

STATE ROUTE 161 TRAFFIC STUDY

January 5, 2015

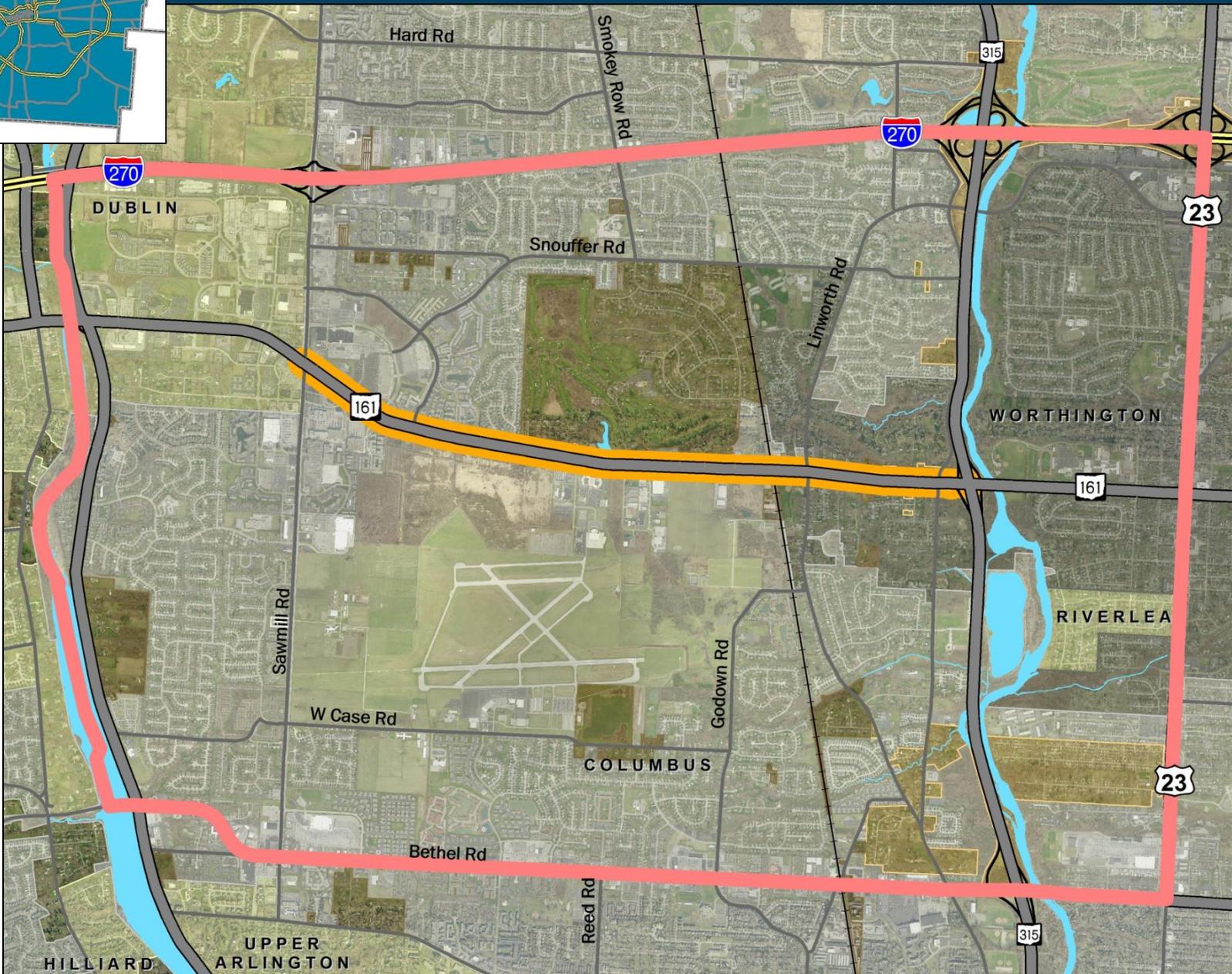
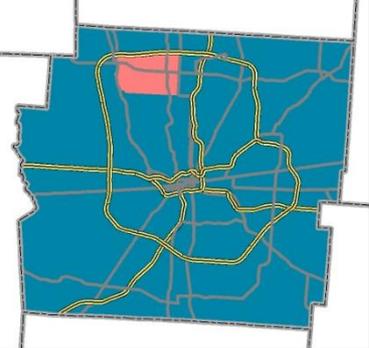


Mid-Ohio Regional
Planning Commission

Overview

- Need for Study
- Project Partners
- Process
- Key Findings
- Next Steps

The presentation is informational only. No action requested of the CAC.



