

APPENDIX D:
MEETING SUMMARIES

Meeting Minutes

TO: Brent Sweger
KYTC Central Office Project Manager
KYTC Central Office
200 Mero Street
Frankfort, KY 40622

Keenan Jones
District 11 Project Manager
KYTC District Office #11
603 Railroad Avenue
Manchester, KY 40962

FROM: Brian Aldridge
Project Manager
Stantec Consulting Services Inc.

DATE: July 20, 2023

SUBJECT: I-75 Programming Study
Whitley County
KYTC Item No. 11-1.00
Scoping Meeting / Project Team Meeting No. 1

The combined Scoping Meeting and Project Team Meeting No. 1 for the subject project was held at the KYTC District 11 Office on July 10, 2023, at 10:30 a.m. EDT. The following individuals were in attendance:

| | |
|---------------------|----------------------------------|
| Jayalakshmi Balaji* | KYTC – Central Office Planning |
| Sherrri Chappell | KYTC – District 11 |
| Catherine Davis* | KYTC – Central Office Planning |
| Steve DeWitte* | KYTC – Central Office Planning |
| Dave Heil* | KYTC – Central Office Planning |
| Andre Johannes* | KYTC – Central Office Design |
| Keenan Jones | KYTC – District 11 |
| Brent Sweger* | KYTC – Central Office Planning |
| Randy Turner* | KYTC – Central Office Design |
| Brian Aldridge | Stantec Consulting Services Inc. |
| Clint Goodin | Stantec Consulting Services Inc. |
| Glenn Hardin | Stantec Consulting Services Inc. |
| Len Harper | Stantec Consulting Services Inc. |
| Tad Taylor* | Stantec Consulting Services Inc. |
| Graham Winchester | Stantec Consulting Services Inc. |

*Joined via Microsoft Teams

Brian Aldridge welcomed everyone and led introductions. The purpose of this meeting is to discuss the scope of work and existing conditions for the I-75 Programming Study. Brian Aldridge then delivered a presentation. The following enumerated items were discussed.

1. The study area includes I-75 in Whitley County, Kentucky from milepoint (MP) 0.0 to MP 20.0, as shown in **Figure 1**.
2. The following are the primary objectives of this study:
 - Assess existing pavement and bridge conditions and potential improvement options.
 - Evaluate crash history and geometric deficiencies to identify possible short-term safety improvements.
 - Develop traffic forecasts for the evaluation of capacity improvements along the corridor as well as possible future interchange needs.
 - Engage the Tennessee Department of Transportation to better understand the agency's long-range plans for improvements to I-75 south of the Kentucky state line.
 - Evaluate possible improvement concepts for I-75, including mainline improvements and interchange improvements.
 - Analyze improvement concepts in Williamsburg at KY 92 (Exit 11).
 - Determine potential impacts and estimated costs for improvement options.
 - Identify and prioritize constructible segments over the 20-mile corridor such that improvements can be implemented over time.
 - Engage local officials and major stakeholders (including freight generators).
3. There are two current six-year projects in the vicinity listed in *Kentucky's 2022-2028 Enacted Highway Plan*.
 - Item No. 11-22107.00: Address pavement conditions of I-75 from MP 11.27 to MP 20.101. (D = \$700,000, C = \$7,000,000)
 - Item No. 11-80264.00: Reconfigure existing intersection of KY 92 at Penny Lane. (D = \$200,000, ROW = \$1,180,000, U = \$90,000, C = \$945,813)
4. The intersection of Penny Lane at KY 92 west of I-75 is currently right-in / right-out, however, there is no raised median or curb to prevent other turn movements.
 - Question: Do we want to consider additional access management solutions on KY 92?

Answer: Yes, this project will consider access management solutions on KY 92. KYTC Item No. 11-80264 will address some of the issues by providing a new connection to KY 92 to the west.



Figure 1: Study Area

5. The 1995 I-75 Improvement Strategy report included cost estimates for adding two lanes on I-75 in the median from MP 0.0 to MP 86.06. It was estimated that widening I-75 from MP 0.0 to MP 25.0 would cost \$76,225,000.
6. Highlights from the existing conditions analysis were discussed. Classified as a rural interstate, I-75 has four 12-foot lanes with 10-foot shoulders and a 60-foot depressed median. The speed limit is 70 miles per hour (mph).
7. There are 24 bridges along the study portion of I-75, most of which are overpasses. Amongst these bridges the minimum health index value is 84.18 (fair), as shown in **Figure 2**.
 - It was noted that the KYTC Bridge Manual requires 16'-6" clearance on all bridges.
 - As part of the field inspection, Stantec will field verify the vertical clearance of the structures.
8. Average daily traffic (ADT) on the study portion of I-75 ranges from 29,900 vehicles per day (VPD) from the Tennessee state line to Exit 11 to 38,700 VPD between Exit 11 and Exit 15. North of Exit 15, I-75 carries 38,500 VPD, as shown in **Figure 3**.
 - The most recent individual daily counts from KYTC traffic count stations show significantly higher traffic than the ADTs. A Tuesday count in 2019 showed 49,916 VPD on the section of I-75 north of the Tennessee state line while the ADT was found to be 29,900 VPD.
 - Question: Has there been an increase in truck traffic?
Answer: Stantec will look into this.
9. A traffic operations analysis was performed by comparing daily traffic to roadway capacity based on results from the Highway Capacity Software (HCS) service volume tables. Volume-to-capacity ratios and Level of service (LOS), a qualitative measure describing operational conditions, were used to evaluate the adequacy of the existing roadway. In rural areas, LOS C or better is desirable and in urban areas, LOS D or better is desirable. All three segments of I-75 were found to operate under capacity based on the most recent counts.

In addition to the daily traffic analysis, existing peak hour traffic was analyzed using the HCS Freeway Segment Tool. The existing analysis shows all segments operate under capacity and at LOS of C or better.

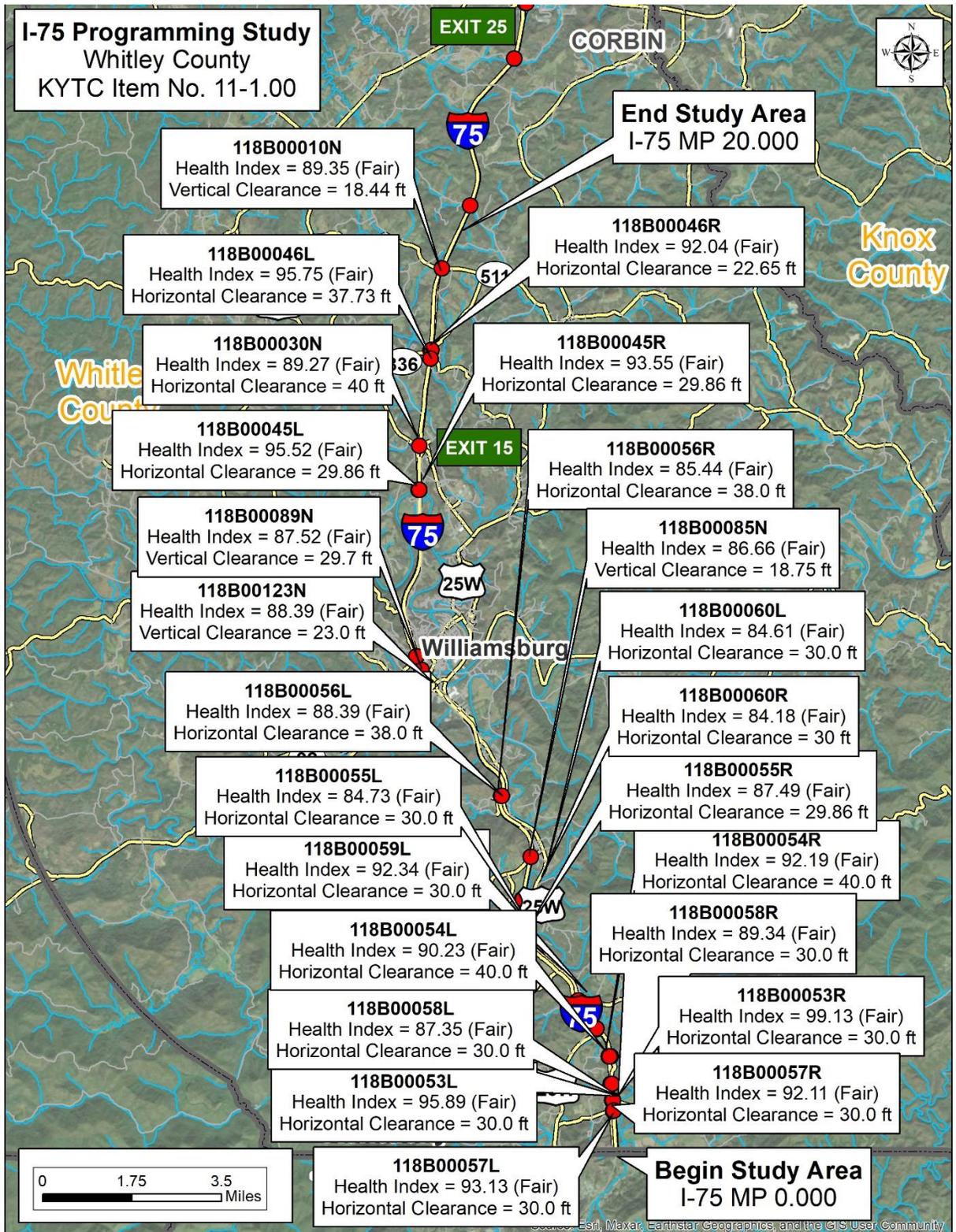


Figure 2: Bridge Location and Health Index

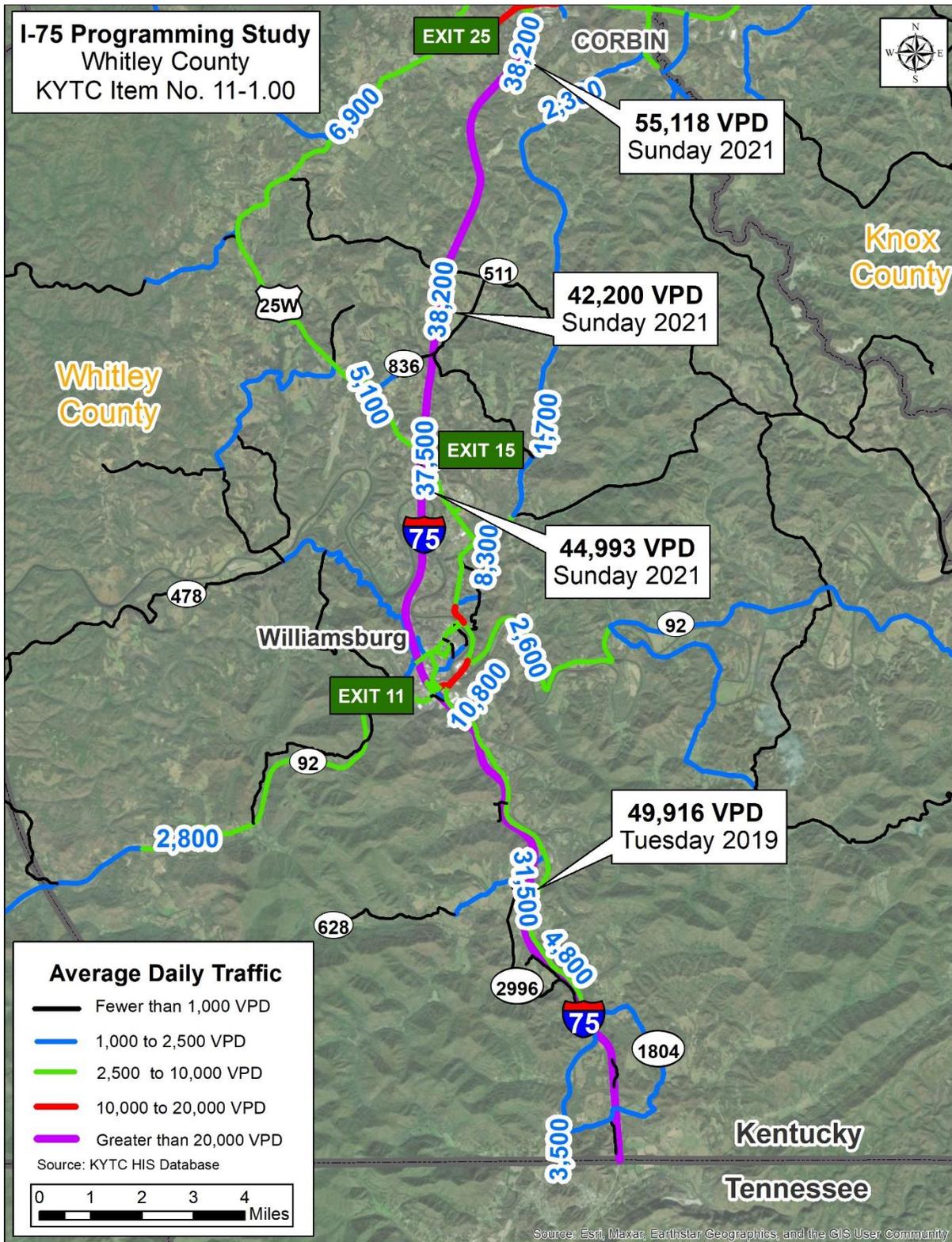


Figure 3: Average Daily Traffic

Table 1: Volume to Capacity (V/C) Ratio

| Section | Direction | V/C Ratio | LOS |
|--------------------------------------|-----------|-----------|-----|
| Segment 1 (State line to Exit 11) | NB | 0.4 | B |
| | SB | 0.4 | B |
| Segment 2 (Exit 11 to Exit 15) | NB | 0.7 | C |
| | SB | 0.7 | C |
| Segment 3 (Exit 15 to Exit 25) | NB | 0.6 | C |
| | SB | 0.6 | C |

10. As part of their Regional Transportation Plan, TDOOT developed a map showing the percent change of annual average daily traffic (AADT) between 2008 and 2018. I-75 in Tennessee between Knoxville and the Kentucky state line shows a percent change between -17 percent and 9 percent, indicating minimal to negative growth, as shown in **Figure 4**. Further research showed that daily traffic on the southern-most I-75 segment has grown slightly while traffic on the segments near the state line have decreased over the past 20 years.

