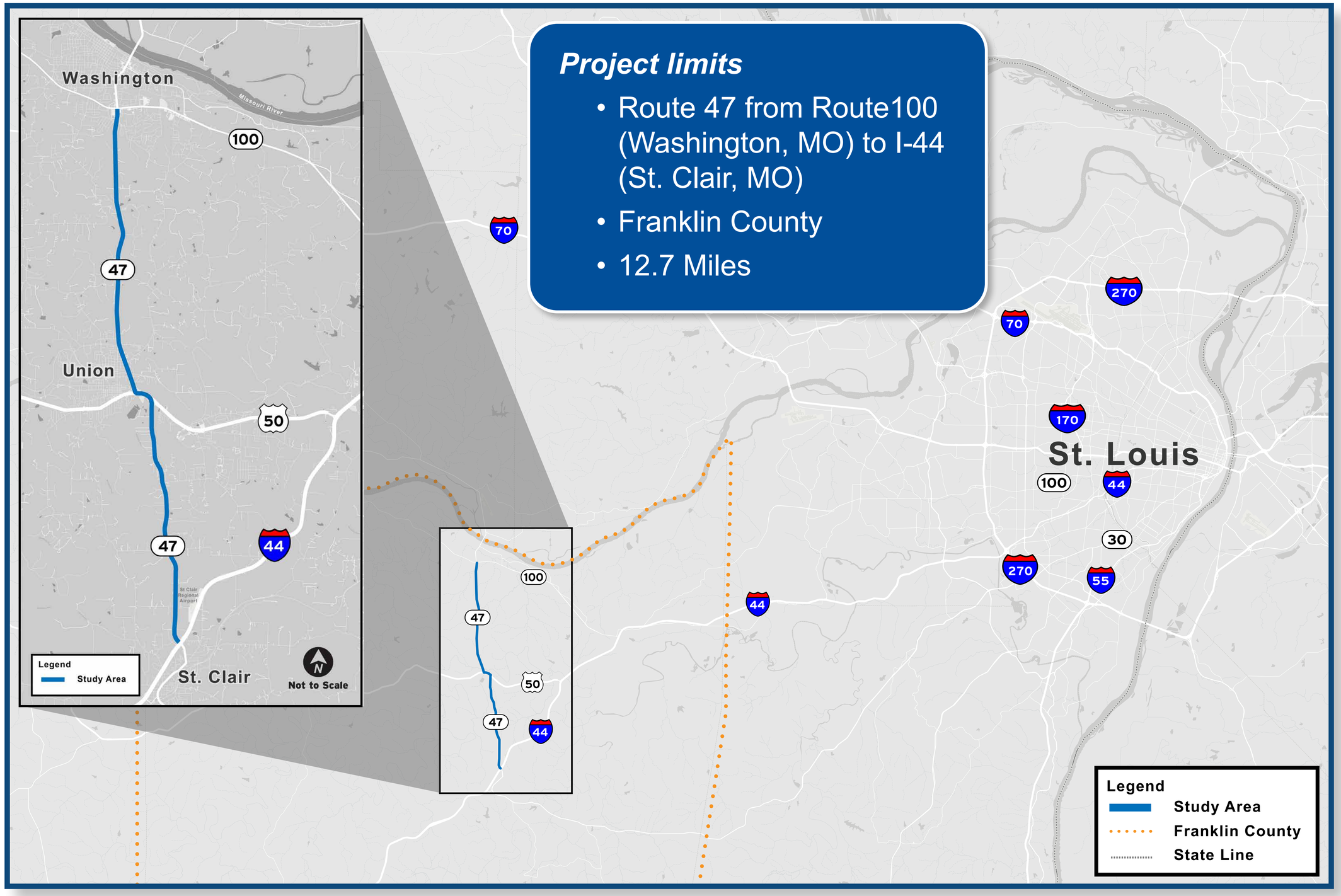
MoDOT Route 47 Project Location Overview



Project location in relation to the St. Louis metro area

Funding and Construction / Conceptual Study

$78.1M Programmed for Construction in FY2028

The Study will seek to:

- Identify improvements to meet the project goals within the Construction Budget
- Identify any additional improvements in excess of the Budget
- Recommend a project delivery method



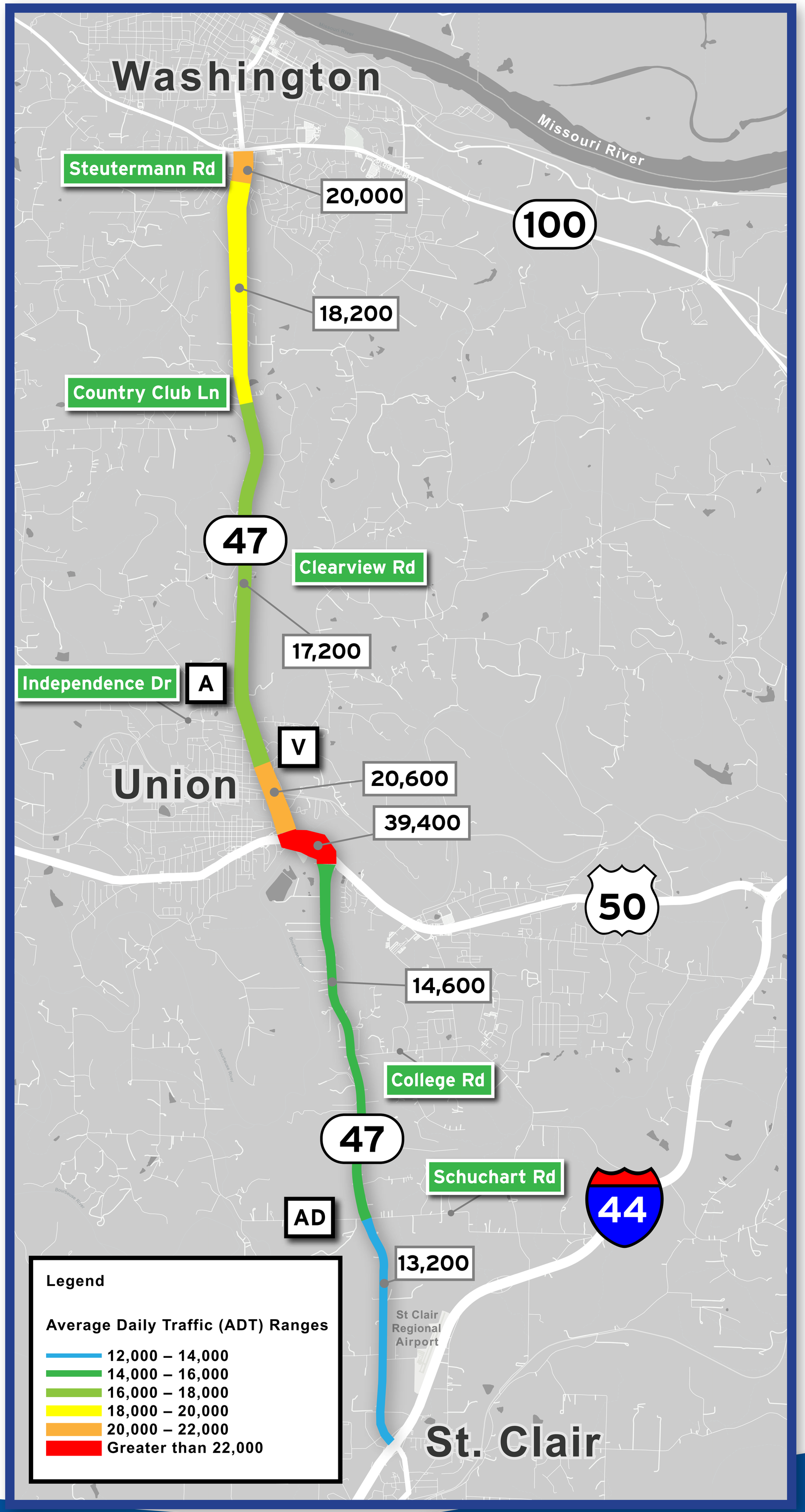
IDENTIFY ISSUES

- **Safety and Mobility for All Users**
- **Intersections and Access Management**
- **Condition of Existing Infrastructure**
- **Stakeholder Input**

FUTURE 47

MoDOT

Route 47 Average Daily Traffic (ADT)



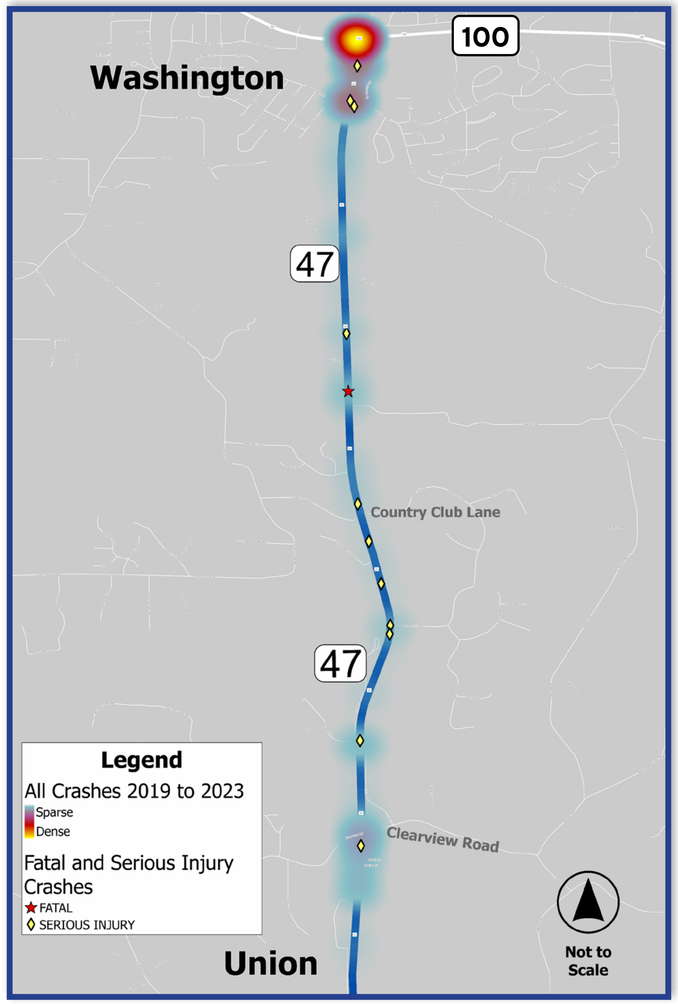
FUTURE 47

Route 47 Crash Information

All Crashes 2019–2023

Crash Severity	Count	Percentage
Fatal	7	0.5%
Serious Injury	29	2.0%
All Other Crashes	1415	97.5%
Total	1451	

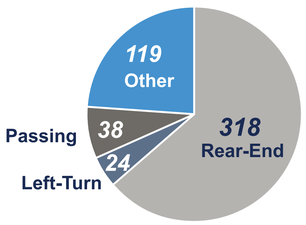
Washington to Union



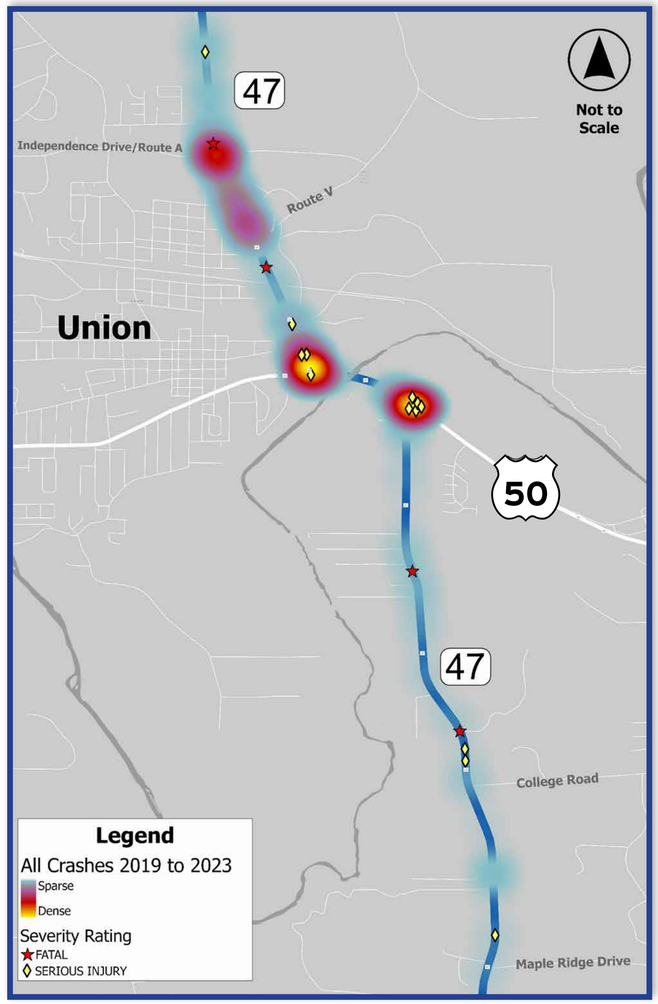
Northern Segment

Crash Severity	Count	Percentage
Fatal	1	0.2%
Serious Injury	11	2.2%
All Other Crashes	487	97.6%
Total	499	

Crash Type



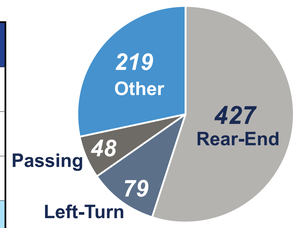
Route 47 & US-50



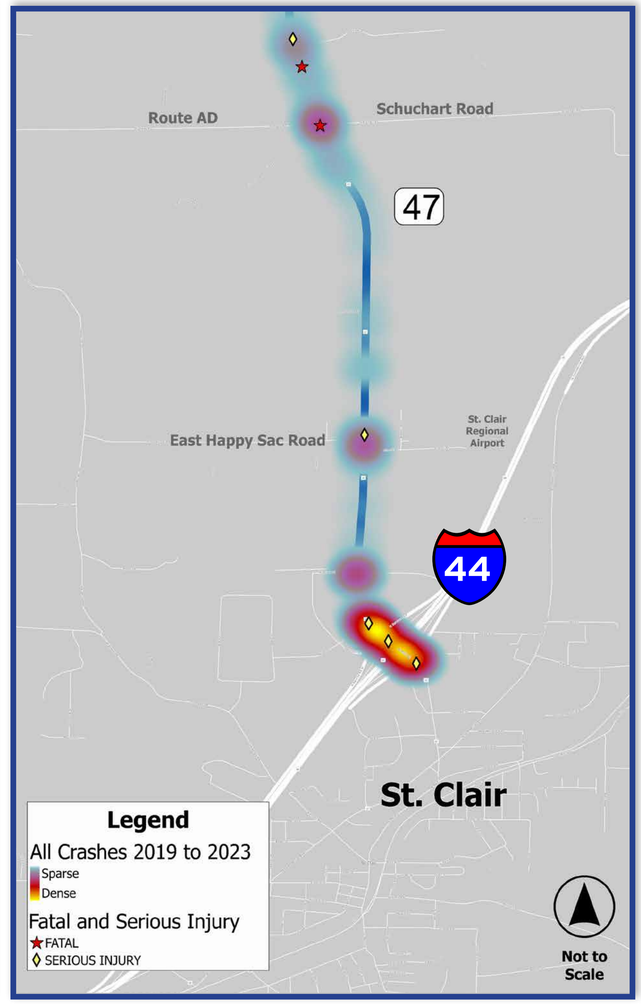
Central Segment

Crash Severity	Count	Percentage
Fatal	4	0.5%
Serious Injury	13	1.7%
All Other Crashes	755	97.8%
Total	773	

Crash Type



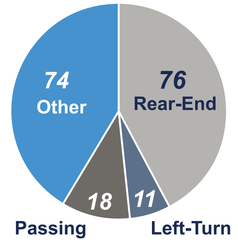
Union to St. Clair



Southern Segment

Crash Severity	Count	Percentage
Fatal	2	1.1%
Serious Injury	5	2.8%
All Other Crashes	172	96.1%
Total	179	

Crash Type



FUTURE 47

The Majority of Drivers Speed on MO-47!

