4	0

County_No	Route_Prefix	Route_No	Route_Suffix	Couplet_ID	BMP	EMP	Section_Length	F_System	Condition	Safety	Service	Composite	Percentile	IRI	VSF	CRF	Lane_Width	Access_Control	Median_Type	Median_Width
47	KY	1500		0	5.197	5.415	0.218	17	18	34	15	67	40.58	164	0.27	1.4980086	10	3	4	0
47	KY	1600		0	0	3.316	3.316	6	22.5	27.5	20	70	17.79	121	0.35	0.6185597	9	3	4	0
47	KY	1600		0	3.316	8.528	5.212	6	30	34	20	84	54.74	106	0.28	0.6991538	10	3	4	0
47	KY	1646		0	0	1.017	1.017	16	30	40	20	90	89.89	96	0.09	0.6991538	12	3	4	0
47	KY	1646		0	1.017	3.63	2.613	16	30	40.7	20	90.7	92.26	104	0.28	0.7789778	11	3	3	25
47	KY	1646		0	3.63	4.196	0.566	16	22.5	40.7	20	83.2	67.74	147	0.19	0.3128399	11	3	3	25
47	KY	1815		0	0	1.884	1.884	16	30	40.7	20	90.7	92.26	90	0.31	0.6608592	11	3	3	35
47	KY	1815		0	1.884	2.439	0.555	16	30	40.7	16	86.7	69.19	106	0.75	0.808194	11	3	3	8
47	KY	3005		0	0	1.908	1.908	6	30	39.5	23.5	93	80.51	55	0.13	0.4941381	12	2	3	48
47	KY	3005		0	1.908	5.247	3.339	16	30	40	20	90	89.89	90	0.26	0.3254624	12	3	4	0
47	KY	3005		0	5.247	6.55	1.303	16	30	40	20	90	89.89	105	0.39	0.1326876	12	3	4	0
47	KY	3005		0	6.55	8.829	2.279	16	22.5	40	20	82.5	66.85	120	0.45	0.2230177	12	3	4	0
47	KY	3005		0	8.829	10.582	1.753	16	30	40	19	89	71.82	70	0.69	0.0530979	12	3	4	0
47	US	31 W		0	0	13.635	13.635	7	30	52	15	97	96.52	96	0.24	0.8162245	11	3	4	0
47	US	31 W		0	13.635	14.807	1.172	17	30	50	15	95	100	92	0.54	0.2392535	11	3	4	0
47	US	31 W		0	14.807	15.368	0.561	16	30	40	20	90	89.89	111	0.2	0.4538462	12	3	4	0
47	US	31 W		0	15.368	16.585	1.217	16	22.5	40	20	82.5	66.85	122	0.38	0.5923241	12	3	4	0
47	US	31 W		0	16.585	16.649	0.064	16	3	1.6	19	23.6	0.02	252	0.69	-1	10	3	4	0
47	US	31 W		0	16.649	16.943	0.294	16	22.5	25.6	20	68.1	37.3	128	0.53	0.74877	10	3	4	0
47	US	31 W		0	16.943	17.677	0.734	16	30	25.6	20	75.6	52.78	93	0.5	0.7813308	10	3	4	0
47	US	31 W		0	17.677	18.818	1.141	16	30	28.7	20	78.7	55.09	82	0.42	0.9279367	12	3	3	8
47	US	31 W		0	18.818	20.772	1.954	14	30	21.6	12.15	63.75	24.77	85	0.93	1.1101809	12	3	3	10
47	US	31 W		0	20.772	24.408	3.636	14	30	30.6	24.3	84.9	61.52	77	0.66	0.8357271	12	3	3	36
47	US	31 W		0	24.408	27.167	2.759	14	30	30.6	25.65	86.25	66.76	60	0.59	0.7082962	12	3	3	38
47	US	31 W		0	27.167	28.438	1.271	14	30	12	20.25	62.25	22.35	73	0.75	1.1684158	12	3	4	0
47	US	31 W		0	28.438	29.5	1.062	14	30	30	27	87	71.77	69	0.35	0.4543196	12	3	4	0
47	US	31 W		0	29.5	33.243	3.743	14	30	31	27	88	80.87	91	0.24	0.2369249	12	3	2	8
47	US	31 W		0	33.243	37.367	4.124	14	30	30	27	87	71.77	89	0.32	0.1644304	12	3	4	0
47	US	31 W		1	16.585	16.649	0.064	16	6	1.6	20	27.6	0.61	231	0.37	-1	10	3	4	0
47	US	31 WB		0	0	0.245	0.245	16	15	41	23.5	79.5	55.16	152	0.1	0.6615529	12	2	3	44
47	US	31 WB		0	0.245	1.369	1.124	14	30	31	30.45	91.45	84.25	83	0.57	0.1438856	12	2	2	44
47	US	31 WB		0	1.369	2.171	0.802	14	30	31	30.45	91.45	84.25	71	0.61	0.1795185	12	2	2	44