A review of Tennessee HIS data revealed that I-75 is four lanes for approximately 50 miles between Knoxville and the Kentucky state line, as shown in **Figure 5**.

- Stantec is working on an Intelligent Transportation System (ITS) Project on I-75 from Knoxville to the Kentucky state line.
- TDOOT has no current plans to widen their section of I-75.
- TN 63 is being updated and may impact traffic patterns at the Caryville Exit (Exit 134).

11. Crash data from the Kentucky State Police database indicates that in the five years between January 1, 2018, and December 31, 2022, a total of 850 crashes were reported on the study portion of I-75. Of the 850 crashes, seven resulted in a fatality (one percent) and 141 resulted in an injury (17 percent). The most common crash type was single vehicle with 442 collisions (52 percent), followed by sideswipe with 204 collisions (24 percent), and rear end collisions with 161 (19 percent).

12. The Crash Data Analysis Tool (CDAT) was used to perform an Excess Expected Crashes (EEC) analysis. EEC is a measure of the crash frequency at a given site compared to what is expected based on current conditions (geometrics, traffic, etc.). A positive EEC indicates more crashes are occurring than should be expected. The entire study corridor was found to have positive EECs, with the highest EEC on the segment of I-75 from the state line to Exit 11 (21.3 crashes per year).

Campbell County AADT Percent Change 2008 - 2018

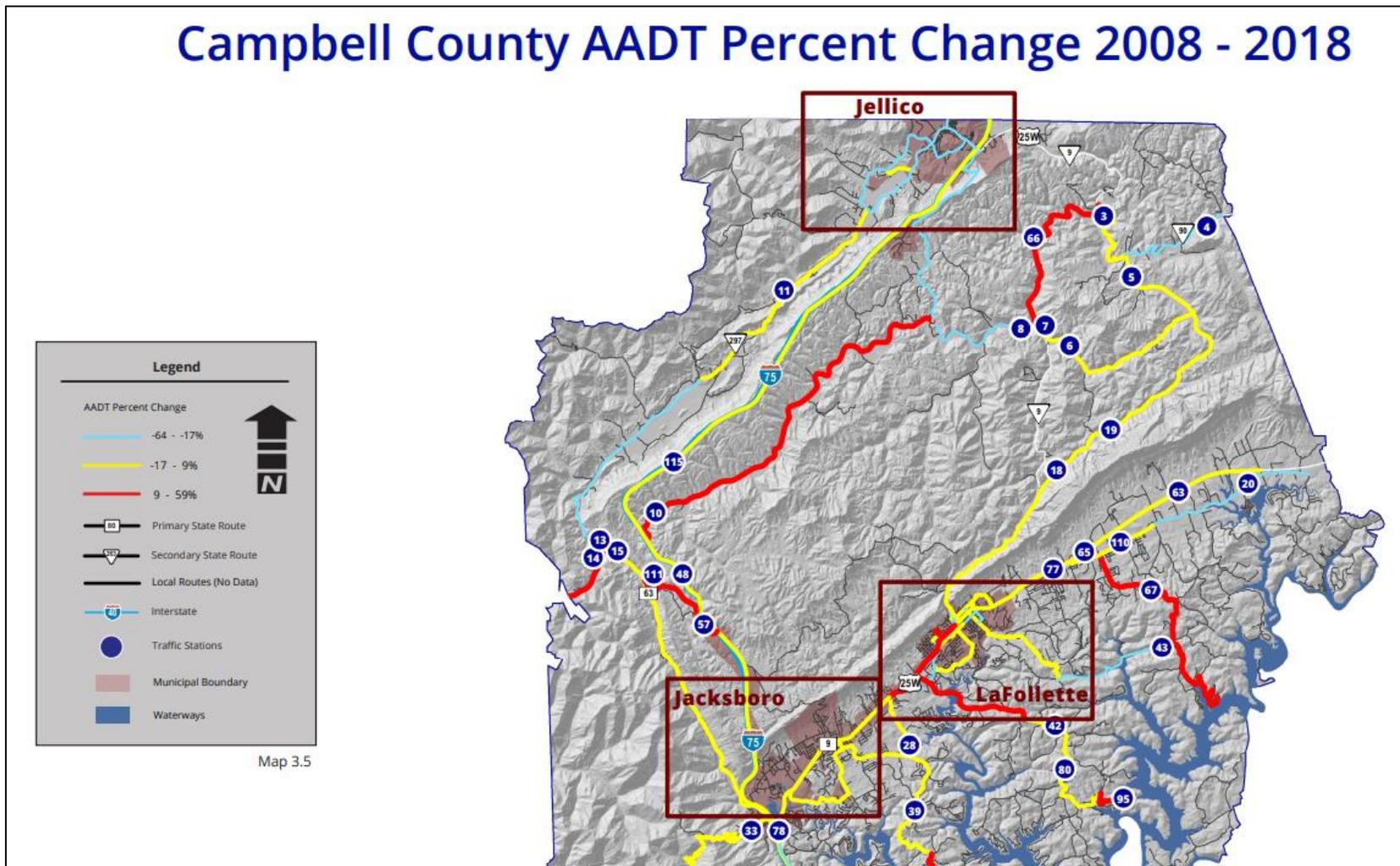


Figure 4: TDOT AADT Percent Change (2008 – 2018)

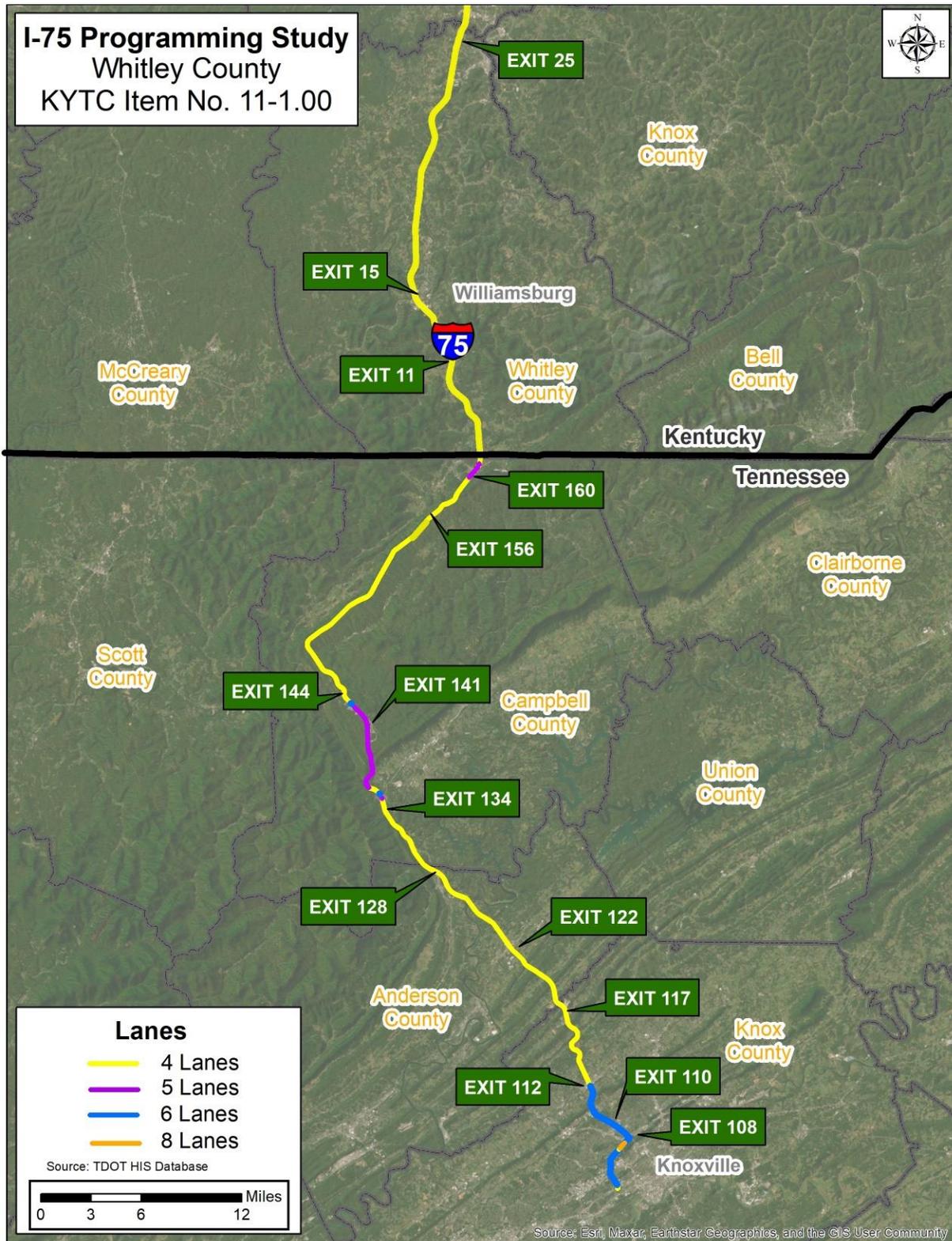


Figure 5: Tennessee Lane Counts



Figure 6: Excess Expected Crashes and Level of Service

13. Horizontal and vertical curve data were analyzed for the study portion of I-75. Three horizontal curves were found to have degrees of curvature above 2.8, all of which have less than three percent grades. Two sections of I-75 have grades at or above three percent, both of which are in tangent sections of roadway.
14. Population estimates from the KY State Data Center show that between 2000 and 2020, Whitley County’s population grew slightly, at 0.12 percent per year, as shown in **Table 2**. The City of Williamsburg also grew slightly, at 0.05 percent per year. Whitley County is expected to continue to experience slight population growth to 2050, with a projected rate of 0.19 percent per year.

Table 2: Population Estimates & Projections

| Area | Census Estimates | | | Annual Growth | Projection | Annual Growth |
|-----------------|------------------|-----------|-----------|---------------|------------|---------------|
| | 2000 | 2010 | 2020 | 2000 - 2020 | 2050 | 2020 - 2050 |
| Kentucky | 4,041,769 | 4,339,367 | 4,505,836 | 0.54% | 4,785,233 | 0.20% |
| Whitley County | 35,865 | 35,637 | 36,712 | 0.12% | 38,854 | 0.19% |
| Williamsburg | 5,243 | 5,148 | 5,296 | 0.05% | N/A | |

15. Outputs from the Kentucky Statewide Travel Demand Model (KYSTM) show as a four-lane interstate, the study portion of I-75 is expected to grow between 0.6 and one percent per year between 2019 and 2045, as shown in **Figure 7**.

Volume-to-capacity ratios were calculated using the 2045 daily traffic assignments from the No-build KYSTM and the HCS service volume table capacity. As shown in **Table 3**, all study corridor segments of I-75 are expected to operate under capacity in 2045.