The project team conducted traffic studies to understand the average speeds of the corridor. While there is congestion occuring during morning and afternoon peak hours, drivers are speeding during non-peak hours that causes safety concerns.

Most serious/fatal crashes involve speed + distraction; lower speeds cut impact energy and stopping distance.

Lower speeds improve driver field of view and reduce speed differentials resulting in fewer and less severe crashes.

	Location	Existing Posted Limit (mph)	Majority of Drivers (mph) *non-peak hour	Miles Per Hour Over Posted Speed Limit
Washington	North of Woodland Rd	SPEED LIMIT 55	62	7 mph
	South of Forest Hills Drive		65	10 mph
	South of Self Storage		70	15 mph
Union	Missouri Eastern RR	SPEED LIMIT 45	55	10 mph
	US-50 (on bridge)		51	6 mph
St. Clair	North of Franklin Avenue	SPEED LIMIT 55	60	5 mph
	North of Myrick Manor		63	8 mph
	North of Reeds Plaza		63	8 mph

? Are you open to <u>SPEED REDUCTIONS</u> to promote <u>SAFETY</u> for the traveling public?

Lowering posted speed limits provide opportunities for improvements such as: changes to lanes, shoulders, and intersections.

FUTURE 47

MoDOT

Project Timeline

Traffic Data Collection & Analysis
Spring/Summer 2024

Public Meeting #1
September 24, 2024

Alternatives Development
Fall 2024 – Fall 2025

Public Meeting #2 Reasonable Alternatives
October 9, 2025

We are here

Conceptual Study Completion
Fall 2025

**Project Delivery Determination*

Environmental, Engineering, and Public Engagement
2025-2027

Anticipated Start of Construction
FY-2028

Study Alternatives Development Process

The project team has taken many steps to develop reasonable alternatives that will best meet the needs of the communities.

Input Gathering

- **Public Meeting #1**
  - Public Survey
- **CAG Meeting #1**
- **Stakeholder Meetings**

High Level Alternatives

- **Initial Engineering Concepts**
- **CAG Meeting #2**
- **Stakeholder Meetings**

Reasonable Alternatives

- **Detailed Engineering Concepts**
- **CAG Meeting #3**
- **Public Meeting #2**

Study Report Deliverable

- **Review all input**
- **Submit Reasonable Design Concepts**

***CAG – Community Advisory Group**

Project Delivery Options

MoDOT is considering both traditional Design-Bid-Build and the alternative project delivery method, Design-Build.

Design-Bid-Build

Design-Bid-Build (DBB) separates design and construction into two separate phases and contracts. This can potentially lead to longer timelines and coordination issues.

Benefits include:

- MoDOT and community more involved in the preliminary and final design
- Design complete prior to construction start
- More competitive contractor bidding

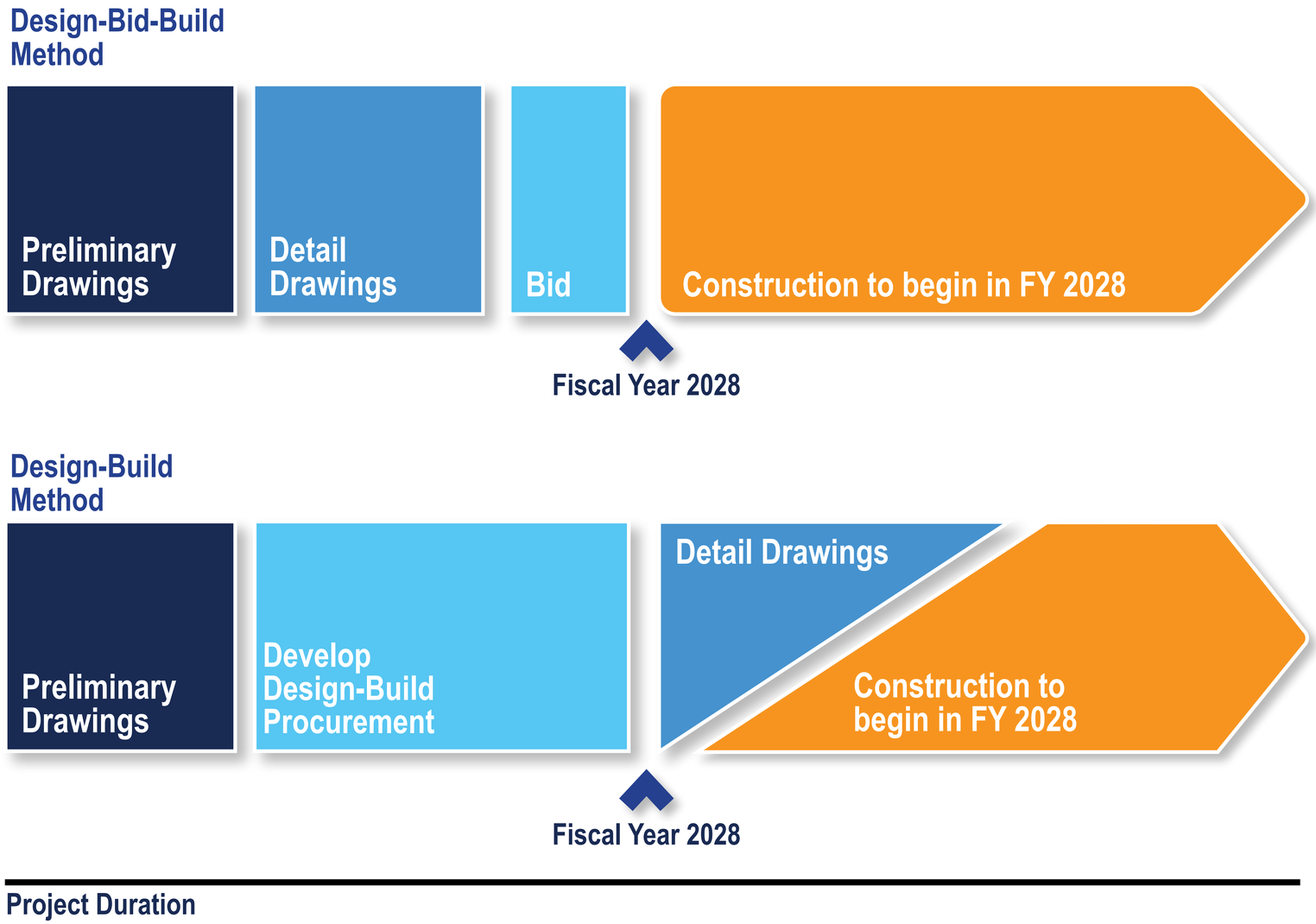
Design-Bid-Build

Design-build brings together teams of engineering consultants and construction contractors to collaborate from the start.

Benefits include:

- Project goal focused outcome/solution
- Faster Delivery
- Cost efficient
- Innovative
- Increase scope

Design-Bid-Build or Design-Build Approach



Public Engagement

- **Public Open House –** 160 attendees
- **Public Survey –** 190 responses
- **Public Meeting #1** (9/24/2024)
- **Key Stakeholder Listening Sessions -** 12 meetings
- **Community Advisory Group (CAG) -** 3 meetings
- **Key themes:**
  - Support for improvements
  - Increase safety
  - Reduce congestion
  - MO 47 / US-50

Community Advisory Group (CAG):

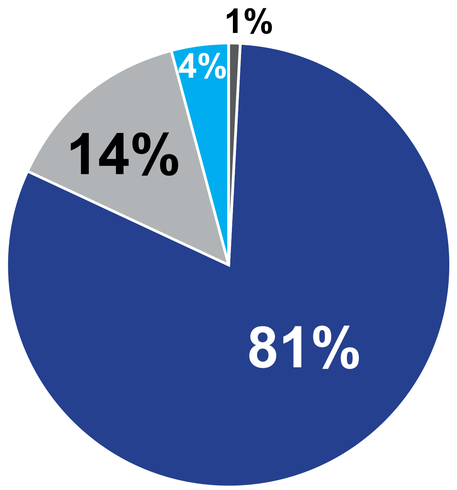
The CAG is made up of members of the community and key stakeholders across the project area. They include, but not limited to, staff from:

- Franklin Co.
- City of Washington
- City of Union
- City of St. Clair
- Emergency Services Personnel
- School Districts
- Elected Officials
- Key Business Representatives.

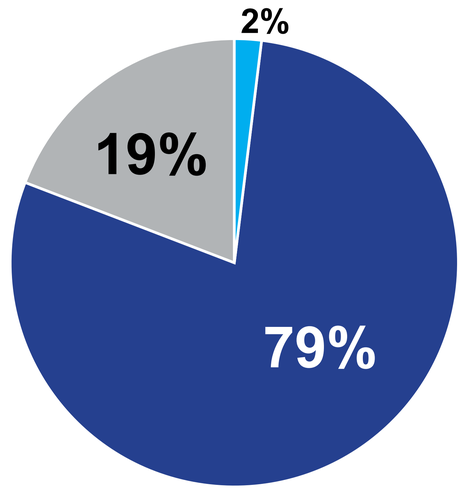
The members of the CAG represent their organizations and their constituents. The purpose of the CAG is to provide input to MoDOT on the project based on their professional experience and what they hear from those that use the corridor.

Public Survey Key Takeaways- Fall 2024

How much of a concern is ***SAFETY*** to you on Route 47 in Franklin County?



How much of a concern is ***TRAFFIC CONGESTION*** to you on Route 47 in Franklin County?



CAG #1 Input – The CAG was asked "What words come to mind when you think about traveling MO Route 47 between Washington and St. Clair?"

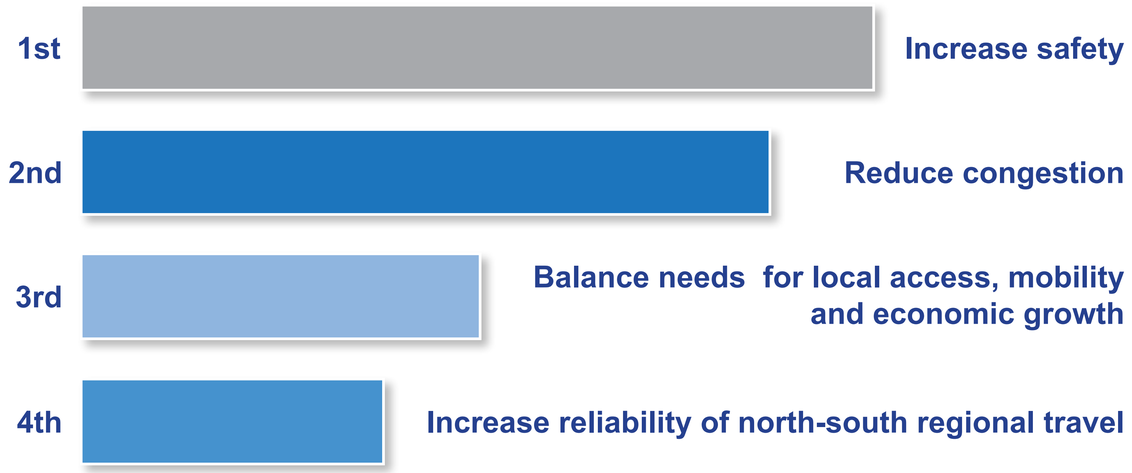


Project Goals

Based on stakeholder input, the project team has established the project goals. In addition, the CAG has helped prioritize the goals. This helps the project team, in addition to engineering factors, determine the best alternatives to help meet the needs of the community. The Prioritized goals include:

- **Increase Safety**
- **Reduce Congestion**
- **Balance needs for local access, mobility, and economic growth**
- **Increase reliability of north-south regional travel**