47	US	31 WB		0	2.171	3.758	1.587	14	30	31	11.55	72.55	34.35	52	1.04	0.1775048	12	2	2	44
47	US	62		0	0	9.567	9.567	7	30	40.9	15	85.9	79.17	109	0.26	0.5924385	10	3	4	0
47	US	62		0	9.567	10.969	1.402	7	30	41.9	15	86.9	83.97	85	0.35	0.2950304	10	3	4	0
47	US	62		0	10.969	12.483	1.514	7	30	55	15	100	100	66	0.25	0.2950304	12	3	3	36
47	US	62		0	12.483	14.58	2.097	6	30	45	20	95	97.35	65	0.22	0.1385866	12	3	3	36
47	US	62		0	14.58	15.192	0.612	16	30	40	20	90	89.89	82	0.2	0.3352588	12	3	4	0
47	US	62		0	15.192	17.429	2.237	16	30	40	20	90	89.89	78	0.26	0.2337371	12	3	4	0
47	US	62		0	17.429	17.965	0.536	16	30	40	20	90	89.89	112	0.34	0.1935891	12	3	4	0
47	US	62		0	17.965	18.874	0.909	16	22.5	40	20	82.5	66.85	132	0.36	0.4933606	12	3	4	0
47	US	62		0	18.874	19.391	0.517	16	30	40.7	20	90.7	92.26	66	0.33	0.4318574	12	3	3	37
47	US	62		0	19.391	19.551	0.16	16	30	40.7	16	86.7	69.19	58	0.78	0.2427396	12	3	3	37
47	US	62		0	19.551	20.115	0.564	16	30	40.7	20	90.7	92.26	102	0.46	0.3952024	12	3	3	37
47	US	62		0	20.115	20.547	0.432	17	30	35	15	80	79.3	96	0.22	0.9661092	12	3	3	26
47	US	62		0	20.547	21.105	0.558	17	30	19	15	64	33.38	87	0.29	0.8844162	10	3	4	0

County_No	Route_Prefix	Route_No	Route_Suffix	Couplet_ID	BMP	EMP	Section_Length	F_System	Condition	Safety	Service	Composite	Percentile	IRI	VSF	CRF	Lane_Width	Access_Control	Median_Type	Median_Width
47	US	62		0	21.105	28.194	7.089	7	30	36.9	15	81.9	67.28	79	0.3	0.404896	10	3	4	0
47	WK	9001		0	119.649	135.694	16.045	2	35	35	30	100	100	57	0.23	0.6815542	12	1	3	38
47	WK	9001		0	135.694	136.796	1.102	12	30	29	40	99	69.92	64	0.28	0.2471496	12	1	3	38
82	KY	79		0	0	8.237	8.237	6	0	29.8	20	49.8	3.35	720	0.29	0.3760902	9	3	4	0
82	KY	79		0	8.237	9.912	1.675	6	0	45	23.5	68.5	11.93	433	0.31	0.502828	12	2	4	0
82	KY	144		0	7.479	18.398	10.919	7	0	42.4	15	57.4	8.09	600	0.14	0.8761536	10	3	4	0
82	KY	144		0	18.398	25.496	7.098	7	30	39.5	15	84.5	74.66	104	0.1	0.311798	9	3	4	0
82	KY	144		0	25.496	28.745	3.249	6	30	32	20	82	48.2	82	0.31	0.7166819	10	3	4	0
82	KY	144		0	28.745	30.175	1.43	6	30	39.5	20	89.5	65.46	99	0.25	0.8823444	12	3	4	0
82	KY	144		0	30.175	31.167	0.992	7	30	41	15	86	80.37	91	0.14	0.9082496	12	3	4	0
82	KY	144		0	31.167	31.858	0.691	7	30	55	15	100	100	107	0.15	0.804627	12	3	4	0
82	KY	228		0	11.109	23.812	12.703	7	0	38.5	15	53.5	5.81	390	0.07	0.6531024	9	3	4	0
82	KY	313		0	0	3.219	3.219	6	30	39.5	20	89.5	65.46	50	0.31	0.6531024	12	3	4	0
82	KY	313		0	3.219	7.125	3.906	6	30	39.5	20	89.5	65.46	60	0.35	0.6531024	12	3	4	0
82	KY	376		0	0	4.677	4.677	7	0	39.5	15	54.5	6.73	498	0.07	0.4010441	9	3	4	0
82	KY	448		0	0	3.161	3.161	6	12	25.8	20	57.8	5.46	186	0.3	1.0011344	11	3	4	0
82	KY	448		0	3.161	4.499	1.338	6	0	39.5	18	57.5	5.32	416	0.63	0.354178	12	3	4	0
82	KY	448		0	4.499	6.309	1.81	7	9	42.4	15	66.4	14.09	223	0.38	0.7830184	10	3	4	0
82	KY	448		0	6.309	7.555	1.246	7	22.5	41	15	78.5	42.6	135	0.27	0.1546391	9	3	4	0