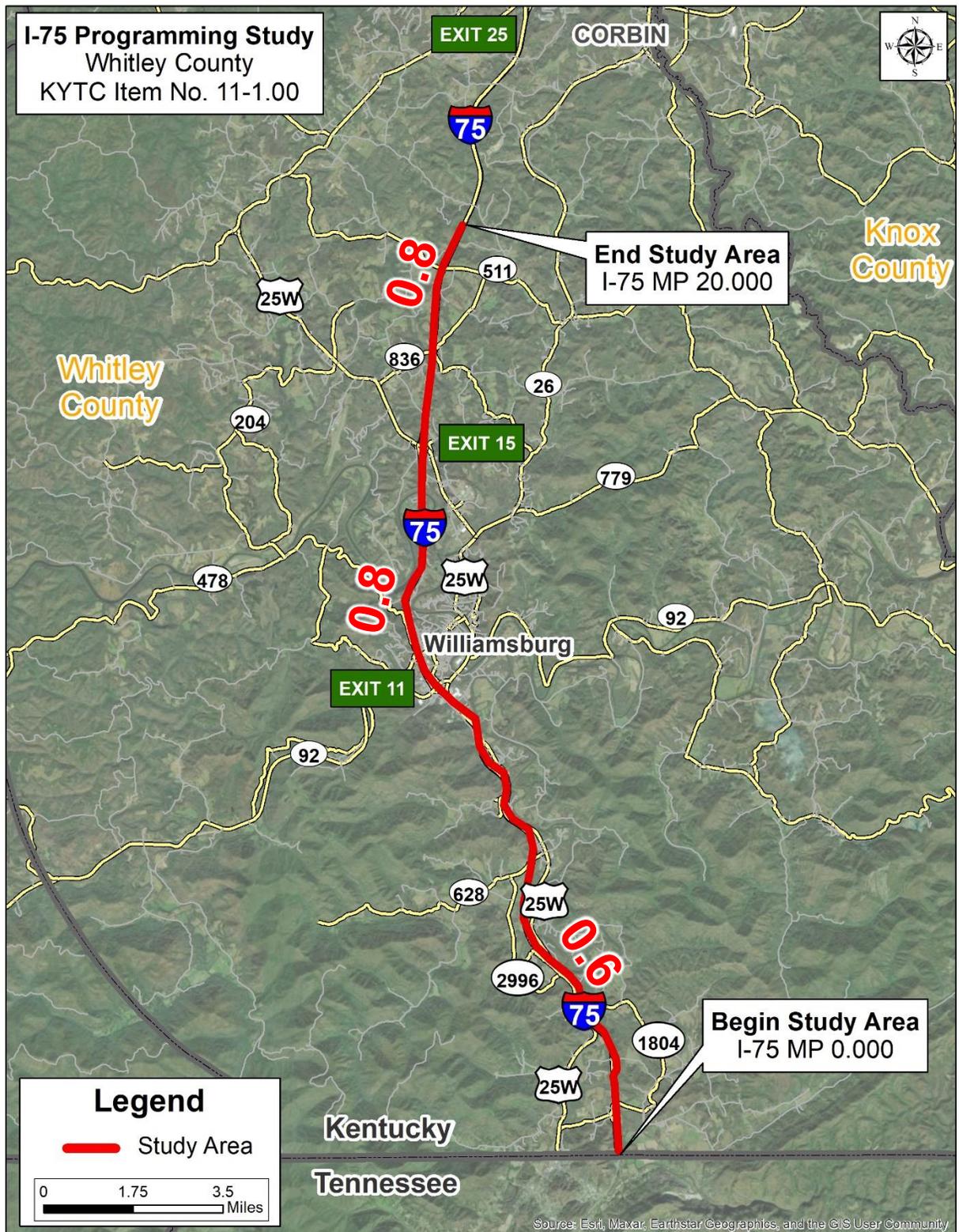


Figure 7: KYSTM Growth Rates

Table 3: 2045 KYSTM No Build Volume-Capacity Ratio

| | Section | Capacity | Volume | V/C Ratio |
|----------|------------------------------|-----------------|---------------|------------------|
| 1 | State Line to Exit 11 | 52,900 | 31,400 | 0.6 |
| 2 | Exit 11 to Exit 15 | 52,900 | 42,600 | 0.8 |
| 3 | Exit 15 to Exit 25 | 52,900 | 41,900 | 0.8 |

16. The next steps are to submit a traffic forecasting technical memorandum and to develop preliminary cost estimates for the improvement concepts.

The meeting ended at 12:00 p.m. EDT.

Meeting Minutes

TO: Brent Sweger
KYTC Central Office Project Manager
KYTC Central Office
200 Mero Street
Frankfort, KY 40622

Keenan Jones
District 11 Project Manager
KYTC District Office #11
603 Railroad Avenue
Manchester, KY 40962

FROM: Brian Aldridge
Project Manager
Stantec Consulting Services Inc.

DATE: May 8, 2024

SUBJECT: I-75 Programming Study
Whitley County
KYTC Item No. 11-1.00
Project Team Meeting No. 2

The second Project Team Meeting for the subject project was held at the KYTC District 11 Office and virtually via Microsoft Teams on February 12, 2024, at 10:30 a.m. EST. The following individuals were in attendance:

| | |
|---------------------|----------------------------------|
| Jayalakshmi Balaji* | KYTC – Central Office Planning |
| Sherrri Chappell | KYTC – District 11 |
| Steve DeWitte* | KYTC – Central Office Planning |
| Orie Dobson | KYTC – District 11 |
| David Fuson | KYTC – District 11 |
| Christopher Harris | KYTC – District 11 |
| Dave Heil* | KYTC – Central Office Planning |
| Andre Johannes* | KYTC – Central Office Design |
| Keenan Jones | KYTC – District 11 |
| Brent Sweger | KYTC – Central Office Planning |
| Randy Turner* | KYTC – Central Office Design |
| | |
| Brian Aldridge | Stantec Consulting Services Inc. |
| Clint Goodin | Stantec Consulting Services Inc |
| Glenn Hardin | Stantec Consulting Services Inc |
| Len Harper | Stantec Consulting Services Inc |
| Graham Winchester* | Stantec Consulting Services Inc. |

*Joined via Microsoft Teams

Brian Aldridge welcomed everyone and led introductions. The purpose of this meeting was to discuss the preliminary improvement concepts for the I-75 Programming Study. Brian then delivered a presentation. The following enumerated items were discussed.

1. The study area includes I-75 in Whitley County, Kentucky from mile point (MP) 0.0 to MP 20.0, as shown in **Figure 1**. It also includes KY 92 (Exit 11) between Penny Lane and US 25W.
2. The following are the primary objectives of this study:
 - Assess existing pavement and bridge conditions and potential improvement options.
 - Evaluate crash history and geometric deficiencies to identify possible short-term safety improvements.
 - Develop traffic forecasts for the evaluation of capacity improvements along the corridor as well as potential future interchange needs.
 - Engage the Tennessee Department of Transportation to better understand the agency's long-range plans for improvements to I-75 south of the Kentucky state line.
 - Evaluate possible improvement concepts for I-75, including mainline improvements and interchange improvements.
 - Analyze improvement concepts in Williamsburg at KY 92 (Exit 11).
 - Determine potential impacts and estimated costs for improvement options.
 - Identify and prioritize constructible segments over the 20-mile corridor such that improvements can be implemented over time.
 - Engage local officials and major stakeholders (including freight generators).
3. There are four projects listed in previous versions of the Highway Plan:
 - Item No. 11-22107.00: Address pavement conditions of I-75 from MP 11.27 to MP 20.101. (D = \$700,000, C = \$7,000,000)
 - Item No. 11-80264.00: Reconfigure existing intersection of KY 92 at Penny Lane. (D = \$200,000, ROW = \$1,180,000, U = \$90,000, C = \$945,813). *Right-of-way plans are currently being developed for this project.*
 - Item No. 11-14.00: Widen I-75 to 6 lanes from MP 0 to MP 27.943. *This is not an active project.*
 - Item No. 11-18.01: Widening and barrier retrofit on bridges from MP 0 to MP 5.5. *This project was split into two construction sections. The northern section will be completed first.*

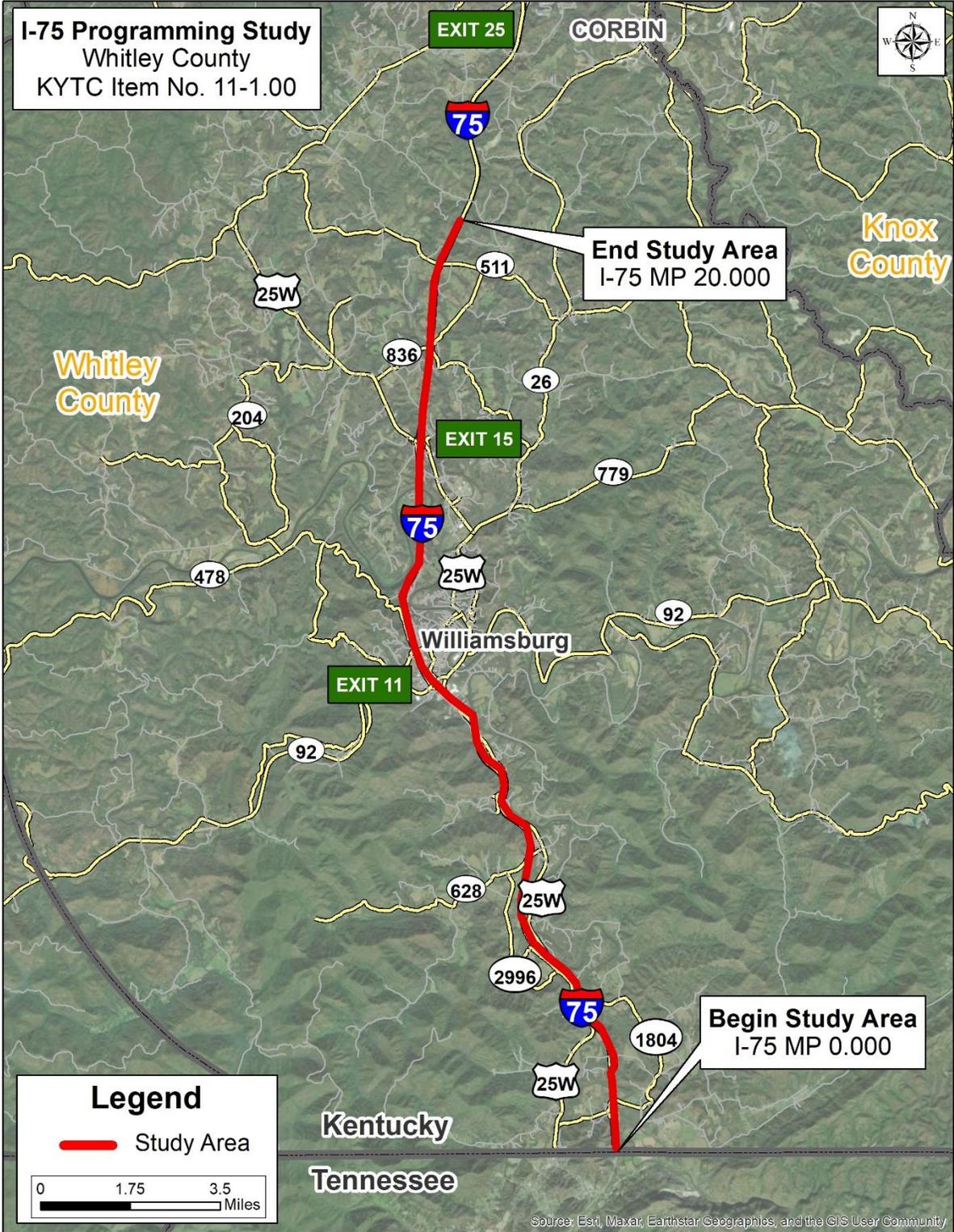


Figure 1: Study Area

4. Highlights from the existing conditions analysis were discussed. Classified as a rural interstate, I-75 has four 12-foot lanes with 10-foot shoulders and a 60-foot depressed median. The speed limit is 70 miles per hour (mph). At the Exit 11 interchange, KY 92 west of I-75 is a five-lane major collector with curb and gutter, sidewalks, and a center two-way left-turn lane (TWLTL). To the east of I-75, KY 92 includes two eastbound lanes (to the intersection with US 25W) and a single westbound lane. The I-75 interchange is a single point urban interchange (SPUI), and traffic signals are located at the interchange, 10th Street, and US 25W.
5. Crash data from the Kentucky State Police database indicates that in the five years between January 1, 2018, and December 31, 2022, a total of 850 crashes were reported on the study portion of I-75. Of the 850 crashes, seven resulted in a fatality (one percent) and 141 resulted in an injury (17 percent). The most common crash type was single vehicle with 442 collisions (52 percent), followed by sideswipe with 204 collisions (24 percent), and rear end collisions with 161 (19 percent).

