



# Smiths Grove Traffic Operations Study

Public Meeting

July 27, 2023

TEAM  
**KENTUCKY**<sup>®</sup>

TRANSPORTATION  
CABINET





# Why we are here

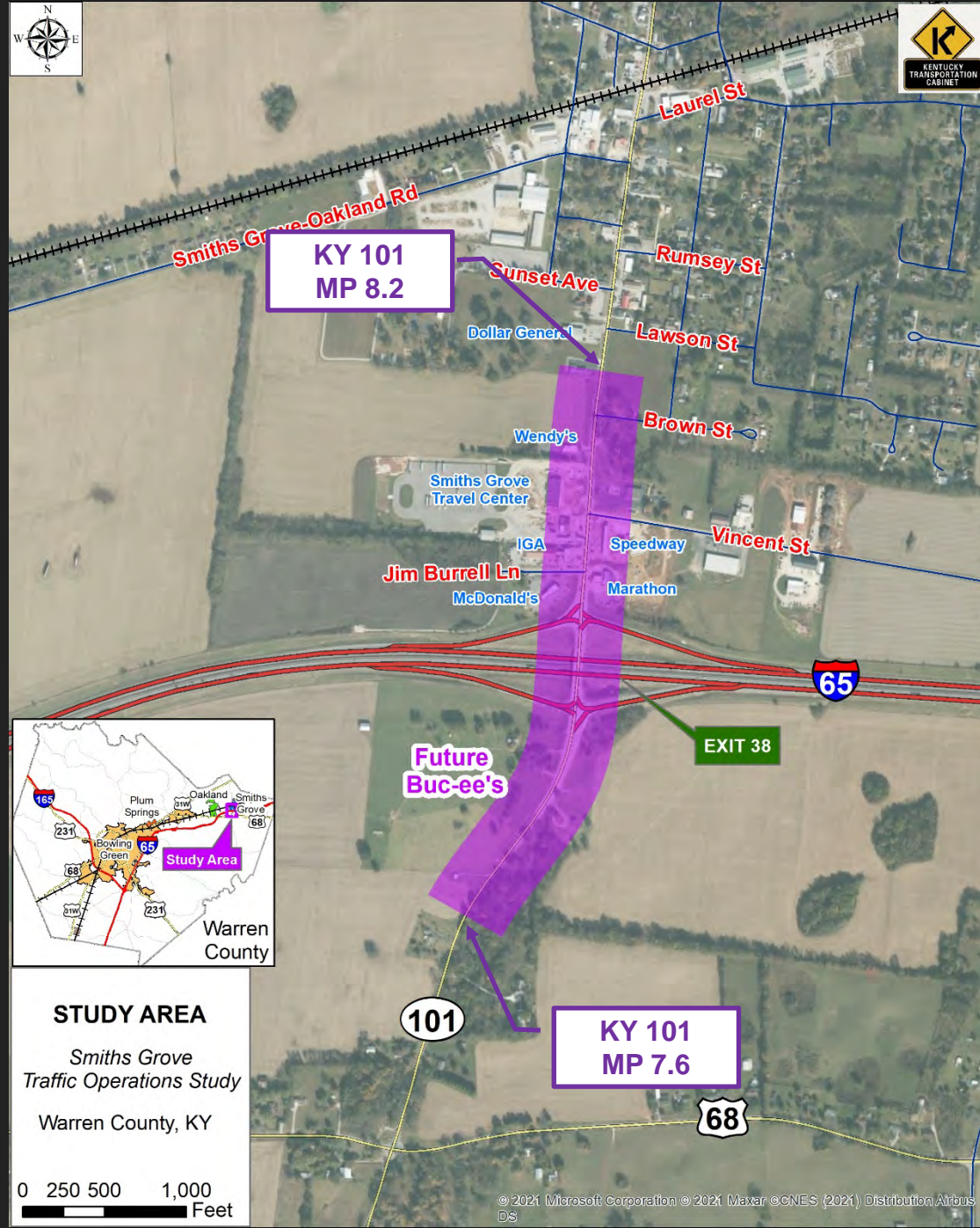
- To share information about the Smiths Grove Traffic Operations Study
- To discuss improvement concepts that are under consideration
- **Most importantly, to listen to your comments and concerns and to solicit your input.**

# The Project Team

- Kentucky Transportation Cabinet
  - District 3 (Bowling Green)
  - Central Office (Frankfort)
- Bowling Green & Warren County Metropolitan Planning Organization
- Barren River Area Development District
- Consultant
  - Stantec Consulting Services



# Study Area



# Study Objective

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 propose and evaluate improvement concepts.