82	KY	710		0	7.066	8.243	1.177	7	18	38.5	15	71.5	22.18	167	0.18	0.1739127	9	3	4	0
82	KY	1051		0	0	2.085	2.085	6	6	45	22.5	73.5	22.41	234	0.57	0.8231926	12	2	4	0
82	KY	1238		0	6.684	12.352	5.668	7	15	34.5	15	64.5	12.13	210	0.1	0.707511	9	3	4	0
82	KY	1600		0	0	1.705	1.705	6	30	26.3	20	76.3	28.57	81	0.22	0.7048206	9	3	4	0
82	KY	1638		0	0	1.325	1.325	6	0	35	20	55	3.67	378	0.38	0.7321439	12	3	4	0
82	KY	1638		0	1.325	1.631	0.306	6	6	45	20	71	18.15	233	0.39	0.192831	12	3	3	16
82	KY	1638		0	1.631	9.097	7.466	6	0	45	20	65	9.06	476	0.41	0.3818237	12	3	4	0
82	US	31 W		0	0	0.38	0.38	14	30	30.6	27	87.6	78.03	66	0.36	0.497806	12	3	1	18
82	US	31 W		0	0.38	0.837	0.457	14	30	30	27	87	71.77	64	0.27	0.2185391	12	3	4	0
82	US	31 W		0	0.837	2.736	1.899	14	30	30	27	87	71.77	75	0.4	0.2036542	12	3	4	0
82	US	31 W		0	2.736	3.53	0.794	14	30	31	27	88	80.87	62	0.29	0.2036542	12	3	2	5
82	US	60		0	0	7.95	7.95	6	30	43	20	93	80.51	82	0.27	0.5961815	11	3	4	0
82	US	60		0	7.95	11.515	3.565	6	22.5	45	23.5	91	70.09	125	0.31	0.3937836	12	2	4	0
82	US	60		0	11.515	14.799	3.284	6	30	43	20	93	80.51	89	0.3	0.2376758	11	3	4	0
82	US	60		0	14.799	14.936	0.137	16	15	40	20	75	47.51	159	0.44	0.2376758	11	3	4	0

Shoulder_ Type	Shoulder_ Width_R	Peak_ Capacity	Speed_ Limit	Horz_ Align	Vert_ Align	Rse_ Unique	Critical_ Rate_ Factor	HIS_RSE_H E_ID	Ownership	Median_ Value_ Calc	Design_ Speed	HOR_ Exceptions	State_ Control_ Field	rt_ne_uni que	Actual Rate	Average Rate	Critical Rate
2	10	3403	70	1	1	047 BG-900	0.57	3306	1	2	70	2	047BG9002	047-BG-900	15.663303	15.747674	25.718617
2	10	3168	70	1	1	047 I-65	0.41	3312	1	1	70	10	047I0065	047-I-0065	12.673417	26.55487	32.293669
2	10	5811	70	0	0	047 I-65	0.08	3312	1	1	70	0	047I0065	047-I-0065	6.3549703	69.391922	85.272592
2	10	4981	70	1	1	047 I-65	0.28	3312	1	1	70	3	047I0065	047-I-0065	9.3081853	26.55487	32.839232
2	10	3476	55	1	1	047 KY-61	0.11	3359	1	1	70	0	047KY0061	047-KY-006	5.5594774	26.55487	45.552122
2	10	1429	55	0	0	047 KY-61	0.26	3359	1	1	70	0	047KY0061	047-KY-006	33.313504	69.391922	128.11252
4	1	1576	55	3	3	047 KY-84	0.72	3361	1	3	65	0	047KY0084	047-KY-008	85.199841	60.435014	114.97893
4	1	1834	35	3	3	047 KY-84	0.76	3361	1	3	60	0	047KY0084	047-KY-008	115.07204	60.435014	149.84884
4	1	1406	35	1	1	047 KY-84	1.19	3361	1	3	70	1	047KY0084	047-KY-008	0.9333081	0.1759208	0.814484
4	5	1408	35	2	3	047 KY-86	0.38	3366	1	3	70	1	047KY0086	047-KY-008	34.062479	60.435014	90.718665
4	3	1499	35	0	3	047 KY-144	1.03	3368	1	3	45	0	047KY0144	047-KY-014	519.00844	58.155849	208.97425
4	3	631	25	0	2	047 KY-144	0.93	3368	1	3	65	1	047KY0144	047-KY-014	104.37659	58.155849	103.31711
3	3	1554	45	0	2	047 KY-210	0.35	3370	1	3	70	0	047KY0210	047-KY-021	52.182863	58.155849	148.78355
3	3	2175	35	3	3	047 KY-220	0.46	3371	1	3	65	0	047KY0220	047-KY-022	56.798854	60.435014	126.78295