The Crash Data Analysis Tool (CDAT) was used to perform an Excess Expected Crashes (EEC) analysis. EEC is a measure of the crash frequency at a given site compared to what is expected based on current conditions (geometrics, traffic, etc.). A positive EEC indicates more crashes are occurring than should be expected. The entire study I-75 corridor was found to have positive EECs, with the highest EEC on the segment of I-75 from the state line to Exit 11 (21.1 excess crashes per year).

6. The annual average daily traffic (AADT) on the study portion of I-75 is 31,500 vehicles per day (VPD) between the Tennessee state line and Exit 11 37,500 VPD between Exit 11 and Exit 15. North of Exit 15, I-75 carries 38,200 VPD, as shown in **Figure 2**.

A traffic operations analysis was performed by comparing daily traffic to roadway capacity based on results from the Highway Capacity Software (HCS) service volume tables. Volume-to-capacity ratios and Level of service (LOS), a qualitative measure describing operational conditions, were used to evaluate the adequacy of the existing roadway. In rural areas, LOS C or better is desirable and in urban areas, LOS D or better is desirable. All three segments of I-75 were found to operate under capacity based on the most recent counts.

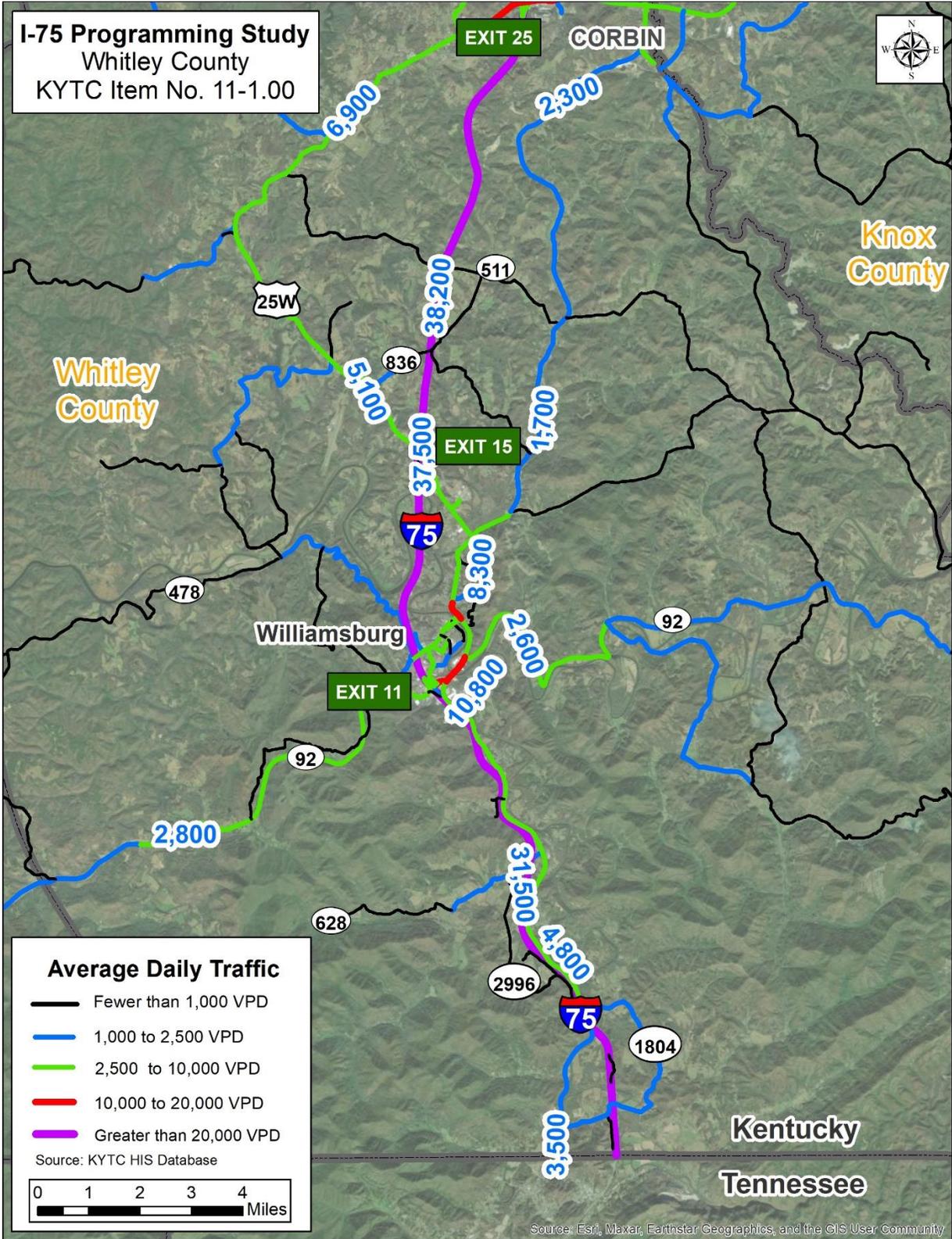


Figure 2: Annual Average Daily Traffic

7. Outputs from the Kentucky Statewide Traffic Model (KYSTM) show, as a four-lane interstate, the study portion of I-75 is expected to grow between 0.6 and 0.8 percent per year between 2019 (the model base year) and 2045. Volume-to-capacity ratios (V/C) were calculated using the 2045 daily traffic assignments from the No-build KYSTM and the HCS service volume capacity. As shown in **Table 1**, all study corridor segments of I-75 are expected to operate under capacity in 2045.

Table 1: 2045 No Build (Four-Lane) Volume to Capacity Ratio

| | Section | Capacity | Volume | V/C Ratio |
|---|-----------------------|----------|--------|-----------|
| 1 | State Line to Exit 11 | 52,900 | 31,400 | 0.6 |
| 2 | Exit 11 to Exit 15 | 52,900 | 42,600 | 0.8 |
| 3 | Exit 15 to Exit 25 | 52,900 | 41,900 | 0.8 |

A 2045 Build KYSTM scenario was also developed, widening I-75 from four to six lanes from MP 0.0 to MP 20.0. Applying the KYSTM growth rates to the most recent traffic counts, daily traffic on I-75 is expected to range from 46,400 VPD to 52,900 VPD, as shown in **Figure 3**. Under this growth scenario, Section 2 (modeled as a six-lane facility) will be at the capacity for a four-lane interstate.

8. As a result of the traffic forecasts, the priority widening section was determined to include I-75 from MP 9.6, just south of Exit 11, to the northern end of the project area at MP 20.2, as shown in **Figure 4**.
- Is the Cumberland River Bridge median width 60-feet or is it a bifurcated median?
 - The median width is 60-feet, so the maintenance of traffic would be the standard 3 phases. Two lanes will remain open to traffic in each direction while widening occurs in the median.
 - Are we assuming a four-lane or six-lane bridge replacement?
 - The cost estimates assume a six-lane widening / replacement.
 - How much longer can the Cumberland River Bridges stay in service? Can we phase that in later with the widening?
 - The existing bridges were built in 1965. There have been recent deck repairs completed on both bridges, including overlays. There does not appear to be an imminent need to replace based on the most recent inspection reports for bridges 118B00045L and 118B00045R. Neither bridge is currently posted for reduced loads and both are rated as “Fair” condition with a health index of 93 or greater.
 - How wide is the Tidal Wave Road Wagon Box structure? Anything under 20-feet is considered a culvert but anything greater is treated like a bridge.
 - The structure (B118B00047N) is 29 feet long.

