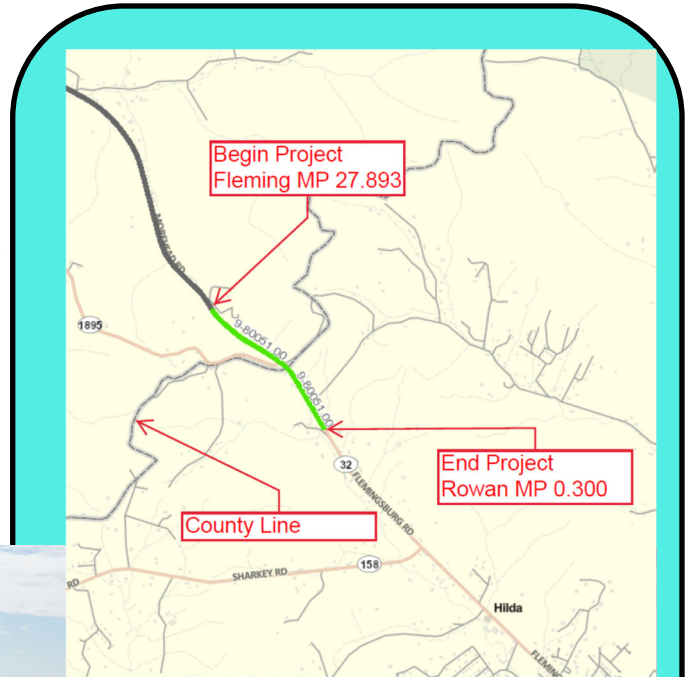
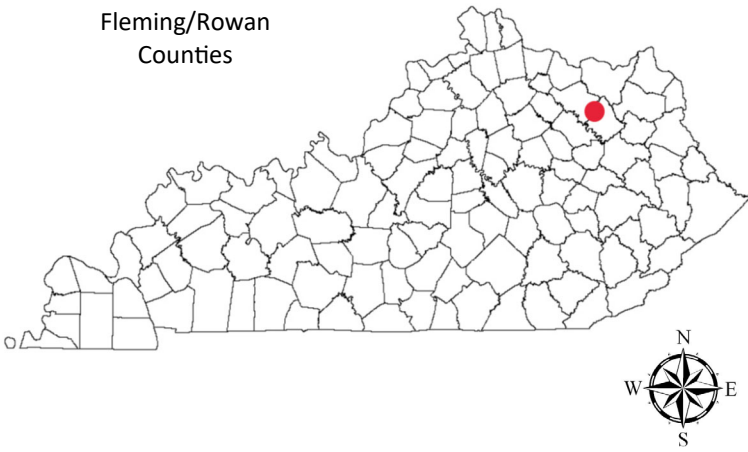


Fleming/Rowan
Counties



Data Needs Analysis



Scoping Study

KY-32 (Flemingsburg/Morehead Road)
at Splice Lick Hill
Fleming/Rowan Counties

Improve Safety and Sight Distance on
KY-32 beginning at 0.4 miles west of
Fleming/Rowan County Line and ending
0.3 miles east of the line.