4	2	1383	55	4	0	047 KY-220	0.51	3371	1	3	70	0	047KY0220	047-KY-022	56.657424	60.435014	113.82817
5	7	400	55	0	0	047 KY-220	0.51	3371	1	3	70	0	047KY0220	047-KY-022	56.657424	60.435014	113.82817
4	2	1385	35	2	4	047 KY-224	0.25	3374	1	3	65	0	047KY0224	047-KY-022	32.700593	60.435014	132.00123
6	0	1419	35	0	0	047 KY-251	0.26	3377	1	3	60	1	047KY0251	047-KY-025	64.912571	109.57456	245.82421
6	0	809	35	0	0	047 KY-251	0.17	3377	1	3	70	0	047KY0251	047-KY-025	41.738861	109.57456	243.19376
6	0	1893	45	0	0	047 KY-251	0.27	3377	1	3	60	0	047KY0251	047-KY-025	0.1591153	0.2148192	0.5913601
6	0	2224	45	0	0	047 KY-251	0.06	3377	1	3	60	0	047KY0251	047-KY-025	10.747893	109.57456	203.35056
4	4	1569	45	0	4	047 KY-251	0.39	3377	1	3	45	0	047KY0251	047-KY-025	60.610328	58.155849	156.55646
4	4	1475	55	1	3	047 KY-251	0.17	3377	1	3	70	0	047KY0251	047-KY-025	19.129412	60.435014	114.19178
3	4	1424	55	4	1	047 KY-251	0.17	3377	1	3	70	0	047KY0251	047-KY-025	19.129412	60.435014	114.19178
2	10	3629	55	1	2	047 KY-313	0.37	3379	1	1	70	0	047KY0313	047-KY-031	21.681986	26.55487	75.682517
2	10	2613	55	1	2	047 KY-313	0.26	3379	1	3	70	0	047KY0313	047-KY-031	20.598614	60.435014	88.775243
4	10	658	55	0	3	047 KY-313	0.29	3379	1	3	70	0	047KY0313	047-KY-031	45.403416	58.155849	163.10584
2	8	2057	55	0	1	047 KY-313	0.49	3379	1	2	70	0	047KY0313	047-KY-031	26.475863	69.391922	113.01574
2	10	1738	55	0	1	047 KY-313	0.49	3379	1	2	70	0	047KY0313	047-KY-031	51.194861	58.155849	102.86274
2	5	2396	55	3	2	047 KY-313	0.14	3379	1	3	65	0	047KY0313	047-KY-031	21.325327	60.435014	163.57559
3	3	953	35	0	0	047 KY-361	0.14	9577940	1	3	55	0	047KY0361	047-KY-036	21.325327	60.435014	163.57559
6	0	2367	35	0	0	047 KY-361	0	9577940	1	2	60	0	047KY0361	047-KY-036	21.325327	60.435014	163.57559
2	10	1528	45	0	0	047 KY-361	0	9577940	1	2	60	0	047KY0361	047-KY-036	21.325327	60.435014	163.57559
4	10	1211	55	3	2	047 KY-361	0	9577940	1	2	65	0	047KY0361	047-KY-036	21.325327	60.435014	163.57559
4	10	1665	55	0	0	047 KY-361	0	9577940	1	2	60	0	047KY0361	047-KY-036	21.325327	60.435014	163.57559
3	3	664	25	0	0	047 KY-391	0.99	3384	1	3	45	0	047KY0391	047-KY-039	172.29248	58.155849	177.78246
5	7	634	55	0	2	047 KY-434	0.39	3385	1	3	65	0	047KY0434	047-KY-043	0.239759	0.1718755	0.6015799
3	3	1569	45	0	1	047 KY-447	0.72	3388	1	3	65	0	047KY0447	047-KY-044	87.268025	58.155849	124.17554
3	3	342	35	0	0	047 KY-567	0.13	3390	1	3	65	1	047KY0567	047-KY-056	24.379652	58.155849	167.34223
4	3	1499	55	0	0	047 KY-113	0.13	3395	1	3	70	0	047KY1136	047-KY-113	24.379652	58.155849	167.34223
2	8	504	35	0	2	047 KY-113	0.46	3395	1	3	55	0	047KY1136	047-KY-113	78.67582	58.155849	171.86955
3	4	575	45	0	0	047 KY-135	0.55	3396	1	3	55	0	047KY1357	047-KY-135	71.536871	58.155849	121.37077
6	0	1299	35	0	0	047 KY-135	0.2	3396	1	3	65	0	047KY1357	047-KY-135	42.573769	109.57456	218.25087
4	3	1070	35	0	0	047 KY-150	0	3401	1	3	65	0	047KY1500	047-KY-150	49.960581	58.155849	146.64962
