

**I-66 CORRIDOR STUDY  
WESTERN KENTUCKY TO MISSOURI  
BALLARD / McCRACKEN COUNTY - ITEM # 1-23.00**

**APPENDIX 7 – LEVEL 2 SCREENING**

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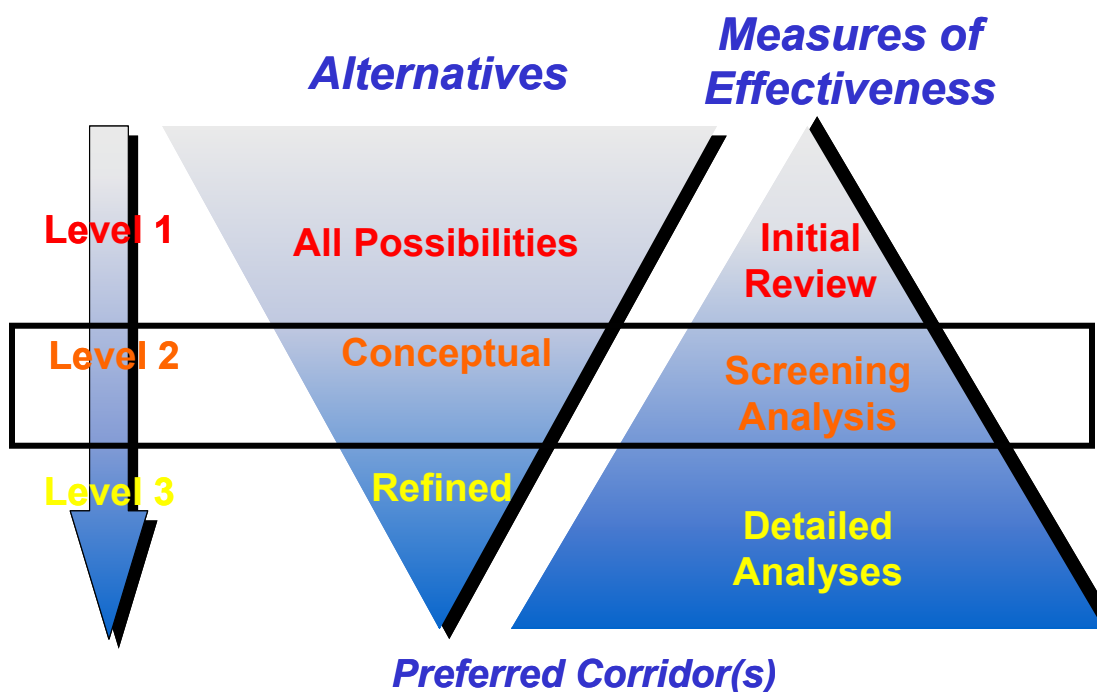
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## 1.0 INTRODUCTION

This working paper presents the Level 2 Evaluation methodology, screening analysis and summary for the I-66 Western Kentucky to Missouri Corridor Study. It is the second in a three-step alternative corridors evaluation and screening process analyzing possible corridors for a new interstate type facility connecting western Kentucky to Missouri. Figure 1.1 demonstrates graphically the scope and nature of the three levels of analysis and outlines the relationship of the Level 2 screening relative to the other levels of screening and analysis.

The first level presented the full range of alternatives and used primarily qualitative criteria to compare and screen the initial group of 22+ alternative corridors to a narrower set. In Level 2, additional and more complex data is being used to develop a more quantitative evaluation of the remaining alternative corridors. The result of this evaluation will be the advancement of the most promising alternatives for further study and refinement in the last level of analysis and screening, Level 3. The result of the Level 3 evaluation will be a preferred alternative corridor for I-66 in the western Kentucky region.

**Figure 1.1: Three-Level Evaluation Procedure**



The screening / evaluation process used for this project is being undertaken collaboratively by several key individuals who have worked on the project from the beginning. Those individuals include the Project Team who are representatives of the KYTC Central Office Planning staff, KYTC District 1 staff and the consultant team, the I-

66 Project Work Group, and the public who has attended the eight open-house workshops (4 each respectively in Missouri and Kentucky) to date. All input from these individuals, along with the objective screening results were put into the evaluation and analysis process.

## **2.0 LEVEL 1 SUMMARY**

The purpose of the Level 1 Screening was to review the alternative corridors developed to date and to perform an initial screening by applying a few comparative, qualitative measures to all alternative corridors. The goal of Level 1 Screening was to initially analyze and screen only the feasible alternative corridors that best met the project's goals, objectives and issues. Similarly, those alternatives that were not worthy of future study – those that did not meet the goals, objectives and identified issues or those that had consequences that were not commensurate with their benefits were not advanced to Level 2 Screening. The Level 1 screening produced alternatives that were recommended for further evaluation. Among them were: Alternative 5, 6 / 7 (combined corridor), Alternative 8, Alternative 9 / 10 (combined corridor), Alternative 11 / 12 / 13 / 14 / 15 / 21 (combined corridor), Alternative 19, and Alternative 20. Also, an Alternative 0 or No Build alternative was and will be part of the analysis as a base-line for comparison. These corridors were subsequently refined to accommodate a new interstate type facility and to minimize environmental and other impacts. These revised corridors are described in more detail below -

Corridor 0 (No Build) - This represents a “do nothing” option and includes those existing and committed projects that are being planned for the western Kentucky / southeastern Missouri regions respectively by the Kentucky Transportation Cabinet (KYTC) as identified in the current Six Year Plan and the Missouri Department of Transportation (MoDOT) as identified in the short range planning documents. The existing and committed projects include: US 60 improvements west to LaCenter, the Paducah Outer Loop project, and an assumed north – south I-69 project largely following existing routes. There are no major projects in Missouri impacting study area for this alternative.

Corridor 5 - From I-24 at Paducah generally following the existing US 60 corridor to Wickliffe, Kentucky over the Mississippi River on a new bridge through lowland/floodway in Missouri connecting to I-57 in Missouri north east of Charleston

Corridor 6 / 7 - From existing US 60 east of Kevil, Kentucky go southwest on a new corridor towards Wickliffe, Kentucky over the Mississippi River on a new bridge through lowland/floodway in Missouri connecting to I-57 in Missouri north east of Charleston

Corridor 8 - From I-24 at Paducah, generally following the existing US 60 corridor (similar to 5 above) to just south of Barlow, Kentucky; proceed northwest on new route across the wetland and floodplain area of the Barlow Flats over a new bridge across the Ohio River to I-57 in Illinois north of Cairo

Corridor 9 / 10 - From I-24 near Paducah, Kentucky follow new route southwesterly to Wickliffe, Kentucky (parallel to, but north of KY 286) across the Mississippi River on a new bridge at Wickliffe to I-57 north east of Charleston

Corridor 11 / 12 / 13 / 14 / 15 / and 21 - From I-24 south of Paducah follow new route southwest and largely parallel to existing KY 286 to Wickliffe, Kentucky then over the Mississippi River on a new bridge to I-57 north east of Charleston

Corridor 19 - From existing US 60 bridge across Tennessee River in Kentucky proceed south west across I-24 to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge in Carlisle County to I-57 north east of Charleston

Corridor 20 - Re-badge existing interstate I-24 in Kentucky as I-66. This corridor would also include constructing I-66 across southern Illinois along an unspecified route from a point along I-24 north of Metropolis connecting to the Bill Emerson Memorial Bridge at East Cape Girardeau, Illinois / Cape Girardeau, Missouri.

## 3.0 LEVEL 2 ALTERNATIVES ANALYSIS

### 3.1 Introduction

The Level 1 analysis examined the 22 initial alternative corridors and determined that eight (8) were not recommended for further study in Level 2 Screening. Those corridors include: 1, 2, 3, 4, 16, 17, 18, and 22. Similarly, fourteen (14) corridors, combined for analysis purposes into seven (7) corridors (described above), as well a No Build option were all recommended to be advanced to Level 2 Screening and are being studied in further detail. Those corridors that are being studied at this level include: Alternatives 0 (No Build) 5, 6 / 7 (combined corridor), 8, 9 / 10 (combined corridor), 11 / 12 / 13 / 14 / 15 / 21 (combined corridor), 19, and 20. In addition, through the course of screening and refining these alternatives, two (2) new additional corridor alternatives were developed. Those corridors included:

- Corridor 8A - US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan, plus additional improvements from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 southwest of Barlow, Kentucky to I-57 in Illinois.
- Corridor 8B - US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road from US 60 to a new bridge over the Mississippi River south of Wickliffe then to US 60 in Missouri to I-57.

### 3.2 Level 2 Evaluation Criteria

The analysis for this level is more expansive and quantitative than that which was conducted for Level 1, which was largely qualitative in nature. New subcategories were introduced in Level 2 to provide a more detailed comparison of the alternatives. The evaluation categories and subcategories for Level 2 include:

- **Traffic Operations** – general criteria to evaluate mobility and accessibility improvements including: level of service (LOS), improvements to travel time, number of users (volume / ADT), truck percentage(s), safety, security, etc., based on travel demand forecasting model runs and manual adjustments / interpolation. Measures were taken at four (4) screen line locations, which are common points in the study area used to calculate the various measures. The screen lines are generally described as: (1) Paducah, Kentucky (2) Western McCracken County, Kentucky, (3) Ballard County, Kentucky and (4) a Mississippi River crossing. Specific measures examined in this category for the future year 2030 included:

1. Average Daily Traffic (ADT) – How many vehicles per day will use the new highway corridor (estimates for 2003 – base year / No Build and future year of 2030)
2. Level of Service (LOS)
3. Travel Time / Travel Time Savings (note: travel time and travel time savings are derived for two trips (1) from I-24 to I-55 south – essentially from Paducah, Kentucky to Sikeston, Missouri and (2) from I-24 to I-55 north – essentially Paducah, Kentucky to Cape Girardeau, Missouri. Travel time savings are expressed as a comparison of each alternative corridor as compared to the No Build (Alternative 0)
4. Safety / Security

To facilitate the analysis, the Kentucky statewide I-66 model was used as the basis for coding and running the analysis of the corridors under evaluation for Level 2 screening.

- **Support** – likelihood that one or more alternatives will be supported / is supported by the local community, including citizens, political leaders, business / industry and other stakeholders, derived from all public comments, letters, emails, etc., to date. Also contains description of relevant criteria or issues to be scrutinized. Specific measures include:
  1. Corridor - Based on input from public meetings, project work group, and stakeholder meetings, what percentage of the community favors an alternative corridor
  2. Issues - Based on input from public meetings, project work groups, and stakeholder meetings, what community issues are addressed or will need to be addressed by the corridor and the analysis
- **Community Impacts** – compatibility with adjacent and proposed land uses and the affects and impacts on those land uses (separate impacts to type of property: farmland, commercial / business, parks / recreation, residential, etc., calculated by miles and acres of adjacent property. Also included was an environmental justice analysis. Specific impacts include those to:
  1. Farmland
  2. Kentucky Agricultural Districts
  3. State / Federal Forest – Parks / Recreation lands
  4. Urban areas
  5. Probable Environmental Justice Impacts

- **Property Impacts** – more specific impact determining need for new right-of-way quantified in acres
- **Environmental Impacts** – impacts on known historic and archeological sites / structures, acres of natural resource / wildlife areas, habitat areas, number of HAZMAT sites, number of stream crossings, floodplain / floodway impacts, and acres of wetlands. Specific measures include:
  1. Number of Listed National Historic Registry Sites
  2. Nature / Wildlife Preserves / Conservation Lands
  3. Number of Stream Crossings
  4. Bird's Point Floodway impacts
  5. Floodplain / Floodway (100 yr. / 500 yr.) – expressed in miles and acres
  6. Wetlands
- **Capital cost considerations** – order of magnitude capital costs for proposed alternative corridors derived on a cost build up basis from typical sections for roadway (at-grade and elevated) and bridge improvements, also includes typical costs for interchanges, and appropriate costs for engineering, contingencies, etc. Specific costs include:
  1. Roadway
  2. Bridge
  3. Right-of-way
  4. Engineering / Mobilization / Demobilization
  5. Total

Note that although seemingly detailed estimates of impacts and costs are provided, the analysis was NOT to an engineering level. Assumptions are for analysis purposes, and include a 180-foot wide typical section for current year 2003 cost estimating and a 600-foot section for right-of-way purposes calculated on an average cost per acre basis. For environmental analysis, a bandwidth of 2,000 feet around an imaginary centerline of the corridor was used for analysis purposes with all data assumed available from the project's mapping databases. Comparisons should only be made to other alternatives within the context of this study.