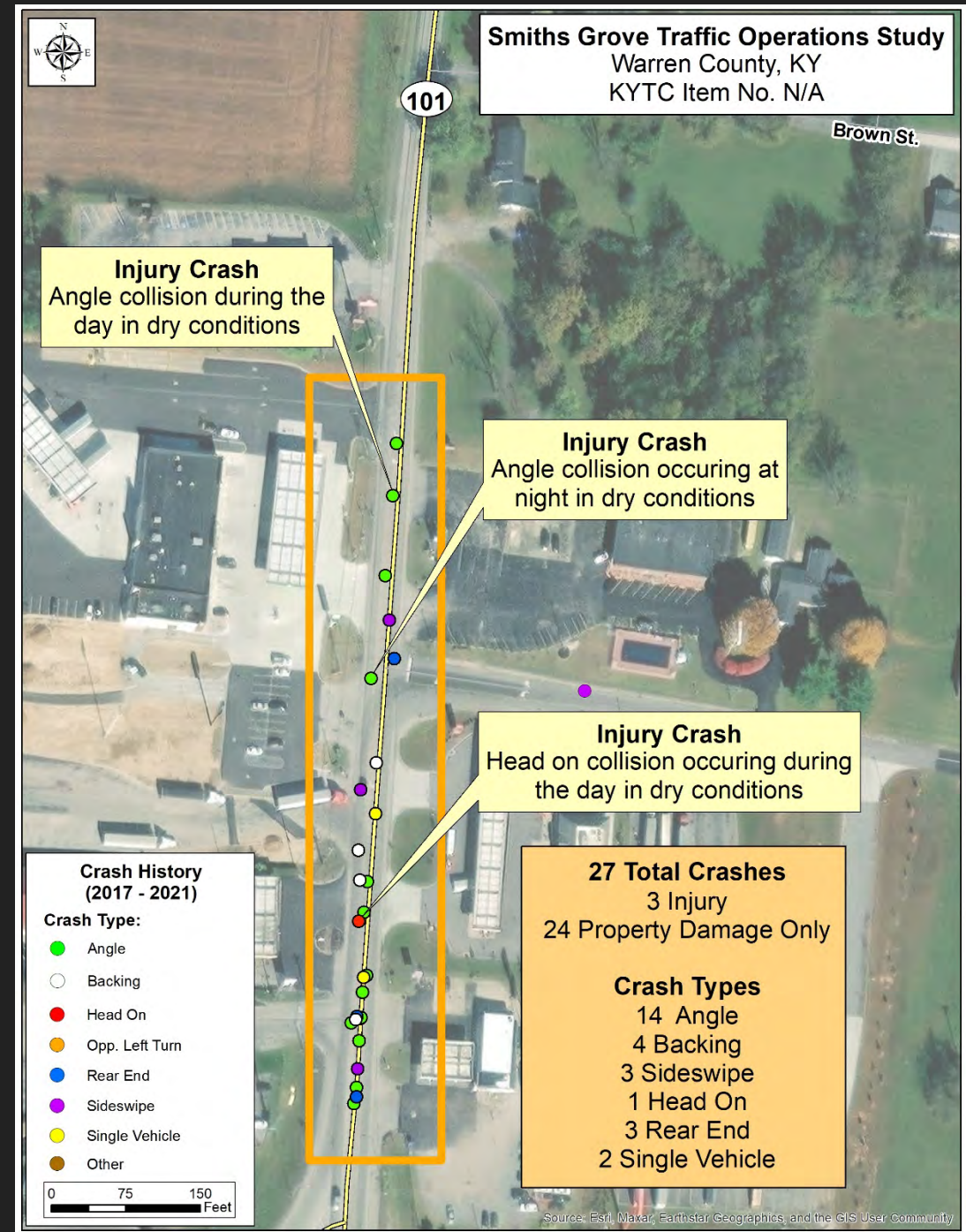


# Existing Conditions

# Safety Analysis