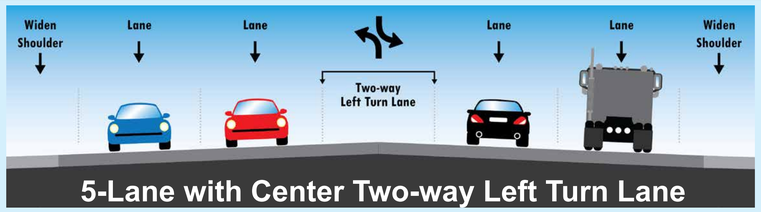
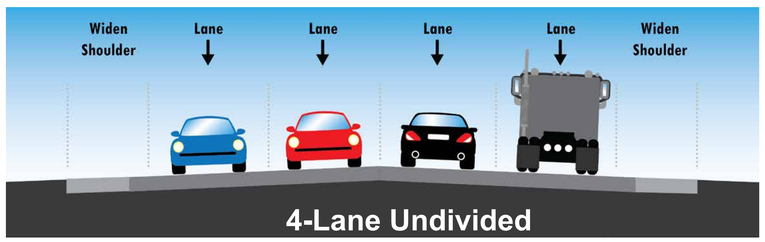
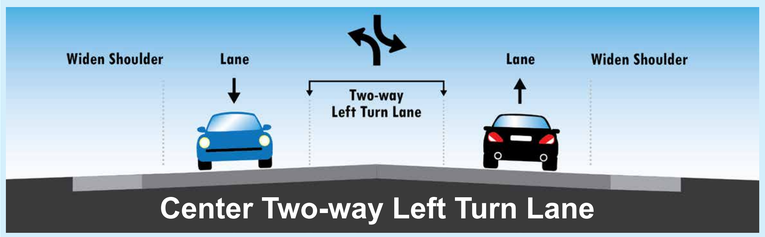
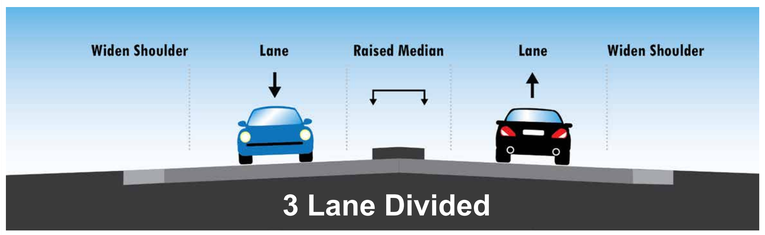
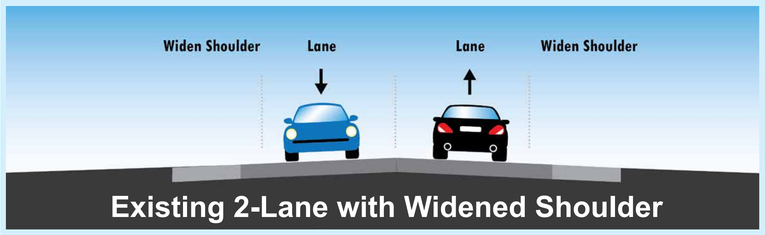
The CAG was asked to prioritize the project goals at CAG meeting #2. This helped the team further develop alternative concepts. Rankings are as follows:



FUTURE 47

MoDOT

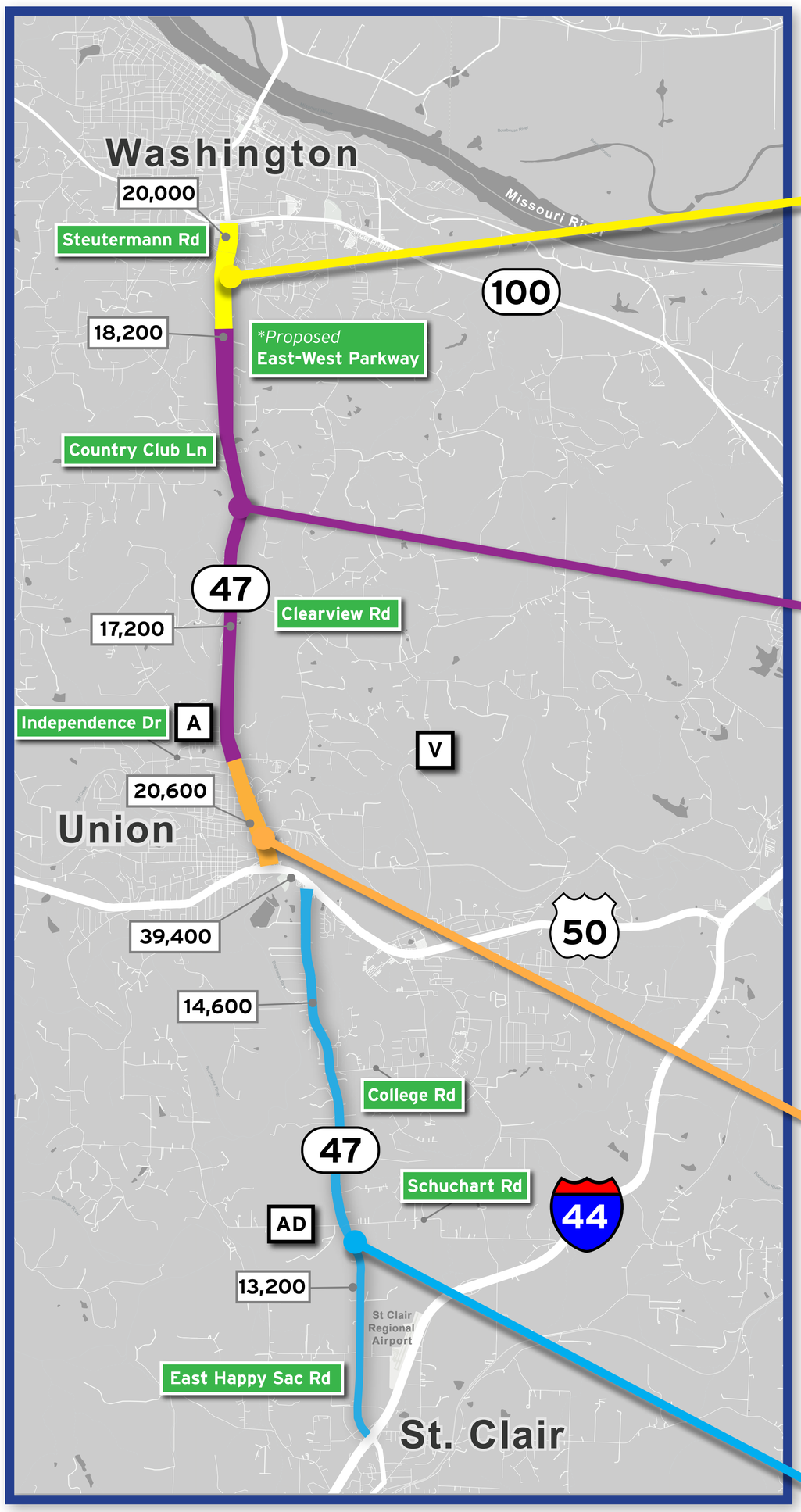
MO-47 Corridor Options

Roadway	Avg. Daily Traffic (ADT) Capacity	Predicted Safety Benefits (%)	Predicted Travel Time (Minutes)	Locations of Consideration
 5-Lane with Center Two-way Left Turn Lane	72,000	Increases Safety (42% Less Crashes)	 22 min Existing 19 Minute Proposed Travel Time	• City of Union (US-50 /47 to Independence Dr.) • City of Washington
 4-Lane Undivided	60,000	Decreases Safety (15% More Crashes)	 22 min Existing 20 Minute Proposed Travel Time	• City of Union (US-50 /47 – Independence Dr.) • City of Washington
 Center Two-way Left Turn Lane	36,000	Increases Safety (36% Less Crashes)	 22 min Existing 21 Minute Proposed Travel Time	• Rural Washington to Independence Dr. • US-50 to St. Clair
 3 Lane Divided	32,000	Increases Safety (15% Less Crashes)	 22 min Existing 25 Minute Proposed Travel Time	• Rural Washington to Independence Dr. • US-50 to St. Clair
 Existing 2-Lane with Widened Shoulder	24,000	Increases Safety (10% Less Crashes)	 22 min Existing 22 Minute Proposed Travel Time	• Rural Washington to Independence Dr. • US-50 to St. Clair

Average Daily Traffic (ADT) Volumes - Existing and Predicted Future

Location	2024 ADT	2050 ADT
MO-47 North of US-50	17,200	21,400
Rt-47 at US-50	39,400	47,800
MO-47 South of US-50	14,600	16,600

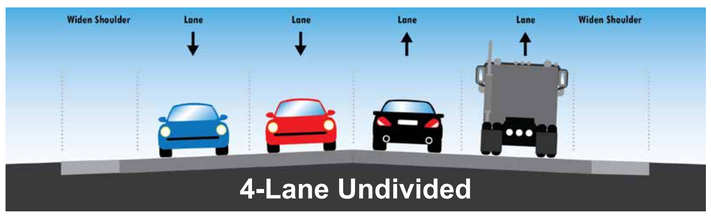
Route 47 - Potential Lane Widening and Locations



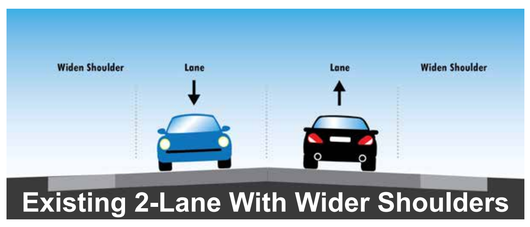
Numbers listed above are the existing Average Daily Traffic (ADT)

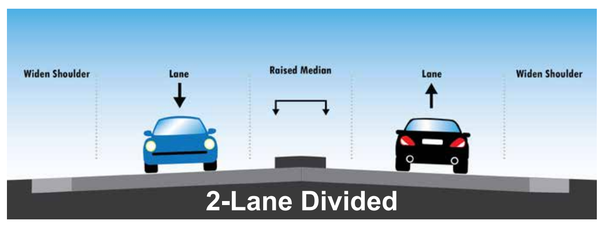
City of Washington (Proposed Partnership)

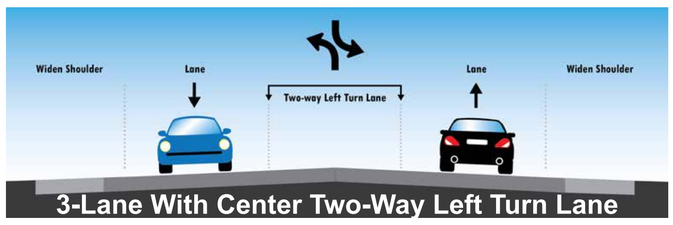




Rural Washington to Independence Dr. Capacity Considerations

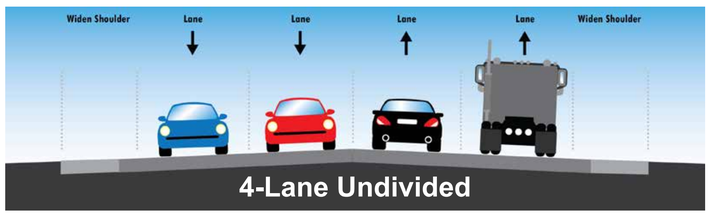




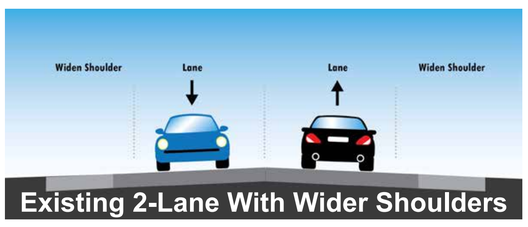


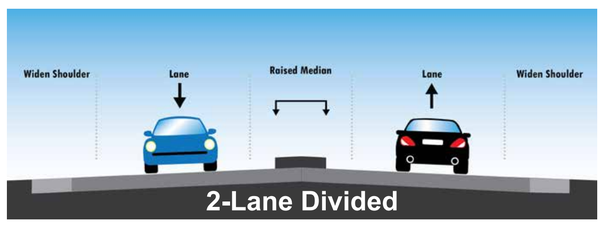
Independence Dr. to US-50/47 Capacity Considerations

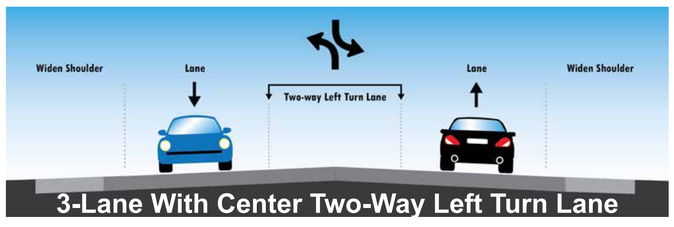




US-50 to St. Clair Capacity Considerations







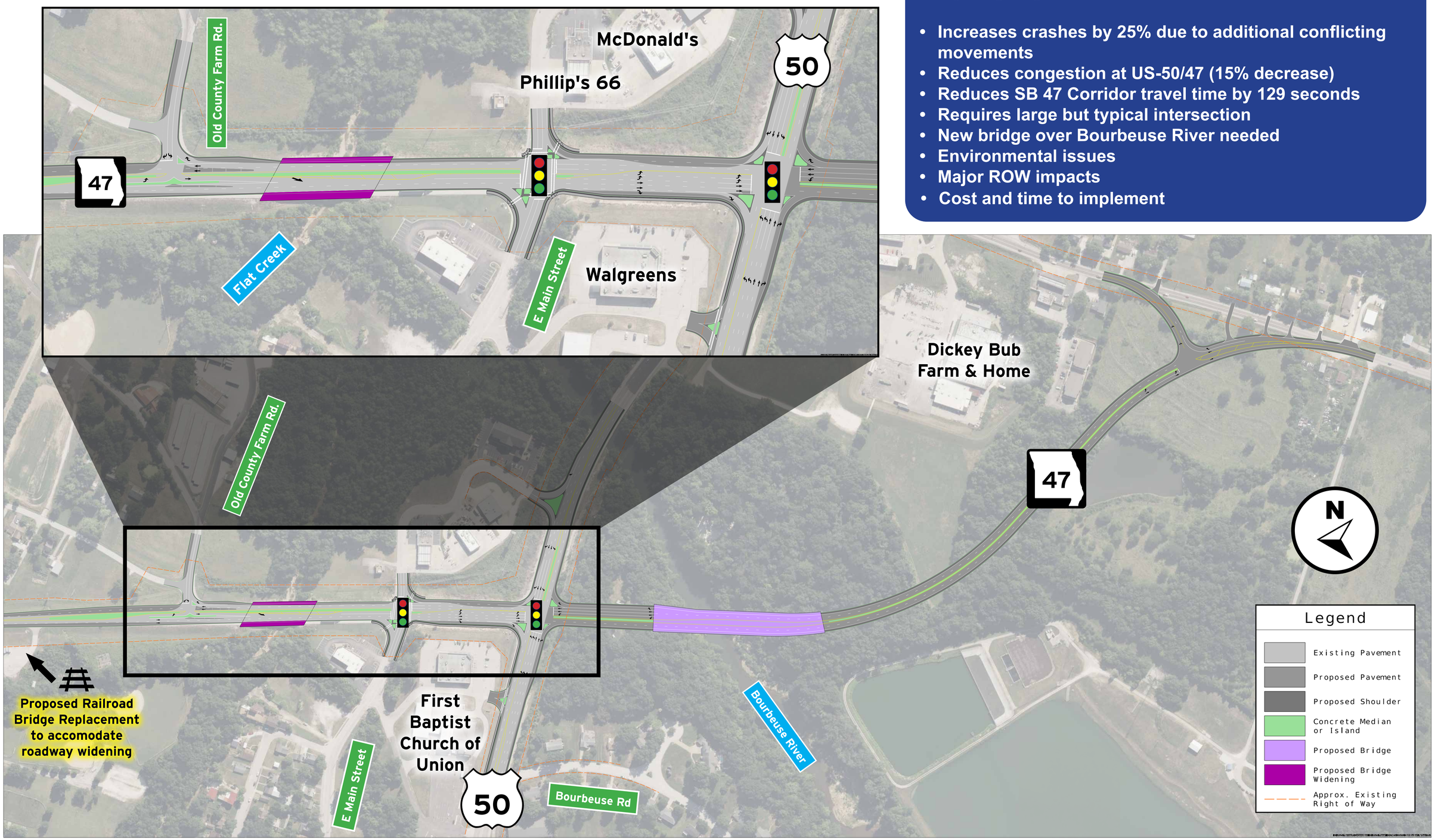
FUTURE 47

US-50 / 47 Intersection Concepts

Southwest Realignment

Key Highlights:

- Increases crashes by 25% due to additional conflicting movements
- Reduces congestion at US-50/47 (15% decrease)
- Reduces SB 47 Corridor travel time by 129 seconds
- Requires large but typical intersection
- New bridge over Bourbeuse River needed
- Environmental issues
- Major ROW impacts
- Cost and time to implement

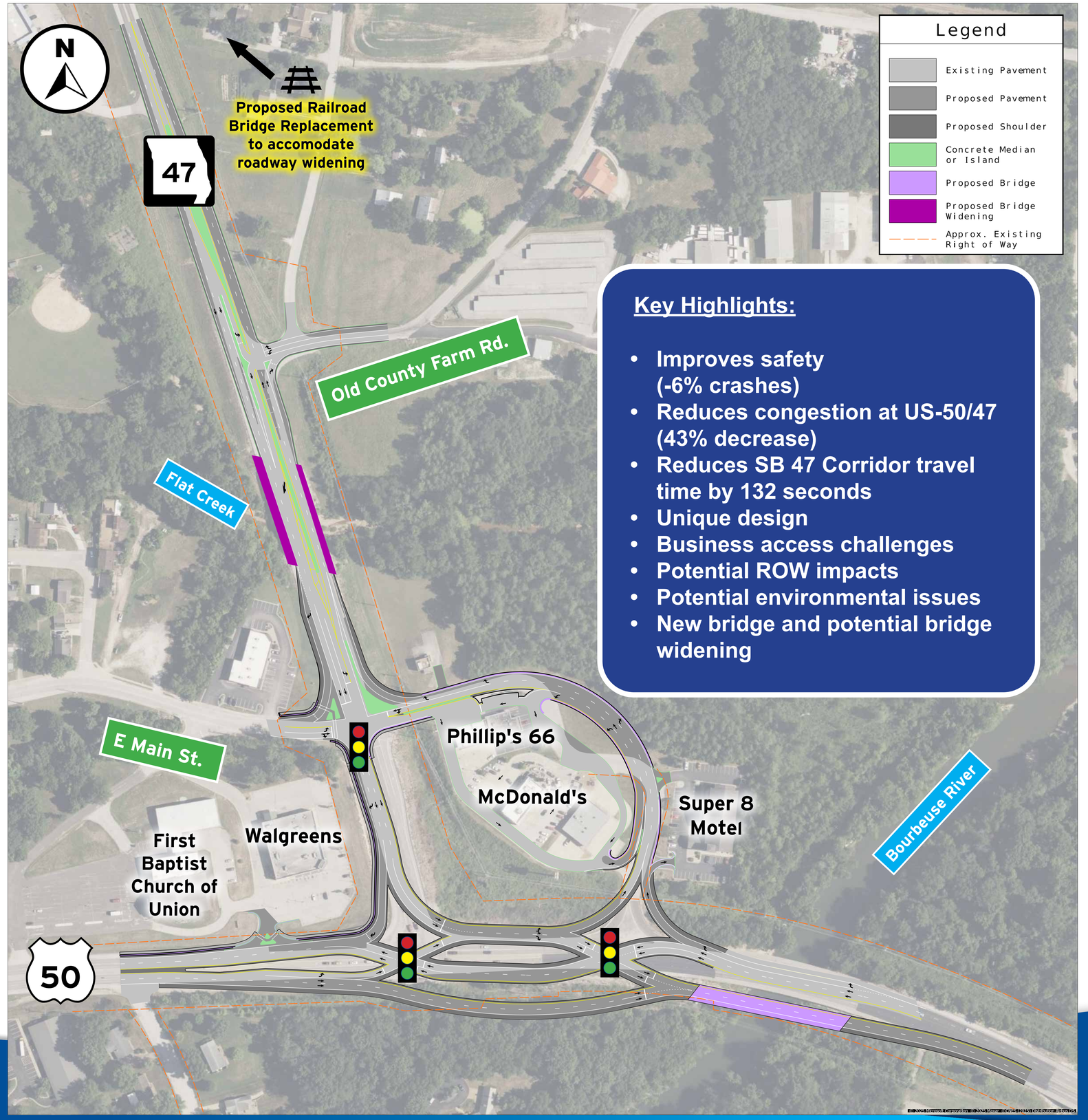


FUTURE 47

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US-50/47 Intersection Concepts

Diverging Diamond Interchange (DDI)



Key Highlights:

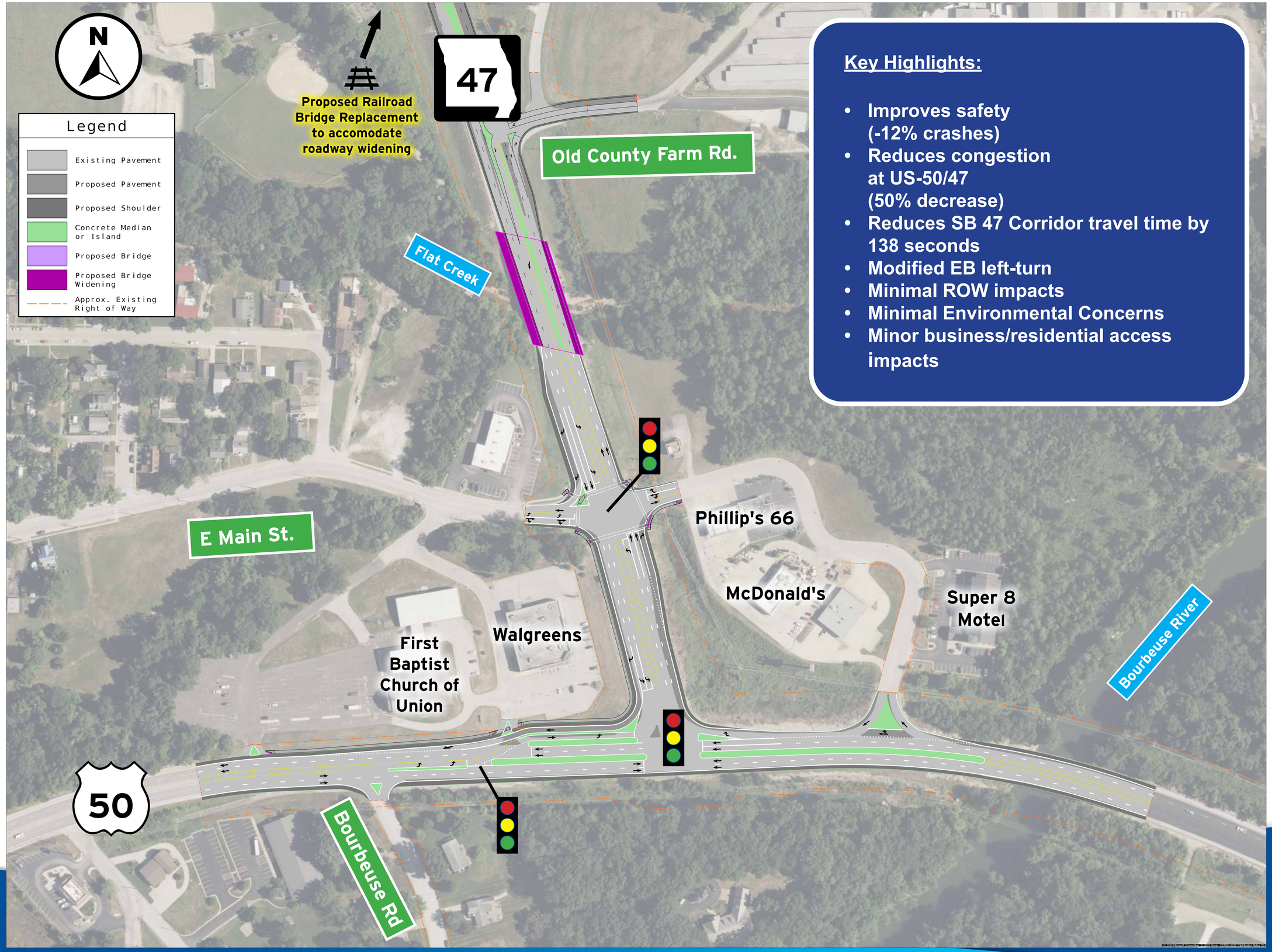
- Improves safety (-6% crashes)
- Reduces congestion at US-50/47 (43% decrease)
- Reduces SB 47 Corridor travel time by 132 seconds
- Unique design
- Business access challenges
- Potential ROW impacts
- Potential environmental issues
- New bridge and potential bridge widening

FUTURE 47

MoDOT

US-50/47 Intersection Concepts

Continuous Flow Intersection (CFI)



Key Highlights:

- Improves safety (-12% crashes)
- Reduces congestion at US-50/47 (50% decrease)
- Reduces SB 47 Corridor travel time by 138 seconds
- Modified EB left-turn
- Minimal ROW impacts
- Minimal Environmental Concerns
- Minor business/residential access impacts