## 4.0 LEVEL 2 EVALUATION SUMMARY

The Level 2 evaluation assigned some qualitative ratings but mostly developed a numerical value or quantitative rating for each alternative in the respective evaluation category. Additional comments were also provided when appropriate. Quantitative values presented in the matrices are approximations or estimates based on general corridors located within the proposed corridors and based on working assumptions



explained in the sections above describing the measures. While the detail level used in this analysis is more than in the previous phase, it is still at a planning rather than engineering level of detail. The summary results of the Level 2 evaluation are presented below.

## **4.1 Alternative 0**

### Traffic Operations

Alternative 0 is the No Build alternative and is concerned with US 60 in McCracken, and Ballard counties. It consists of all projects that are “existing and committed” – those with funding in place for initial project phases at a minimum. Essentially, it involves widening US 60 from Paducah to just east of LaCenter, Kentucky. Within the analysis, this alternative has an ADT ranging from 45,000 near Paducah at screen line #1 to 10,000 in Ballard County at screen line #3. Screen lines 2 and 4 respectively have ADTs of 11,000 (W. McCracken County) and 11,500 (over the Mississippi River). In terms of truck traffic, Alternative 0 has truck traffic of 7 to 17%, which represents an ADT of 1,000 to 3,500 depending upon segment. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are crossing the Mississippi River. In terms of LOS, the segment with the highest ADT (the segment nearest Paducah) conversely has the lowest LOS of E (4-lanes). The LOS E continues along screen lines 3 and 4 respectively. The only improvement is at screen line 2 because the section is 4 lanes.

The travel time for the No Build serves as the baseline for comparison to other alternatives. For the two trips; Paducah to Sikeston and Paducah to Cape Girardeau, the travel times are 76 and 98 minutes respectively.

The No Build option will make some improvements to US 60; but only those programmed in the KYTC’s Six Year Plan. This will have some very tangible improvements in terms of safety and security, including the provision of an upgraded routes and improved / increased access to points west of Paducah. It does not however provide for a new bridge over the Mississippi River which would provide a great deal of redundancy in terms of connectivity (east – west connections) and access for the transportation system in western Kentucky / southeastern Missouri.

### Support

There is some minimal support for the No Build option in both Kentucky and Missouri. Most of those who are interested in the No Build option want more improvements than just those that are currently programmed. These same individuals also tend to be concerned with the anticipated impacts of the US 60 improvements on adjacent communities including nearby residences, businesses, farms, etc.

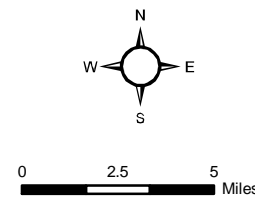
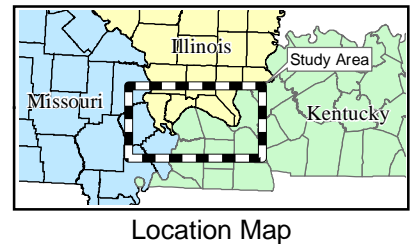
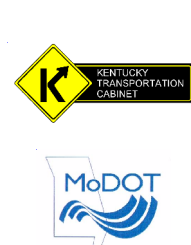
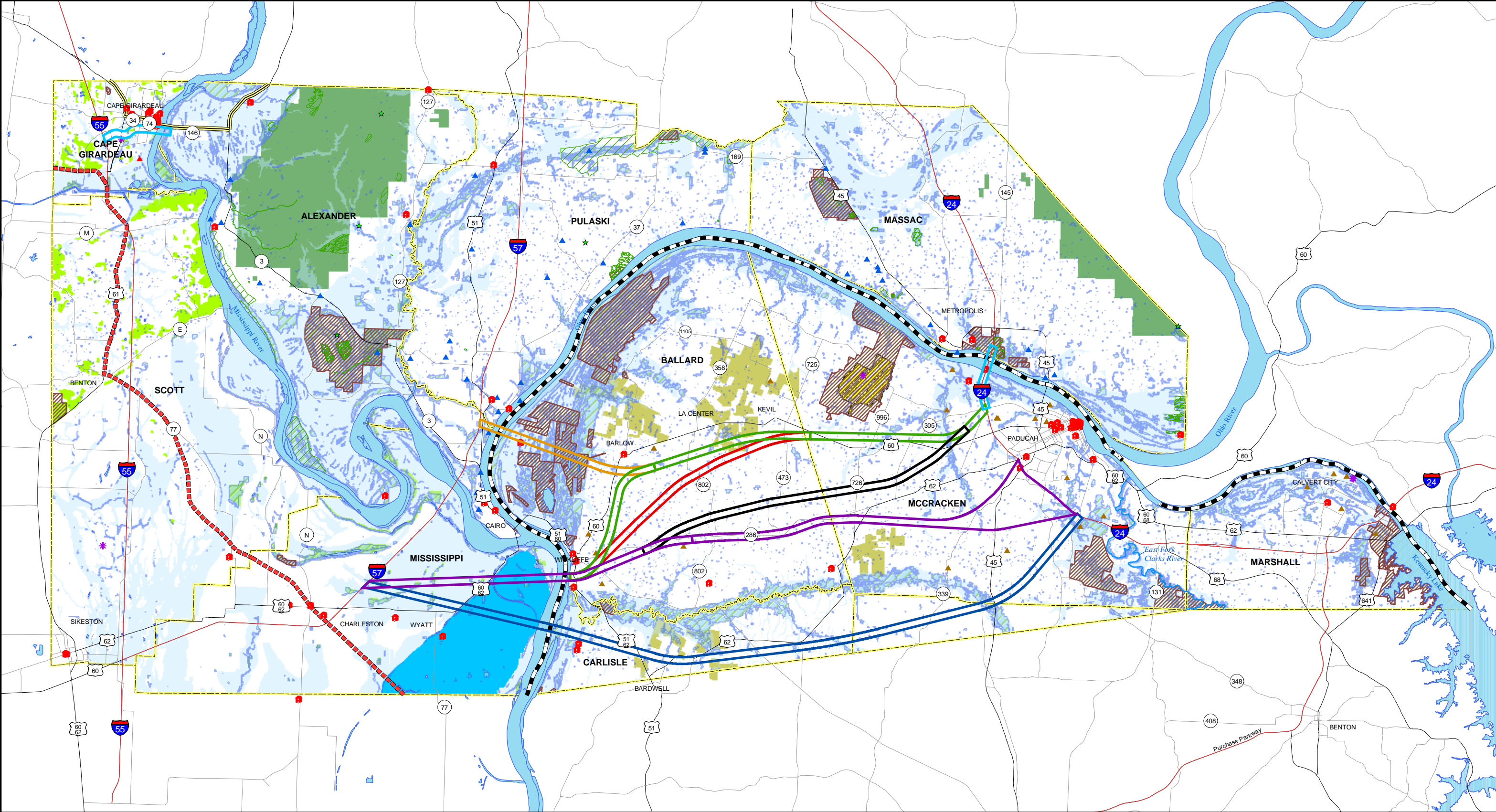
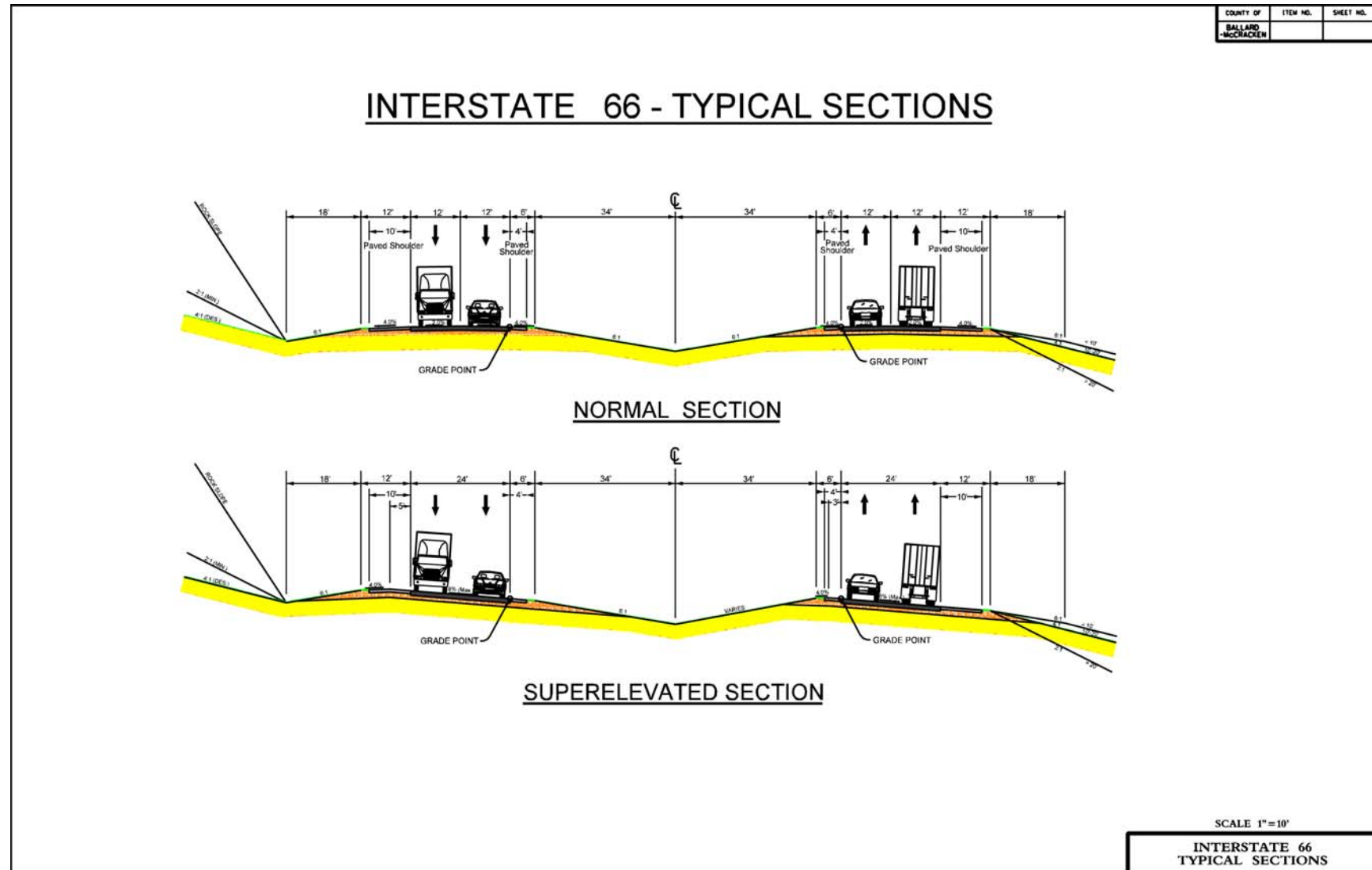


Figure 12  
**LEVEL 2  
ALTERNATIVES**  
I-66 CORRIDOR STUDY  
Western Kentucky to Missouri  
KYTC Item No. 1-23.00

**Figure 2.2 Preliminary Conceptual Alternatives - Typical Sections (assumed for planning purposes)**



### Community Impacts

Community impacts have been fully documented in previous studies. The no-build alternative for the I-66 project also does not recommend further improvements beyond those existing and committed, therefore no anticipated incremental impacts are anticipated. Also, there are no adverse potential environmental justice (EJ) issues.

### Property Impacts

Property impacts have been fully documented in previous studies. The no-build alternative also does not recommend further improvements beyond those existing and committed, therefore no new property impacts are anticipated.

### Environmental Impacts

Environmental impacts have been fully documented in previous studies. The no-build alternative also does not recommend further improvements beyond those existing and committed, therefore no environmental impacts are anticipated.

### Capital Costs

Capital costs have been fully documented in previous studies and are programmed in the KYTC's Six Year Plan. The current total for projects in the study area is \$26.3 million dollars. In Ballard / McCracken County, US 60 will be widened to 4-lanes from 1 mile east of Denis Jones Road to Bethel Church Road (includes Kevil Bypass). Total costs (design and right-of-way) are \$10.25 million. In Ballard County, US 60 will be widened to 4-lanes from proposed southern bypass of LaCenter to 1 mile east of Denis Jones Road. Total cost (design) is \$800,000. In McCracken County, the project includes upgrading US 60 to 4-lanes from Bethel Church Road to KY 1154. Total costs (Right-of-way, utilities and construction) are \$15.3 million.