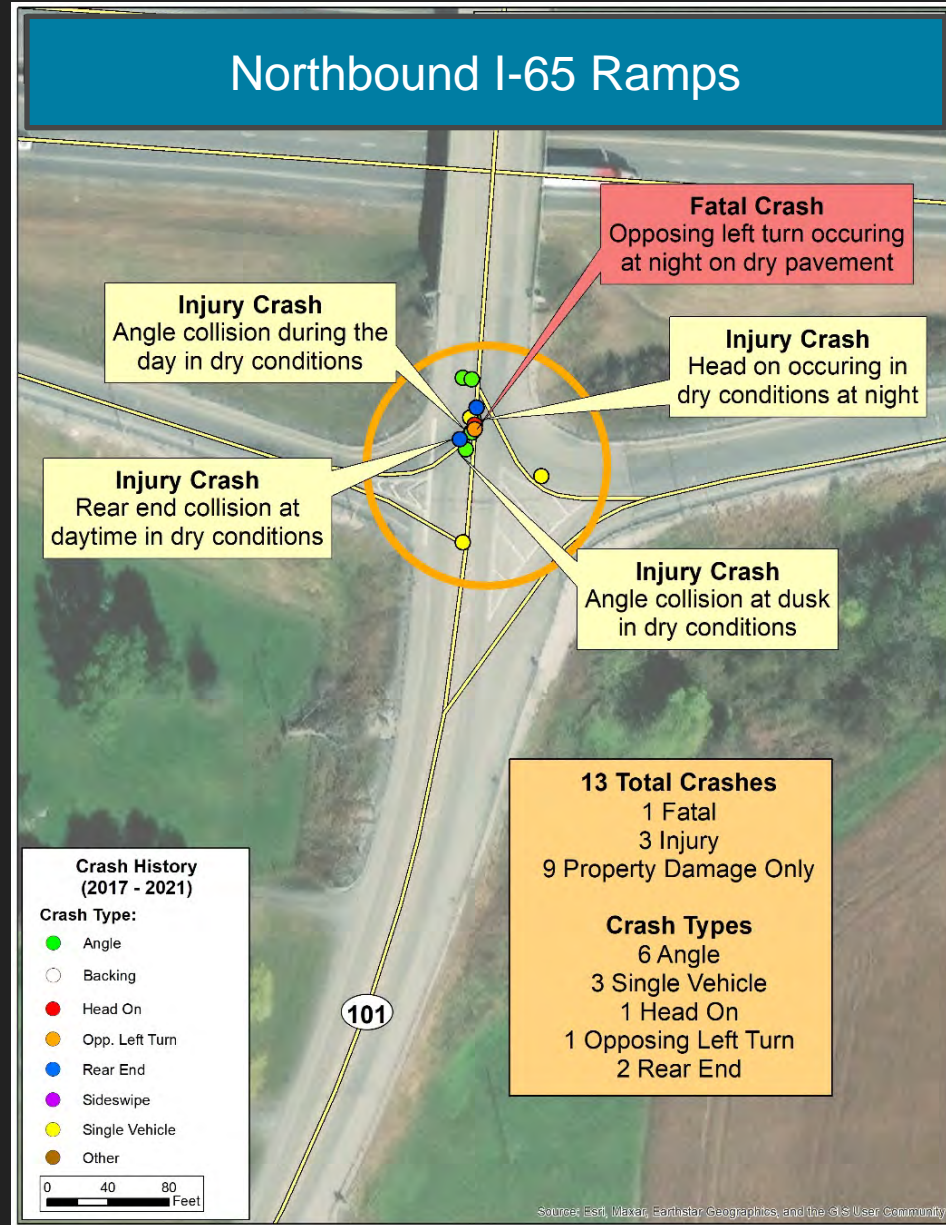
## KY 101 North of I-65 (2017 – 2021)