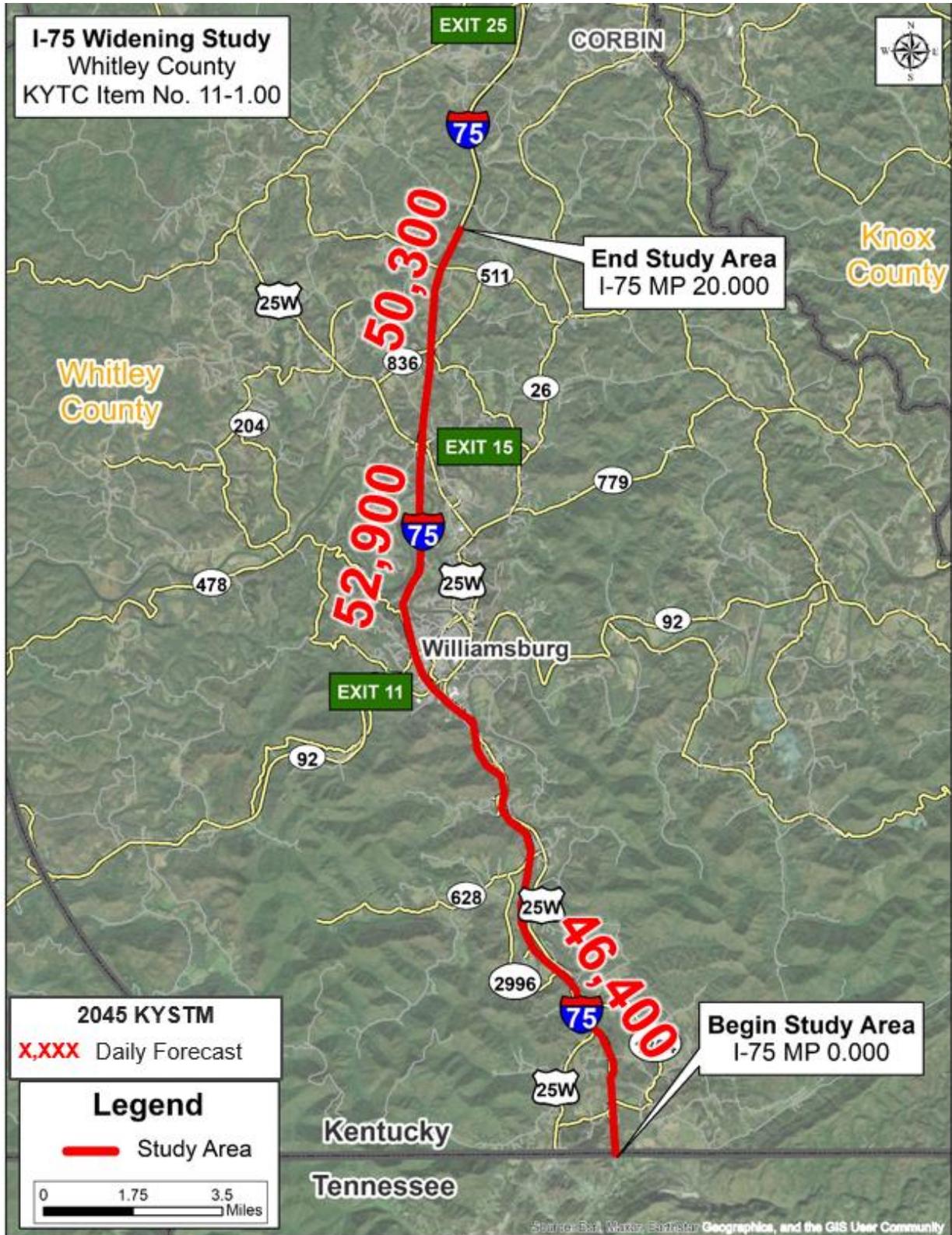


Figure 3: 2045 Daily Traffic Forecasts

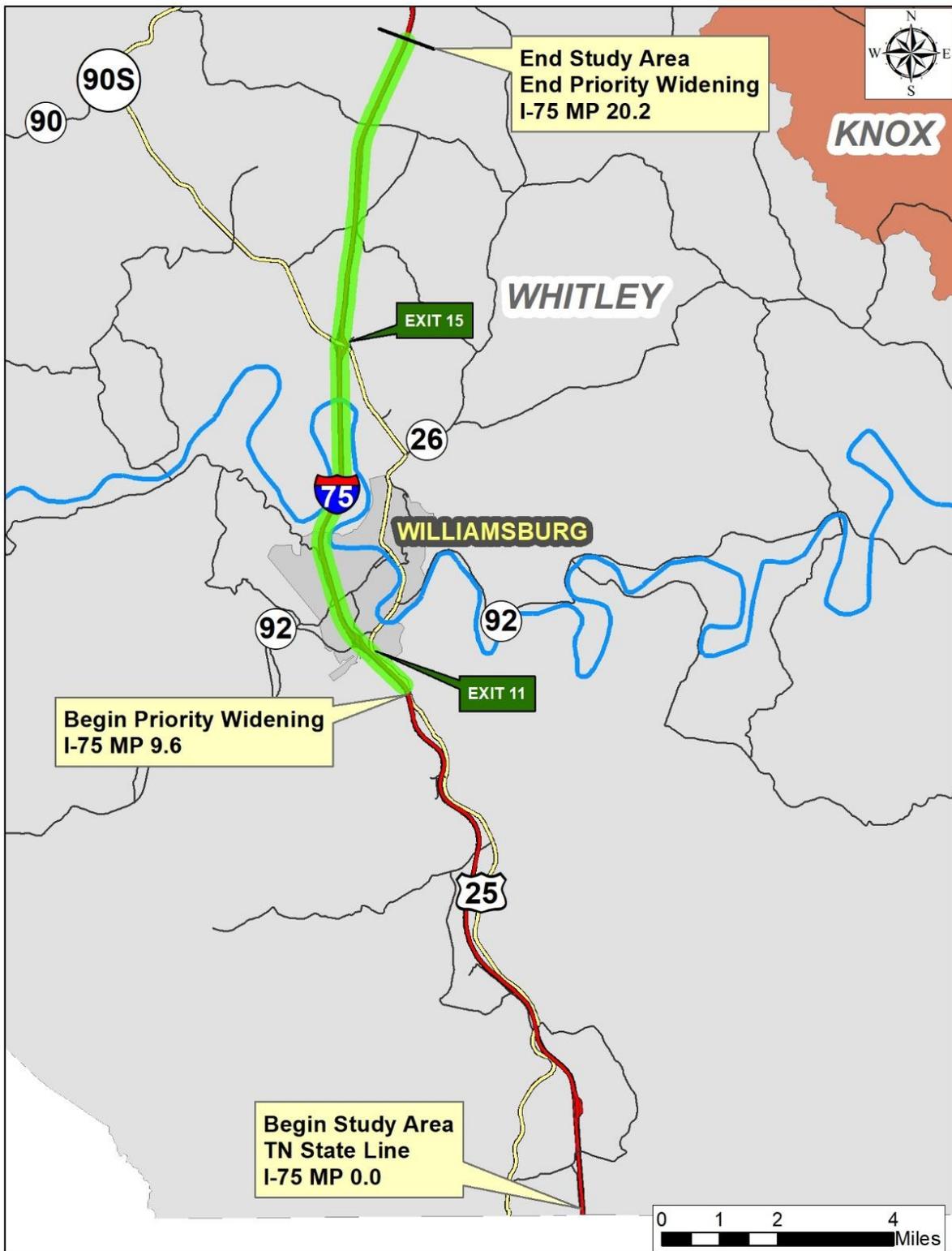


Figure 4: I-75 Priority Widening

9. Streetlight turning movement estimates were collected at I-75 Exit 11 along KY 92 at the intersections of Penny Lane, I-75, and US 25W. The turning movement estimates are shown in **Figure 5**. Based on the Streetlight estimates, the existing peak hour traffic was analyzed at the Exit 11 intersections using HCS. The existing analysis shows all intersections operating at LOS D or better, as shown in **Table 2**.

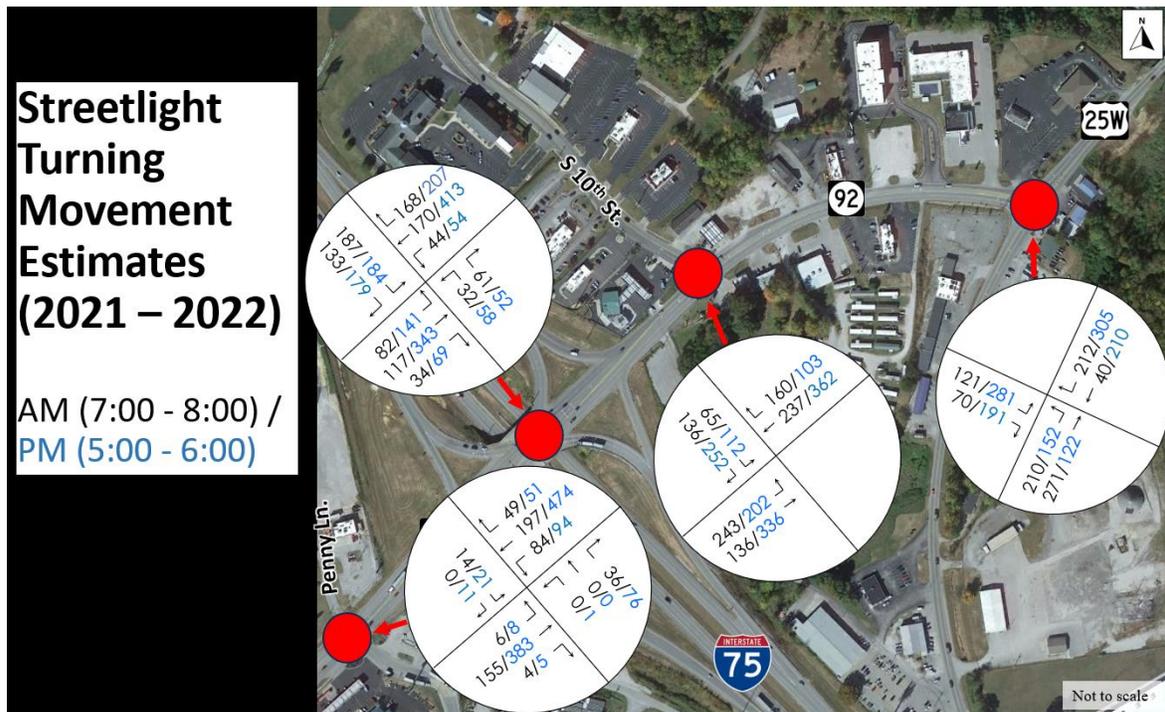


Figure 5: I-75 Exit 11 (KY 92) Turning Movement Estimates

Table 2: KY 92 – Peak Hour Operations

| Intersection | Approach | AM Peak | | PM Peak | |
|---------------------|-------------------|--------------|----------|--------------|----------|
| | | Delay (sec.) | LOS | Delay (sec.) | LOS |
| KY-92 at I-75 Ramps | EB KY-92 | 19.0 | B | 22.4 | C |
| | WB KY-92 | 17.9 | B | 14.5 | B |
| | NB I-75 Ramps | 23.3 | C | 49.4 | D |
| | SB I-75 Ramps | 25.2 | C | 46.6 | D |
| | Overall | 20.1 | C | 25.1 | C |
| KY-92 at 10th St | EB KY-92 | 24.9 | C | 22.6 | C |
| | WB KY-92 | 38.4 | D | 44.9 | D |
| | NB Shell Driveway | 62.0 | E | 51.9 | D |
| | SB 10th St | 62.8 | E | 54.4 | D |
| | Overall | 43.0 | D | 38.0 | D |
| US-25W at KY-92 | EB KY-92 | 16.3 | B | 21.3 | C |
| | NB US-25W | 5.2 | A | 25.8 | C |
| | SB US-25W | 12.4 | B | 43.4 | D |
| | Overall | 8.8 | A | 32.6 | C |

Annual growth rates from the KYSTM at Exit 11 show that KY 92 and the surrounding roadways are expected to grow between 0.3 and 2.2 percent per year between 2019 and 2045. 2045 traffic forecasts were developed by applying these growth rates to the latest KYTC counts.

A detailed crash analysis was performed at the I-75 interchange with KY 92 (Exit 11) between January 1, 2020 and December 31, 2022, as shown in **Figure 6**. A high concentration of angle and sideswipe collisions were reported indicating that access management may be a contributing factor.

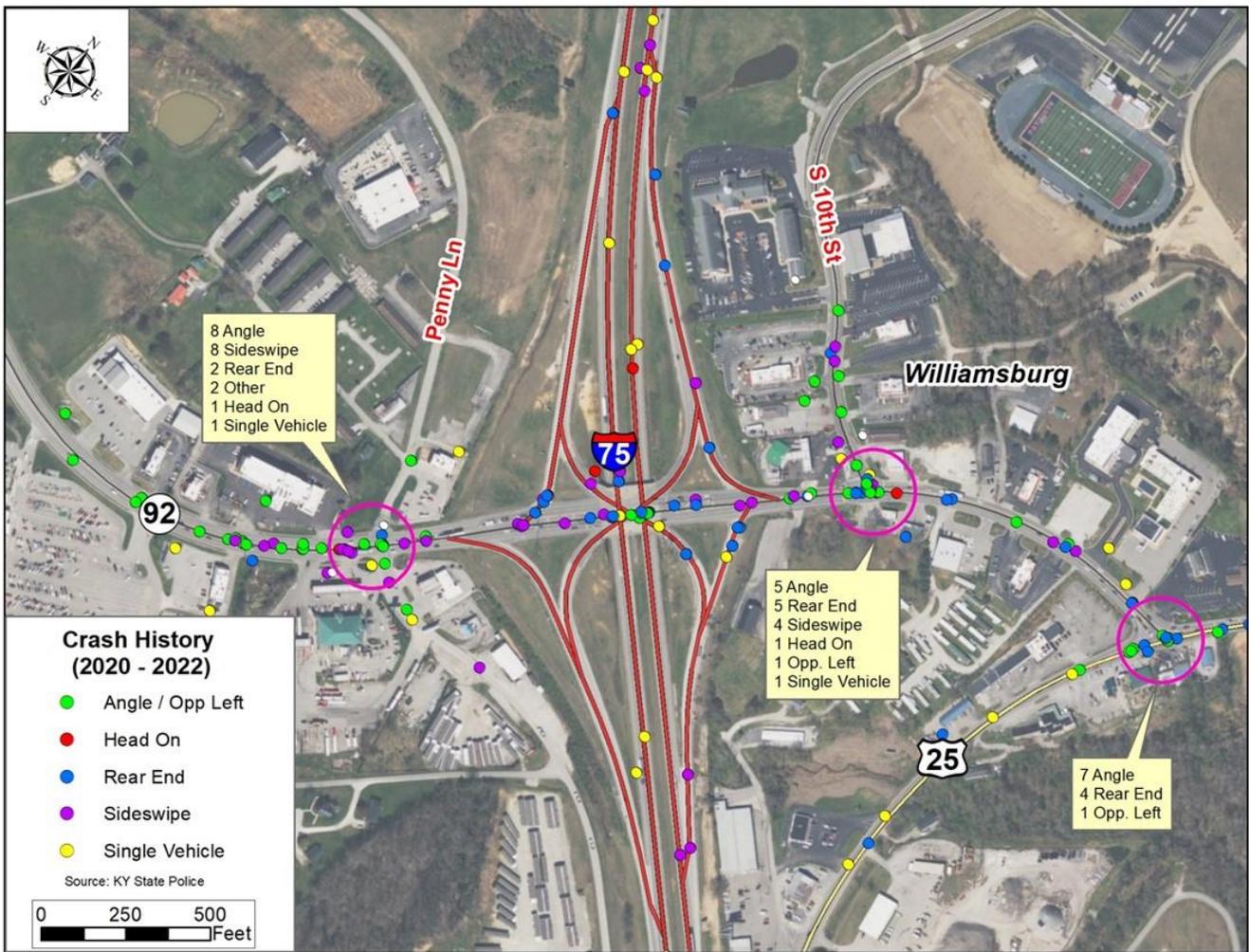


Figure 6: Crash Type at I-75 Exit 11 (2020 – 2022)

10. In addition to the I-75 widening, preliminary improvement concepts were presented for KY 92 east and west of the I-75 interchange (Exit 11) for project team feedback.

West of the interchange, **Figure 7** shows improvement options that include constructing a southern backage road along Hurricane Hollow Road and a second backage road west of Walmart tying to KY 92 with a raised median on KY 92 between Waterpark Way and Penny Lane.



Figure 7: Preliminary KY 92 Improvement Options West of I-75

- Question: Can the new backage road connect to the Penny Lane Extension (Item No. 11-80264.00)?
Answer: Yes, a revised concept is shown on **Figure 8**.