4	5	1585	35	0	0	047 KY-150	0.45	3401	1	3	55	0	047KY1500	047-KY-150	0.36854	0.1613879	0.9738951
4	5	674	35	0	0	047 KY-150	0.45	3401	1	3	60	0	047KY1500	047-KY-150	39.977835	58.155849	112.19535

Shoulder_ Type	Shoulder_ Width_R	Peak_ Capacity	Speed_ Limit	Horz_ Align	Vert_ Align	Rse_ Unique	Critical_ Rate_ Factor	HIS_RSE_H E_ID	Ownership	Median_ Value_ Calc	Design_ Speed	HOR_ Exceptions	State_ Control_ Field	rt_ne_uni que	Actual Rate	Average Rate	Critical Rate
3	5	344	35	0	0	0 047 KY-150	0.45	3401	1	3	55	0	047KY1500	047-KY-150	1.5864077	0.1270119	1.059011
4	4	2240	35	3	3	047 KY-160	0.54	3405	1	3	65	0	047KY1600	047-KY-160	63.229665	60.435014	102.2208
4	4	2163	55	1	3	047 KY-160	0.7	3405	1	3	70	3	047KY1600	047-KY-160	68.726212	60.435014	98.299133
4	10	1514	35	0	0	047 KY-164	0.7	3407	1	3	55	0	047KY1646	047-KY-164	68.726212	60.435014	98.299133
4	8	1242	35	0	0	047 KY-164	0.54	3407	1	2	60	0	047KY1646	047-KY-164	95.969794	69.391922	123.19965
4	8	1440	45	0	0	047 KY-164	0.54	3407	1	2	70	0	047KY1646	047-KY-164	65.099932	69.391922	208.09345
4	10	1505	40	0	2	047 KY-181	0.66	3410	1	2	70	1	047KY1815	047-KY-181	82.148646	69.391922	124.30583
6	0	1003	40	0	2	047 KY-181	0.82	3410	1	2	60	0	047KY1815	047-KY-181	121.41981	69.391922	150.23596
2	10	913	55	3	2	047 KY-300	0.17	3426	1	1	65	0	047KY3005	047-KY-300	53.779592	26.55487	108.83515
6	0	3056	50	0	2	047 KY-300	0.32	3426	1	3	60	0	047KY3005	047-KY-300	48.156142	109.57456	147.96223
6	0	2775	35	0	2	047 KY-300	0.14	3426	1	3	60	0	047KY3005	047-KY-300	21.559901	109.57456	162.48623
6	0	2571	35	0	2	047 KY-300	0.22	3426	1	3	70	0	047KY3005	047-KY-300	33.037088	109.57456	148.13665
6	0	1528	50	0	2	047 KY-300	0.06	3426	1	3	70	0	047KY3005	047-KY-300	8.2683268	109.57456	155.71867
4	4	1511	35	2	2	047 US-31V	0.78	3429	1	3	70	0	047US0031	047-US-003	73.950227	60.435014	90.600353
4	4	774	45	0	1	047 US-31V	0.24	3429	1	3	70	1	047US0031	047-US-003	29.962193	58.155849	125.23198
2	8	2571	45	0	1	047 US-31V	0.45	3429	1	3	60	0	047US0031	047-US-003	104.85557	109.57456	231.03768
6	0	2440	25	0	0	047 US-31V	0.59	3429	1	3	65	0	047US0031	047-US-003	100.3703	109.57456	169.45166
6	0	2554	25	0	0	047 US-31V	-1	3429	1	3	40	0	047US0031	047-US-003	-1	-1	-1
6	0	1386	25	0	0	047 US-31V	0.69	3429	1	3	60	0	047US0031	047-US-003	0.5558804	0.3222069	0.7423913
6	0	1905	35	0	0	047 US-31V	0.78	3429	1	3	60	0	047US0031	047-US-003	145.22325	109.57456	185.86654
2	10	3115	35	0	0	047 US-31V	0.92	3429	1	2	60	3	047US0031	047-US-003	102.85105	69.391922	110.83844
2	10	2205	45	0	1	047 US-31V	1.01	3429	1	2	70	0	047US0031	047-US-003	104.66003	69.391922	94.272952
2	10	2324	55	0	2	047 US-31V	0.88	3429	1	2	70	1	047US0031	047-US-003	75.597041	69.391922	90.456607
2	10	2810	45	0	0	047 US-31V	0.74	3429	1	2	70	1	047US0031	047-US-003	65.731781	69.391922	92.802674
2	10	2408	45	0	0	047 US-31V	1.14	3429	1	3	70	0	047US0031	047-US-003	176.41496	109.57456	150.98645