## **4.2 Alternative 5**

### Traffic Operations

Alternative 5 is approximately 38.5 miles in length and is mainly concerned with US 60 in McCracken, and Ballard counties, although it makes upgrades beyond the No Build – Alternative 0, essentially upgrading US 60 to 4-lanes from Paducah to Wickliffe. Within the analysis, this alternative has an ADT ranging from 50,000 near Paducah at screen line #1 to 7,000 in Ballard County at screen line #4 over the Mississippi River. The count at the bridge is due to the fact that some north-south traffic continues to use the existing US 51 bridge to reach destinations beyond Cape Girardeau. This represents an increase over the No Build for all screen lines except the Mississippi River crossing location (screen line 4), which actually shows a decrease. Screen lines 2 and 3 respectively have ADTs of 11,500 (W. McCracken County) and 13,500 (Ballard County). In terms of truck traffic, Alternative 5 shows increased truck traffic from Alternative 0. Alternative 5 has truck traffic of 10 to 21%, which represents an ADT of 1,500 to 5,000 depending upon segment. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are at screen line 3 in Ballard County. In terms of LOS, the segment with the highest ADT, the segment nearest Paducah also



has the lowest LOS at D (4-lanes). All other sections show improvement to LOS A despite increased volumes (ADT).

The travel time for alternative 5 represents an improvement from the No Build. The travel time for the Paducah to Sikeston trip decreases by 13 minutes from 76 in the baseline to 63. Similarly, the travel time for the Paducah to Cape Girardeau trip also decreases by 9 minutes from the baseline going from 98 minutes to 89 minutes.

Alternative 5 goes beyond the programmed improvements of the No Build option and actually improves US 60 all the way from Paducah to Wickliffe. The alternative also includes a new bridge over the Mississippi River. This new facility would add to safety of the system and provide a redundant link from Kentucky to Missouri for security and other purposes. The bridge location is the least preferred by the Coast Guard as it adversely affects river traffic. Likewise, alternative 5 improves system connectivity and access.

#### Support

There is a minimal level of support for this alternative. Issues raised in regard to alternative 5 includes concerns over impacts to residences, businesses, farms, etc., that are parallel to existing US 60.

#### Community Impacts

In terms of community impacts, alternative 5 has impacts to farmlands, Kentucky agricultural districts, urban areas, and has property impacts and potential environmental justice (EJ) impacts. Farmland impacts are anticipated along 30 miles of adjacent roadway throughout the corridor. This translates to an impact area of approximately 9,506 acres. Similarly, the impacts to the agricultural districts in Kentucky are anticipated to be along 1.3 miles or 343 acres. There are no anticipated impacts to state / Federal forests, parks, and/or recreation land. Impacts to urban areas are anticipated along 2 miles and account for 288 acres. The probability that there are adverse and/or disproportional impacts to EJ communities (minorities, low income and/or elderly) along the corridor is rated medium because of low income and elderly residents near Barlow and La Center.

#### Property Impacts

Total property impacts are anticipated to be 2,800 acres. The needed right-of-way is a mixture of farmlands, agricultural district lands, urban areas and other land uses.

#### Environmental Impacts

The anticipated environmental impacts are to stream crossings, the Bird's Point Floodway, other floodplains and floodways (100 and 500 year) and to wetlands. There are 56 stream crossings throughout the corridor. There are also 3 miles of adjacent corridor impacts to the Bird's Point Floodway in Missouri. Specifically, this represents 723 acres. For floodplains, there are 12 miles of impacts to the 500 year floodplain and 0.2 miles of impacts to the 100 year flood plain. This translates to 2,944 and 35 acres respectively. Additionally, there are 1.7 miles of adjacent wetland impacts for a total of

466 acres. There are no anticipated impacts to listed National Historic Register (NHR) sites, nature preserves / conservation lands.

#### Capital Costs

The total capital costs for alternative 5 are \$536 million. \$272 million is for roadway construction, \$100 million for construction of a new bridge across the Mississippi River, \$89 million for right-of-way and utilities and \$75 million for contingencies, engineering, design and mobilization / demobilization of construction.

### **4.3 Alternative 6/7**

#### Traffic Operations

Alternative 6/7 is approximately 37.13 mile in length and is a new corridor from the Ballard / McCracken County line (it would use existing US 60 on the other segment). It has similar performance characteristics to alternative 5 described above. The analysis reveals that this alternative has an ADT ranging from 50,000 near Paducah at screen line #1 to 7,000 in Ballard County at screen line #4 over the Mississippi River. This represents an increase over the No Build for all screen lines except the Mississippi River crossing location (screen line 4), which actually shows a decrease. Screen lines 2 and 3 respectively have ADTs of 11,500 (W. McCracken County) and 14,000 (Ballard County). In terms of truck traffic, Alternative 6/7 shows increased truck traffic from Alternative 0. Alternative 6/7 has truck traffic of 11 to 21%, which represents an ADT of 1,500 to 5,500 depending upon segment. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are at screen line 3 in Ballard County. In terms of LOS, the segment with the highest ADT is that segment nearest Paducah. Conversely, this segment has the lowest LOS of D (4-lanes). All other sections show improvement to LOS A despite increased volumes (ADT). The travel time for alternative 6/7 represents an improvement from the No-Build (Alternative 0). The travel time for the Paducah to Sikeston trip decreases by 14 minutes from 76 in the baseline to 62. Similarly, the travel time for the Paducah to Cape Girardeau trip also decreases by 9 minutes from the baseline going from 98 minutes to 89 minutes. This represents similar travel times for alternative 5.

Alternative 6/7 provides a new interstate corridor and also includes a new bridge over the Mississippi River. These new facilities would add to safety of the system and provide a redundant link from Kentucky to Missouri for security and other purposes. The bridge location is the least preferred by the Coast Guard as it adversely affects river traffic. Alternative 6/7 also improves system connectivity and access.

#### Support

There is a minimal level of support for this alternative. Issues raised in regard to Alternative 6/7 include concerns with impacts to residences, businesses, farms, etc., that are parallel to existing US 60.

### Community Impacts

Community impacts for alternative 6/7 are similar in scope to those for Alternative 5. There are impacts to farmlands, Kentucky agricultural districts, urban areas, property impacts and potential EJ impacts. Farmland impacts are anticipated along 30 miles of adjacent roadway throughout the corridor. This translates to an impact area of approximately 8,671 acres. Similarly, the impacts to the agricultural districts in Kentucky are anticipated to be along 1.4 miles or 352 acres. There are no anticipated impacts to state / Federal forests, parks, and/or recreation lands. Impacts to urban areas are anticipated along 2 miles and account for 285 acres. The probability that there are adverse and/or disproportional impacts to EJ communities (minorities, low income and/or elderly) along the corridor is rated medium.

### Property Impacts

Total property impacts are anticipated to be 2,700 acres. The needed right-of-way is a mixture of farmlands, agricultural district lands, urban areas and other land uses.

### Environmental Impacts

The anticipated environmental impacts of Alternative 6/7 are to stream crossings, the Bird's Point Floodway, other floodplains and floodways (100 and 500 year) and to wetlands. There are 54 stream crossings throughout the corridor. There are also 3 miles of adjacent corridor impacts to the Bird's Point Floodway in Missouri. Specifically, this represents 723 acres. For floodplains, there are 12 miles of impacts to the 500 year floodplain and 0.2 miles of impacts to the 100 year flood plain. This translates to 2,944 and 35 acres respectively. Additionally, there are 1.8 miles of adjacent wetlands impacts for a total of 425 acres. There are no anticipated impacts to listed National Historic Register (NHR) sites, nature preserves / conservation lands.

### Capital Costs

The total capital costs for Alternative 6/7 are \$528 million. \$260 million is for roadway construction, \$106 million is for construction of a new bridge across the Mississippi River, \$88 million is for right-of-way and utilities and \$74 million is for contingencies, engineering, design, and mobilization / demobilization of construction.

## **4.4 Alternative 8**

### Traffic Operations

Alternative 8 is approximately 29.05 miles in length and is a new corridor roughly from KY 286 (connects to the corridor for Alternative 11/12/13/14/15 & 21) to I-57 in Illinois. It has similar performance characteristics in terms of traffic operations to Alternatives 5 and 6/7. The analysis for Alternative 8 reveals that this alternative has an ADT ranging from 50,000 near Paducah at screen line #1 to 10,000 at screen line #4 over the Ohio River. This represents an increase over the No Build for all screen lines except the river crossing location (screen line 4). Screen lines 2 and 3 respectively have ADTs of 13,000 (W. McCracken County) and 11,500 (Ballard County). In terms of truck traffic, Alternative 8 shows increased truck traffic from Alternative 0. Alternative 8 has truck

traffic of 10 to 24%, which represents an ADT of 1,500 to 5,000 depending upon segment. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are at screen line 3 in Ballard County. In terms of LOS, the segment with the highest ADT is that segment nearest Paducah. Conversely, this segment has the lowest LOS of D (4-lanes). All other sections show improvement to LOS A despite increased volumes (ADT).

The travel time for Alternative 8 represents an improvement from the No Build. The travel time for the Paducah to Sikeston trip decreases by 10 minutes from 76 in the baseline to 66. Similarly, the travel time for the Paducah to Cape Girardeau trip also decreases by 15 minutes from the baseline going from 98 minutes to 83 minutes.

Alternative 8 provides a new interstate connector from other options nearest KY 286 also includes a new bridge over the Ohio River. These new facilities would add to safety of the system and provide a redundant link from Kentucky to Illinois and into Missouri for security purposes. This bridge location is preferable in terms of the Coast Guard's analysis of affects on river traffic as it is across the Ohio River and does not impact river traffic as much as other proposed river crossing locations would. .

Likewise, Alternative 8 also improves system connectivity and access.

#### Support

There is some support for Alternative 8. Issues associated with this corridor include impacts to wetlands, floodplains, and potential wildlife refuge and habitat area impacts near Barlow, Kentucky.

#### Community Impacts

Community impacts for Alternative 8 are slightly smaller in scope than those for Alternative 5 or 6/7. There are impacts to farmlands, Kentucky agricultural districts, urban area, property impacts and potential EJ impacts. Farmland impacts are anticipated along 21 miles of adjacent roadway throughout the corridor. This translates to an impact area of approximately 7,222 acres. Similarly, the impacts to the agricultural districts in Kentucky are anticipated to be along 1.3 miles or 343 acres. There are no anticipated impacts to state / Federal forests, parks, and/or recreation land. Impacts to urban areas are anticipated along 1 mile of the corridor and account for 135 acres. The probability that there are adverse and/or disproportional impacts to EJ communities (minorities, low income and/or elderly) along the corridor is rated low. There could possibly be some positive EJ benefits to the Cairo, Illinois area because of the improved access offered by the community's proximity to the new bridge.

#### Property Impacts

Total property impacts are anticipated to be 2,113 acres. The needed right-of-way is a mixture of farmlands, agricultural district lands, urban areas and other land uses.



### Environmental Impacts

The anticipated environmental impacts of Alternative 8 are to a NHR site, nature / wildlife preserves and conservation lands, to stream crossings, other floodplains and floodways (100 and 500 year) and to wetlands. There is one anticipated impact to a NHR site – approximately a 4/10s of a mile segment of the Trail of Tears National Historic Trail. There are also 2 miles or 455 acres of impact to nature / wildlife preserves and conservation land in northwest Ballard County. In addition, there are 49 stream crossings throughout the corridor. For floodplains, there are 7 miles of impacts to the 500 year floodplain and 0.5 miles of impacts to the 100 year flood plain. This translates to 1,810 and 123 acres respectively. Additionally, there are 4 miles of wetland impacts for a total of 1,001 acres. There are no anticipated impacts to the Bird's Point Floodway.

### Capital Costs

The total capital costs for Alternative 8 are \$517 million. \$206 million is for roadway, construction, \$129 million for construction of a new bridge across the Ohio River, \$114 million for right-of-way and utilities and \$68 million for contingencies, engineering, design and mobilization / demobilization of construction.

## **4.5 Alternative 8A**

### Traffic Operations

Alternative 8A is roughly 29.05 miles in length and is a new connector from US 60 in Kentucky to I-57 in Illinois and includes a new bridge over the Ohio River. It has similar performance in terms of traffic operations to Alternative 8. The analysis for Alternative 8A reveals that this alternative has an ADT ranging from 51,500 near Paducah at screen line #1 to 7,000 at screen line #4 over the Ohio River. This represents an increase over the No Build for all screen lines except the river crossing location (screen line 4). Screen lines 2 and 3 respectively have ADTs of 14,000 (W. McCracken County) and 12,500 (Ballard County). In terms of truck traffic, Alternative 8A shows increased truck traffic from Alternative 0 at all locations except for the river crossing. Alternative 8A has truck traffic of 7 to 14%, which represents an ADT of 500 to 4,000 depending upon segment. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are at screen line 2 in western McCracken County. In terms of LOS, the screen line with the highest ADT has the worst level of service at LOS F – which is actually a decrease from the No Build because the facility has only two lanes in which to accommodate the increased traffic. Similarly, screen line # 2 also shows a decrease from LOS A in the No to B in the analysis. LOS at screen lines 3 and 4 are unchanged from the No Build.