Need for Study

- Provide data to better understand traffic conditions in corridor
- Provide starting point for further study

Need for Study

This study DOES:

- Quantify current and forecasted traffic volumes
- Analyze how different improvements impact traffic in the corridor

This study does NOT:

- Explore alternative solutions in detail
- Address specifics related to the railroad crossing
- Make recommendations for specific improvements

Project Partners

Funding Partners:

- City of Columbus
- City of Worthington
- Perry Township

Study Committee:

- City of Columbus
- City of Worthington
- Perry Township
- ODOT
- Franklin County
- OSU

Study Process

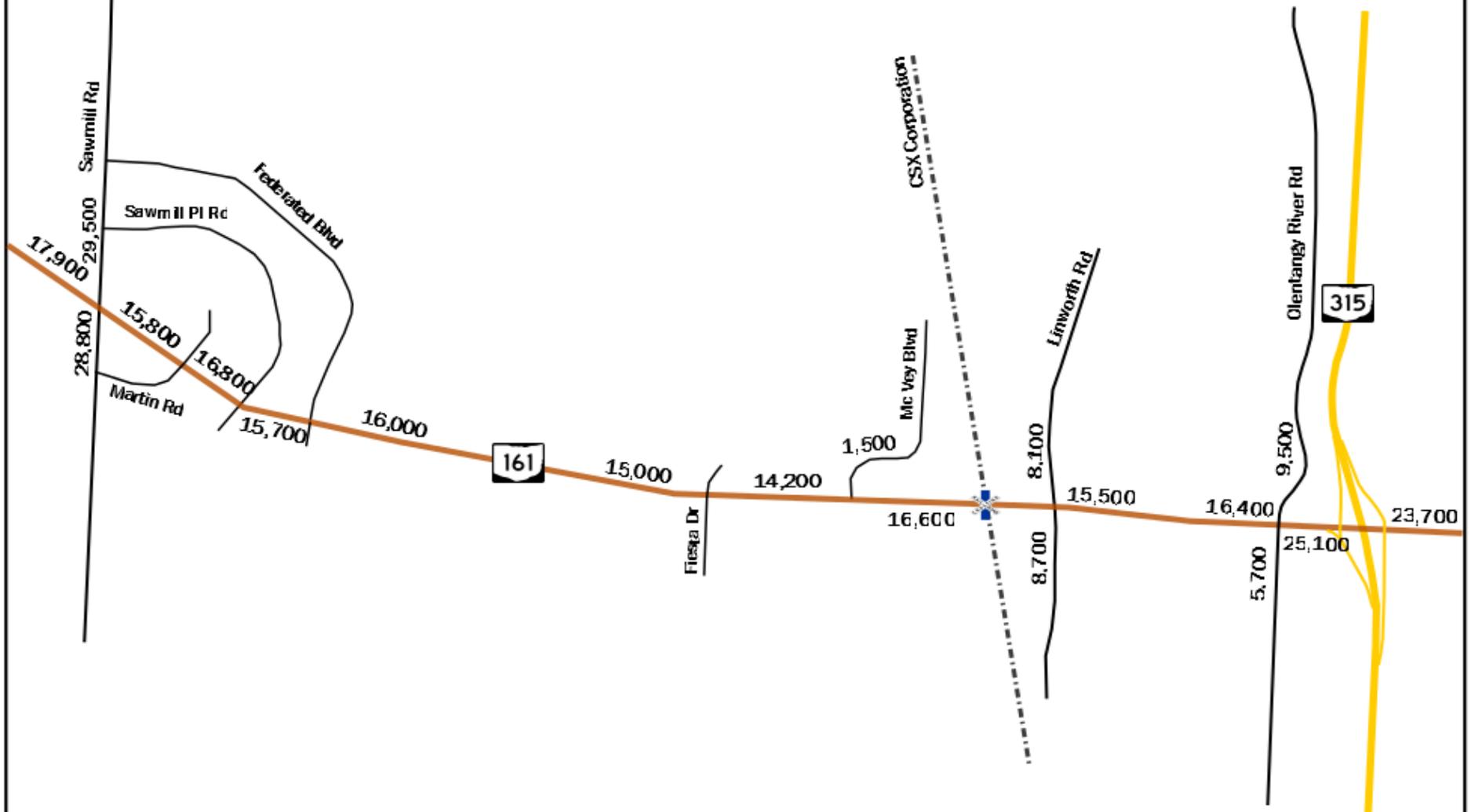
1. Met with local planners to review and adjust land use assumptions
2. Analyzed existing traffic conditions based on traffic counts
3. Developed and analyzed future infrastructure alternatives