6	0	2625	45	0	0	047 US-31V	0.33	3429	1	3	70	1	047US0031	047-US-003	79.114911	109.57456	174.13932
2	10	3542	45	0	0	047 US-31V	0.21	3429	1	1	70	0	047US0031	047-US-003	23.178483	69.391922	97.830513
2	10	3468	45	0	1	047 US-31V	0.16	3429	1	3	70	3	047US0031	047-US-003	22.850651	109.57456	138.96855
6	0	2591	25	0	0	047 US-31V	-1	3430	1	3	30	0	047US0031	047-US-003	-1	-1	-1
2	10	3755	55	0	1	047 US-31V	0.65	3451	1	1	55	0	047US0031	047-US-003	0.4227972	0.1699562	0.6390981
2	10	2552	55	0	1	047 US-31V	0.15	3451	1	1	70	1	047US0031	047-US-003	15.677323	69.391922	108.95683
2	10	1917	55	0	0	047 US-31V	0.15	3451	1	1	70	0	047US0031	047-US-003	21.980613	69.391922	122.44208
2	10	958	55	0	0	047 US-31V	0.18	3451	1	1	70	0	047US0031	047-US-003	19.46615	69.391922	109.66546
4	3	1462	45	2	3	047 US-62	0.57	3482	1	3	70	1	047US0062	047-US-006	56.600953	60.435014	95.538954
4	3	2261	55	1	1	047 US-62	0.3	3482	1	3	70	0	047US0062	047-US-006	37.227342	60.435014	126.18139
2	10	1818	55	1	1	047 US-62	0.3	3482	1	2	70	0	047US0062	047-US-006	37.227342	60.435014	126.18139
2	10	3552	55	1	1	047 US-62	0.14	3482	1	2	70	0	047US0062	047-US-006	7.5034332	26.55487	54.142557
6	0	3666	55	0	1	047 US-62	0.34	3482	1	3	70	0	047US0062	047-US-006	69.427313	109.57456	207.0857
6	0	3715	55	0	0	047 US-62	0.24	3482	1	3	70	0	047US0062	047-US-006	35.598535	109.57456	152.30162
6	0	1999	35	0	0	047 US-62	0.18	3482	1	3	70	0	047US0062	047-US-006	42.135321	109.57456	217.65338
6	0	2662	35	0	0	047 US-62	0.5	3482	1	3	70	0	047US0062	047-US-006	87.662111	109.57456	177.68364
2	10	2907	35	0	0	047 US-62	0.44	3482	1	2	60	0	047US0062	047-US-006	61.983445	69.391922	143.52758
2	10	1856	45	0	0	047 US-62	0.26	3482	1	2	60	0	047US0062	047-US-006	0.0702413	0.1109829	0.2893689
2	10	3115	45	0	0	047 US-62	0.43	3482	1	2	60	0	047US0062	047-US-006	49.816584	69.391922	126.05334
6	0	2391	45	0	0	047 US-62	0.98	3482	1	2	55	1	047US0062	047-US-006	174.34892	69.391922	180.46502
4	2	1554	45	0	0	047 US-62	0.91	3482	1	3	70	0	047US0062	047-US-006	136.92445	58.155849	154.81901

Shoulder_ Type	Shoulder_ Width_R	Peak_ Capacity	Speed_ Limit	Horz_ Align	Vert_ Align	Rse_ Unique	Critical_ Rate_ Factor	HIS_RSE_H E_ID	Ownership	Median_ Value_ Calc	Design_ Speed	HOR_ Exceptions	State_ Control_ Field	rt_ne_uni que	Actual Rate	Average Rate	Critical Rate
4	2	1435	45	3	3	047 US-62	0.41	3482	1	3	65	1	047US0062	047-US-006	39.935483	60.435014	98.63146
2	10	3321	70	1	1	047 WK-90	0.66	3484	1	2	70	4	047WK900	047-WK-90	15.700737	15.747674	23.036667
2	10	4062	55	0	0	047 WK-90	0.24	3484	1	2	70	0	047WK900	047-WK-90	12.538473	23.249542	50.732331
3	3	1434	35	2	3	082 KY-79	0.36	6365	1	3	70	1	082KY0079	082-KY-007	36.420706	60.435014	96.840355
4	10	1516	45	1	1	082 KY-79	0.5	6365	1	3	70	0	082KY0079	082-KY-007	53.701077	51.673533	106.79811
4	4	1550	35	2	2	082 KY-144	0.86	6368	1	3	70	0	082KY0144	082-KY-014	91.478926	60.435014	104.40969