The travel time for Alternative 8A represent slight improvements from the No Build. The travel time for the Paducah to Sikeston trip decreases by 2 minutes from 76 in the baseline to 74. Similarly, the travel time for the Paducah to Cape Girardeau trip decreases by 7 minutes from the baseline going from 98 minutes to 92 minutes.

Alternative 8A provides a new bridge connector from US 60 in Kentucky to I-57 in Illinois. These new facilities would add to safety of the system and provide a redundant river crossing link from Kentucky to Illinois and into Missouri for security purposes. This bridge location is preferable in terms of the Coast Guard's analysis of affects on river traffic. The location across the Ohio River would have minimum impacts on river traffic. Likewise, Alternative 8A also improves system connectivity and access.

#### Support

Support exists for continuing US 60 improvements and for upgrading the corridor. There is some support for a potential new bridge somewhere over the Ohio River northwest of Barlow, Kentucky. Issues of concern include impacts to areas adjacent to US 60 as well as wetland and wildlife habitat area impacts and concerns over the river crossing location near Barlow.

#### Community Impacts

Community impacts are documented in US 60 improvement projects. Additional impacts are anticipated west of LaCenter, Kentucky and at the location of the bridge crossing over the Ohio River. For analysis purposes, no other details are provided in this level of screening. However, impacts can be assumed to be similar to those of the No Build or Alternative 0.

#### Property Impacts

Property impacts are documented in US 60 improvement projects. Additional impacts are anticipated west of LaCenter, Kentucky and at the location of the bridge crossing over the Ohio River. For analysis purposes, no other details are provided in this level of screening. However, property impacts can be assumed to be similar to those of the No Build or Alternative 0.

#### Environmental Impacts

Environmental impacts are documented in US 60 improvement projects. Additional impacts are anticipated west of LaCenter, Kentucky and at the location of the bridge crossing over the Ohio River. For analysis purposes, no other details are provided in the level of screening. Environmental impacts can be assumed to be similar to those of the No Build or Alternative 0 for the roadway. There is anticipated to be considerable impacts to the wildlife management / recreation areas (including wetlands and waterfowl habitat areas) southwest of Barlow, Kentucky for the location of the river crossing / bridge.

#### Capital Costs

The total capital costs for Alternative 8A are assumed to be more than \$184 million. There are no additional costs assumed for roadway due to the fact that US 60 will be upgraded. Incremental costs for the roadway component from east of LaCenter, Kentucky to southwest of Barlow, Kentucky were not available for Level 2 evaluation. The costs of a new bridge over the Ohio River northwest of Barlow, Kentucky for this alternative are \$129 million. Costs for right-of-way and utilities are \$29 million, while

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Alt. / Corridor No.	Description	Traffic Operations*											
		Screen Line #1: Paducah			Screen Line #2: W. McCracken Co.			Screen Line #3: Ballard County			Screen Line #4: Mississippi River (Ohio River for 8 & 8A)		
		Average Daily Traffic	Average Daily Truck Traffic (%)	Level of Service	Average Daily Traffic	Average Daily Truck Traffic (%)	Level of Service	Average Daily Traffic	Average Daily Truck Traffic (%)	Level of Service	Average Daily Traffic	Average Daily Truck Traffic (%)	Level of Service
0	No Build or Do Nothing (serves as basis for comparison to other alternatives) - Includes projects currently programmed in the KYTC's Six Year Plan	45,000 (US 60)	3,500 (7%)	E (4 lanes)	11,000 (US 60)	1,500 (14%)	A (4 lanes)	10,000 (US 60)	1,000 (10%)	E (2 lanes)	11,500 (Bridge Over Ohio River)	2,000 (17%)	E (2 lanes)
5	From I-24 at Paducah generally follow the existing US 60 corridor to Wickliffe over the Miss. River on new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	50,000	5,000 (10%)	D	11,500	3,000 (26%)	A	13,500	2,500 (19%)	A	7,000	1,500 (21%)	A
6 / 7	From existing US 60 east of Kevil go southwest on a new alignment towards Wickliffe over the Miss. River on a new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	50,000	5,500 (11%)	D	11,500	3,000 (26%)	A	14,000	2,500 (18%)	A	7,000	1,500 (21%)	A
8	From I-24 at Paducah in/along existing KY 286, US 60 or US 62 corridors to a point east of Wickliffe, proceed north west on new route across the Ohio River on a new bridge to I-57 in Illinois	50,000	5,000 (10%)	D	13,000	3,000 (23%)	A	11,500	2,500 (24%)	A	10,000 (Bridge Over Ohio River)	1,500 (15%)	A
8A	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 to I-57 in Illinois.	51,500 (US 60)	4,000 (8%)	F (4 lanes)	14,000 (US 60)	2,000 (14%)	B (4 lanes)	12,500 (US 60)	1,500 (12%)	A (4 lanes)	7,000 (Bridge Over Ohio River)	500 (7%)	A (4 lanes)
8B	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Mississippi River south of Wickliffe US 60 to I-57 in Missouri.	44,500 (US 60)	3,500 (8%)	E (4 lanes)	7,000 (US 60)	1,500 (21%)	A (4 lanes)	6,000 (US 60)	500 (8%)	A (4 lanes)	5,500	500 (9%)	A (4 lanes)
9 / 10	From I-24 near Paducah, follow new route south westerly to Wickliffe (parallel to US 62/KY 286) across the Mississippi River on a new bridge to I-57	25,000	3,500 (14%)	B	15,500	3,000 (19%)	A	9,500	2,500 (26%)	A	7,000	1,500 (21%)	A
11 / 12 / 13 / 14 / 15 / 21	From I-24 south of Paducah follow new route southwest parallel to KY 286 to point south of Wickliffe over Mississippi River on new bridge to US 60 / US 62 to I-57	35,000	5,000 (14%)	C	19,000 - 30,000	3,500-4,500 (15-18%)	A-B	12,500	3,000 (24%)	A	7,500	1,500 (20%)	A
19	From I-24 near existing US 60 bridge across Tennessee River proceed south west to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge to US 60 / US 62 to Sikeston	16,000	3,500 (22%)	A	17,500	3,000 (17%)	A	10,500	2,000 (19%)	A	8,000	1,500 (19%)	A
20	Rebadge existing interstate I-24 as I-66 in KY and build connector in southern Illinois and rebadge I-55 or I-57 as I-66 in Missouri	15,500	1,500 (10%)	A	15,500	1,500 (10%)	A	16,000	1,500 (10%)	A	17,000	2,000 (12%)	A

\* Future Year = 2030    \*\*Based on Environmental Constraints Map    \*\*\*In Millions of 2003 Constant Dollars

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Western Kentucky to Missouri  
Level 2 Screening Summary

Alt. / Corridor No.	Description	Traffic Operations*			
		Travel Time in Minutes Paducah to Sikeston (Savings from No-Build)	Travel Time in Minutes Paducah to Cape Girardeau (Savings from No-Build)	Safety / Security	Connectivity / Access
0	No Build or Do Nothing (serves as basis for comparison to other alternatives) - Includes projects currently programmed in the KYTC's Six Year Plan	76	98	Improves US 60 in place improvements largely to safety, little for security	Keeps existing connectivity and access
5	From I-24 at Paducah generally follow the existing US 60 corridor to Wickliffe over the Miss. River on new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	63 (13)	89 (9)	Provides some level of improvement - New bridge over Mississippi River	Makes new system connections
6 / 7	From existing US 60 east of Kevil go southwest on a new alignment towards Wickliffe over the Miss. River on a new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	62 (14)	89 (9)	Provides some level of improvement - New bridge over Mississippi River	Makes new system connections
8	From I-24 at Paducah in/along existing KY 286, US 60 or US 62 corridors to a point east of Wickliffe, proceed north west on new route across the Ohio River on a new bridge to I-57 in Illinois	66 (10)	83 (15)	Provides some level of improvement - New bridge over Ohio River	Makes some new system connections
8A	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 to I-57 in Illinois.	74 (2)	91 (7)	Provides some level of improvement - New bridge over Ohio River	Keeps existing connectivity and access, provides for new river crossing
8B	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Mississippi River south of Wickliffe US 60 to I-57 in Missouri.	74 (2)	98 (0)	Provides some level of improvement - New bridge over Mississippi River	Keeps existing connectivity and access, provides for new river crossing
9 / 10	From I-24 near Paducah, follow new route south westerly to Wickliffe (parallel to US 62/KY 286) across the Mississippi River on a new bridge to I-57	61 (15)	87 (11)	Provides improvement - New bridge over Mississippi River	Makes new system connections
11 / 12 / 13 / 14 / 15 / 21	From I-24 south of Paducah follow new route southwest parallel to KY 286 to point south of Wickliffe over Mississippi River on new bridge to US 60 / US 62 to I-57	58 (18)	84 (14)	Provides improvement - New bridge over Mississippi River	Makes new system connections
19	From I-24 near existing US 60 bridge across Tennessee River proceed south west to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge to US 60 / US 62 to Sikeston	60 (16)	88 (10)	Provides improvement - New bridge over Mississippi River	Connects to planned regional industrial / development site
20	Rebadge existing interstate I-24 as I-66 in KY and build connector in southern Illinois and rebadge I-55 or I-57 as I-66 in Missouri	74 (2)	67 (31)	Provides improvement - New roadway connecting I-24 and I-55 / I-57	Good connections for southern Illinois, little benefit for KY

\* Future Year = 2030    \*\*Based on Environmental Constraints Map    \*\*\*In Millions of 2003 Constant Dollars

I-66 Corridor Study  
Western Kentucky to Missouri  
Level 2 Screening Summary

Alt. / Corridor No.	Description	Support		Community Impacts					
		Corridor	Issues	Farmland (miles/acres)	Kentucky Agriculture Districts (miles/acres)	State / Federal Forest - Parks / Recreation (miles/acres)	Urban (miles/acres)	Probable Environmental Justice Impacts	Property Impacts (in acres)
0	No Build or Do Nothing (serves as basis for comparison to other alternatives) - Includes projects currently programmed in the KYTC's Six Year Plan	There is minimal support for continuing with current plans. Especially noted are the plans to improve Hwy 60.	Impacts to adjacent development on US 60	Community impacts documented in US 60 improvement project - no additional impacts anticipated					
5	From I-24 at Paducah generally follow the existing US 60 corridor to Wickliffe over the Miss. River on new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	Minimal support for Alternative 5	Parallels US 60 corridor, some farm and / or residential impacts, least favorable river crossing location	30 mi/9,506 ac	1.3 mi/343 ac	None	2 mi/288 ac	Medium	2,800
6 / 7	From existing US 60 east of Kevil go southwest on a new alignment towards Wickliffe over the Miss. River on a new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	Minimal support for Alternative 6 / 7	Farm impacts, least favorable river crossing location	30 mi/8,671 ac	1.4 mi/352 ac	None	2 mi/285 ac	Medium	2,700
8	From I-24 at Paducah in/along existing KY 286, US 60 or US 62 corridors to a point east of Wickliffe, proceed north west on new route across the Ohio River on a new bridge to I-57 in Illinois	There has been no vocal support for Alternative 8 during public workshops	Wetland, floodplain and potential wildlife refuge impacts, preferred river crossing	21 mi/7,222 ac	1.3 mi/343 ac	None	1 mi/135 ac	Medium	2,113
8A	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 to I-57 in Illinois.	Support exists for US 60 improvements; however little support has been expressed for a new bridge southwest of Barlow, KY	Impacts to adjacent development on US 60 plus wetland, floodplain and potential wildlife refuge impacts at preferred river crossing	Community impacts documented in US 60 improvement project - additional impacts anticipated west of LaCenter					
8B	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Mississippi River south of Wickliffe US 60 to I-57 in Missouri.	Support exists for US 60 improvements and support has been expressed for a new bridge near Wickliffe, KY	Impacts to adjacent development on US 60 plus wetland and floodplain impacts at preferred river crossing	Community impacts documented in US 60 improvement project - additional impacts anticipated west of LaCenter and south of Wickliffe, impacts to farmland in Missouri					
9 / 10	From I-24 near Paducah, follow new route south westerly to Wickliffe (parallel to US 62/KY 286) across the Mississippi River on a new bridge to I-57	Support is somewhat strong for Alternative 9/10. It is equal to Alternative 11/12/13/14/15/21	Farmland impacts, uses least favorable river crossing	28 mi/8,618 ac	None	None	1 mi/264 ac	Low	2,643
11 / 12 / 13 / 14 / 15 / 21	From I-24 south of Paducah follow new route southwest parallel to KY 286 to point south of Wickliffe over Mississippi River on new bridge to US 60 / US 62 to I-57	Support is strong for Alternative 11/12/13/14/15/21. It is equal to Alternative 9/10	Farmland impacts, uses least favorable river crossing	29 mi/7,319 ac	1.7 mi/420 ac	None	0 mi/144 ac	Low	2,786
19	From I-24 near existing US 60 bridge across Tennessee River proceed south west to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge to US 60 / US 62 to Sikeston	There has been no vocal support for Alternative 19 during public	Large need for new right of way, closest to planned industrial park, impacts to flats area, preferred river crossing location	34 mi/10,134 ac	0.8 mi/269 ac	< 1 mi/8 ac	None	Low	3,049
20	Rebadge existing interstate I-24 as I-66 in KY and build connector in southern Illinois and rebadge I-55 or I-57 as I-66 in Missouri	There has been some level of support for Alternative 20, there has also been equal support against the alternative especially from residents of KY	In southern Illinois, little economic benefit for KY, impacts to Shawnee National Forest, use of newly built bridge	33 mi/7,957 ac	None	8 mi/1,964 ac	3 mi/469 ac	High	3,514