SR-161: Base Year 2013

Mid-Ohio Regional Planning Commission

June, 2014

Not to Scale



19,300 Base Year 2013

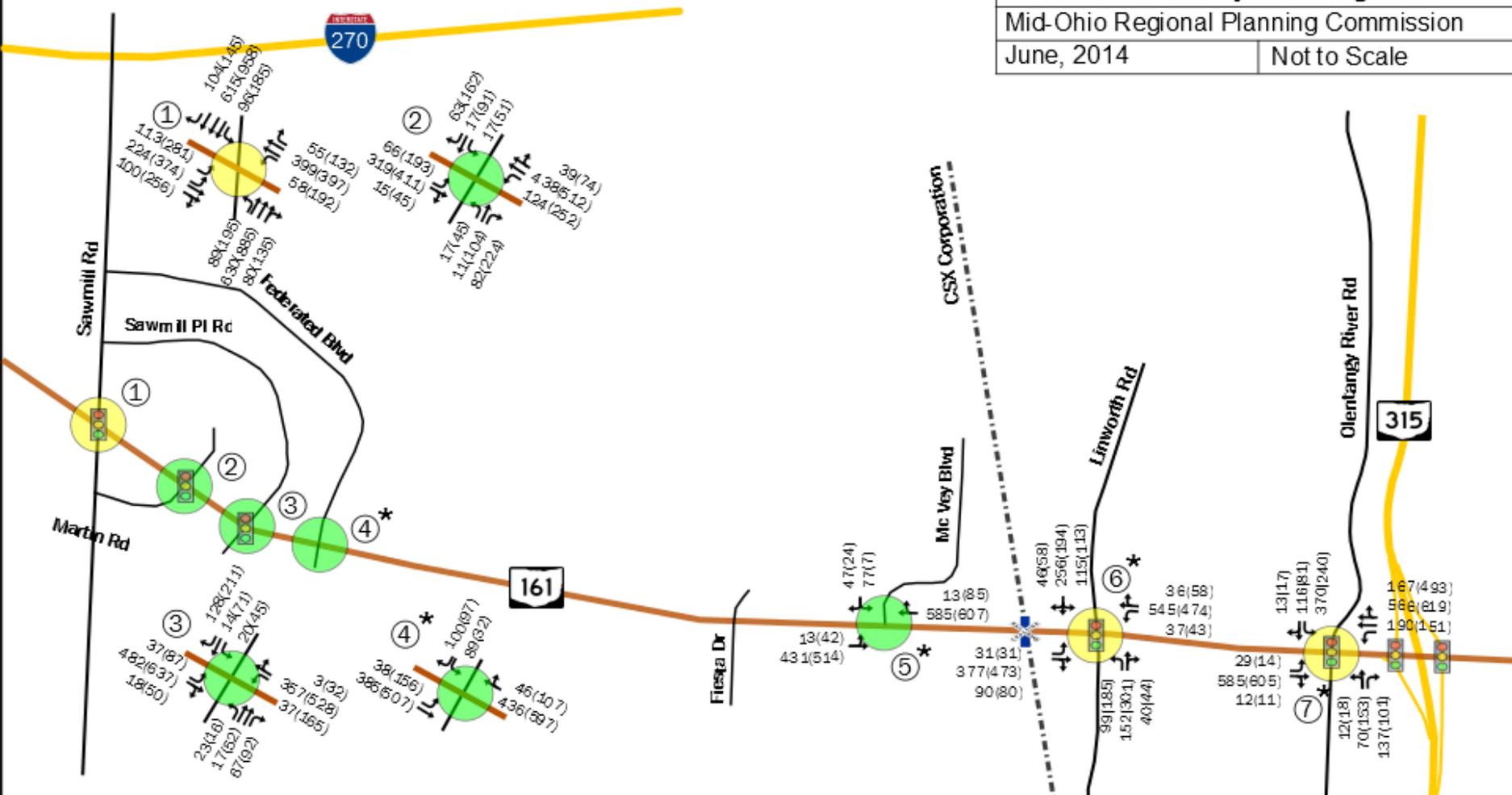


Railroad Crossing



Key Findings – Existing Conditions

- Traffic volumes approaching maximum capacity
- Train crossing causes backups more than 1 mile during peak hours
- 3 out of 7 intersections operate at congested levels during peak hours



Legend:

- LOS A/B/C
- LOS D/E
- LOS F
- AM/PM LOS
- Signalized Intersection
- Railroad Crossing