FUTURE 47

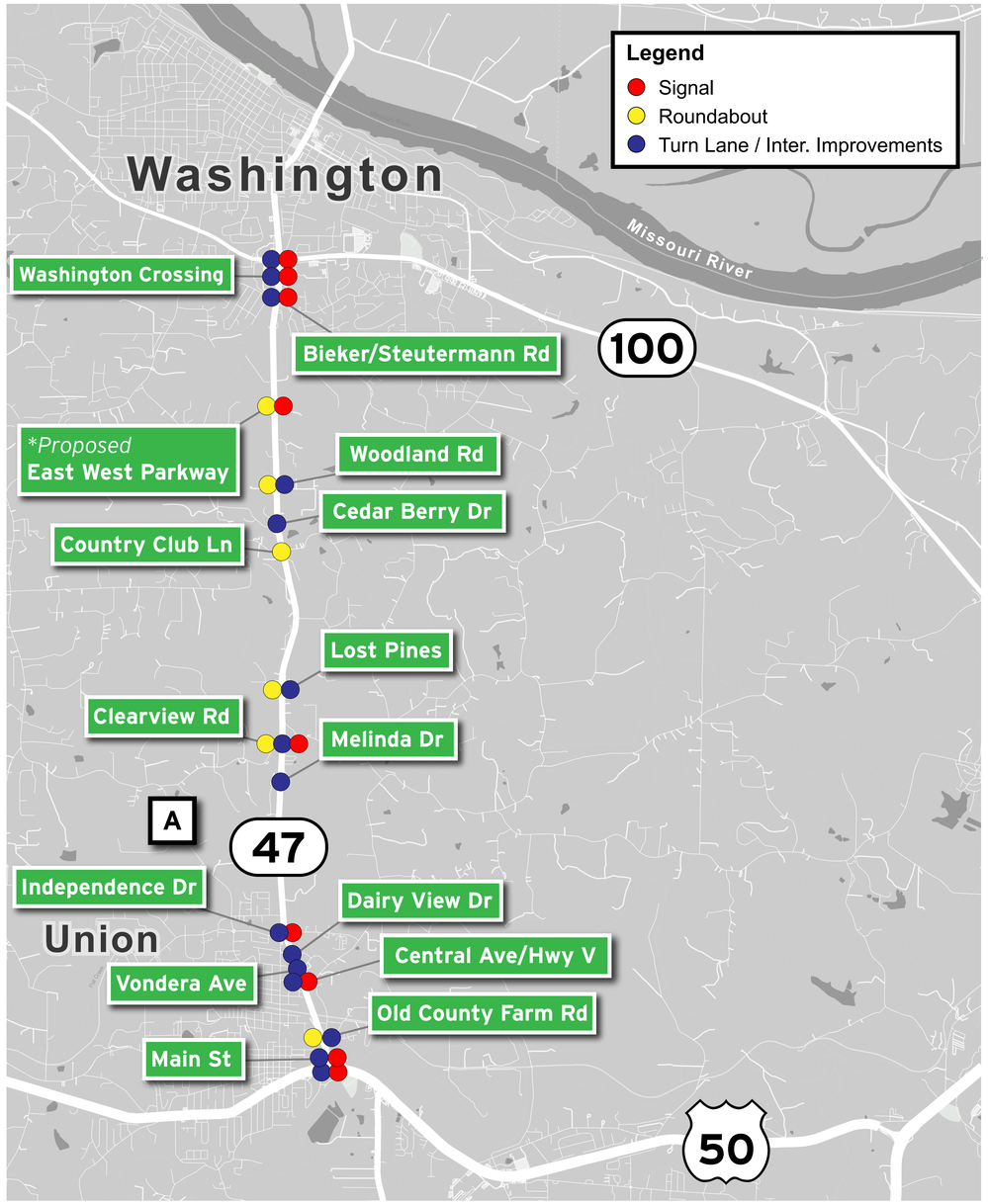
Comparison of Three Concepts

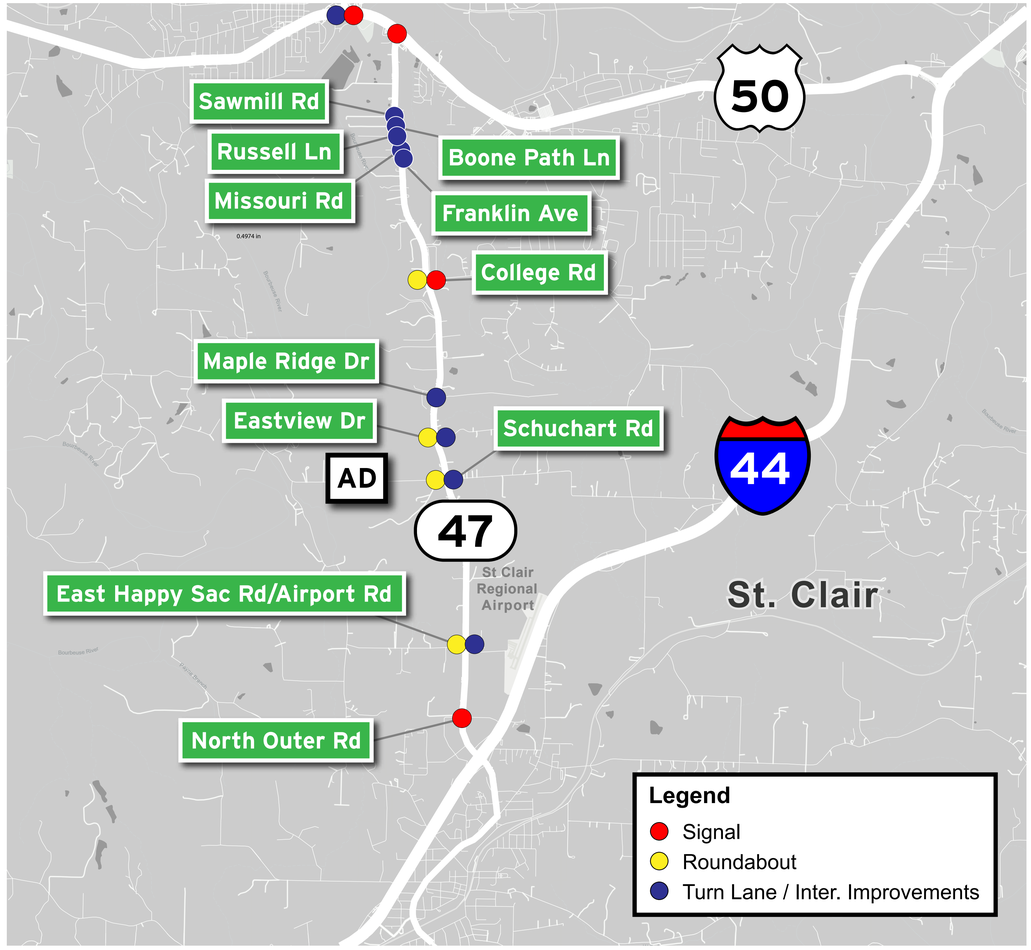
	Southwest Realignment	Diverging Diamond Intersection (DDI)	Continuous Flow Intersection (CFI)
Safety	↓ (25% more crashes)	↑ (6% less crashes)	↑ (12% less crashes)
Travel Time **US-50/47 (Overall Delay):** **SB 47 (US-50)** **SB 47(Indep. Dr. to 50):**	→ 15% decrease 25 seconds faster 129 seconds faster	→→ 43% decrease 51 seconds faster 132 seconds faster	→→ 50% decrease 60 seconds faster 138 seconds faster
Right-of-way	🏠🏠🏠 Significant Impacts 13 parcel/21 acres	🏠🏠 Potential Impacts 10 parcels	🏠 Minimal Impacts 1 parcel
Cost	$$$	$$	$
Environmental	✚✚ Concerns	✚ Potential	— Minimal
Other	• New bridge needed • Implementation (Time, $) • Moves traffic congestion west	• Unique Design • Access impacts to/from businesses • New bridge and potential bridge widening	• Minor business/residential access impacts

FUTURE 47

MoDOT

Potential Intersection Improvements





What We Heard…

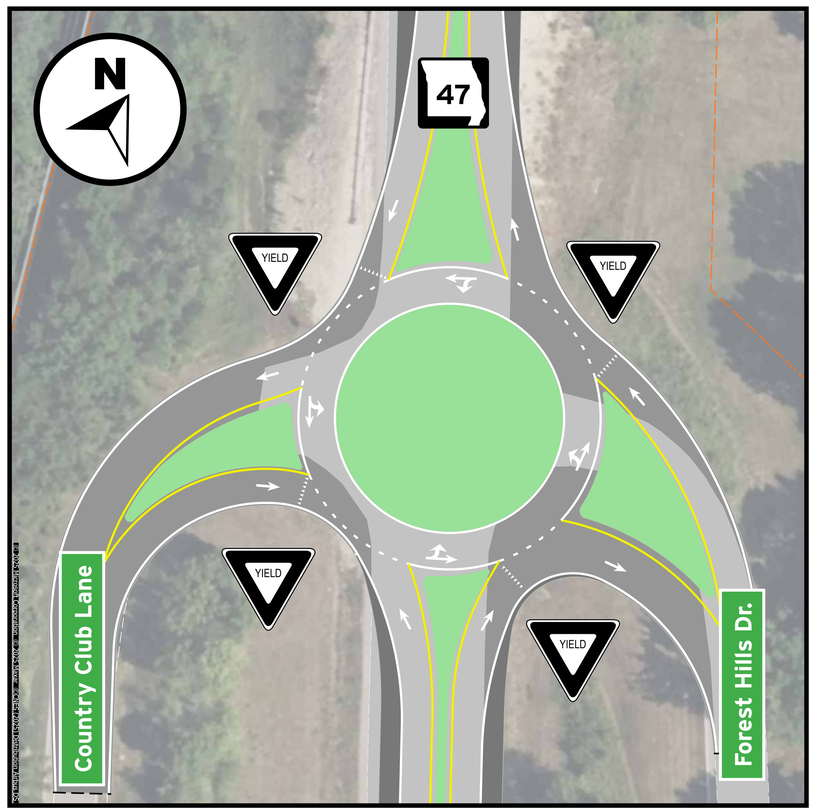
- CAG interested in improvements at many locations throughout the corridor
- Mix of solutions (signals, roundabouts, turn lanes, etc.) may be good
- Need to be determined by each location
- Roundabouts
  - Adjust Speed Limit Accordingly
  - General support
  - Use where appropriate
  - Do not make them too close together

Intersection Improvement Examples
(Washington to Union)

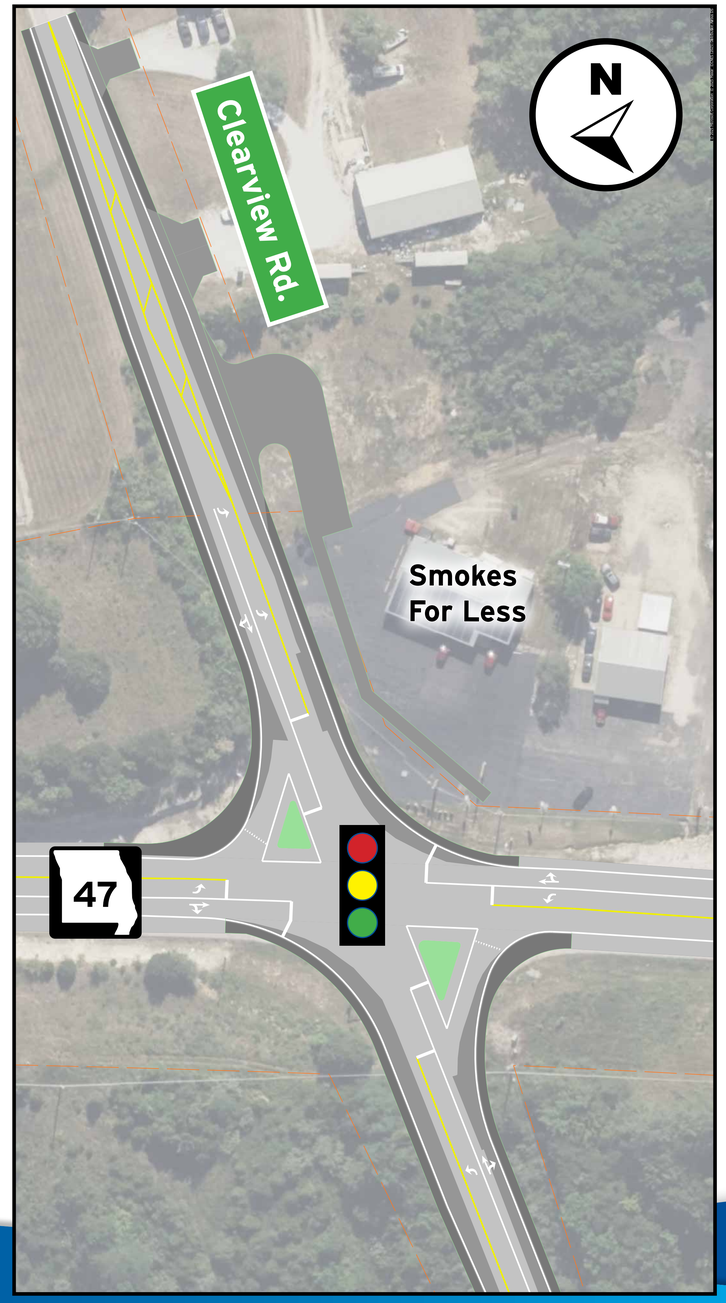
Legend

- Existing Pavement
- Proposed Pavement
- Proposed Shoulder
- Concrete Median or Island
- Approx. Existing Right of Way

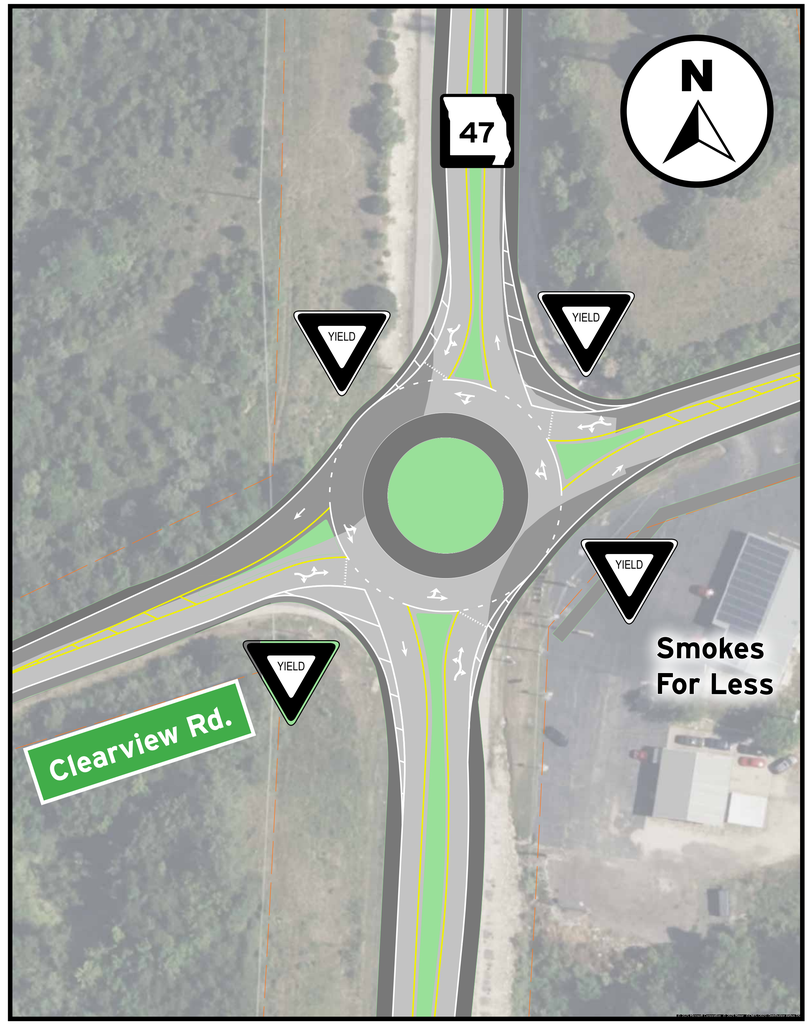
Country Club Lane/ Forest Hills



Clearview Road (Signal)



Clearview Road (Roundabout)