\* Future Year = 2030    \*\*Based on Environmental Constraints Map    \*\*\*In Millions of 2003 Constant Dollars

I-66 Corridor Study  
Western Kentucky to Missouri  
Level 2 Screening Summary

Alt. / Corridor No.	Description	Environmental Impacts**							Capital Costs***					Advance to Level 3 Screening?
		No. of Listed Natl. Historic Registry Sites	Nature / Wildlife Preserves / Conservation Lands (miles/acres)	No. of Stream Crossings	Birds Point - New Madrid Floodway (miles/acres)	Floodplain / Floodway (100 yr. / 500 yr.) ( in miles)	Floodplain / Floodway (100 yr. / 500 yr.) ( in acres)	Wetlands (miles/acres)	Roadway	Bridge	Right-of- Way / Utilities	Contingency / Engineering / Mobil. / Demobil.	Total	
0	No Build or Do Nothing (serves as basis for comparison to other alternatives) - Includes projects currently programmed in the KYTC's Six Year Plan	Community impacts documented in US 60 improvement project - no additional impacts anticipated							No incremental capital costs anticipated over those programmed in 6 Year Plan Total Costs in 6 Year Plan are \$26.3 million					Yes
5	From I-24 at Paducah generally follow the existing US 60 corridor to Wickliffe over the Miss. River on new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	None	None	56	3 miles/723 acres	12/0.2	2,944/35	1.7 mi/466 ac	\$272	\$100	\$89	\$75	\$536	No
6 / 7	From existing US 60 east of Kevil go southwest on a new alignment towards Wickliffe over the Miss. River on a new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	None	None	54	3 miles/723 acres	12/0.2	2,944/35	1.8 mi/425 ac	\$260	\$106	\$88	\$74	\$528	No
8	From I-24 at Paducah in/along existing KY 286, US 60 or US 62 corridors to a point east of Wickliffe, proceed north west on new route across the Ohio River on a new bridge to I-57 in Illinois	1 (0.4 miles of Trail of Tears NHT)	2 mi/455 ac	49	None	7/0.5	1,810/123	4.0 mi/1,001ac	\$206	\$129	\$114	\$68	\$517	No
8A	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 to I-57 in Illinois.	Environmental impacts documented in US 60 improvement project - additional impacts anticipated west of LaCenter and northwest of Barlow - impacts to Barlow Flats and adjacent wildlife management area in northeastern Ballard County, KY							\$0	\$129	\$29	\$26	\$184	No
8B	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Mississippi River south of Wickliffe US 60 to I-57 in Missouri.	Environmental impacts documented in US 60 improvement project - additional impacts anticipated south of Wickliffe and to Bird's Point floodway area in Missouri							\$0	\$140	\$41	\$28	\$209	Yes
9 / 10	From I-24 near Paducah, follow new route south westerly to Wickliffe (parallel to US 62/KY 286) across the Mississippi River on a new bridge to I-57	None	None	46	3 miles/723 acres	11.5/0.1	2,787/33	1.4 mi/357 ac	\$274	\$105	\$95	\$77	\$551	No
11 / 12 / 13 / 14 / 15 / 21	From I-24 south of Paducah follow new route southwest parallel to KY 286 to point south of Wickliffe over Mississippi River on new bridge to US 60 / US 62 to I-57	None	None	54	3 miles/723 acres	11.5/ < 1	2774/21	1.2 mi/312 ac	\$287	\$109	\$148	\$80	\$624	Yes
19	From I-24 near existing US 60 bridge across Tennessee River proceed south west to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge to US 60 / US 62 to Sikeston	1 (0.4 miles of Trail of Tears NHT)	< 1 mi/8 ac	77	4.5 miles/1,068 acres	13/0.2	3,179/54	1.6 mi/615 ac	\$317	\$140	\$163	\$93	\$713	No
20	Rebadge existing interstate I-24 as I-66 in KY and build connector in southern Illinois and rebadge I-55 or I-57 as I-66 in Missouri	1 (4.5 miles of Trail of Tears NHT)	None	41	None	8/1	1,991/300	1.9 mi/530 ac	\$340	\$0	\$127	\$69	\$536	Yes

\* Future Year = 2030 \*\*Based on Environmental Constraints Map \*\*\*In Millions of 2003 Constant Dollars

contingencies, engineering, design and mobilization / demobilization of construction are estimated at \$26 million.

## **4.6 Alternative 8B**

### Traffic Operations

Alternative 8B is approximately 38.5 miles in total length and is a new connector from US 60 to I-57 in Missouri and includes a new bridge over the Mississippi River. It has similar performance in terms of traffic operations to Alternatives 8 and 8A. The analysis for Alternative 8B reveals that this alternative has an ADT ranging from 44,500 near Paducah at screen line #1 to 5,500 at screen line #4 over the Mississippi River. This represents a decrease over the No Build for all screen lines with screen lines 2 and 3 respectively having ADTs of 7,000 (W. McCracken County) and 6,000 (Ballard County). In terms of truck traffic, Alternative 8B shows decreased truck traffic from Alternative 0 at screen lines 3 and 4. Counts for trucks at screen lines 1 and 2 are equal to the No Build. Alternative 8B has truck traffic of 8 to 21%, which represents an ADT of 500 to 3,500 depending upon segment. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are at screen line 2 in western McCracken County. In terms of LOS, the screen line with the highest ADT has the worst level of service at LOS E – which is the same as the No Build. LOS at screen lines 2, 3 and 4 are unchanged from the No Build.

The travel time for Alternative 8B represents very slight improvements from the No Build. The travel time for the Paducah to Sikeston trip decreases by 2 minutes from 76 in the baseline to 74 for 8B. The travel time for the Paducah to Cape Girardeau trip represents no change from the No Build and is also 98 minutes.

Alternative 8B provides a new bridge connector from US 60 in Kentucky to I-57 in Missouri. These new facilities would add to safety of the system and provide a redundant river crossing link from Kentucky directly to Missouri for security purposes. This bridge location is less preferable in terms of the Coast Guard's analysis of affects on river traffic. Likewise, Alternative 8B also improves system connectivity and access.

### Support

Support exists for continuing US 60 improvements and for upgrading the corridor. There is also potential support for a new bridge over the Mississippi River near Wickliffe, Kentucky. Issue of concern include impacts to areas adjacent to US 60 as well as wetland impacts and concerns over the river crossing location, especially impacts to river traffic and impacts to the Bird's Point floodway in Missouri.

### Community Impacts

Community impacts are documented in US 60 improvement projects. Additional impacts are anticipated west of LaCenter, Kentucky and at the location of the bridge crossing over the Mississippi River. For analysis purposes, no other details are

provided in this level of screening. However, impacts can be assumed to be similar to those of the No Build or Alternative 0.

#### Property Impacts

Property impacts are documented in US 60 improvement projects. Additional impacts are anticipated west of LaCenter, Kentucky and at the location of the bridge crossing over the Mississippi River. For analysis purposes, no other details are provided in this level of screening. However, property impacts can be assumed to be similar to those of the No Build or Alternative 0.

#### Environmental Impacts

Environmental impacts are documented in US 60 improvement projects. Additional impacts are anticipated west of LaCenter, Kentucky and at the location of the bridge crossing over the Mississippi River. For analysis purposes, no other details are provided in this level of screening. However, environmental impacts can be assumed to be similar to those of the No Build or Alternative 0. There is anticipated to be considerably impacts to the Bird's Point Floodway in Missouri, due west of Wickliffe, Kentucky.

#### Capital Costs

The total capital costs for Alternative 8A are assumed to be more than \$209 million. There are no additional costs assumed for the roadway due to the fact that US 60 will be upgraded. Incremental costs for the roadway component from east of LaCenter, Kentucky to Wickliffe, Kentucky were not available for Level 2 evaluation. The costs of a new bridge over the Mississippi River near Wickliffe, Kentucky are \$129 million. Costs for right-of-way and utilities are \$41 million, while contingencies, design, engineering and mobilization / demobilization of construction are estimated at \$28 million.

## **4.7 Alternative 9/10**

#### Traffic Operations

Alternative 9/10 is roughly 36.34 miles in length and is a new corridor from Paducah to Wickliffe with a new bridge over the Mississippi River connecting to I-57, in Missouri. It shows improvements in terms of operations over the No Build for all segments and screen lines above those observed for Alternatives 5, 6/7 and 8, 8A and 8B. The analysis for Alternative 9/10 reveals that this alternative has an ADT ranging from 25,000 near Paducah at screen line #1 to 7,000 at screen line #4 over the Mississippi River. This represents a decrease in volumes over the No Build for screen lines #1, 3 and 4 with an increase for screen line #2. Screen lines 2 and 3 respectively have ADTs of 15,500 (W. McCracken County) and 9,500 (Ballard County). In terms of truck traffic, Alternative 9/10 shows modest increases in truck traffic from the No Build (Alternative 0); depending upon location. Alternative 9/10 has truck traffic of 14 to 21%, which represents an ADT of 1,500 to 3,500 depending upon segment. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are



at screen line 3 in Ballard County. In terms of LOS, this alternative makes an improvement near Paducah at screen line 1 with LOS B. All other segments are also improved over the No Build but are similar in performance to those of Alternative 5, 6/7, and 8.

The travel time for Alternative 9 / 10 represents significant improvements from the No Build. The travel time for the Paducah to Sikeston trip decreases by 15 minutes from 76 in the baseline to 61. The travel time for the Paducah to Cape Girardeau trip represents a change of 11 minutes from 98 in the No Build to 87 for this alternative.

Alternative 9/10 provides a new bridge connector from Kentucky to I-57 in Missouri with a new interstate corridor. These new facilities would add significantly to safety of the system and provide a redundant river crossing link from Kentucky directly to Missouri for security purposes. This bridge location is less preferable in terms of the Coast Guard's analysis of affects on river traffic as it causes disruptions to river traffic below because of the location of the piers and the proximity of the structure to the confluence of the Ohio and Mississippi rivers. Likewise, this alternative also improves system connectivity and access.

#### Support

Support is somewhat strong for Alternative 9/10. It is equal to the support for Alternative 11/12/13/14/15/ & 21. Issues of concern include farmland impacts and river crossing location.

#### Community Impacts

Community impacts for Alternative 9/10 are similar in scope to those for similar alternatives, namely 6/7 and 11/12/13/14/15 & 21. There are impacts to farmlands, urban areas, property impacts and potential EJ impacts. Farmland impacts are anticipated along 28 miles of adjacent roadway throughout the corridor. This translates to an impact area of approximately 8,618 acres. There are no impacts to the agricultural districts in Kentucky. Likewise, there are no anticipated impacts to state / Federal forests, parks, and/or recreation land. Impacts to urban areas are low as they are along a 1-mile of the alternative corridor and account for 264 acres. The probability that there are adverse and/or disproportional impacts to EJ communities (minorities, low income and/or elderly) along the corridor is rated low.

#### Property Impacts

Total property impacts for right-of-way purposes are anticipated to be 2,643 acres. The needed right-of-way is a mixture of farmlands, urban areas and some other land uses.

#### Environmental Impacts

The anticipated environmental impacts of Alternative 9/10 are to stream crossings, the Bird's Point Floodway, other floodplains and floodways (100 and 500 year) and to wetlands. There are 46 stream crossings throughout the corridor. There are also 3 miles of adjacent corridor impacts to the Bird's Point Floodway in Missouri. Specifically, this represents 723 acres. For floodplains, there are 11.5 miles of impacts to the 500 year floodplain and 0.1 miles of impacts to the 100 year flood plain. This translates to

2,787 and 33 acres respectively. Additionally, there are 1.4 miles of adjacent wetlands impacts for a total of 357 acres. There are no anticipated impacts to listed National Historic Register (NHR) sites, nature preserves / conservation lands.

