

Public Meeting

Smiths Grove Traffic Operations Study

Warren County

July 27, 2023



Study Overview

The Kentucky Transportation Cabinet (KYTC) is seeking your input on a study affecting KY 101 near the interchange with I-65 in Smiths Grove, Kentucky. The study serves as the first step in establishing project goals, identifying environmental concerns, and evaluating preliminary improvement concepts.

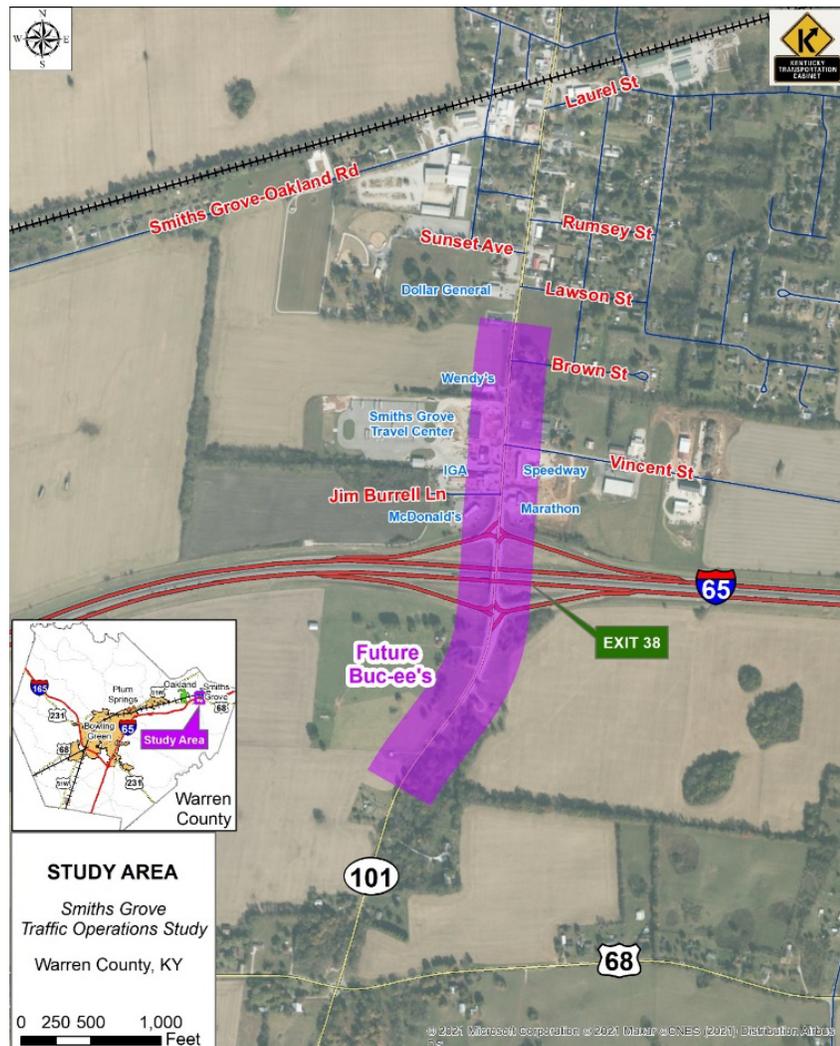
The objective of the Smiths Grove Traffic Operations Study is to take a comprehensive look at the KY 101 (South Main Street) commercial corridor in Smiths Grove – approximately ¼-mile each side of the I-65 interchange – and evaluate the need for improvements.

Existing Conditions

Safety is the primary concern along KY 101, along with alleviating congestion anticipated from future development. This portion of KY 101 carries a heavy mix of local and regional traffic as it connects Smiths Grove and Scottsville with I-65. It not only serves as a connection for these cities, but also provides access to numerous existing businesses. Angle, backing, rear-end, and sideswipe collisions make up a majority of the crashes along the study area portion of KY 101 - crash types that are typically attributed to issues related to access. Without improvement, the frequency of these types of crashes is expected to increase as traffic from future development increases.

In the five years between 2017 and 2021, there were 57 collisions reported on the study portion of KY 101, one of which resulted in a fatality and ten resulted in an injury. Further analysis revealed KY 101 has experienced more crashes than what is expected based on roadway characteristics and has a moderate to high potential for crash reduction.

Current Average Daily Traffic (ADT) volumes on KY 101 range from 4,900 vehicles per day (VPD) south of the interchange to 5,600 VPD to the north. Results from the existing traffic analysis show that all study area intersections currently operate at an acceptable level during the AM and PM peak hours.



Future Conditions

Construction is currently underway for a Buc-ee's in the southwest quadrant of the interchange. In order to accommodate the additional traffic from Buc-ee's, the following roadway improvements will be constructed:

- Install Traffic Signals on KY 101 at the I-65 Northbound and Southbound Ramps
- Widen the I-65 Ramps to Accommodate Dedicated Left- and Right-Turn Lanes
- Construct a Dual Lane Roundabout on KY 101 at the Main Buc-ee's Entrance
- Construct a Second Stop-Controlled Buc-ee's Entrance on KY 101 south of the Proposed Roundabout

In addition to the construction of Buc-ee's, additional development is likely to occur in the study area. These developments would further increase traffic turning onto and off KY 101 in the commercial area north of I-65. Between 2017 and 2021, there were 27 crashes on the commercial section of KY 101, 52 percent of which were angle collisions – common crash types in commercial areas with significant turning traffic. This study is examining the need for additional roadway improvements to reduce the frequency and severity of these types of crashes as well as reducing congestion anticipated from future development.

Improvement Concepts

Preliminary improvement concepts have been developed to improve congestion and safety by separating driveways so turning and crossing movements occur at fewer locations. Each driveway creates potential conflicts between through traffic and traffic using that access. Separating driveways and street entrances allows drivers passing through an area to predict where other drivers will turn and cross. Studies consistently show that well-managed roadways have crash rates 40 to 50 percent lower than poorly managed routes.

Issues / Project Goals	Existing (No Build)	Concept 1	Concept 2	Concept 3	Concept 4
Estimated Construction Cost	\$0	\$1,400,000	\$2,700,000	\$4,900,000	\$4,700,000
Benefit-to-Cost Ratio (Crash Reduction)	N/A	0.3	0.2	1.0	0.9
Improves Safety by Reducing Conflict Points	✘	●	●	✔	✔
Improves Congestion by Decreasing Access Density	✘	●	●	✔	✔
Provides Truck Access	●	●	●	✔	✔
Accommodates Future Development	✘	●	✔	✔	✔
Provides Sidewalk	✘	✔	✔	✔	✔
Reduces Right-of-Way Impacts	✔	✔	●	●	●
Reduces Utility Impacts	✔	✔	✔	✔	✔
<p>Key: ✘ Not Addressed ● Somewhat Addressed ✔ Addressed</p>					

Evaluation Matrix of Preliminary Improvement Concepts

We Need Your Input!

We need your input to help us develop and prioritize improvement concepts for the Smiths Grove Traffic Operations Study! Please take a look at the improvements concept exhibit boards and complete the attached survey. If you have additional question, please contact Ben Hunt with the Kentucky Transportation Cabinet at (270) 746-7898 or Benjamin.Hunt@ky.gov.