3	3	1564	35	1	1	082 KY-144	0.31	6368	1	3	60	0	082KY0144	082-KY-014	40.206839	60.435014	128.95157
4	4	2098	35	2	3	082 KY-144	0.72	6368	1	3	70	0	082KY0144	082-KY-014	76.381517	60.435014	106.5766
4	6	1435	35	3	2	082 KY-144	0.9	6368	1	3	65	0	082KY0144	082-KY-014	141.78308	60.435014	160.68905
4	6	1417	35	1	2	082 KY-144	0.94	6368	1	3	70	0	082KY0144	082-KY-014	210.90637	60.435014	232.21191
3	10	1420	55	1	2	082 KY-144	0.35	6368	1	3	65	0	082KY0144	082-KY-014	212.93616	60.435014	264.63959
4	3	1606	25	2	2	082 KY-228	0.63	6369	1	3	65	1	082KY0228	082-KY-022	78.742428	60.435014	120.56673
4	10	1538	55	3	2	082 KY-313	0.63	9360253	1	3	65	0	082KY0313	082-KY-031	78.742428	60.435014	120.56673
4	10	2239	45	3	2	082 KY-313	0.63	9360253	1	3	65	0	082KY0313	082-KY-031	78.742428	60.435014	120.56673
3	2	1512	55	1	2	082 KY-376	0.39	6375	1	3	70	0	082KY0376	082-KY-037	66.491151	60.435014	165.79511
4	3	2073	55	3	3	082 KY-448	0.95	6377	1	3	70	1	082KY0448	082-KY-044	108.70979	60.435014	108.58661
2	10	1500	55	3	2	082 KY-448	0.36	6377	1	3	65	0	082KY0448	082-KY-044	33.495499	51.673533	94.572515
4	4	1448	25	2	2	082 KY-448	0.77	6377	1	3	60	1	082KY0448	082-KY-044	101.15349	60.435014	129.18406
4	4	1083	25	1	1	082 KY-448	0.14	6377	1	3	60	1	082KY0448	082-KY-044	27.836655	60.435014	180.01044
4	2	1424	35	2	0	082 KY-710	0.17	6383	1	3	65	0	082KY0710	082-KY-071	33.632706	60.435014	193.38849
2	10	1483	45	1	1	082 KY-105	0.81	6391	1	3	70	0	082KY1051	082-KY-105	72.221426	51.673533	87.73333
3	2	1618	35	3	0	082 KY-123	0.61	6395	1	3	65	0	082KY1238	082-KY-123	96.120768	60.435014	135.85764
4	2	1508	55	3	3	082 KY-160	0.57	6398	1	3	65	0	082KY1600	082-KY-160	109.23708	60.435014	154.98565
4	6	2218	55	4	2	082 KY-163	0.67	6399	1	3	65	1	082KY1638	082-KY-163	92.119651	60.435014	125.82178
4	6	2141	55	1	2	082 KY-163	0.18	6399	1	2	65	0	082KY1638	082-KY-163	39.888413	60.435014	206.8568
2	8	2369	55	1	2	082 KY-163	0.37	6399	1	3	70	1	082KY1638	082-KY-163	32.423219	60.435014	84.916716
2	10	2323	55	0	1	082 US-31V	0.5	6415	1	2	70	2	082US0031	082-US-003	81.832896	69.391922	164.38711
2	10	3743	55	0	1	082 US-31V	0.32	6415	1	3	70	1	082US0031	082-US-003	44.921688	109.57456	205.55446
2	6	2600	55	0	2	082 US-31V	0.21	6415	1	3	70	0	082US0031	082-US-003	31.47639	109.57456	154.55802
2	10	3770	55	0	1	082 US-31V	0.21	6415	1	1	70	0	082US0031	082-US-003	31.47639	109.57456	154.55802
4	4	2164	55	1	2	082 US-60	0.58	6422	1	3	70	2	082US0060	082-US-006	54.26739	60.435014	91.024955
2	10	2265	55	1	2	082 US-60	0.43	6422	1	3	70	0	082US0060	082-US-006	40.456227	60.435014	102.73721
4	4	2563	55	1	2	082 US-60	0.19	6422	1	3	70	0	082US0060	082-US-006	24.458079	60.435014	102.90523
4	4	861	55	0	4	082 US-60	0.19	6422	1	3	55	0	082US0060	082-US-006	24.458079	60.435014	102.90523

Appendix C
Socioeconomic Data
Title VI

Source: 2010 Census Data, SF-1	Hardin	Meade	Radcliff/ Elizabethtown MPO	KENTUCKY	UNITED STATES