#### Capital Costs

The total capital costs for Alternative 9/10 are \$551 million. \$274 million is for roadway, construction, \$105 million for construction of a new bridge across the Mississippi River, \$95 million for right-of-way and utilities and \$77 million for contingencies, design, engineering and mobilization / demobilization of construction.

### **4.8 Alternative 11/12/13/14/15 and 21**

#### Traffic Operations

Alternative 11/12/13/14/15 and 21 is approximately 38.31 miles in length and is a new corridor from Paducah to Wickliffe, Kentucky with a connection to I-57 in Missouri. It shows improvements in terms of operations over the No Build for all segments and screen lines. The analysis for Alternative 11/12/13/14/15 and 21 reveals that this alternative has an ADT ranging from 35,000 near Paducah at screen line #1 to 7,500 at screen line #4 over the Mississippi River. This represents change from the No Build for all screen lines. Screen lines 1 and 4 decrease; while screen lines 2 and 3 respectively increase. ADTs are 35,000 at screen line #1, 19,000 to 30,000 at screen line #2, 12,500 at screen line #3 and 7,500 at screen line #4. Alternative 11/12/13/14/15 and 21 also shows modest increases in truck traffic from Alternative 0 at screen line locations 1, 2, and 3. Truck ADT is 5,000, 3,500 – 4,500, 3,000 and 7,500 at screen lines 1 to 4 respectively. This represents a truck traffic % of 14 to 24%. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are again at screen line 3 in Ballard County. In terms of LOS, this alternative makes an improvement near Paducah at screen line 1 with LOS C. All other segments are also improved over the No Build and are similar in performance to the others under consideration.

The travel time for Alternative 11/12/13/14/15&21 represent significant improvements from the No Build. The travel time for the Paducah to Sikeston trip decreases by 18 minutes from 76 in the baseline to 58. The travel time for the Paducah to Cape Girardeau trip also decreases by 14 minutes from 98 in the No Build to 84 for this alternative.

Alternative 11/12/13/14/15 & 21 provides a new bridge connector along the new interstate from Kentucky to I-57 in Missouri. These new facilities would add to safety of the system and provide a redundant river crossing link from KENTUCKY directly to Missouri for security purposes. This bridge location is less preferable in terms of the Coast Guard's analysis of affects on river traffic. This alternative would also improve system connectivity and access.

### Support

Support is strong for Alternative 11/12/13/14/15/ & 21. It is equal to the support for Alternative 9/10. The river crossing is of concern to the US Coast Guard as it causes disruptions to river traffic below because of the location of the piers and the proximity of the structure to the confluence of the Ohio and Mississippi rivers. The location would also impact the operation of the Bird's Point Floodway in Missouri. Issues of concern include farmland impacts and river crossing location.

### Community Impacts

Community impacts for Alternative 11/12/13/14/15 & 21 are similar in scope to those for similar alternatives, namely 6/7 and 9/10. There are impacts to farmlands, Kentucky Agricultural Districts, urban areas, property impacts and potential EJ impacts. Farmland impacts are anticipated along 29 miles of adjacent roadway throughout the corridor. This translates to an impact area of approximately 7,319 acres. There are also impacts to the agricultural districts in Kentucky. There is 1.7 mile of impacts adjacent to the corridor, which translates to 420 acres. There are no anticipated impacts to state / Federal forests, parks, and/or recreation land. Impacts to urban areas are low as they only account for 144 acres. The probability that there are adverse and/or disproportional impacts to EJ communities (minorities, low income and/or elderly) along the corridor is rated low.

### Property Impacts

Total property impacts for right-of-way purposes are anticipated to be 2,786 acres. The needed right-of-way is a mixture of farmlands, urban areas and some other land uses.

### Environmental Impacts

The anticipated environmental impacts of Alternative 11/12/13/14/15 & 21 are to stream crossings, the Bird's Point Floodway, other floodplains and floodways (100 and 500 year) and to wetlands. There are 54 stream crossings throughout the corridor. There are also 3 miles of adjacent corridor impacts to the Bird's Point Floodway in Missouri. Specifically, this represents 723 acres. For floodplains, there are 11.5 miles of impacts to the 500 year floodplain and less than 1 mile of impacts to the 100 year flood plain. This translates to 2,774 and 21 acres respectively. Additionally, there are 1.2 miles of adjacent wetlands impacts for a total of 312 acres. There are no anticipated impacts to listed National Historic Register (NHR) sites, nature preserves / conservation lands.

### Capital Costs

The total capital costs for Alternative 11/12/13/14/15 & 21 are \$624 million. \$287 million is for roadway construction, \$109 million for construction of a new bridge across the Mississippi River, \$148 million for right-of-way and utilities and \$80 million for contingencies, design, engineering and mobilization / demobilization of construction.

## 4.9 Alternative 19

### Traffic Operations

Alternative 19 is approximately 41.93-miles in length and is a new corridor from Paducah to Wickliffe, Kentucky and one to I-57 near Wyatt, Missouri. This corridor is well south of the others. It shows improvements in terms of operations over the No Build for all segments and screen lines. The analysis for Alternative 19 reveals that this alternative has an ADT ranging from 17,500 in Western McCracken County at screen line #2 to 8,000 at screen line #4 over the Mississippi River. This represents changes from the No Build for all screen lines. Screen lines 1 and 4 decrease; with the volumes at Paducah decreasing considerably while the counts at screen line 4 decrease more modestly. Counts at screen lines 2 and 3 respectively increase; although very modestly at screen line #3. ADTs are 16,000 at screen line #1, 17,500 at screen line #2, 10,500 at screen line #3 and 8,000 at screen line #4. Alternative 19 also shows modest increases in truck traffic from Alternative 0 at screen line locations 2, and 3. Truck ADT is 3,500, 3,000, 2,000 and 1,500 at screen lines 1 to 4 respectively. This represents a truck traffic % of 17 to 22%. The most trucks in terms of number are nearest Paducah while the most trucks in terms of percentages are also at Paducah near screen line #1. In terms of LOS, this alternative makes an improvement near Paducah at screen line 1 with LOS A. All other segments are also improved to A over the No Build and are similar in performance to the others under consideration.

The travel time for Alternative 19 represents improvements from the No Build. The travel time for the Paducah to Sikeston trip decreases by 16 minutes from 76 in the baseline to 60. The travel time for the Paducah to Cape Girardeau trip represents travel time savings of ten minutes from 98 in the No Build to 88 for this alternative.

Alternative 19 provides a new bridge connector from the new interstate facility in Kentucky to I-57 in Missouri. These new facilities would add to safety of the system and provide a redundant river crossing link from Kentucky directly to Missouri for security purposes. This bridge location is preferable in terms of the Coast Guard's analysis of affects on river traffic. Likewise, Alternative 19 also improves system connectivity and access, especially to the planned industrial park in Graves County.

### Support

There is modest geographical support for Alternative 19. Issues associated with this corridor include impacts to wetlands and floodplains. The bridge crossing location is preferred by the US Coast Guard, as it would not affect Mississippi River traffic.

### Community Impacts

Community impacts for Alternative 19 are slightly more in scope than others that involve a Mississippi River crossing. There are impacts to farmlands, Kentucky agricultural districts, State / Federal / Forests – Parks and Recreation lands, property impacts and potential EJ impacts. Farmland impacts are anticipated along 34 miles of adjacent

roadway throughout the corridor. This translates to an impact area of approximately 10,134 acres. This is the largest impact in this category. Similarly, the impacts to the agricultural districts in Kentucky are anticipated to be along 0.8 miles and account for 269 acres. There are also anticipated impacts to state / Federal forests, parks, and/or recreation land. Impacts in the category are slight however as they account for less than 1 mile and only 8 acres. There are no impacts to urban areas anticipated along the corridor. The probability that there are adverse and/or disproportional impacts to EJ communities (minorities, low income and/or elderly) along the corridor is rated low.

#### Property Impacts

Total property impacts are anticipated to be 3,049 acres for right-of-way purposes. The needed right-of-way is a mixture of farmlands, agricultural district lands, and other land uses.

#### Environmental Impacts

The anticipated environmental impacts of Alternative 19 are to a NHR site, nature / wildlife preserves and conservation lands, to stream crossings, other floodplains and floodways (100 and 500 year) and to wetlands. There is one anticipated impact to a National Historic Register (NHR) site – approximately a 4/10s of a mile segment of the Trail of Tears National Historic Trail. There is also less than 1 mile or approximately 8 acres of impacts to nature / wildlife preserves and conservation lands. In addition, there are 77 stream crossings throughout the corridor – the highest number in this evaluation category. There are also 4.5 miles of impacts to the Bird's Point Floodway which translates to 1,068 acres. For floodplains, there are 13 miles of impacts to the 500 year floodplain and 0.2 miles of impacts to the 100 year flood plain. This translates to 3,179 and 54 acres respectively. Additionally, there are 1.6 miles of wetland impacts for a total of 615 acres.

#### Capital Costs

The total capital costs for Alternative 19 are \$713 million. \$317 million is for roadway construction, \$140 million for construction of a new bridge across the Mississippi River, \$163 million for right-of-way and utilities and \$93 million for contingencies, design, engineering and mobilization / demobilization of construction.

## **4.10 Alternative 20**

#### Traffic Operations

Alternative 20 is approximately 48.32 miles in length and is a new unspecified corridor from I-24 north of Paducah to I-55 near Cape Girardeau Missouri, largely across southern Illinois. An assumed corridor was drawn in southern Illinois for analysis purposes, as no "official" corridor was determined. Alternative 20 shows improvements in terms of operations over the No Build for all segments and screen lines. The analysis for Alternative 20 reveals that this alternative has an ADT ranging from 15,500 near Paducah and Western McCracken County at screen lines 1 and 2 to 16,000 at screen line #3 in Ballard County and 17,000 over the Mississippi River at screen line #4 near

Cape Girardeau, Missouri. This represents changes from the No Build for all screen lines. Screen line 1 decreases significantly while counts at screen lines 2, 3 and 4 respectively increase. Alternative 20 shows little change in terms of truck traffic from Alternative 0. At screen line 1, the volume of trucks decreases, perhaps showing that these vehicles stick to existing routes. The truck volumes are unchanged at screen lines 2 and 3 and increase slightly at screen line #3. This represents a truck traffic % of 10 to 12%. The most trucks in terms of number are crossing the Mississippi River at screen line #4. In terms of LOS, this alternative makes an improvement at all screen line locations with LOS A. Again, this improvement to A is similar in performance to the other alternatives under consideration.

The travel time for Alternative 20 represent very slight improvements for the Paducah to Sikeston trip, which decreases by 2 minutes from 76 in the baseline to 74. However, the travel time for the Paducah to Cape Girardeau trip represents a large travel time savings of 31 minutes as the trips goes from 98 in the No Build to 67 for Alternative 20.

Alternative 20 provides no new bridge connector but does provide a new interstate across southern Illinois. It may also require some widening of I-24 in Kentucky and the need for a connector roadway of interstate quality from the bridge at Cape Girardeau to I-55. These new facilities would add to safety of the system and add benefits for security purposes. This alternative provides good access and connectivity benefits for southern Illinois and the Cape Girardeau Missouri areas. It provides little benefit for Western Kentucky because the new route is located in Illinois.

### Support

There is strong support for Alternative 20 mainly from constituencies in the Cape Girardeau area. There has been almost an equal amount of opposition to Alternative 20 from study participants who reside in Kentucky. Issues associated with this corridor include impacts to the Shawnee National Forest. The bridge crossing location at Cape Girardeau would make use of the Bill Emerson Bridge currently under construction.

### Community Impacts

Community impacts for Alternative 20 include impacts to farmlands, State / Federal / Forests – Parks and Recreation lands, urban area impacts, property impacts and potential EJ impacts. Farmland impacts are anticipated along 33 miles of adjacent roadway throughout the corridor. This translates to an impact area of approximately 7,957 acres. There are no impacts to Kentucky Agricultural Districts. There are anticipated impacts to state / Federal forests, parks, and/or recreation land, namely the Shawnee National Forest. Impacts in this category are 8 miles and account for 1,964 acres. There are impacts to urban areas anticipated along the corridor, which account for 3 miles and 469 acres respectively. The probability that there are adverse and/or disproportional impacts to EJ communities (minorities, low income and/or elderly) along the corridor is rated high primarily to the location of the corridor near EJ communities near Cape Girardeau.

### Property Impacts

Total property impacts are anticipated to be 3,514 acres, largely for right-of-way purposes. The needed right-of-way is a mixture of farmlands, forests / recreation areas, urban areas, and other land uses.