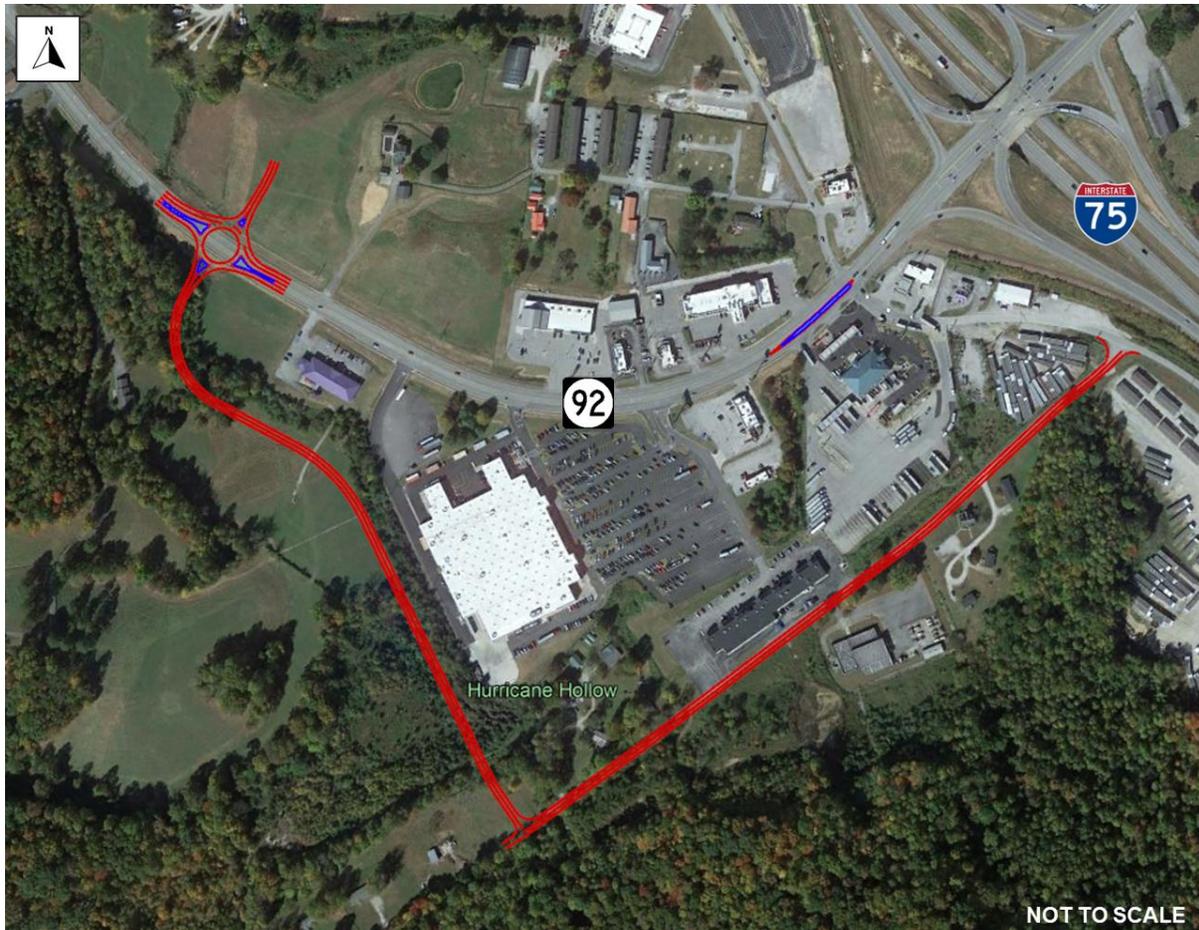


Figure 8: Revised KY 92 Improvement Options West of I-75

- Comment: Consider extending the raised median the entire length between the roundabout and I-75.
- Comment: Some left-turn lanes may be needed on KY 92 to the entrance to Walmart.
- Comment: Could a restricted crossing U-turn (RCUT) be used instead of a roundabout?
- Comment: Is there a way to implement this without constructing the backage road?
- Question: Should sidewalks be considered across I-75?
 Answer: Yes. A streetlight analysis was performed to estimate the number of pedestrian and bicycle trips across the I-75 interchange on KY 92. Between 2021 and 2022, it is estimated that 78 pedestrians and zero cyclists crossed the bridge each day.

East of I-75, options were considered at the KY 92 intersections with South 10th Street and US 25W. Option 1 includes constructing a Green-T intersection at South 10th Street and a roundabout at the US 25W intersection, as shown in **Figure 9**.

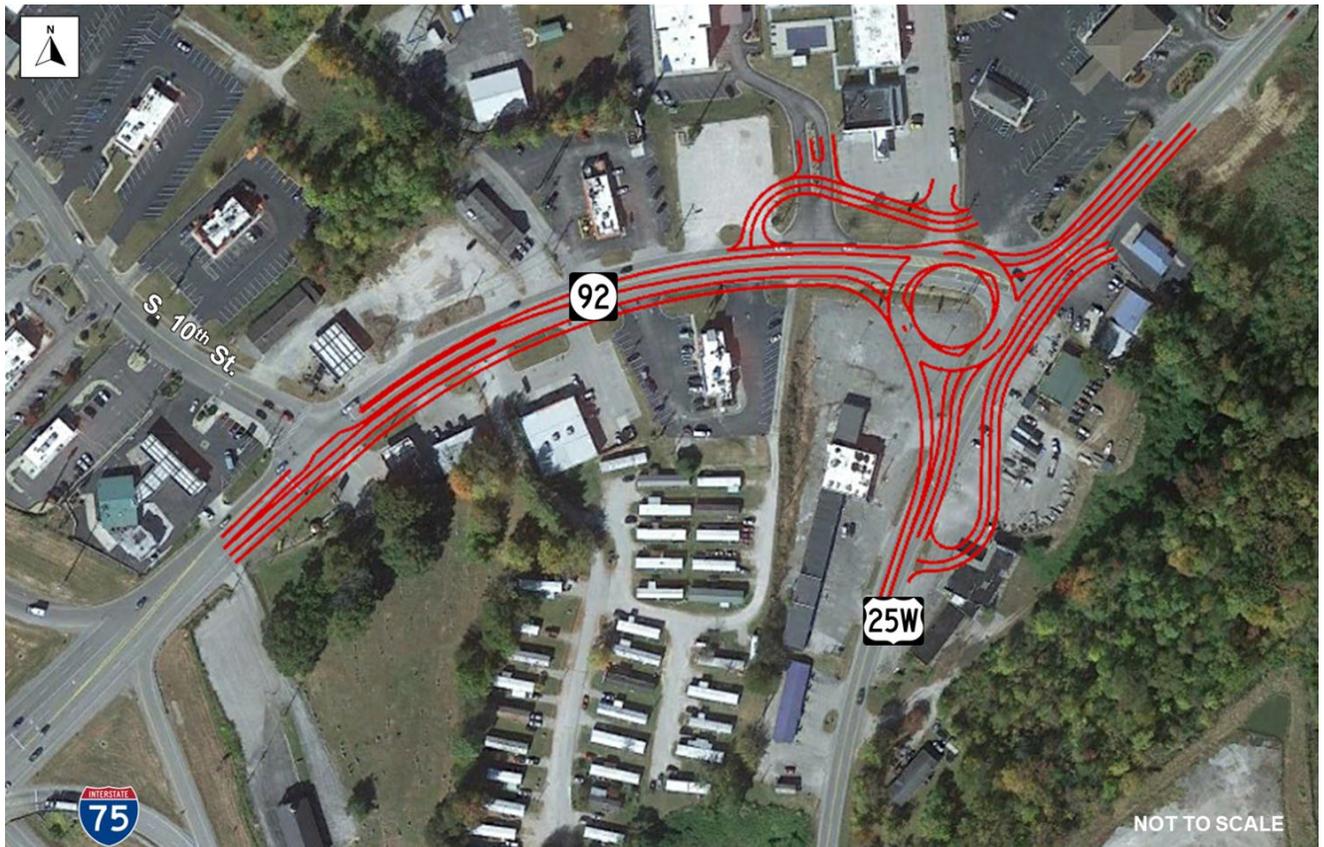


Figure 9: Preliminary Improvement Option 1 East of I-75

A second option east of I-75 includes constructing roundabouts at the KY 92 intersections with both South 10th Street and US 25W, as shown in **Figure 10**.

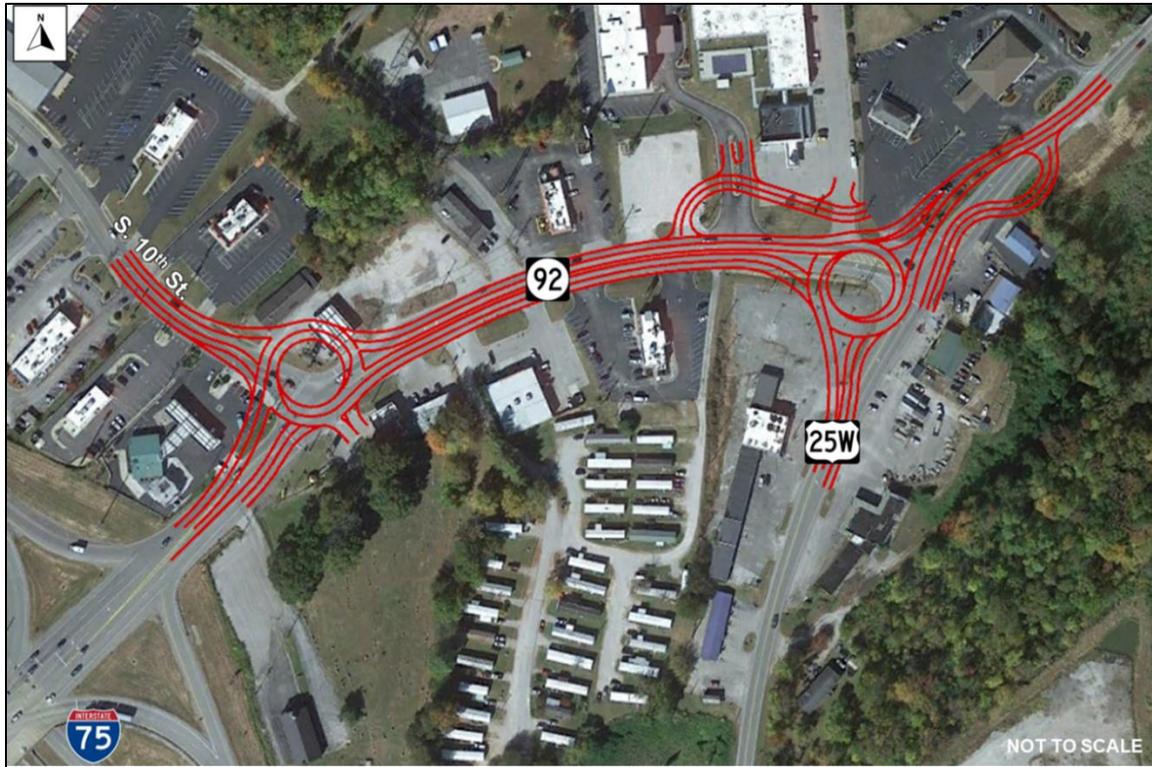


Figure 10: Preliminary Improvement Option 2 East of I-75

11. Preliminary design and construction cost estimates were developed for the I-75 widening and KY 92 improvement concepts, as shown in **Table 3**.

Table 3: Opinion of Probable Costs

| Concept | Corridor | Description | 2024 Cost Estimates | | | | |
|--------------|----------|---|---------------------|--------------|-----------|---------------|---------------|
| | | | Design | Right-of-Way | Utilities | Construction | Total |
| 1 | I-75 | Widen I-75 to six lanes from MP 0.0 (TN State Line) to MP 20.2 | \$41,440,000 | | | \$414,400,000 | \$455,840,000 |
| 2 | | Widen I-75 to six lanes from MP 9.6 (South of Exit 11) to MP 20.2 | \$22,680,000 | | | \$226,800,000 | \$249,480,000 |
| 3 | KY 92 | Construct southern backage road with roundabout at KY 92 and implement access management west of Penny Lane | \$535,000 | | | \$5,350,000 | \$5,885,000 |
| 4 | | Construct a Green T intersection at S 10th Street and Roundabout at US 25W | \$375,000 | | | \$2,500,000 | \$2,875,000 |
| 5 | | Construct a Roundabout at S 10th Street and Roundabout at US 25W | \$435,000 | | | \$2,900,000 | \$3,335,000 |
| TOTAL | | | \$65,465,000 | \$0 | \$0 | \$651,950,000 | \$717,415,000 |

12. The next steps are to develop revised improvement concepts for the Local Officials Meeting. District 11 will assist with the right-of-way and utility cost estimates.

The meeting ended at 11:30 a.m. EST.