Total Population	105,543	28,602	134,145	4,339,367	308,745,538
By Race					
White alone	84,971	26,427	111,398	3,809,537	223,553,265
% White Population	80.51%	92.40%	83.04%	87.79%	72.41%
Black or African American	12,275	948	13,223	337,520	38,929,319
% African American Pop.	11.63%	3.31%	9.86%	7.78%	12.61%
American Indian / Alaska Native	541	147	688	10,120	2,932,248
% American Indian / Alaska Native	0.51%	0.51%	0.51%	0.23%	0.95%
Asian	2,104	158	2,262	48,930	14,674,252
% Asian	1.99%	0.55%	1.69%	1.13%	4.75%
Native Hawaiian / other Pacific Islander	354	36	390	2,501	540,013
% Native Hawaiian / other Pacific Islander	0.34%	0.13%	0.29%	0.06%	0.17%
Some other race alone	1,553	177	1,730	55,551	19,107,368
% Some other race alone	1.47%	0.62%	1.29%	1.28%	6.19%
Two or more races	3,745	709	4,454	75,208	9,009,073
% Two or more races	3.55%	2.48%	3.32%	1.73%	2.92%
Persons of Hispanic or Latino origin	5,317	859	6,176	132,836	50,477,594
% Persons of Hispanic or Latino origin	5.04%	3.00%	4.60%	3.06%	16.35%
Total Minority Population	20,572	2,175	22,747	529,830	85,192,273
% Minority Population	19.49%	7.60%	16.96%	12.21%	27.59%
By Female					
Total Population age 16 Years +	81,189	21,635	102,824	3,432,660	242,933,996
Total Female age 16 Years +	41,030	10,854	51,884	1,762,140	124,278,833
% Female	50.54%	50.17%	50.46%	51.33%	51.16%
Limited English Proficiency: Speak English less than "well" for population 18 years + (Table P19)					
Total Population 18 Years and Over	77,619	21,078	98,697	3,261,942	217,428,980
% Speak English less than "Very Well"	1.50%	0.40%	0.95%	0.80%	4.50%

Source: 2010 Census Data, SF-1	Hardin	Meade	Radcliff/ Elizabethtown MPO	KENTUCKY	UNITED STATES
Total Population	105,543	28,602	134,145	4,339,367	308,745,538
Low Literacy: Less than 9th Grade Education for Population 25 Years + (Table P37)					
Total	68,878	18,760	87,638	2,922,675	206,597,203
% Less than 9th Grade Education	4.50%	5.30%	4.90%	7.20%	6.00%
Persons with Disabilities for Civilian Noninstitutionalized Population 18 Years + (Table P42)					
Total Population age 18 Years +	72,325	20,554	92,879	3,256,892	232,817,331
Total Disabilities for age 18 Years +	12,666	3,793	16,459	662,065	34,025,487
% with Disabilities	17.51%	18.45%	17.72%	20.33%	14.61%
Low-Income: Less than Poverty Level in 1999 for Population 18 Years + (Table P87)					
Total (18 Years +)	76,097	21,179	97,276	3,231,458	230,998,971
Income in 1999 Below Poverty Level (18 Years +)	8,831	3,275	12,106	544,331	31,587,028
% Income in 1999 Below Poverty Level	11.60%	15.46%	12.45%	16.84%	13.67%
Occupied Housing Units with No Vehicle					
Total Occupied Housing Units	39,426	10,282	49,708	1,690,132	115,241,776
Occupied Housing Units with No Vehicle	1,889	502	2,391	131,822	10,575,654
% Occupied Housing Units with No Vehicle	4.79%	4.88%	4.81%	7.80%	9.18%