Item No. 09-80051.00

Prepared by KYTC
District 9

October, 2020



| I. PRELIMINARY PROJECT INFORMATION | | | |
|--|--|----------------------|---|
| County: | Fleming/Rowan | Item No.: | 9-80051.00 |
| Route Number(s):* | KY 32 | Road Name: | Flemingsburg-Morehead Road |
| Program No.: | 12189 | UPN: | FD52 035 0032 (MPs) |
| Federal Project No.: | 321029 | Type of Work: | Spot Improvement |
| 2020 Highway Plan Project Description: | | | |
| Improve safety and sight distance on KY 32 beginning 0.4 miles West of Fleming/Rowan Co. line and ending 0.3 miles East of the line | | | |
| Beginning MP: | Fleming 27.893 Rowan 0.000 | Ending MP: | Fleming 28.293 Rowan 0.300 |
| | | | Project Length: 0.7 Total |
| In TIP: | <input type="checkbox"/> Yes <input type="checkbox"/> No Reconcile Project Information in Clearview | | |
| State Class.: | <input checked="" type="checkbox"/> Primary <input type="checkbox"/> Secondary Route is on: <input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt | | |
| Functional Class.: | <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural Arterial ▼ Truck Class.: AAA ▼ % Trucks: 11.7-12.5 | | |
| MPO Area: | Not Applicable ▼ | | |
| ADT (current): | 3811-5200 2018 & 2019 | | |
| Access Control: | <input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial Spacing: ▼ | | |
| Median Type: | <input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type): | | |
| Existing Bike Accommodations: | Shared Lane ▼ Ped: <input type="checkbox"/> Sidewalk | | |
| Posted Speed: | <input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify): | | |
| KYTC Guidelines Preliminarily Based on : 55 MPH Proposed Design Speed | | | |
| COMMON GEOMETRIC | | | |
| Roadway Data: | <u>EXISTING</u> | <u>PRACTICES**</u> | |
| No. of Lanes | 2 | 2 | Existing Rdwy. Plans available? |
| Lane Width | 12 | 12 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Shoulder Width | 5' paved | 8' | Year of Plans: 1978 |
| Max. Superelevation*** | 8.00% | 8% | <input type="checkbox"/> Traffic Forecast Requested |
| Minimum Radius*** | 1429.39' | 960' | Date Requested: |
| Maximum Grade | 6.7% | 5% | <input type="checkbox"/> Mapping/Survey Requested |
| Minimum Sight Dist. | 247' | 495' | Date Requested: |
| Sidewalk Width(urban) | N/A | N/A | Type: ▼ |
| Clear-zone [†] | Varies | 14' - 30' | |
| Project Notes/Design Exceptions? *Substantial trucks and farm equipment | | | |
| Bridge No.: [‡] | (Bridge #1) | (Bridge #2) | |
| Sufficiency Rating | | | Existing Geotech Data Available? |
| Total Length | | | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Width, curb to curb | | | |
| Span Lengths | | | |
| Year Built | | | |
| Posted Weight Limit | | | Detour Length(s): |
| Structurally Deficient? | | | |
| Functionally Obsolete? | | | |
| Existing Bridge Type | | | |
| *If more than one road is included in the project, include additional sheets. **Based on proposed Design Speed ***AASHTO's A Policy on Geometric Design of Highways and Streets †AASHTO's Roadside Design Guide ‡If more than two bridges are located on the project, include additional sheets. | | | |

| II. PROJECT PURPOSE AND NEED | | | | |
|---|----------------|--------------|-------------|---------------|
| A. Legislation | | | | |
| As shown in the 2020 approved Highway Plan | <i>Funding</i> | <i>Phase</i> | <i>Year</i> | <i>Amount</i> |
| | FED | Planning | 2021 | \$50,000 |
| | FED | Design | 2022 | \$840,000 |
| | FED | Right-of-Way | 2025 | \$1,160,000 |
| | FED | Utility | 2025 | \$850,000 |
| | FED | Construction | 2026 | \$8,520,000 |
| B. Project Status | | | | |
| <p>This project was first put in the 2018 Highway plan with the same item number, description and termini, but with slightly lower phase estimates and state (SPP) funds. Due to state funding shortfalls, the funding was never authorized. The current highway plan (2020) increased phase estimates for inflation and changed all phases to federal funding. Central Office leadership has provided direction to request funds and advertise the project for consultant services.</p> | | | | |
| C. System Linkage | | | | |
| <p>KY 32 provides a vital connection from Georgetown (Scott County) east to Louisa (Lawrence County) while traversing Harrison (Cynthiana), Nicholas (Carlisle), Fleming (Flemingsburg), Rowan (Morehead) and Elliott (Sandy Hook) Counties. The highest traffic volumes are between Flemingsburg and Morehead where KY 32 serves as the primary link between the two cities and provides connectivity to I-64 and KY 11.</p> | | | | |
| D. Modal Interrelationships | | | | |
| <p>As a state primary, rural minor arterial highway, KY 32 provides a primary connection to the Fleming-Mason Airport and the Morehead-Rowan County airport. It also provides a connection to KY 11 north to Maysville where there is access to TTI and CSX railroads, Amtrak and river ports along the Ohio. This section of KY 32 is part of the National and Kentucky Freight Networks so it is vital for shipping truck freight to and from Eastern Kentucky.</p> | | | | |
| E. Social Demands & Economic Development | | | | |
| <p>Fleming County has a great potential for economic growth while Rowan County has been and is experiencing strong economic growth. As industry and jobs continue to increase, KY 32 will continue to see an increase in traffic demand, for both commuters and freight. Commuters depend on KY 32 to travel to regional attractions such as Morehead State University, St. Claire Regional Hospital and large retail businesses such as Walmart in Morehead. Providing safety improvements to KY 32 are essential for this region of Eastern Kentucky to continue to grow.</p> | | | | |

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

Traffic volumes have shown a slight, but steady increase in in Fleming County ranging from 3250 AADT in 1995 up to 3811 AADT in 2018. Rowan County volumes have shown a greater increase ranging from 3140 AADT in 1991 up to 5200 AADT in 2019. With ongoing commercial and residential development along KY 801 in Rowan County, traffic volumes and truck percentages are expected to increase along KY 32.