### Environmental Impacts

The anticipated environmental impacts of Alternative 20 are to a NHR site, to stream crossings, other floodplains and floodways (100 and 500 year) and to wetlands. There is one anticipated impact to a NHR site – a 4.5-mile segment of the Trail of Tears National Historic Trail. There are no impacts to nature / wildlife preserves and conservation land. In addition, there are 41 stream crossings throughout the corridor. There are no impacts to the Bird's Point Floodway. For floodplains, there are 8 miles of impacts to the 500 year floodplain and 1 mile of impacts to the 100 year flood plain. This translates to 1,991 and 300 acres respectively. Additionally, there are 1.9 miles of wetland impacts for a total of 530 acres.

### Capital Costs

The total capital costs for Alternative 19 are more than \$536 million. \$340 million is for construction of the roadway, \$127 million for right-of-way and utilities and \$69 million for contingencies, design, engineering and mobilization / demobilization of construction. There are no additional costs assumed for the bridge at Cape Girardeau. Additional costs would include any new widening of I-24 in Kentucky and/or Illinois and the construction of an interstate quality connector from the Bill Emerson Bridge to I-55 near Cape Girardeau.

I-66 Corridor Study  
Western Kentucky to Missouri  
Level 2 Screening Summary

Alt. / Corridor No.	Description	Traffic Operations*											
		Screen Line #1: Paducah			Screen Line #2: W. McCracken Co.			Screen Line #3: Ballard County			Screen Line #4: Mississippi River (Ohio River for 8 & 8A)		
		Average Daily Traffic	Average Daily Truck Traffic (%)	Level of Service	Average Daily Traffic	Average Daily Truck Traffic (%)	Level of Service	Average Daily Traffic	Average Daily Truck Traffic (%)	Level of Service	Average Daily Traffic	Average Daily Truck Traffic (%)	Level of Service
0	No Build or Do Nothing (serves as basis for comparison to other alternatives) - Includes projects currently programmed in the KYTC's Six Year Plan	45,000 (US 60)	3,500 (7%)	E (4 lanes)	11,000 (US 60)	1,500 (14%)	A (4 lanes)	10,000 (US 60)	1,000 (10%)	E (2 lanes)	11,500 (Bridge Over Ohio River)	2,000 (17%)	E (2 lanes)
5	From I-24 at Paducah generally follow the existing US 60 corridor to Wickliffe over the Miss. River on new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	50,000	5,000 (10%)	D	11,500	3,000 (26%)	A	13,500	2,500 (19%)	A	7,000	1,500 (21%)	A
6 / 7	From existing US 60 east of Kevil go southwest on a new alignment towards Wickliffe over the Miss. River on a new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	50,000	5,500 (11%)	D	11,500	3,000 (26%)	A	14,000	2,500 (18%)	A	7,000	1,500 (21%)	A
8	From I-24 at Paducah in/along existing KY 286, US 60 or US 62 corridors to a point east of Wickliffe, proceed north west on new route across the Ohio River on a new bridge to I-57 in Illinois	50,000	5,000 (10%)	D	13,000	3,000 (23%)	A	11,500	2,500 (24%)	A	10,000 (Bridge Over Ohio River)	1,500 (15%)	A
8A	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 to I-57 in Illinois.	51,500 (US 60)	4,000 (8%)	F (4 lanes)	14,000 (US 60)	2,000 (14%)	B (4 lanes)	12,500 (US 60)	1,500 (12%)	A (4 lanes)	7,000 (Bridge Over Ohio River)	500 (7%)	A (4 lanes)
8B	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Mississippi River south of Wickliffe US 60 to I-57 in Missouri.	44,500 (US 60)	3,500 (8%)	E (4 lanes)	7,000 (US 60)	1,500 (21%)	A (4 lanes)	6,000 (US 60)	500 (8%)	A (4 lanes)	5,500	500 (9%)	A (4 lanes)
9 / 10	From I-24 near Paducah, follow new route south westerly to Wickliffe (parallel to US 62/KY 286) across the Mississippi River on a new bridge to I-57	25,000	3,500 (14%)	B	15,500	3,000 (19%)	A	9,500	2,500 (26%)	A	7,000	1,500 (21%)	A
11 / 12 / 13 / 14 / 15 / 21	From I-24 south of Paducah follow new route southwest parallel to KY 286 to point south of Wickliffe over Mississippi River on new bridge to US 60 / US 62 to I-57	35,000	5,000 (14%)	C	19,000 - 30,000	3,500-4,500 (15-18%)	A-B	12,500	3,000 (24%)	A	7,500	1,500 (20%)	A
19	From I-24 near existing US 60 bridge across Tennessee River proceed south west to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge to US 60 / US 62 to Sikeston	16,000	3,500 (22%)	A	17,500	3,000 (17%)	A	10,500	2,000 (19%)	A	8,000	1,500 (19%)	A
20	Rebadge existing interstate I-24 as I-66 in KY and build connector in southern Illinois and rebadge I-55 or I-57 as I-66 in Missouri	15,500	1,500 (10%)	A	15,500	1,500 (10%)	A	16,000	1,500 (10%)	A	17,000	2,000 (12%)	A

\* Future Year = 2030    \*\*Based on Environmental Constraints Map    \*\*\*In Millions of 2003 Constant Dollars



I-66 Corridor Study  
Western Kentucky to Missouri  
Level 2 Screening Summary

Alt. / Corridor No.	Description	Traffic Operations*			
		Travel Time in Minutes Paducah to Sikeston (Savings from No-Build)	Travel Time in Minutes Paducah to Cape Girardeau (Savings from No-Build)	Safety / Security	Connectivity / Access
0	No Build or Do Nothing (serves as basis for comparison to other alternatives) - Includes projects currently programmed in the KYTC's Six Year Plan	76	98	Improves US 60 in place improvements largely to safety, little for security	Keeps existing connectivity and access
5	From I-24 at Paducah generally follow the existing US 60 corridor to Wickliffe over the Miss. River on new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	63 (13)	89 (9)	Provides some level of improvement - New bridge over Mississippi River	Makes new system connections
6 / 7	From existing US 60 east of Kevil go southwest on a new alignment towards Wickliffe over the Miss. River on a new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	62 (14)	89 (9)	Provides some level of improvement - New bridge over Mississippi River	Makes new system connections
8	From I-24 at Paducah in/along existing KY 286, US 60 or US 62 corridors to a point east of Wickliffe, proceed north west on new route across the Ohio River on a new bridge to I-57 in Illinois	66 (10)	83 (15)	Provides some level of improvement - New bridge over Ohio River	Makes some new system connections
8A	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 to I-57 in Illinois.	74 (2)	91 (7)	Provides some level of improvement - New bridge over Ohio River	Keeps existing connectivity and access, provides for new river crossing
8B	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Mississippi River south of Wickliffe US 60 to I-57 in Missouri.	74 (2)	98 (0)	Provides some level of improvement - New bridge over Mississippi River	Keeps existing connectivity and access, provides for new river crossing
9 / 10	From I-24 near Paducah, follow new route south westerly to Wickliffe (parallel to US 62/KY 286) across the Mississippi River on a new bridge to I-57	61 (15)	87 (11)	Provides improvement - New bridge over Mississippi River	Makes new system connections
11 / 12 / 13 / 14 / 15 / 21	From I-24 south of Paducah follow new route southwest parallel to KY 286 to point south of Wickliffe over Mississippi River on new bridge to US 60 / US 62 to I-57	58 (18)	84 (14)	Provides improvement - New bridge over Mississippi River	Makes new system connections
19	From I-24 near existing US 60 bridge across Tennessee River proceed south west to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge to US 60 / US 62 to Sikeston	60 (16)	88 (10)	Provides improvement - New bridge over Mississippi River	Connects to planned regional industrial / development site
20	Rebadge existing interstate I-24 as I-66 in KY and build connector in southern Illinois and rebadge I-55 or I-57 as I-66 in Missouri	74 (2)	67 (31)	Provides improvement - New roadway connecting I-24 and I-55 / I-57	Good connections for southern Illinois, little benefit for KY

\* Future Year = 2030    \*\*Based on Environmental Constraints Map    \*\*\*In Millions of 2003 Constant Dollars

I-66 Corridor Study  
Western Kentucky to Missouri  
Level 2 Screening Summary

Alt. / Corridor No.	Description	Support		Community Impacts					
		Corridor	Issues	Farmland (miles/acres)	Kentucky Agriculture Districts (miles/acres)	State / Federal Forest - Parks / Recreation (miles/acres)	Urban (miles/acres)	Probable Environmental Justice Impacts	Property Impacts (in acres)
0	No Build or Do Nothing (serves as basis for comparison to other alternatives) - Includes projects currently programmed in the KYTC's Six Year Plan	There is minimal support for continuing with current plans. Especially noted are the plans to improve Hwy 60.	Impacts to adjacent development on US 60	Community impacts documented in US 60 improvement project - no additional impacts anticipated					
5	From I-24 at Paducah generally follow the existing US 60 corridor to Wickliffe over the Miss. River on new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	Minimal support for Alternative 5	Parallels US 60 corridor, some farm and / or residential impacts, least favorable river crossing location	30 mi/9,506 ac	1.3 mi/343 ac	None	2 mi/288 ac	Medium	2,800
6 / 7	From existing US 60 east of Kevil go southwest on a new alignment towards Wickliffe over the Miss. River on a new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	Minimal support for Alternative 6 / 7	Farm impacts, least favorable river crossing location	30 mi/8,671 ac	1.4 mi/352 ac	None	2 mi/285 ac	Medium	2,700
8	From I-24 at Paducah in/along existing KY 286, US 60 or US 62 corridors to a point east of Wickliffe, proceed north west on new route across the Ohio River on a new bridge to I-57 in Illinois	There has been no vocal support for Alternative 8 during public workshops	Wetland, floodplain and potential wildlife refuge impacts, preferred river crossing	21 mi/7,222 ac	1.3 mi/343 ac	None	1 mi/135 ac	Medium	2,113
8A	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 to I-57 in Illinois.	Support exists for US 60 improvements; however little support has been expressed for a new bridge southwest of Barlow, KY	Impacts to adjacent development on US 60 plus wetland, floodplain and potential wildlife refuge impacts at preferred river crossing	Community impacts documented in US 60 improvement project - additional impacts anticipated west of LaCenter					
8B	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Mississippi River south of Wickliffe US 60 to I-57 in Missouri.	Support exists for US 60 improvements and support has been expressed for a new bridge near Wickliffe, KY	Impacts to adjacent development on US 60 plus wetland and floodplain impacts at preferred river crossing	Community impacts documented in US 60 improvement project - additional impacts anticipated west of LaCenter and south of Wickliffe, impacts to farmland in Missouri					
9 / 10	From I-24 near Paducah, follow new route south westerly to Wickliffe (parallel to US 62/KY 286) across the Mississippi River on a new bridge to I-57	Support is somewhat strong for Alternative 9/10. It is equal to Alternative 11/12/13/14/15/21	Farmland impacts, uses least favorable river crossing	28 mi/8,618 ac	None	None	1 mi/264 ac	Low	2,643
11 / 12 / 13 / 14 / 15 / 21	From I-24 south of Paducah follow new route southwest parallel to KY 286 to point south of Wickliffe over Mississippi River on new bridge to US 60 / US 62 to I-57	Support is strong for Alternative 11/12/13/14/15/21. It is equal to Alternative 9/10	Farmland impacts, uses least favorable river crossing	29 mi/7,319 ac	1.7 mi/420 ac	None	0 mi/144 ac	Low	2,786
19	From I-24 near existing US 60 bridge across Tennessee River proceed south west to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge to US 60 / US 62 to Sikeston	There has been no vocal support for Alternative 19 during public	Large need for new right of way, closest to planned industrial park, impacts to flats area, preferred river crossing location	34 mi/10,134 ac	0.8 mi/269 ac	< 1 mi/8 ac	None	Low	3,049
20	Rebadge existing interstate I-24 as I-66 in KY and build connector in southern Illinois and rebadge I-55 or I-57 as I-66 in Missouri	There has been some level of support for Alternative 20, there has also been equal support against the alternative especially from residents of KY	In southern Illinois, little economic benefit for KY, impacts to Shawnee National Forest, use of newly built bridge	33 mi/7,957 ac	None	8 mi/1,964 ac	3 mi/469 ac	High	3,514

\* Future Year = 2030    \*\*Based on Environmental Constraints Map    \*\*\*In Millions of 2003 Constant Dollars

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Western Kentucky to Missouri  
Level 2 Screening Summary