- 27 Crashes Total
- 52% Angle Collisions





# Safety Analysis



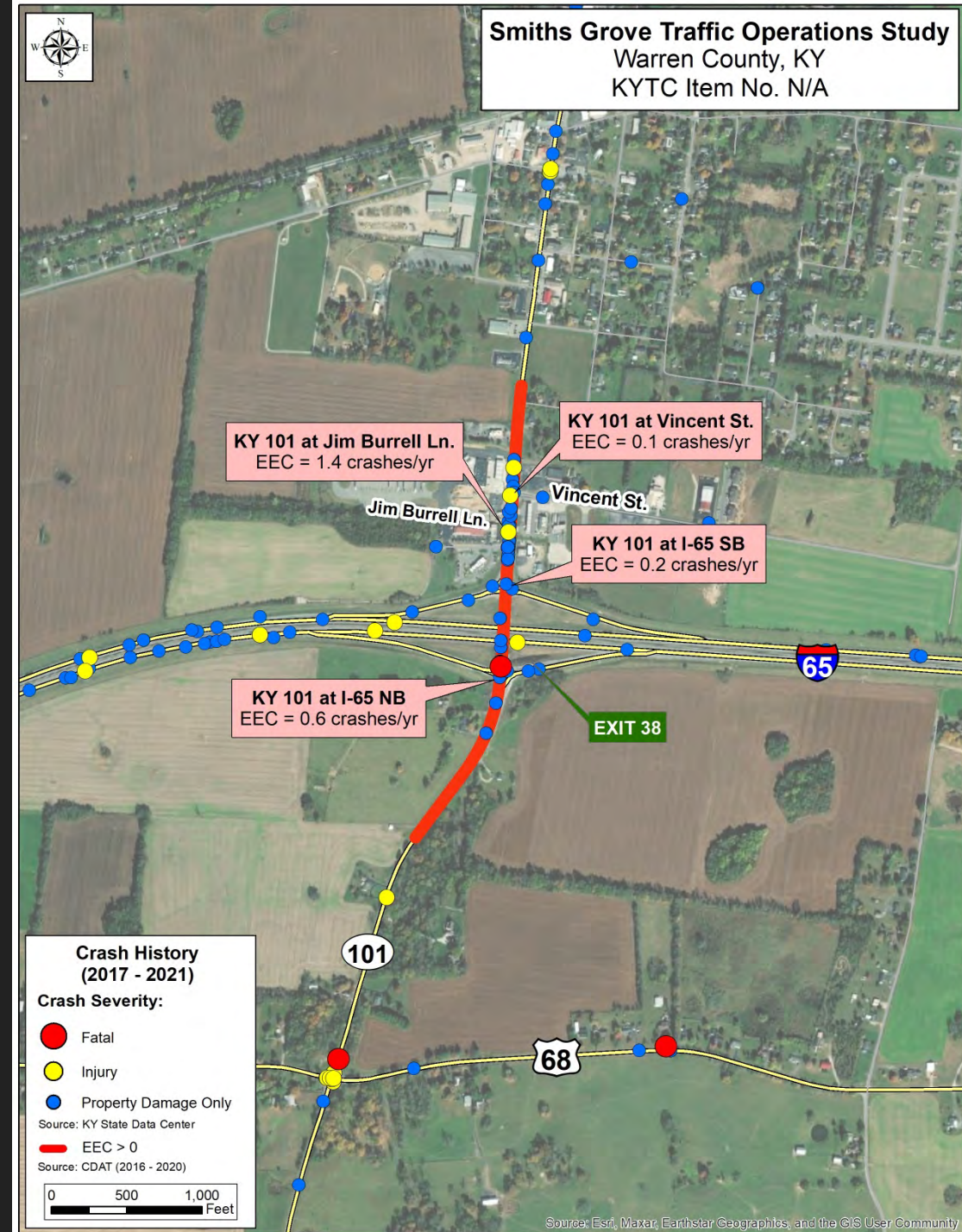


# Level of Service of Safety (LOSS)

- KY 101 has a LOSS = 3, which indicates moderate to high potential for crash reduction.