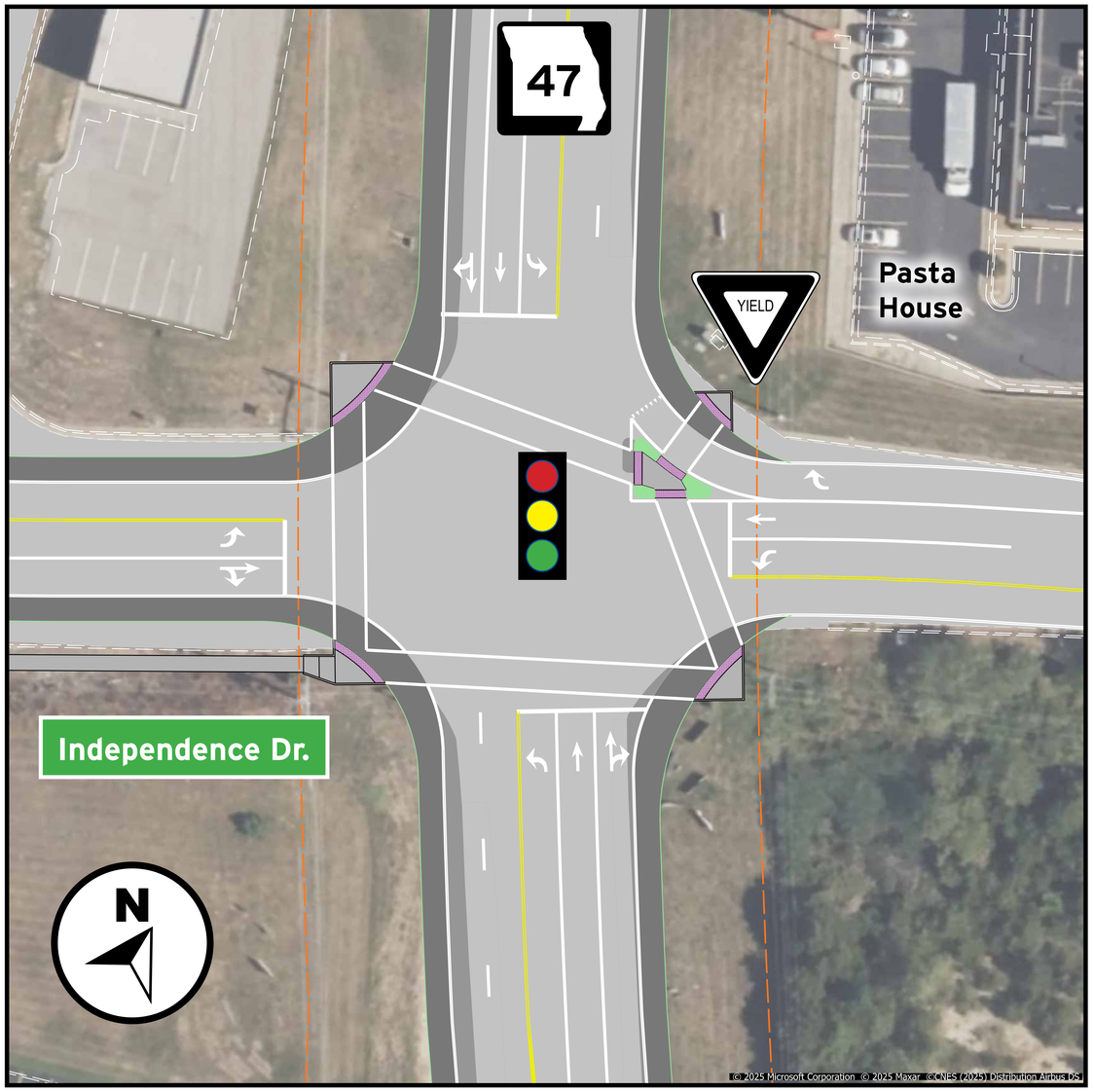
FUTURE 47

MoDOT

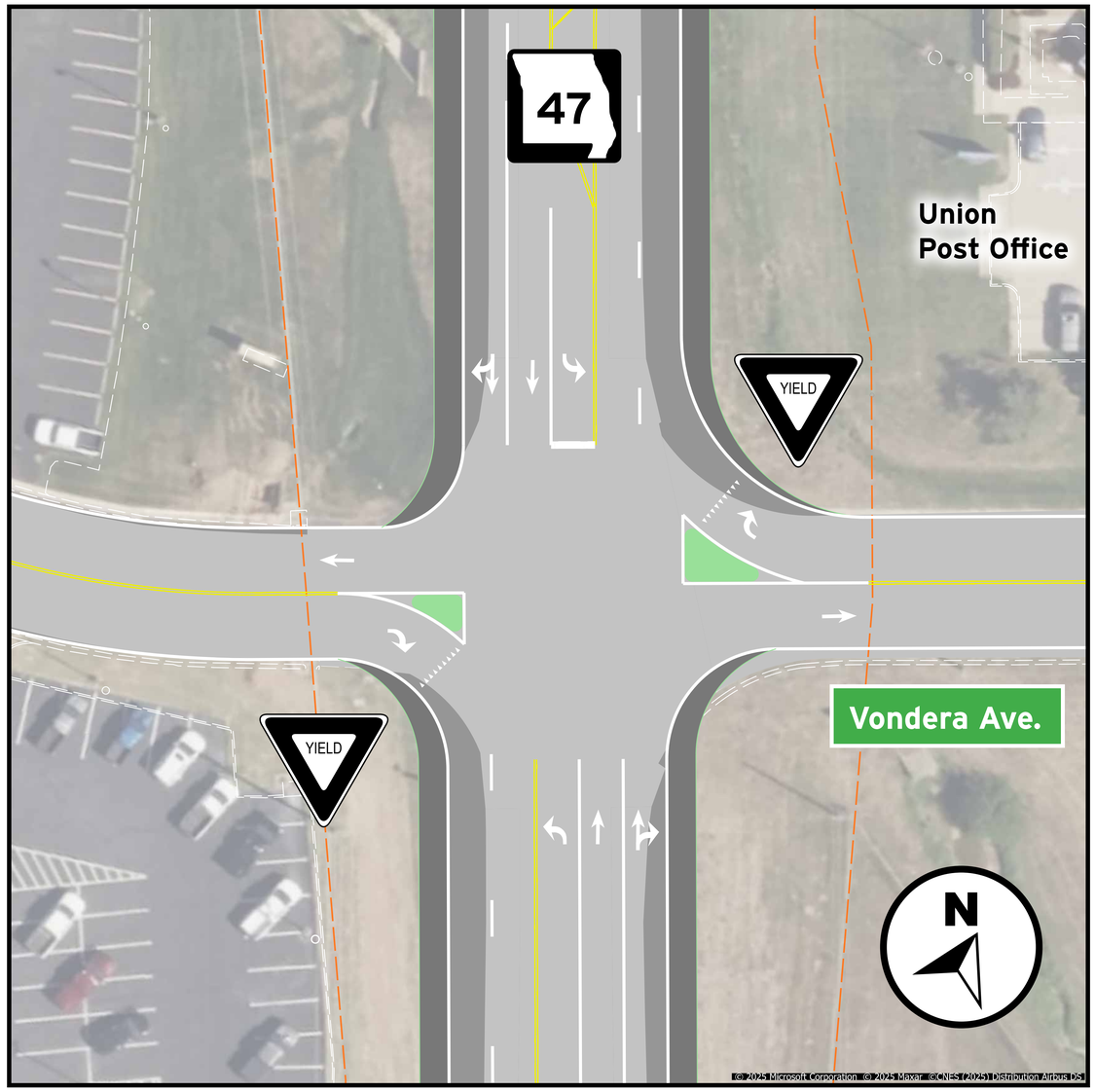
Intersection Improvement Examples
(City of Union)

Legend
- Existing Pavement
- Proposed Pavement
- Proposed Shoulder
- Concrete Median or Island
- Approx. Existing Right of Way

Independence Dr.



Vondera Ave.



FUTURE 47

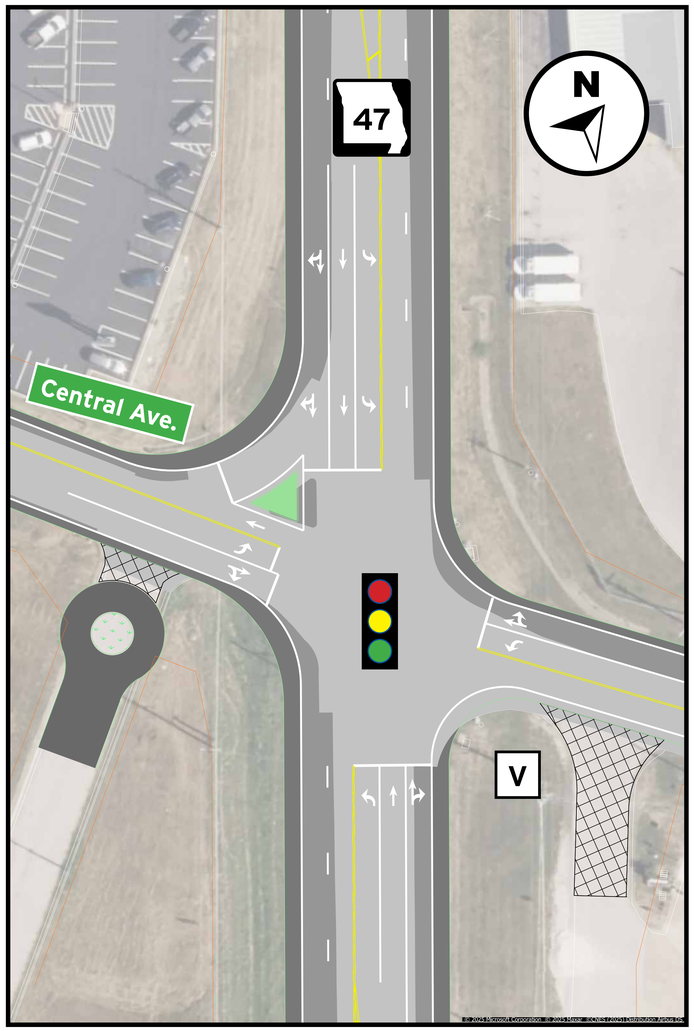
MoDOT

Intersection Improvement Examples
(City of Union)

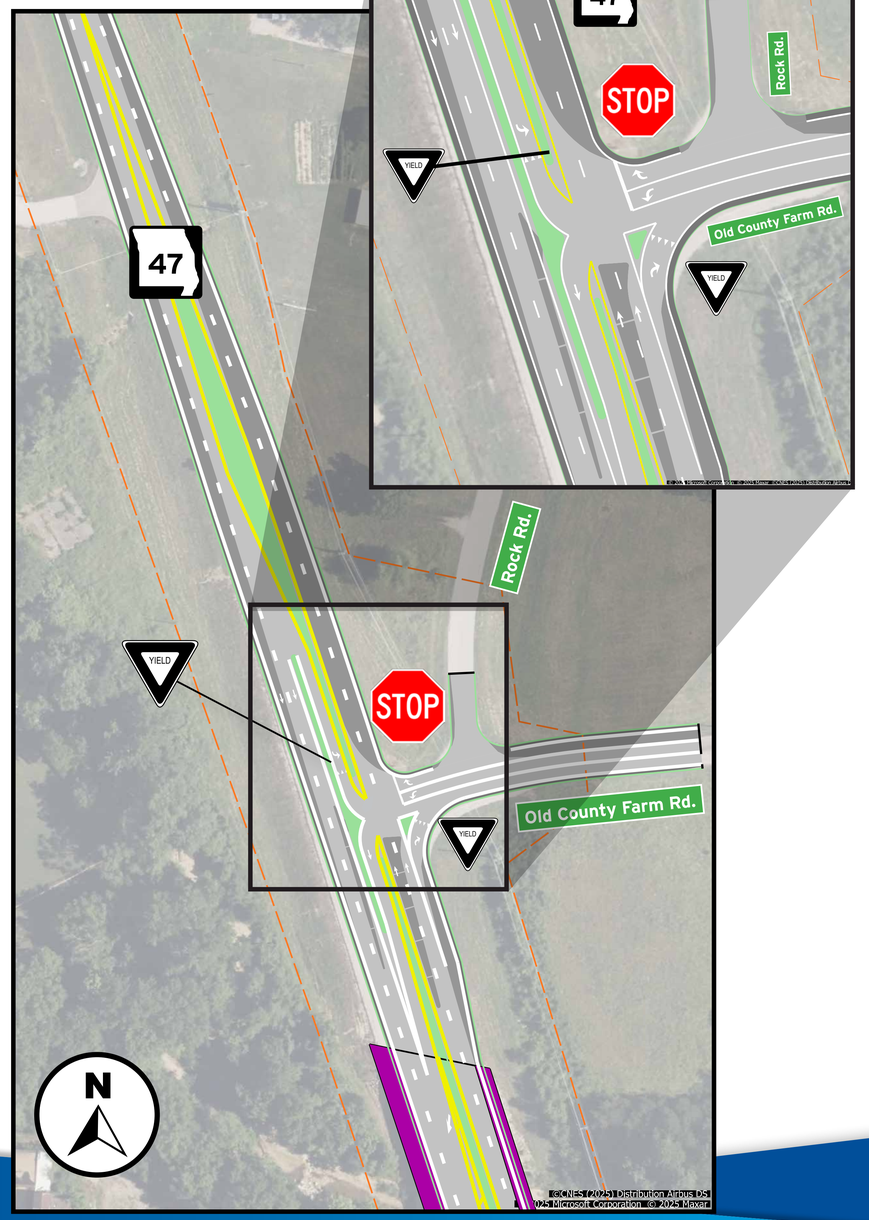
Legend

- Existing Pavement
- Proposed Pavement
- Proposed Shoulder
- Concrete Median or Island
- Proposed Bridge Widening
- Approx. Existing Right of Way

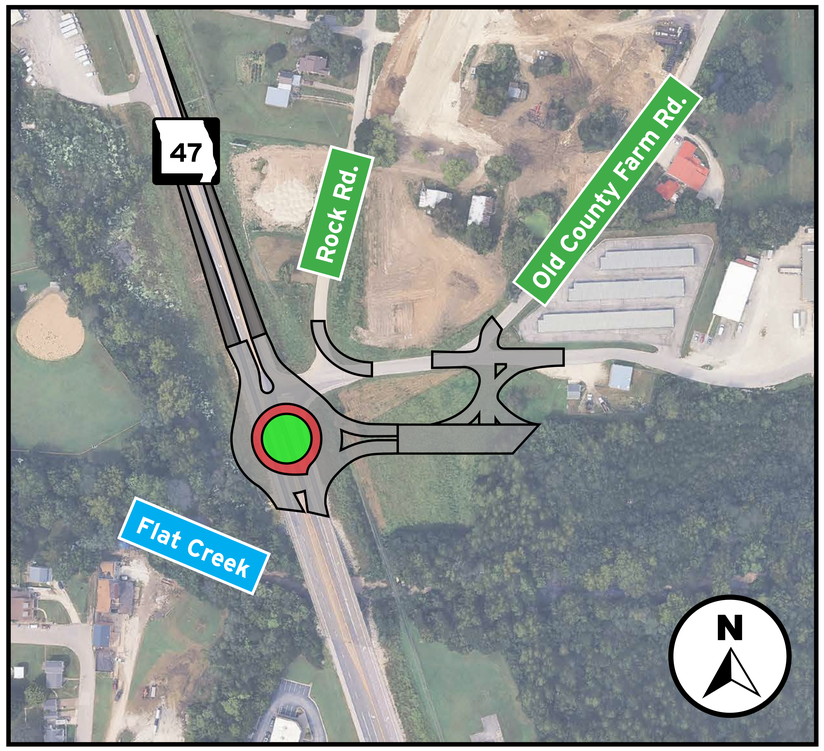
Highway V



Old County Farm Road (Green-T)



Old County Farm Road (Roundabout)