Meeting Minutes

TO: Brent Sweger
KYTC Central Office Project Manager
KYTC Central Office
200 Mero Street
Frankfort, KY 40622

Keenan Jones
District 11 Project Manager
KYTC District Office #11
603 Railroad Avenue
Manchester, KY 40962

FROM: Brian Aldridge
Project Manager
Stantec Consulting Services Inc.

DATE: June 21, 2024

SUBJECT: I-75 Programming Study
Whitley County
KYTC Item No. 11-1.00
Local Officials Meeting No. 1

The first Local Officials Meeting for the subject project was held at the Whitley County Public Library on June 10, 2024, at 11:00 a.m. EDT. The following individuals were in attendance:

| | |
|-------------------|----------------------------------|
| Bobby Blakley | Whitley County Public Schools |
| Jason Caddell | Williamsburg Police Department |
| Mondo Cima | Whitley County Magistrate |
| Roddy Harrison | City of Williamsburg Mayor |
| Trevor Teague | Williamsburg Police Department |
| Pat White, Jr. | Whitley County Judge Executive |
| Nick Wilson | Kentucky State Representative |
| Travis Wilson | University of the Cumberland |
| Sherri Chappell | KYTC – District 11 |
| Keenan Jones | KYTC – District 11 |
| Brent Sweger | KYTC – Central Office Planning |
| Brian Aldridge | Stantec Consulting Services Inc. |
| Len Harper | Stantec Consulting Services Inc. |
| Ali Vargas | Stantec Consulting Services Inc. |
| Graham Winchester | Stantec Consulting Services Inc. |

Brian Aldridge welcomed everyone and led introductions. The purpose of the meeting was to discuss progress to-date on the I-75 Programming Study and to solicit feedback from the local officials on preliminary improvement concepts. Brian then delivered a presentation. The following enumerated items were discussed.

1. The study area includes I-75 in Whitley County, Kentucky from milepoint (MP) 0.0 to MP 20.0, as shown in **Figure 1**. It also includes KY 92 (Exit 11) between Waterpark Way and US 25W.
2. The following are the primary objectives of this study:
 - Assess existing pavement and bridge conditions.
 - Evaluate crash history and roadway deficiencies.
 - Develop traffic forecasts.
 - Engage the Tennessee Department of Transportation concerning long-term plans to improve I-75 south of the Kentucky state line.
 - Evaluate possible improvement concepts for I-75 including mainline and interchange improvements.
 - Develop / evaluate improvement alternatives at KY 92 (Exit 11).
 - Estimate impacts and costs for improvement options.
 - Identify / prioritize constructible segments over the 20-mile corridor.
 - Engage local officials and major stakeholders.
3. In addition to the 11-1.00 project, there are three nearby projects listed in the 2022 Enacted Highway Plan:
 - Item No. 11-14.80 / 11.14.81: Priority Section Widening of I-75 from MP 20.2 in Whitley County to MP 28.85, US 25E north of Corbin.
 - Item No. 11-22107.00: Address pavement conditions of I-75 from MP 11.27 to MP 20.101.
 - Item No. 11-80264.00: Reconfigure existing intersection of KY 92 at Penny Lane to improve safety at intersection. *The Penny Lane Project is awaiting ROW funding to be authorized.*

Other local projects listed in the 2024 Highway Plan include:

 - Item No. 11-80308.00: Widen existing South 2nd Street to improve geometric deficiencies along the route.
 - Item No. 11-8954.00: Construct a new entrance to the University of the Cumberland from South 2nd Street up the hill to tie into Hutton Way.
 - Comment: These projects are awaiting design funding to be authorized.
4. Highlights from the existing conditions analysis were discussed. Classified as a rural interstate, I-75 has four 12-foot lanes with 10-foot shoulders and a 60-foot depressed median. At the Exit 11 interchange, KY 92 west of I-75 is a five-lane major collector with curb and gutter, sidewalks, and a center two-way left-turn lane (TWLTL). To the east of I-75, KY 92 includes two eastbound lanes (to the intersection with US 25W) and a single westbound lane.



Figure 1: Study Area

5. The average daily traffic on the study corridor is 29,900 vehicles per day (VPD) between the Tennessee state line and Exit 11, 38,700 VPD between Exit 11 and Exit 15, and 38,500 VPD between Exit 15 and MP 20.0.
6. Crash data from the Kentucky State Police database indicates that in the five years between January 1, 2018, and December 31, 2022, a total of 850 crashes were reported on the study portion of I-75. Of the 850 crashes, the most common crash type was single vehicle with 442 collisions (52 percent), followed by sideswipe with 204 collisions (24 percent), and 161 rear end collisions (19 percent).

The Crash Data Analysis Tool (CDAT) was used to perform an Excess Expected Crashes (EEC) analysis. EEC is a measure of the crash frequency at a given site compared to what is expected based on current conditions (geometrics, traffic, etc.). A positive EEC indicates more crashes are occurring than should be expected. The entire I-75 study corridor was found to have positive EECs, with the highest EEC on the segment of I-75 from the state line to Exit 11 (21.1 excess expected crashes per year).

- Comment: Most crashes the police department are seeing on KY 92 result from motorists attempting to cross five lanes of traffic on KY 92. For example, drivers attempting to leave a business on the south side of the roadway to access another business on the north side, most of which tend to be out of town travelers. To the east side of I-75, experience suggests mostly local drivers tend to travel through the US 25W intersection.
7. Heatmaps generated from Strava, a fitness tracking app, for the KY 92 / Williamsburg area were discussed. Higher volumes of pedestrians are represented with brighter or hotter colors, as shown in **Figure 2**. As shown, there is significant pedestrian activity across the I-75 interchange.
 8. Traffic forecasts were developed using the Kentucky Statewide Traffic Model (KYSTM) for a 2045 Build Scenario, which included widening I-75 from four to six lanes from MP 0.0 to MP 20.0. Based on the results, daily traffic on I-75 is expected to range from 46,400 VPD to 53,800 VPD.
 9. I-75 widening can be constructed in segments, and Brian noted widening south of the KY 92 interchange is not a high priority as TDOT has no plans to construct improvements south of the Kentucky state line. Priority widening segments were discussed with the priority widening section beginning at MP 9.6 and continuing north to MP 20.2. This starts just south of the KY 92 interchange. Priority widening can be further divided into sections as funding allows, similar to how the widening sections to the north have been constructed.

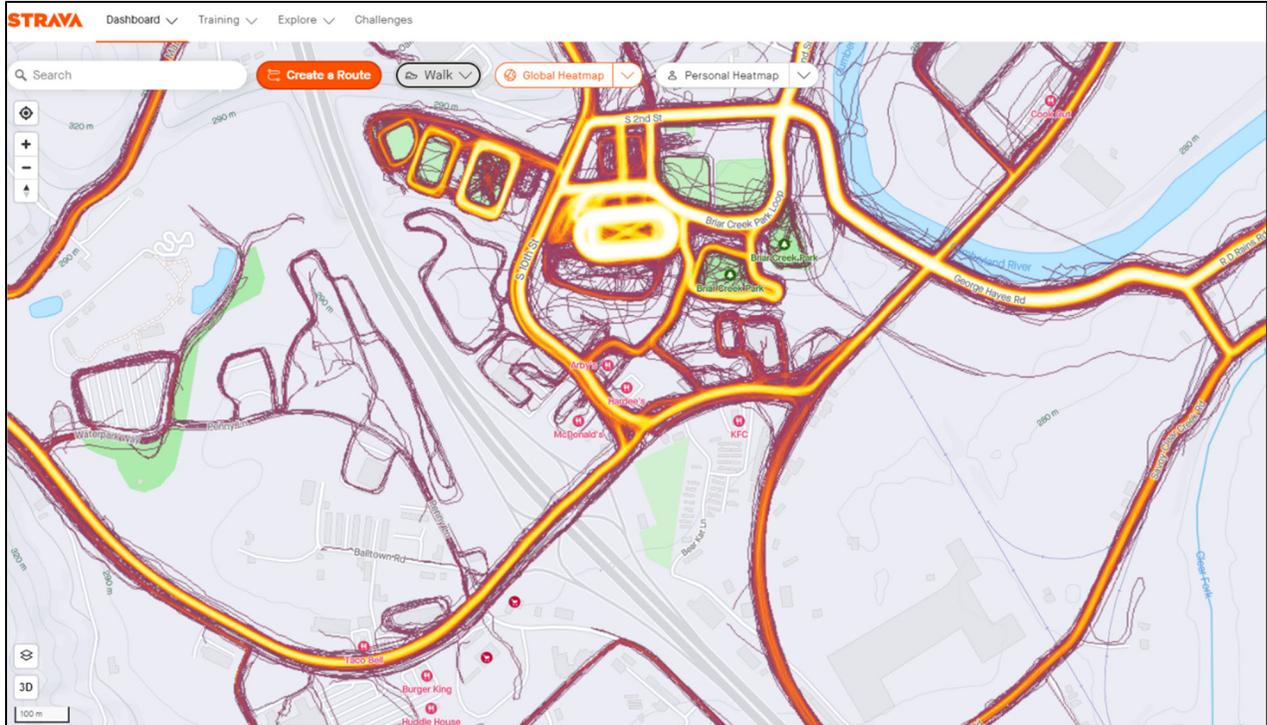


Figure 2: Strava Heat Map
(Source: www.strava.com)

10. Preliminary improvement concepts at Exit 11 were then presented. One option east of I-75 at the KY 92 intersection with US 25W includes constructing a roundabout, as shown in **Figure 3**.



Figure 3: KY 92 & US 25W Roundabout Concept

- Comment: Drivers may not like the raised median on KY 92 between 10th Street and US 25W.
- It was noted that drivers generally approve of similar concepts after they are implemented and used on a regular basis. Combining left-turn access to one or two locations is better than unrestricted access, which is not ideal.
- Comment: The police noted the crash reductions at other locations where roundabouts have been constructed and are in favor of this concept.
- Question: How tall will the median be?
Answer: Curbs such as this are typically six inches which could be mountable for emergency access.

An option at the KY 92 and South 10th Street intersection includes a Green-T intersection, as shown in **Figure 4**.



Figure 4: Green T Intersection Concept at South 10th Street

The Green T Intersection concept would allow free-flow operations on KY 92 in the eastbound direction by using acceleration / merge lanes for left turn movements from the South 10th Street. This type of intersection is expected to improve safety and reduce congestion. A roundabout could also be considered at this intersection; however, the proximity to the I-75 interchange and potential right-of-way impacts to adjacent businesses complicate the implementation of a roundabout at the intersection.

- Comment: The right turn onto 10th Street gets backed up with traffic.

Response: The project team will consider extending the westbound right turn lane.

West of the interchange, an option is to construct a southern backage road with a roundabout at the proposed relocated Penny Lane / KY 92 intersection with a raised median between the roundabout and the existing Penny Lane intersection to improve safety, as shown in **Figure 5**.