## Intersection Excess Expected Crashes (EEC)

Intersection	Ann. EEC
KY 101 at I-65 NB Ramps	0.2
KY 101 at I-65 SB Ramps	0.6
KY 101 at Jim Burrell Ln	1.4
KY 101 at Vincent St.	0.1



# Existing Traffic Analysis

## 2022 Existing Weekday Peak Hour Simulation Model

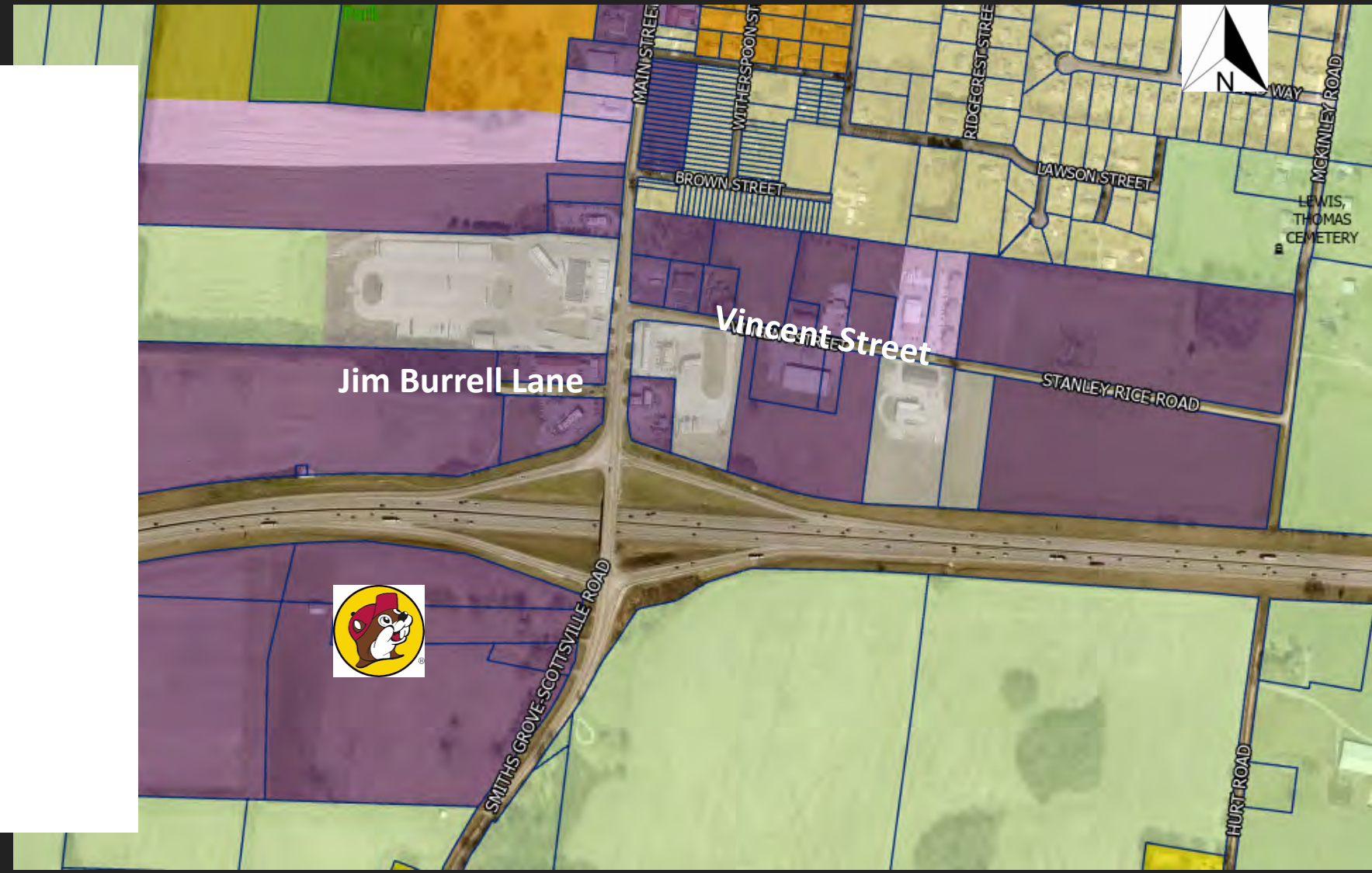
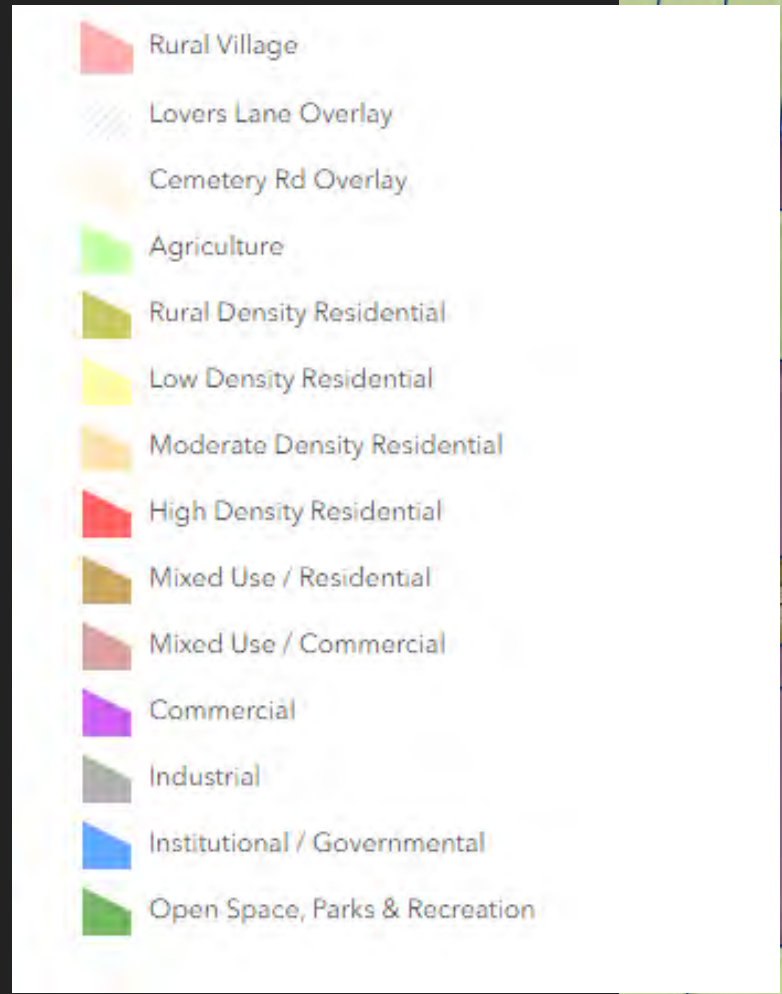