Alt. / Corridor No.	Description	Environmental Impacts**							Capital Costs***					Advance to Level 3 Screening?
		No. of Listed Natl. Historic Registry Sites	Nature / Wildlife Preserves / Conservation Lands (miles/acres)	No. of Stream Crossings	Birds Point - New Madrid Floodway (miles/acres)	Floodplain / Floodway (100 yr. / 500 yr.) ( in miles)	Floodplain / Floodway (100 yr. / 500 yr.) ( in acres)	Wetlands (miles/acres)	Roadway	Bridge	Right-of- Way / Utilities	Contingency / Engineering / Mobil. / Demobil.	Total	
0	No Build or Do Nothing (serves as basis for comparison to other alternatives) - Includes projects currently programmed in the KYTC's Six Year Plan	Community impacts documented in US 60 improvement project - no additional impacts anticipated							No incremental capital costs anticipated over those programmed in 6 Year Plan Total Costs in 6 Year Plan are \$26.3 million					Yes
5	From I-24 at Paducah generally follow the existing US 60 corridor to Wickliffe over the Miss. River on new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	None	None	56	3 miles/723 acres	12/0.2	2,944/35	1.7 mi/466 ac	\$272	\$100	\$89	\$75	\$536	No
6 / 7	From existing US 60 east of Kevil go southwest on a new alignment towards Wickliffe over the Miss. River on a new bridge through lowland/floodway in Missouri connecting to US 60 in Missouri east of Charleston to I-57	None	None	54	3 miles/723 acres	12/0.2	2,944/35	1.8 mi/425 ac	\$260	\$106	\$88	\$74	\$528	No
8	From I-24 at Paducah in/along existing KY 286, US 60 or US 62 corridors to a point east of Wickliffe, proceed north west on new route across the Ohio River on a new bridge to I-57 in Illinois	1 (0.4 miles of Trail of Tears NHT)	2 mi/455 ac	49	None	7/0.5	1,810/123	4.0 mi/1,001ac	\$206	\$129	\$114	\$68	\$517	No
8A	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Ohio River connecting US 60 to I-57 in Illinois.	Environmental impacts documented in US 60 improvement project - additional impacts anticipated west of LaCenter and northwest of Barlow - impacts to Barlow Flats and adjacent wildlife management area in northeastern Ballard County, KY							\$0	\$129	\$29	\$26	\$184	No
8B	US 60 planned highway improvements per KYTC 6 Year Plan and Long Range Plan from Paducah to Wickliffe. Includes new connector road and new bridge over the Mississippi River south of Wickliffe US 60 to I-57 in Missouri.	Environmental impacts documented in US 60 improvement project - additional impacts anticipated south of Wickliffe and to Bird's Point floodway area in Missouri							\$0	\$140	\$41	\$28	\$209	Yes
9 / 10	From I-24 near Paducah, follow new route south westerly to Wickliffe (parallel to US 62/KY 286) across the Mississippi River on a new bridge to I-57	None	None	46	3 miles/723 acres	11.5/0.1	2,787/33	1.4 mi/357 ac	\$274	\$105	\$95	\$77	\$551	No
11 / 12 / 13 / 14 / 15 / 21	From I-24 south of Paducah follow new route southwest parallel to KY 286 to point south of Wickliffe over Mississippi River on new bridge to US 60 / US 62 to I-57	None	None	54	3 miles/723 acres	11.5/ < 1	2774/21	1.2 mi/312 ac	\$287	\$109	\$148	\$80	\$624	Yes
19	From I-24 near existing US 60 bridge across Tennessee River proceed south west to new route south of KY 339 westerly along new route south of study area across the Mississippi River on a new bridge to US 60 / US 62 to Sikeston	1 (0.4 miles of Trail of Tears NHT)	< 1 mi/8 ac	77	4.5 miles/1,068 acres	13/0.2	3,179/54	1.6 mi/615 ac	\$317	\$140	\$163	\$93	\$713	No
20	Rebadge existing interstate I-24 as I-66 in KY and build connector in southern Illinois and rebadge I-55 or I-57 as I-66 in Missouri	1 (4.5 miles of Trail of Tears NHT)	None	41	None	8/1	1,991/300	1.9 mi/530 ac	\$340	\$0	\$127	\$69	\$536	Yes

\* Future Year = 2030 \*\*Based on Environmental Constraints Map \*\*\*In Millions of 2003 Constant Dollars

## **5.0 CONCLUSIONS and NEXT STEPS**

### **5.1 Conclusions – Level 2 Analysis / Recommendation**

The more detailed analysis performed in this Level 2 screening / evaluation further reduced the alternatives from nine (9) build alternatives plus the No Build to four (4) total alternatives that are recommended for further evaluation. Those alternatives include:

- Alternative 0 – (No Build) – Only existing and committed projects in KYTC Six Year Plan and MoDOT improvement program.
- Alternative 8B – (US 60 improvements from Paducah to Wickliffe with a new Mississippi River crossing)
- Alternative 11/12/13/14/15 & 21 – new interstate corridor parallel to US 62 and KY 286 with a new Mississippi River crossing
- Alternative 20 – unspecified corridor connecting I-24 north of Paducah to I-55 near Cape Girardeau, Missouri with no new river crossing either over the Mississippi or Ohio rivers.

All other alternatives previously under consideration are not being carried forward at this point. This is because one or more of the impacts significantly reduce the viability of that alternative or that there are other alternatives still under consideration that are better at satisfying the goals, objectives and issues of the study.

### **5.2 Next Steps – Level 3 Evaluation**

The next and final step in the study process is to complete the Level 3 evaluation for the remaining four alternatives. The Level 3 evaluation is the most detailed evaluation level, and therefore the greatest amount of data will be available at the conclusion of the analysis. The remaining alternatives will be refined based on the first two levels of refinement and analysis. The same general evaluation categories will be used for Level 3, but the process will be more detailed, focusing on refined evaluation measures whenever possible and appropriate. This will be done with the cooperation of other agencies and will focus on:

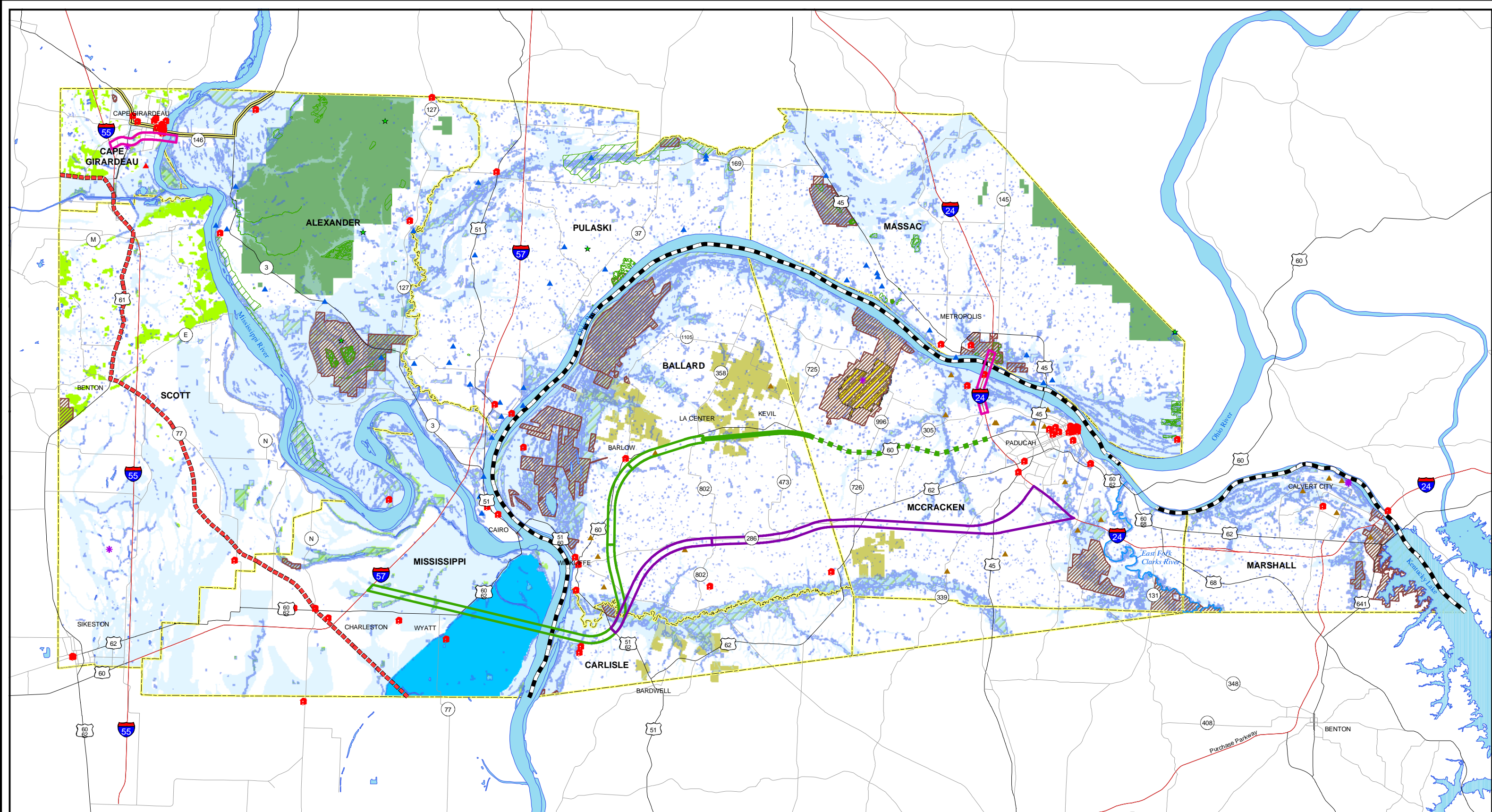
- Refined travel demand forecasting model
- Refined environmental analysis
- Refined cost estimating
- Examination of river crossing location vis a vis confluence of the Mississippi and Ohio Rivers and the impacts associated with the authorized operation of the Birds Point – New Madrid Floodway with the US Coast Guard and the US Army Corps of Engineers, respectively
- Examination of connector roadway(s) from Cape Girardeau bridge to I-55

- Examination of the need for and time frame of widening(s) of I-24 north of Paducah
- Coordination / cooperation with the Illinois Department of Transportation.

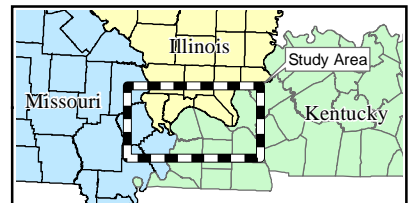
The goal of the Level 3 evaluation is to recommend a corridor that is most suitable for locating the I-66 corridor in western Kentucky.

The corridors that were recommended for advancement to Level 3 are depicted on the following map.

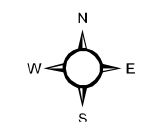




- |   |  |   |   |
|---|--|---|---|
| <b>Alternative Corridors</b>  |  | <ul style="list-style-type: none"> <li><span style="color: red;">■</span> National Historic Register Site</li> <li><span style="color: green;">★</span> Illinois Natural Area Location</li> <li><span style="color: purple;">✳</span> NPL Sites</li> <li><span style="color: red;">▲</span> Active/Permitted Landfills (MO)</li> <li><span style="color: brown;">▲</span> Landfills (KY)</li> <li><span style="color: blue;">▲</span> Landfills (IL)</li> <li><span style="color: brown;">—</span> Trail of Tears - Auto route</li> <li><span style="color: red;">—</span> Trail of Tears - Bengé's Route</li> <li><span style="color: black;">—</span> Trail of Tears - Water Route</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: olive;">■</span> Agricultural District</li> <li><span style="color: brown;">▨</span> Wildlife Preserve/Conservation Area/Park</li> <li><span style="color: green;">■</span> Forested Area (MO)</li> <li><span style="color: green;">■</span> Shawnee National Forest</li> <li><span style="color: blue;">▨</span> Wetland</li> <li><span style="color: lightblue;">■</span> 100 Year Floodplain</li> <li><span style="color: blue;">■</span> New Madrid Floodway</li> <li><span style="color: yellow;">▨</span> Superfund Site (KY)</li> <li><span style="color: yellow;">■</span> PROJECT STUDY AREA</li> </ul> |
| <ul style="list-style-type: none"> <li><span style="color: green;">—</span> Existing 60 Improved</li> <li><span style="color: green;">—</span> Improvements Programmed</li> <li><span style="color: green;">—</span> 8b</li> <li><span style="color: green;">—</span> 11</li> <li><span style="color: purple;">—</span> 20</li> </ul> |  |   |   |



Location Map



0 2.5 5 Miles

**Figure 13**  
**LEVEL 3**  
**ALTERNATIVES**  
 I-66 CORRIDOR STUDY  
 Western Kentucky to Missouri  
 KYTC Item No. 1-23.00