G. Capacity

This section of KY 32 currently operates below capacity. Even though traffic volumes are expected to increase in the future, the existing 2 lane section is not expected to warrant additional through lanes.

H. Safety

Between July, 2015 and August, 2020, there have been 14 reported crashes within this short, 0.7 mile section of KY 32 (10 in Fleming and 4 in Rowan County). Of the 14 reported crashes, there were no fatalities, 3 with injuries and 11 with property damage only.

I. Roadway Deficiencies

KY 32, within the project limits, is marked by several geometric design deficiencies. Beginning at the western end of the project in Fleming County, the existing 6.7% grade exceeds the maximum AASHTO recommendation of 5%. The KY 1895 approach to KY 32 is on a significant down grade making it difficult to stop at the intersection. Furthermore, the intersection is located approximately 100' off the top of a crest curve with a Stopping Sight Distance (SSD) of 247', significantly less than the AASHTO recommendation of 495'. Finally, two more vertical curves with SSD's of 333' and 250' are immediately to the east of the KY 1885 intersection.

| III. PRELIMINARY ENVIRONMENTAL OVERVIEW | |
|--|--|
| A. Air Quality Project is in: <input checked="" type="checkbox"/> Attainment area <input type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County STIP Pg.#: <u>Will need to be added to STIP</u> TIP Pg.#: _____ | |
| B. Archeology/Historic Resources <input type="checkbox"/> Known Archeological or Historic Resources are present There are no known archeology or National Register of Historic Places listed properties within the project limits. One house near the KY 1895 intersections appears to be potentially eligible for the NRHP. Eligibility of this property will need to be determined early in the design phase so that impacts can be avoided or minimized, if required. Archeology investigations will be conducted during the design phase. | |
| C. Threatened and Endangered Species Four bat species, one freshwater mussel species and two plant species are listed as federally threatened or endangered species that potential occur in the project area. A Habitat Assessment will be conducted during the design phase to determine if biological fieldwork for these species will be required. | |
| D. Hazardous Materials <input type="checkbox"/> Potentially Contaminated Sites are present <input checked="" type="checkbox"/> Potential Bridge or Structure Demolition No properties within the limits of the project appear to be suspect for contaminated materials or USTs. If structures are acquired, the asbestos inspection and abatement will occur during the right of way process prior to demolition. There are no bridges within the limits of the project. | |
| E. Permitting Check all that may apply: <input checked="" type="checkbox"/> Waters of the US <input type="checkbox"/> MS4 area <input type="checkbox"/> Floodplain Impacts <input type="checkbox"/> Navigable Waters of the US Impacts Are 401/404 Permits likely to be required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Impacts to: <input type="checkbox"/> Wetlands <input checked="" type="checkbox"/> Stream/Lake/Pond <input type="checkbox"/> ACE LON <input type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input type="checkbox"/> Special Use Waters Spice Lick, Little Brushy Creek, and possibly two ephemeral streams are within the limits of the project. Since the headwaters of Spice Lick run parallel to existing KY 32 it would seem likely that portions of it may require relocation. The level of permit required will depend on the extent that the streams are impacted, particularly, the amount that is relocated. A Nationwide permit may be applicable if impacts can be kept to less than a 1/2 acre of fill and/or 300' disturbed | |
| F. Noise Are existing or planned noise sensitive receptors adjacent to the proposed project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is this considered a "Type I Project" according to the KYTC Noise Analysis and Abatement Policy? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No There are a few residences that are adjacent to the proposed project, particularly on the end in Rowan County and a couple along KY 1895. At this time it is not believed that the project is a Type I project. However, a determination will be made once plans are available to illustrate the extent of the proposed vertical and horizontal adjustments. If plans shift the roadway towards a receptor by more than half or if substantial shielding effect is reduced because of vertical cuts, then the project may require a noise analysis | |
| G. Socioeconomic Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations <input checked="" type="checkbox"/> Relocations <input checked="" type="checkbox"/> Local Land Use Plan available Potentially, two residences (one appears vacant) and one business could require relocation. An EJ analysis will be performed during design if determined necessary. Both Fleming and Rowan counties have some form of joint planning commission with the cities, so there could be local land use plans available for each county. | |
| H. Section 4(f) or 6(f) Resources The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources There are no publicly owned parks, refuges or recreation areas within the limits of the project. One potentially eligible house/property could be considered a Section 4(f) resource if determined to be eligible for the National Register of Historic Places. Section 6(f) impacts are not expected since there are no parks for LWCF to have been used. | |