# Future Conditions



# Future Developments



Source: City-County Planning Commission

# Buc-ee's Improvements

## KY 101 at SB Ramps

- Install Traffic Signal
- Construct LT & RT Lanes on Off Ramp

## KY 101 at NB Ramps

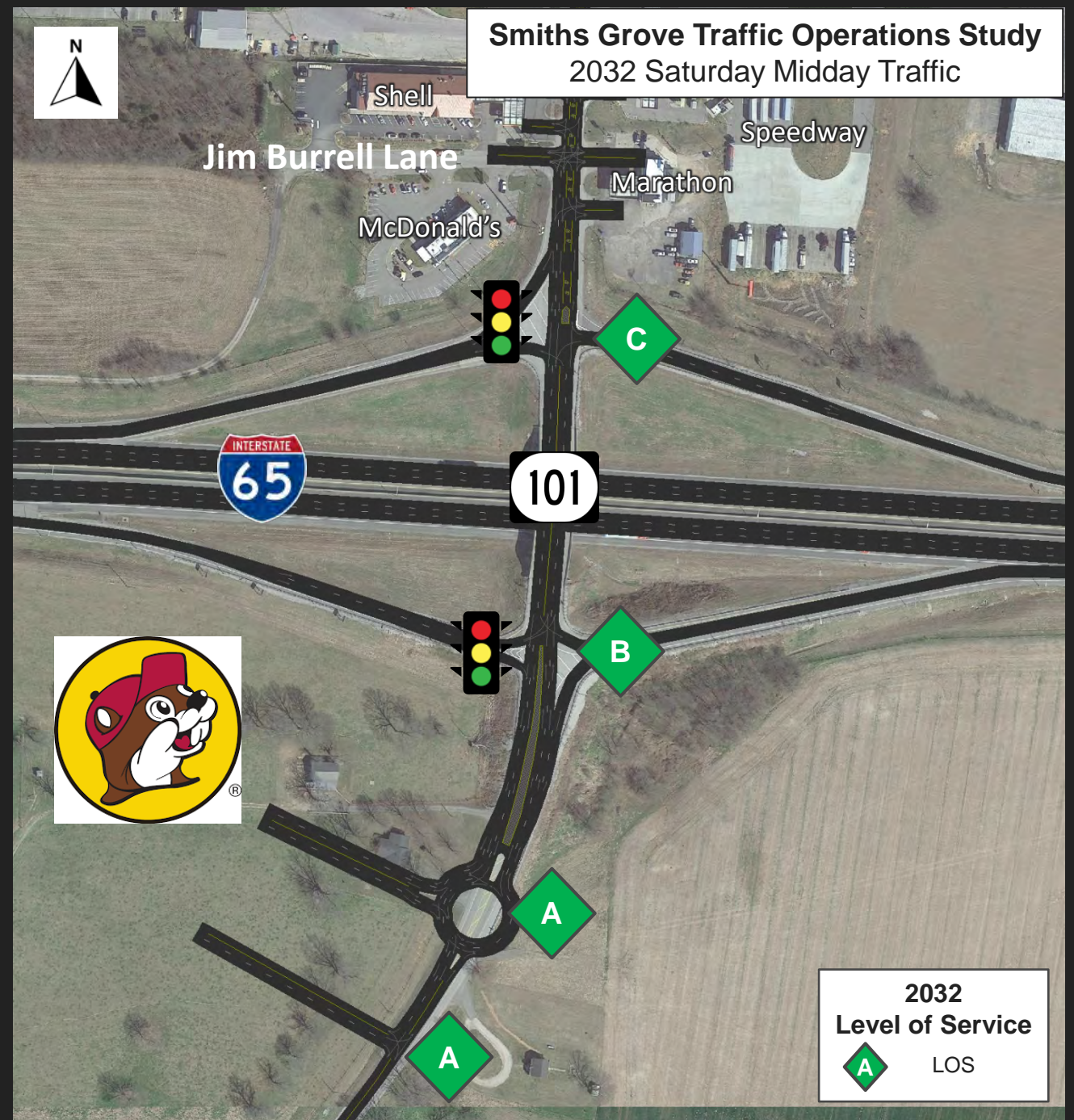
- Install Traffic Signal
- Construct LT & RT Lanes on Off Ramp

## KY 101 at Buc-ee's Access Point

- Construct Roundabout

## KY 101 at Buc-ee's Blvd.

- Construct Stop-Controlled Intersection w/ Left & Right Turn Lanes





# Design Guidelines





# Preliminary Improvement Concepts



# Example Improvement Concept



Dashed Lines are Roadway Improvements from Buc-ee's

Orange Lines are representative backage roads to show the benefits of alternative access through side streets. They would not be constructed by KYTC but are recommendations to be considered if future development occurs.

Proposed Improvements

SMITHS GROVE PRELIMINARY IMPROVEMENT CONCEPT 4

SCALE 1"=100'

# Evaluation Matrix




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	✓	✓	✓	✓	✓

Key:

- ✘ Not Addressed
- Somewhat Addressed
- ✓ Addressed

# We need your help!

Please fill out a survey to help us determine improvement concept priorities.