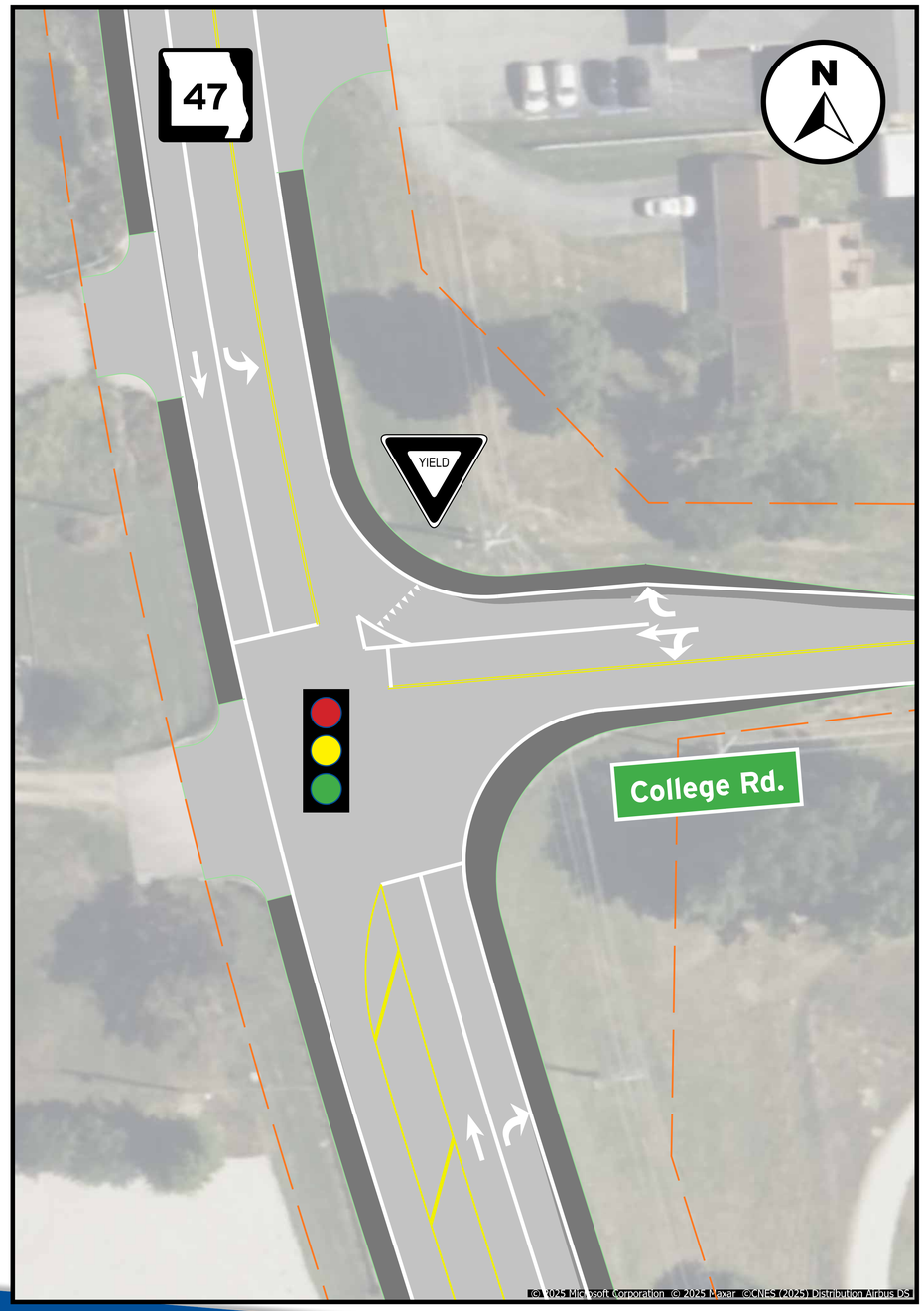
FUTURE 47

Intersection Improvement Examples
(Union to St. Clair)

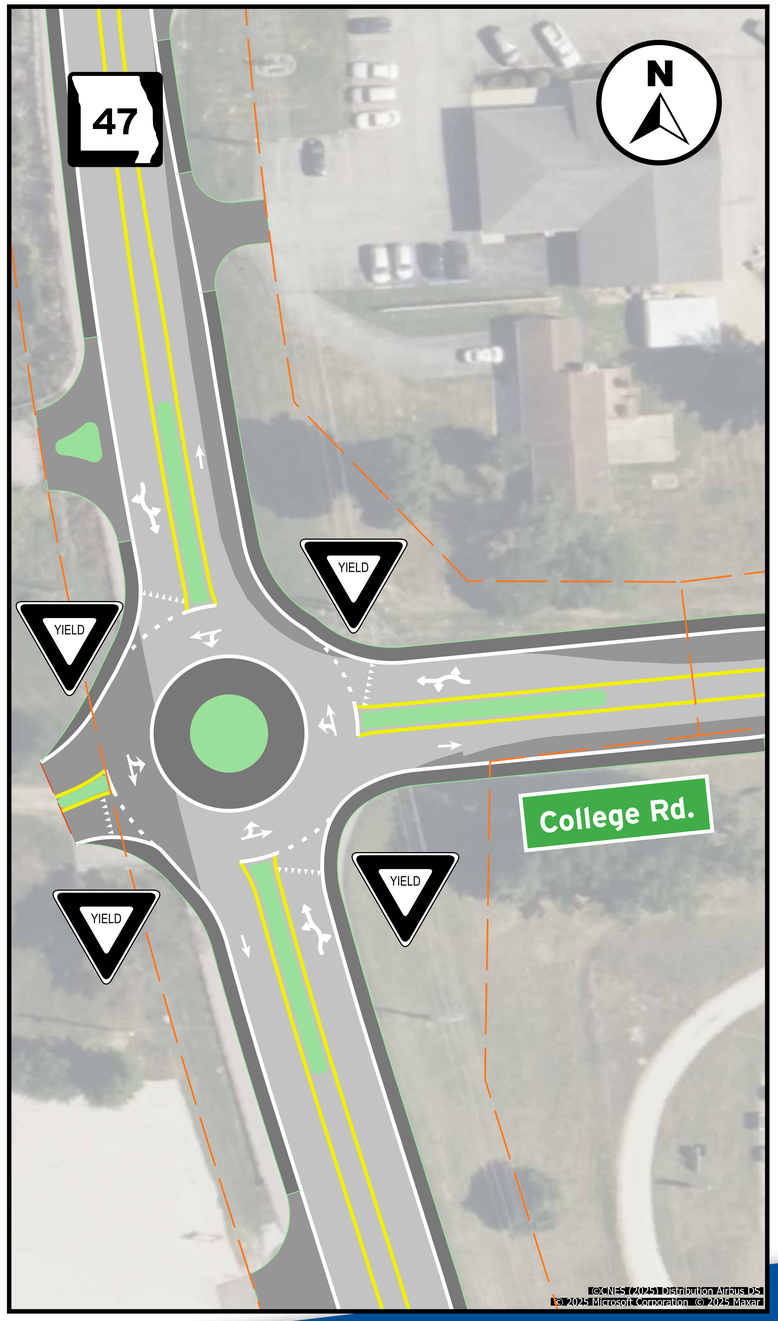
Legend

- Existing Pavement
- Proposed Pavement
- Proposed Shoulder
- Concrete Median or Island
- Approx. Existing Right of Way

College Road: (Signal)



College Road: (Roundabout)



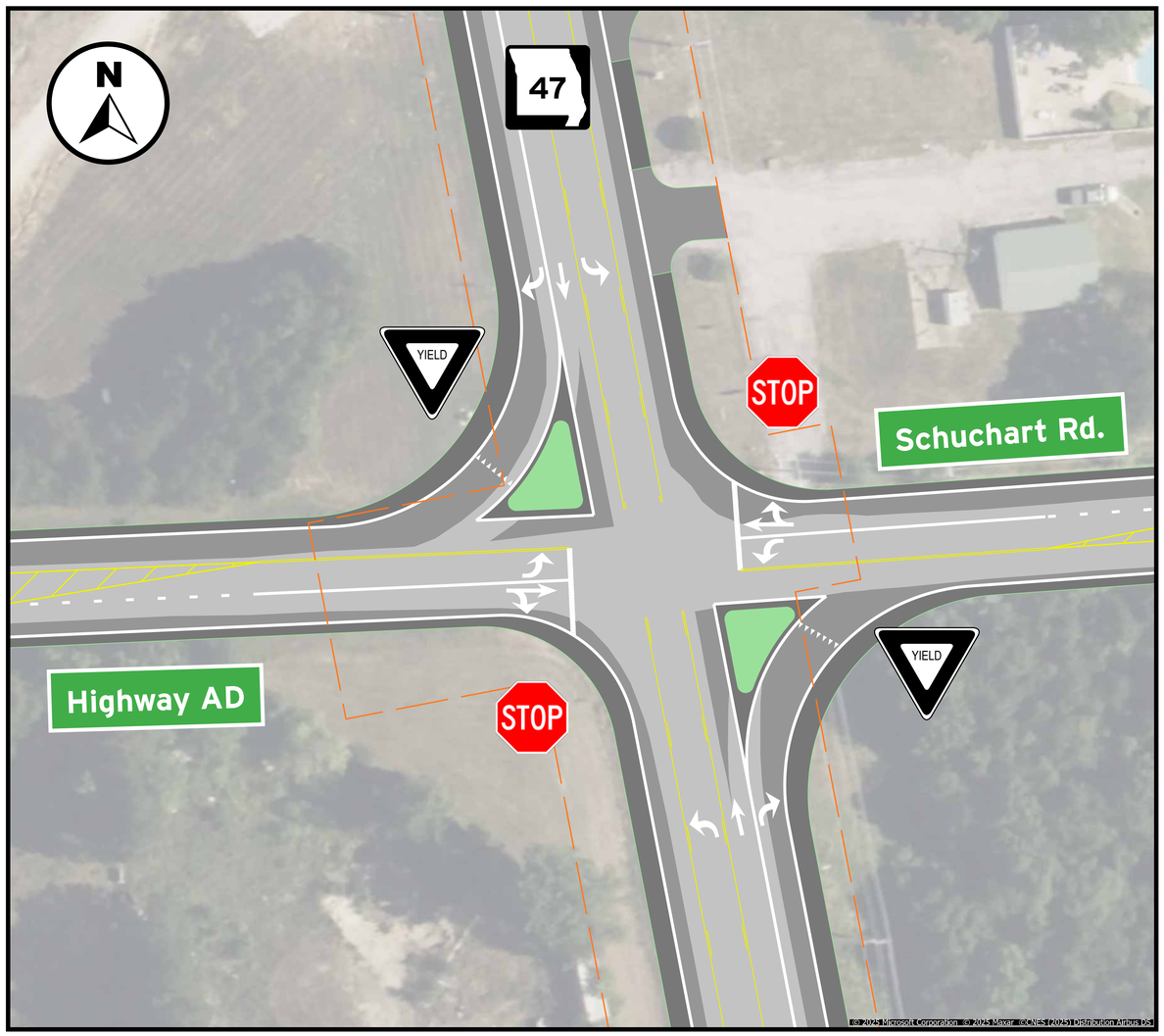
FUTURE 47

MoDOT

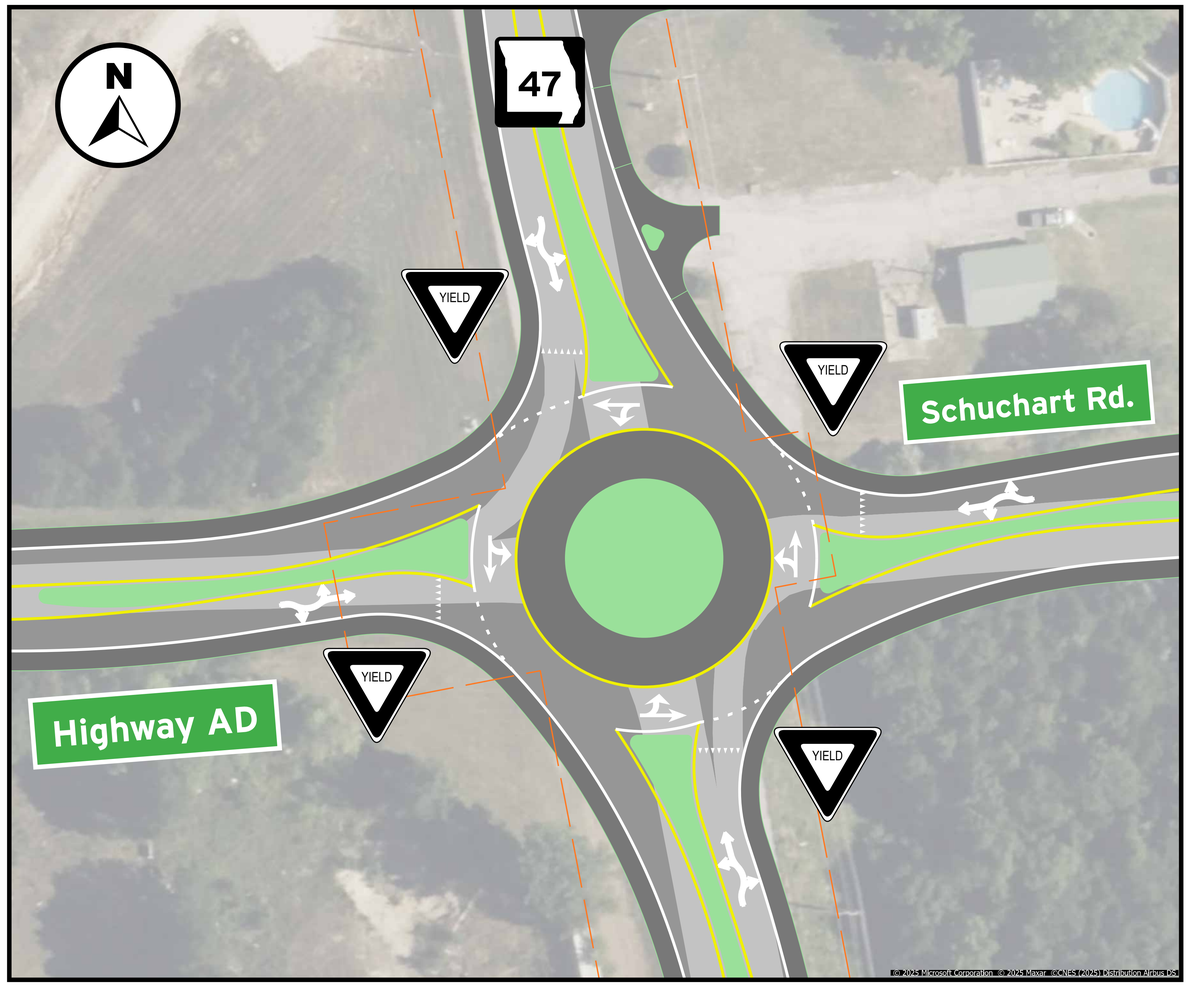
Intersection Improvement Examples
(Union to St. Clair)