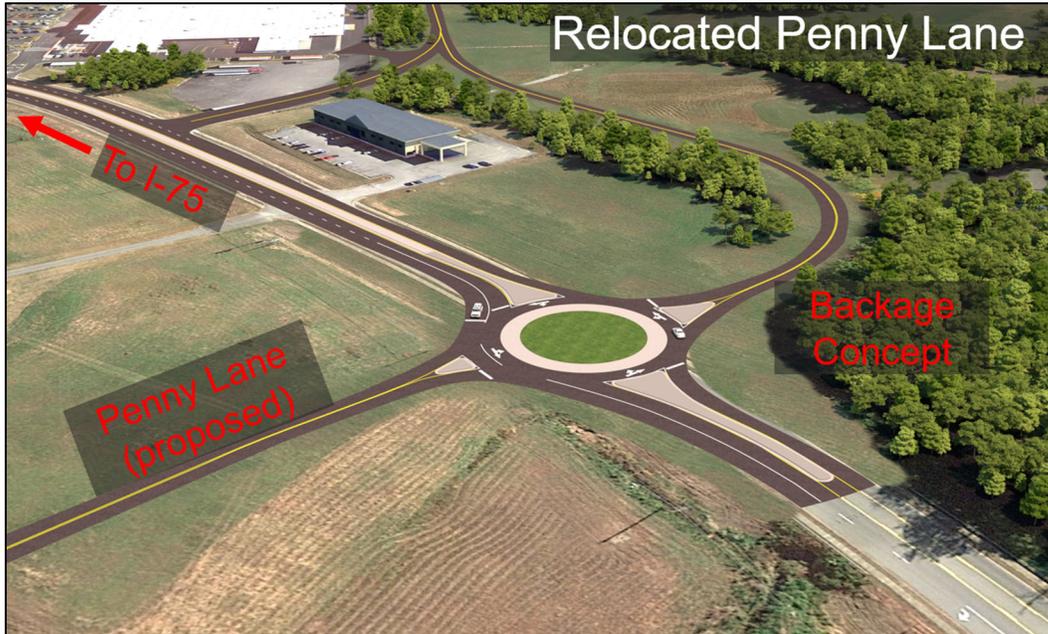


Figure 5: Relocated Penny Lane Concept with Southern Backage Road

11. Preliminary design and construction cost estimates were presented and are shown in **Table 1**.

Table 1: Preliminary Opinion of Probable Costs

| Concept | Corridor | Description | 2024 Cost Estimates | | |
|---------|----------|---|---------------------|---------------|---------------|
| | | | Design | Construction | Total |
| 1 | I-75 | Widen I-75 to six lanes from MP 0.0 (TN State Line) to MP 20.2 | \$41,440,000 | \$414,400,000 | \$455,840,000 |
| 2 | | Widen I-75 to six lanes from MP 9.6 (South of Exit 11) to MP 20.2 | \$22,680,000 | \$226,800,000 | \$249,480,000 |
| 2a | I-75 | Widen I-75 to six lanes from MP 9.6 (South of Exit 11) to MP 15.5 (Exit 15) | \$13,310,000 | \$133,100,000 | \$146,410,000 |
| 2b | | Widen I-75 to six lanes from MP 15.5 (Exit 15) to MP 20.2 | \$9,370,000 | \$93,700,000 | \$103,070,000 |
| 3 | KY 92 | Construct southern backage road with roundabout at KY 92 and implement access management west of Penny Lane | \$535,000 | \$5,350,000 | \$5,885,000 |
| 4 | | Construct a Green T intersection at S 10th Street and Roundabout at US 25W | \$375,000 | \$2,500,000 | \$2,875,000 |
| 5 | | Construct a Roundabout at S 10th Street and Roundabout at US 25W | \$435,000 | \$2,900,000 | \$3,335,000 |

12. At the end of the presentation, attendees were asked to fill out a survey to provide input on the preliminary improvement concepts. Eight Local Officials / Stakeholders completed the survey, with all eight indicating that they live in the study area. Seven respondents indicated that they travel through the study area often or daily, while the remaining respondent indicated that they travel through the study area weekly.

Respondents were then asked if they think I-75 needs to be widened to six-lanes in the study area. Seven answered that widening is needed now, and one answered that widening is needed in 10-15 years, as shown in **Figure 6**.

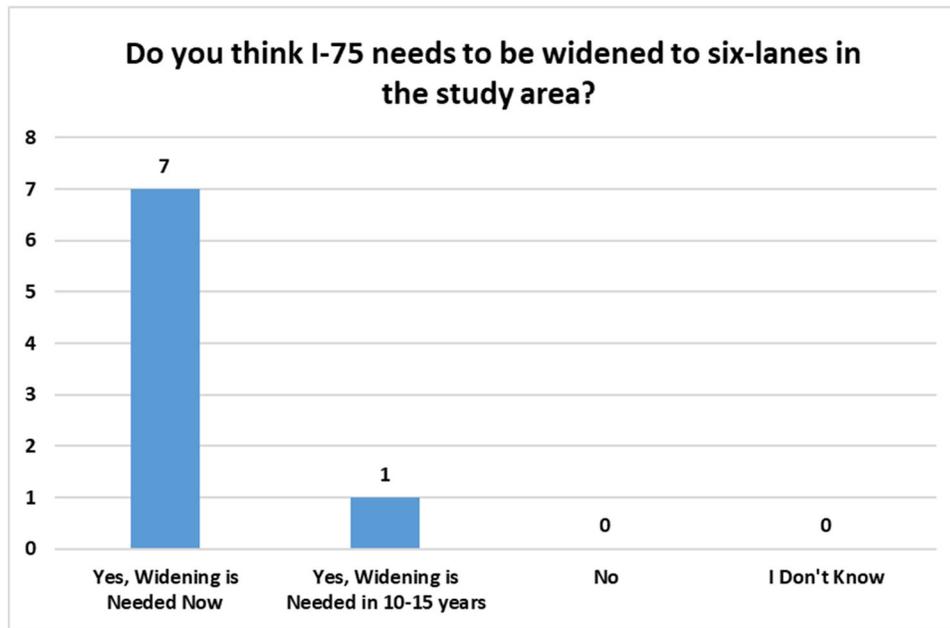


Figure 6: Local Officials Survey – I-75 Widening

The next survey question asked respondents if they agree with the prioritization of the construction sections presented. All eight answered that they agree with the prioritization. One respondent left a suggestion to extend the six-lane to milepoint seven, at least in the southbound direction, due to several crashes and safety concerns about backups near the location.

Respondents were then asked if they think improvements are needed along KY 92. Of the seven respondents that answered, all answered yes, as shown in **Figure 7**.

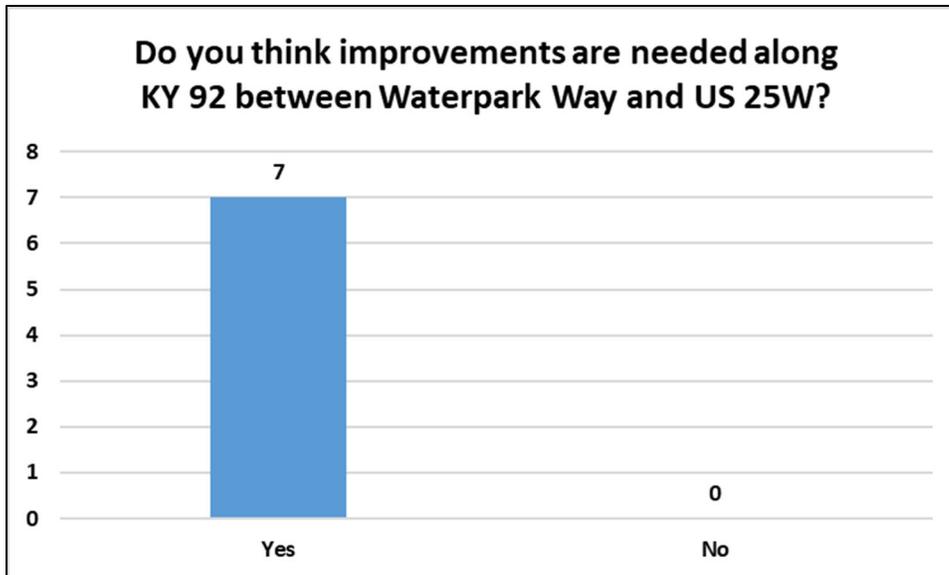


Figure 7: Local Official Survey – KY 92 Improvements

The Local Officials / Stakeholders were then given the opportunity to select from multiple improvement options at Exit 11. The options included constructing a southern backage road with a roundabout at KY 92 and implementing access management west of existing Penny Lane, constructing a Green T at the KY 92 intersection with 10th Street and a roundabout at US 25W, and constructing a roundabout at the KY 92 intersections with 10th Street and US 25W. The most popular improvement option was to construct a southern backage road with a roundabout at KY 92 and implement access management west of existing Penny Lane, as shown in **Figure 8**. One comment included minimizing the concrete barrier / median as much as possible.

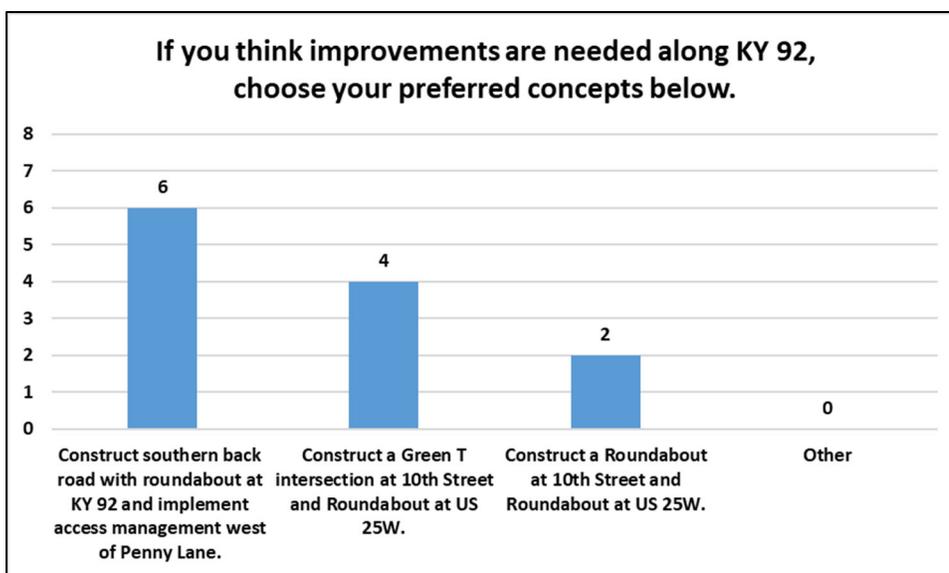


Figure 8: Local Official Survey – KY 92 Improvement Concepts

The next question asked respondents if they think pedestrian and bicycle accommodation are needed along KY 92 between Waterpark Way and US 25W. Four answered that sidewalk(s) are needed, while three answered that sidewalk(s) and bike accommodations are needed, as shown in **Figure 9**.

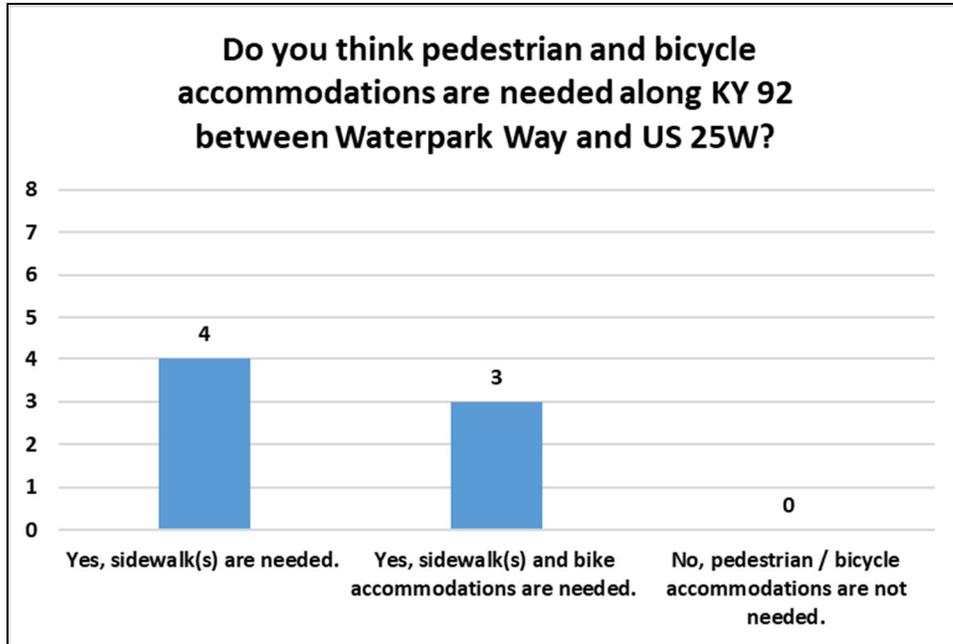


Figure 9: Local Official Survey – KY 92 Pedestrian & Bicycle Accommodations

The respondents were then given the opportunity to identify any other improvements that they would like the Project Team to consider. One respondent indicated that they would want to see a right of way alternative west of Penny Lane.

The next question asked respondents if there were any concepts that they would like the Project Team to remove from consideration. One respondent answered that they would want to see the concept of a “median barrier” removed.

All eight respondents indicated that the meeting provided the right kind of information for the study.

13. The meeting was then opened for discussion.
 - The Police and Mayor like the concept of restriping the access at Happy Hollow and existing Penny Lane.
 - Exit 25, Exit 29, and Exit 38 are all District 11 Access Management Projects. KYTC has had positive experiences with business, especially where access into the businesses were maintained.
 - The project team will consider concepts to include shared-use paths to accommodate bicycles.

- The University of the Cumberland provides shuttles to and from Walmart. The shuttles are available daily, but they have been told that students would prefer to walk if they felt safer doing so and there were sidewalks across I-75.
14. The next steps are to finalize the preliminary concepts, update the cost estimates to include the environmental, right-of-way, and utility costs, and to develop a draft report.

The meeting ended at 12:00 p.m. EDT.