9-80051.00
Fleming/Rowan

Data Needs Analysis
Scoping Study

KY 32
Spot Improvement

| | |
|--|--|
| Anticipated Environmental Document: | CE Level 2  |
|--|--|

| IV. PROJECT SCOPING, NEEDS & PURPOSE | |
|--|--|
| A. Scoping & Need: | |
| <p>KY 32 at the Fleming/Rowan County line was significantly widened around 1980. Unfortunately, the horizontal alignment was only slightly modified and the vertical alignment remained unchanged (other than additional pavement thickness) since its initial construction in the early 1930's. More recent pavement rehabilitations and minor safety improvements have added paved shoulders, rumble strips, better striping and slightly improved intersection sight distance, but the vertical grades designed in the 1930's fall severely short of current AASHTO recommendations for rural minor arterial highways posted at 55 mph with 4000 to 5000 AADT and 12% trucks. To further complicate this particular section of KY 32, the KY 1895 intersection is within a series of these deficient vertical curves severely limiting intersection sight distance looking eastbound and stopping sight distance along westbound KY 32. Clearzone is obstructed by steep ditches that are too close to the edge of shoulder, guardrail, trees, utility poles and culverts. Industrial, commercial, retail and residential growth within the area has resulted in a steady growth of both commuter and commercial traffic and a higher than average crash rate. Geometric improvements are needed to bring this short section of KY 32 up to current standards that address current and future travel demands and reduce the frequency of crashes and improve overall safety. The need for turn lanes, right of way impacts and utility impacts should be evaluated as part of these improvements.</p> | |
| B. Draft Project Purpose: | |
| <p>Improving KY 32 as well as the KY 1895 approach to KY 32 to address numerous deficiencies will improve safety, mobility, access and connectivity for northeastern Kentucky promoting continued economic growth for this region.</p> | |

| V. PROJECT ESTIMATE & METHODOLOGY | |
|--|--|
| Estimate Methodology: | Current Estimate |
| Current highway plan estimates were based upon using consultant services for design. Construction estimates were based on improving the grade, vertical curves and possibly adding turn lanes on KY 32. Improvements to the KY 1895 approach were also considered. | <u>Phase</u> <u>Estimate</u> |
| | Planning \$50,000 |
| | Design \$840,000 |
| | R/W \$1.16M |
| | Utilities \$850,000 |
| | Const \$8.52M |
| | Total \$11.42M |

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

| | |
|----------------|--|
| Company Name - | Fleming-Mason Energy |
| Contact - | Brandon Hunt (bhunt@fme.coop) |
| Address - | PO Box 328, 1449 Elizaville Road, Flemingsburg, KY 41041 |
| Phone No. - | (606) 845-2661 |
| Company Name - | Delta Natural Gas Company |
| Contact - | Jonathan Morpew (morpew@deltagas.com) |
| Address - | 3617 Lexington Rd., Winchester, KY 40391 |
| Phone No. - | (859) 744-6171 ext. 1123 |
| Company Name - | Windstream Kentucky Inc. |
| Contact - | Chris Barker (chris.barker@windstream.com) |
| Address - | 1715 East Broadway Street, Campbellsville, KY 42718 |
| Phone No. - | (606) 784-4140 |
| Company Name - | Time Warner Cable |
| Contact - | Steven Smith (rsteven.smith@charter.com) |
| Address - | 1617 Foxhaven Drive, Richmond, KY 40475 |
| Phone No. - | (859) 626-4809 |
| Company Name - | Morehead Utility Plant Board |
| Contact - | Holly McGrath-Rosas (hrosas@mupb.com) |
| Address - | 135 S. Wilson Avenue, Morehead, KY 40351 |
| Phone No. - | (606) 784-5538 |
| Company Name - | Rowan Water Inc. |
| Contact - | Jerry Patrick (rowanwater@windstream.net) |
| Address - | 1765 Christy Creek Rd., Morehead, KY 40351 |
| Phone No. - | (606) 784-9818 |
| Company Name - | Kentucky Wired |
| Contact - | Mike Hayden (mike.hayden@ky.gov) |
| Address - | Ledcor: 2008 Mercer Road, Lexington, KY 40511 |
| Phone No. - | (502) 782-2535 |

VII. TABLES AND EXHIBITS

KY-32 looking east towards the Rowan/Fleming Line from near MP 27.8 in Fleming.



KY-32 looking west towards the KY-32/KY-1895 junction from near/at the Rowan/Fleming Line.



VII. TABLES AND EXHIBITS (CONT.)

Looking west on KY-32 from the cardinal-lane stop-bar of KY-1895 @ the KY-32/KY-1895 junction.



Looking east on KY-32 from the cardinal-lane stop-bar of KY-1895 @ the KY-32/KY-1895 junction.



VII. TABLES AND EXHIBITS (CONT.)

KY-1895 looking in the non-cardinal direction from the KY-32/KY-1895 junction.