		<p>COMMONWEALTH OF KENTUCKY KENTUCKY TRANSPORTATION CABINET DISTRICT 3</p>															
<p>Public Meeting</p> <p><b>Smiths Grove Traffic Operations Study</b> KY 101 from MP 7.6 to MP 8.2 Warren County Thursday, July 27, 2023</p>																	
<p>The objective of the study is to take a comprehensive look at the KY 101 (South Main Street) commercial corridor in Smiths Grove – approx. 1/4-mile each side of the interchange with I-65 – and evaluate the need for improvements. The Kentucky Transportation Cabinet will use your input to help determine project needs and concept prioritization. Please return this survey during the meeting or return it by mail through <b>August 3, 2023</b>.</p>																	
<p>Name: _____</p> <p>Organization (if any): _____</p> <p>E-mail: _____</p>																	
<p>1. How often do you drive the study area portion of KY 101?    <input type="checkbox"/> Daily    <input type="checkbox"/> 2-3 times per week    <input type="checkbox"/> 2-3 times per month    <input type="checkbox"/> Rarely</p>																	
<p>2. Do you own or rent / lease property within the study area?    <input type="checkbox"/> Own    <input type="checkbox"/> Rent    <input type="checkbox"/> Neither</p>																	
<p>3. What do you see as the top three transportation issues in the study area? Rank the options as 1-3 in order of importance where 1 is the highest priority and 3 is the lowest. If there are additional issues that should be included, please list them below.</p> <table border="0"> <tr> <td>_____</td> <td>_____ Congestion</td> <td>_____ No Sidewalks</td> </tr> <tr> <td>_____</td> <td>_____ Safety</td> <td>_____ No Bicycle Facilities</td> </tr> <tr> <td>_____</td> <td>_____ Too Many Driveways</td> <td>_____ Other (explain)</td> </tr> <tr> <td>_____</td> <td>_____ Too Many Trucks</td> <td></td> </tr> </table>						_____	_____ Congestion	_____ No Sidewalks	_____	_____ Safety	_____ No Bicycle Facilities	_____	_____ Too Many Driveways	_____ Other (explain)	_____	_____ Too Many Trucks	
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_____	_____ Too Many Driveways	_____ Other (explain)															
_____	_____ Too Many Trucks																
<p>4. Do you think improvements are needed along KY 101?    <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Unsure</p>																	
<p>5. Which Improvement Concept do you prefer?</p> <p><input type="checkbox"/> Concept 1    <input type="checkbox"/> Concept 2    <input type="checkbox"/> Concept 3    <input type="checkbox"/> Concept 4    <input type="checkbox"/> Do Nothing</p>																	
<p>6. Do you have any additional suggestions for improvements along KY 101? Please share your ideas below.</p> <p>_____</p> <p>_____</p> <p>_____</p>																	

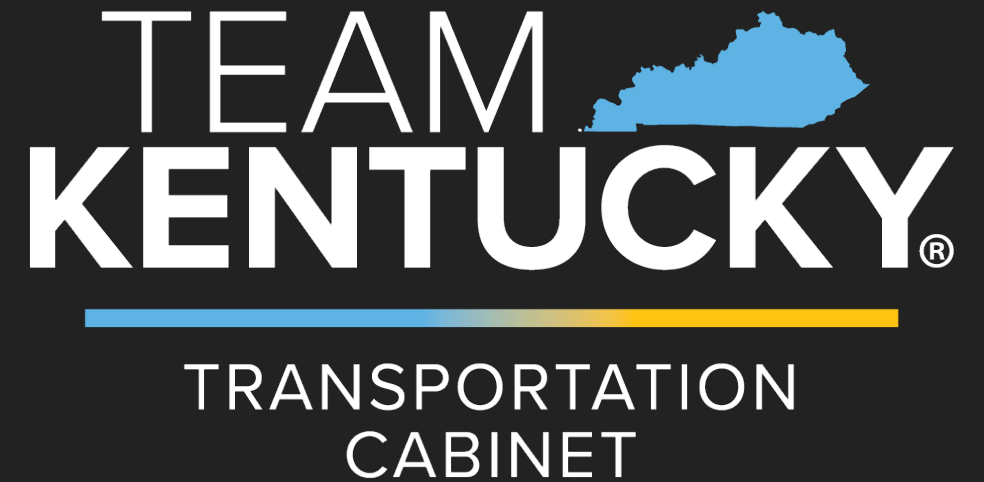


## Next Steps

1. Refine Improvement Concepts based on Public Feedback
2. Study Report Later this Year



Thank you for  
attending!



Please fill out a survey!