Legend
- Existing Pavement
- Proposed Pavement
- Proposed Shoulder
- Concrete Median or Island
- Approx. Existing Right of Way

Hwy AD/Schuchart Rd.
(Turn Lane Improvements)



Hwy AD/Schuchart Rd.
(Roundabout)



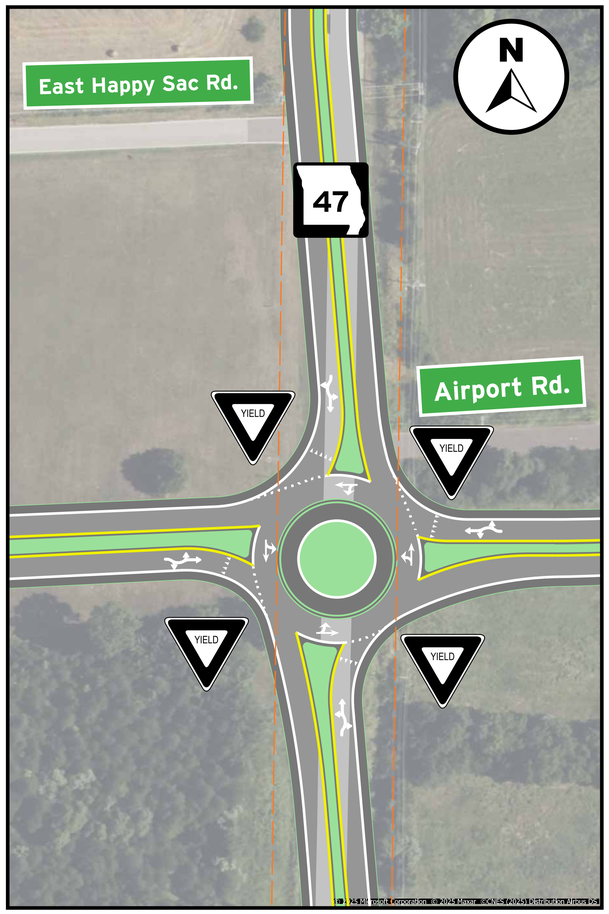
**This intersection is a high-crash location

Intersection Improvement Examples
(Union to St. Clair)

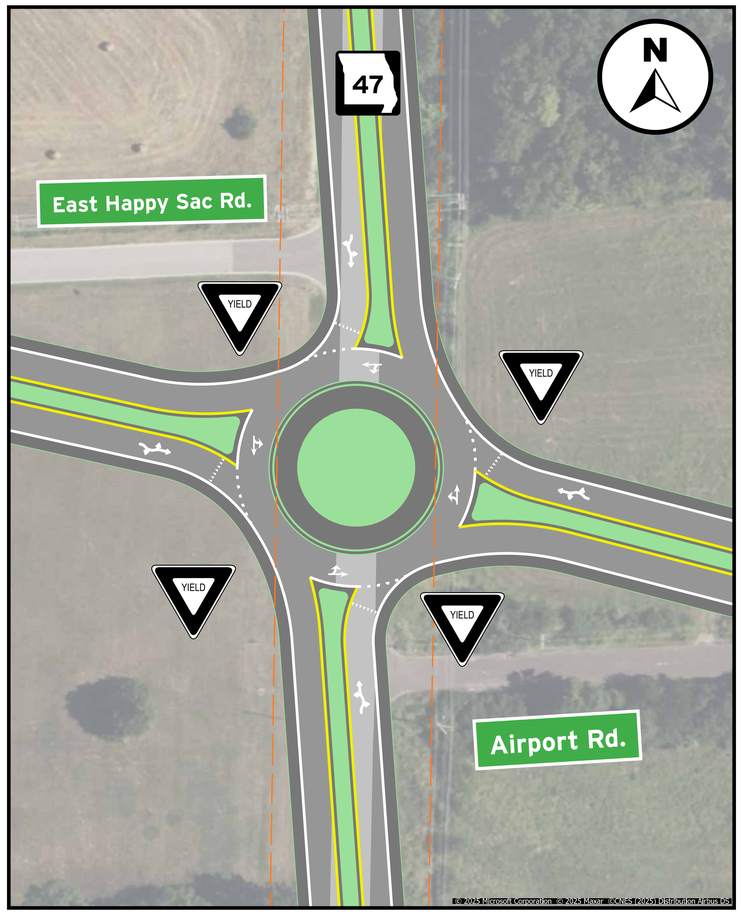
Legend

- Existing Pavement
- Proposed Pavement
- Proposed Shoulder
- Concrete Median or Island
- Approx. Existing Right of Way

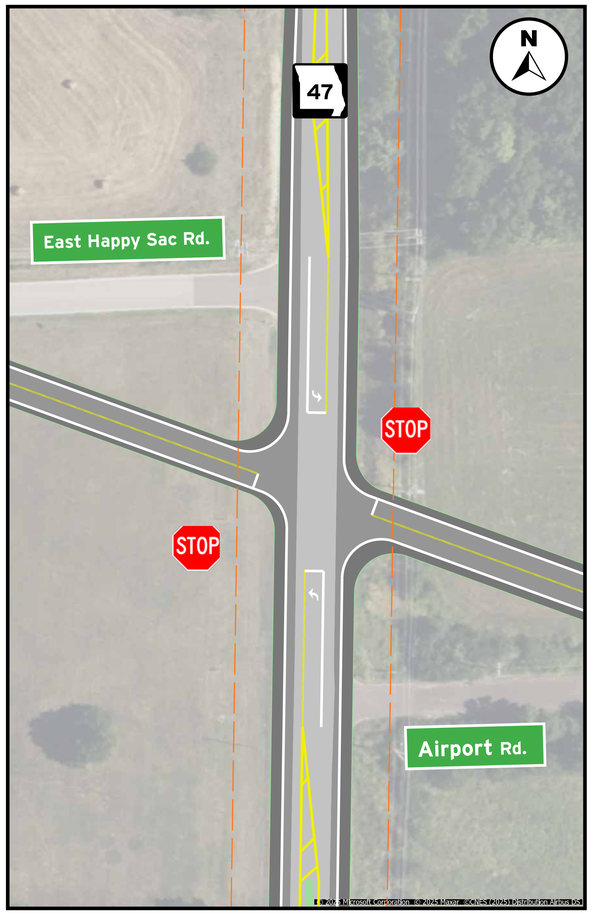
E. Happy Sac / Airport Rd. (Roundabout – Example 1)



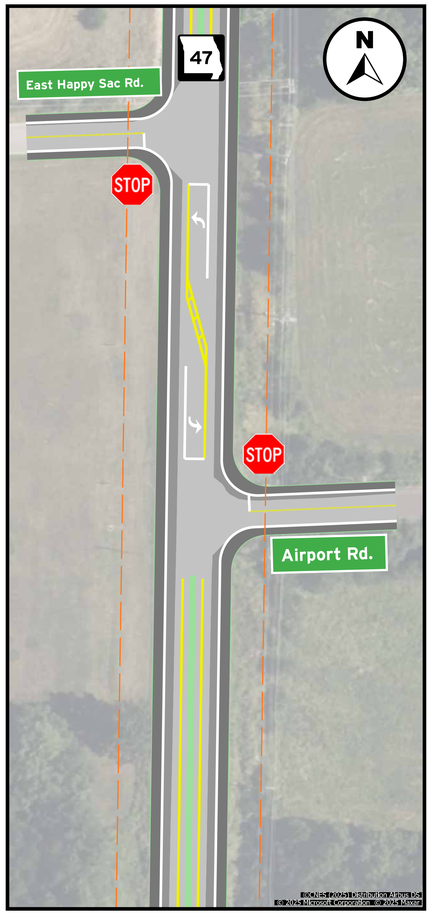
E. Happy Sac / Airport Rd. (Roundabout – Example 2)



E. Happy Sac / Airport Rd. (Realign / Turn Lane)



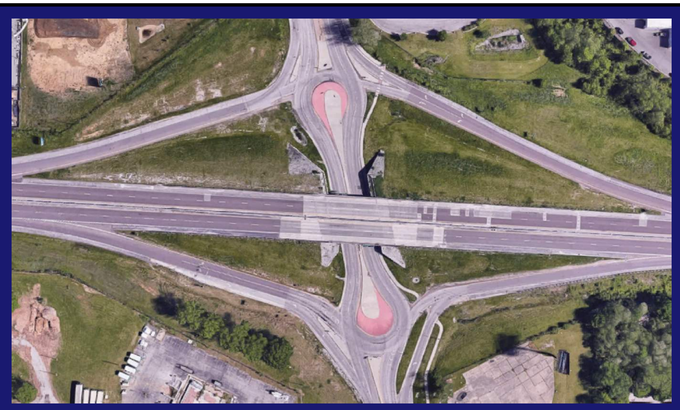
E. Happy Sac / Airport Rd. (Turn Lane)



All About ROUNDABOUTS

A handful of roundabouts may be shaped into more of an oval than a circle and the number of entry and exit points may vary. Pictured to the right are two unique examples.

Despite several different looks, how you navigate through a roundabout never changes.



According to a study by the Insurance Institute for Highway Safety, compared to a common signalized crosswalk, roundabouts reduce...

- CRASHES OF ALL TYPES BY **39%**
- INJURY CRASHES BY **76%**
- FATAL & INCAPACITATING CRASHES BY **89%**
- PEDESTRIAN CRASHES BY **50%**

MODOT.ORG
888-ASK MODOT (275-6636)

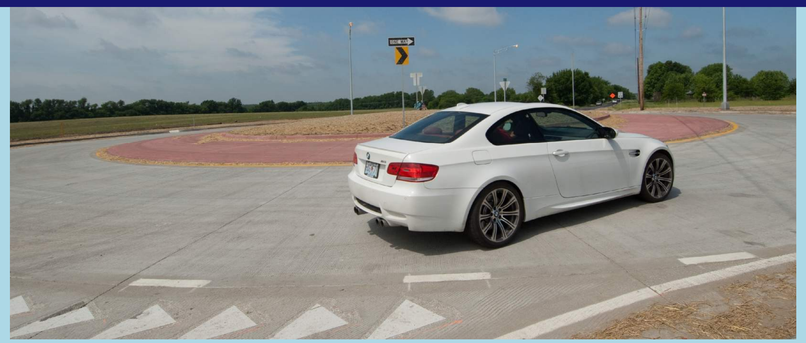
Navigating a Roundabout

1. When approaching a roundabout, you will see a dashed white line and a yield sign at each entry point. Slow down, look for oncoming cars, pedestrians, and bicyclists.
2. When you see a safe opening, proceed into the roundabout. Follow the circle of traffic until you see the road you want to turn onto, then exit out of the roundabout.
3. When entering a roundabout, remember, all vehicles already within the roundabout have the right of way.
4. It's important to know that all roundabouts work the same, but they may not look the same. Some offer single lane traffic, while others may have multiple lanes.
5. When navigating a multi-lane roundabout, observe roadside signs and pavement markings. These will direct you in the correct lane. Do not change lanes within a roundabout.
6. Do not enter a roundabout if an emergency vehicle is approaching a roundabout. If an emergency vehicle approaches while you are in a roundabout, exit immediately and pull over to the right side of the road.
7. Never turn left when entering a roundabout. When exiting, be sure to use your right turn signal.

Roundabouts are a form of circular intersection that may be used as an alternative to signalized and all-way stop intersections. They're designed to safely get a lot of traffic through an intersection without much waiting.

As of 2022, we have implemented roundabouts in 356 locations statewide.





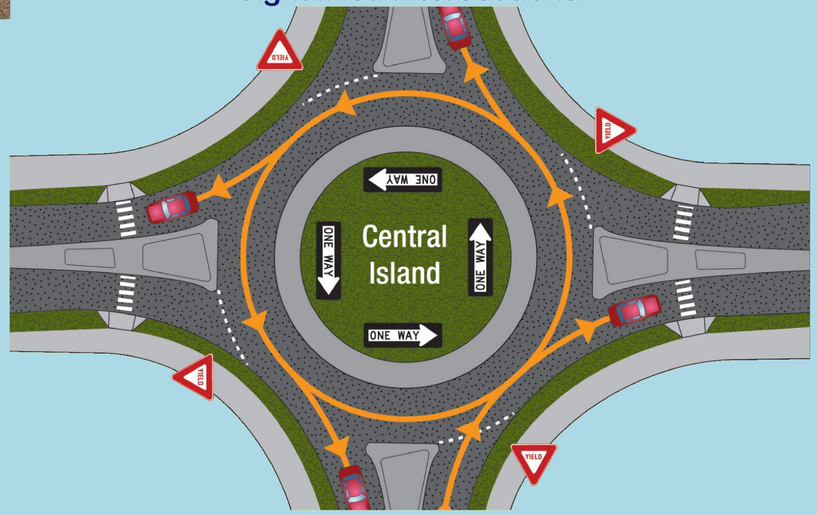
LARGE VEHICLE FEATURES *of a roundabout*

Most roundabouts are designed with a truck apron to accommodate large vehicles like school buses, semi-trucks, or farm equipment. This raised section of pavement around the central island is the truck apron. It allows for the back wheels of an oversized truck to ride up as they circle around, helping them to maneuver through. Large trucks and trailers require special consideration when driving through roundabouts. Give them plenty of room, they may need to use more than one lane to successfully make it through a roundabout.

A roundabout is a one-way circle of traffic with yield signs at each entry point.

An entry point is where a driver will yield into the roundabout, which allows traffic to flow with little to no stopping, reducing fuel use and air pollution in the process.

They're easy to navigate through, and more importantly, safer to use than traditional traffic signalized intersections.



Next Steps

- Project Delivery Determination – Fall 2025
  - Design Bid Build / Design Build
- Design
  - Reasonable Alternative Selection
  - Funding
  - Environmental Investigations
  - Preliminary, Right-of-way and Final Design Phase
- Construction – FY2028

Your input is important!

Do you have comments on the corridor alternative concepts? Are we missing anything?

Scan the QR code or go to the following link to complete an online survey

https://www.surveymonkey.com/r/Mo47PM2

The survey will be available to complete until until Thursday, October 23, 2025.

Project Contact Information

Future47@modot.mo.gov

www.modot.org/Future47

1-888-ASK-MODOT (275-6636)