Lane Configuration at Intersection

XX(XX) AM Volume (PM Volume)
 Volumes are by movement, not lane

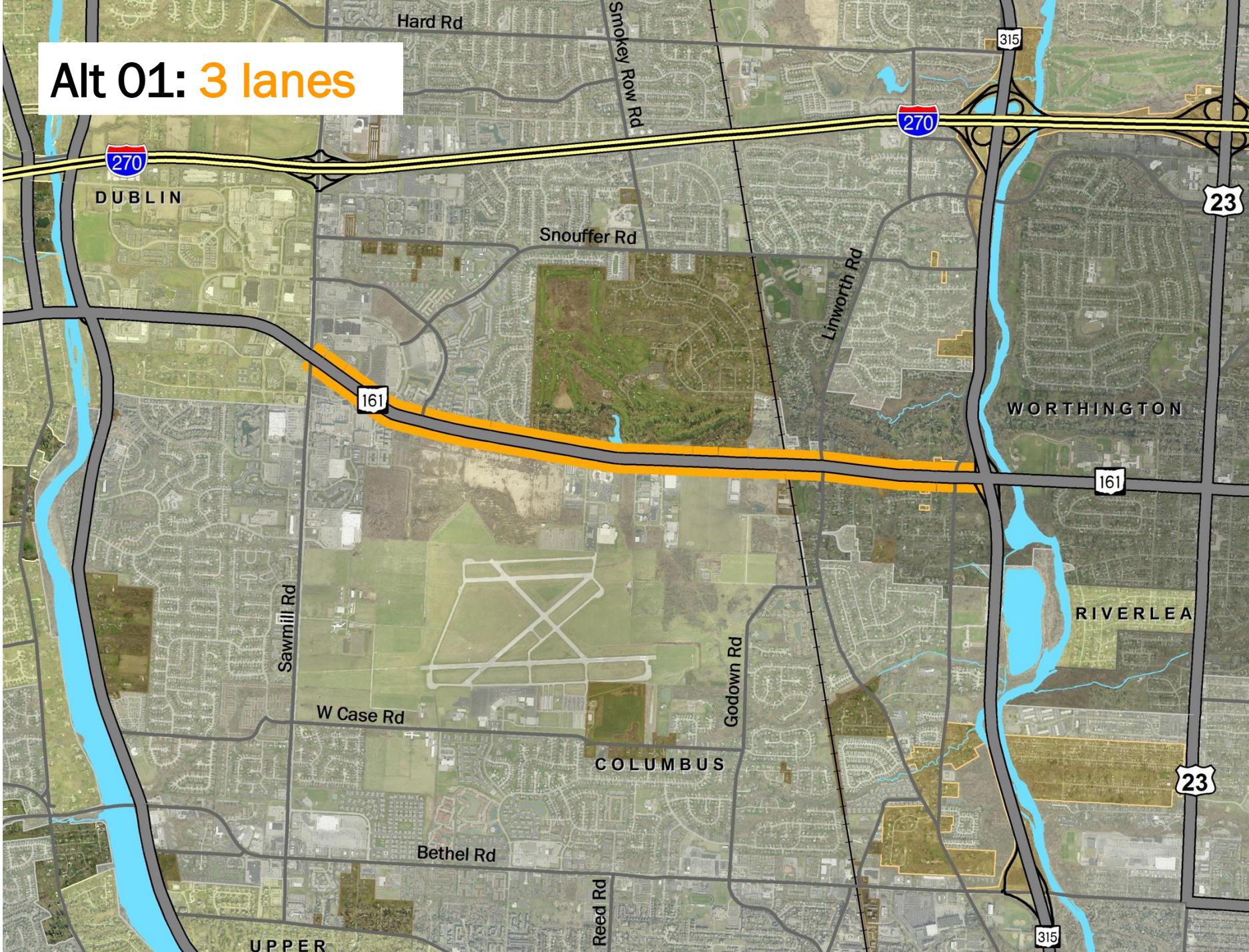
- ④* South leg of Federated Blvd was being constructed at beginning of study, therefore it was analyzed as a three-way intersection due to existing data availability.
- ⑤* When a train blocks the street for 10 minutes, the queue length (5800 ft) spills back to the west of McVey Blvd.
- ⑥* When a train blocks the street for 5 and 10 minutes, both scenarios result in LOS F.
- ⑦* When a train blocks the street for 10 minutes, the queue length (5800 ft) spills back to the west of Orlentangy River Rd.



Key Findings – Future Scenarios

- 00: WHAT IF no improvements were made?
- 01: WHAT IF the entire corridor had 3 lanes?
- 02: WHAT IF the entire corridor had 5 lanes?
- 03: WHAT IF the corridor had 5 lanes between Sawmill and Linworth Roads and 3 lanes between Linworth Road and SR 315?
- 04: WHAT IF the entire corridor had 3 lanes and Godown Road were extended to SR 161?
- 05: WHAT IF the entire corridor had 3 lanes and a new, parallel road existed just north of Don Scott Airport from Sawmill Road to Godown Road?

Alt 01: 3 lanes



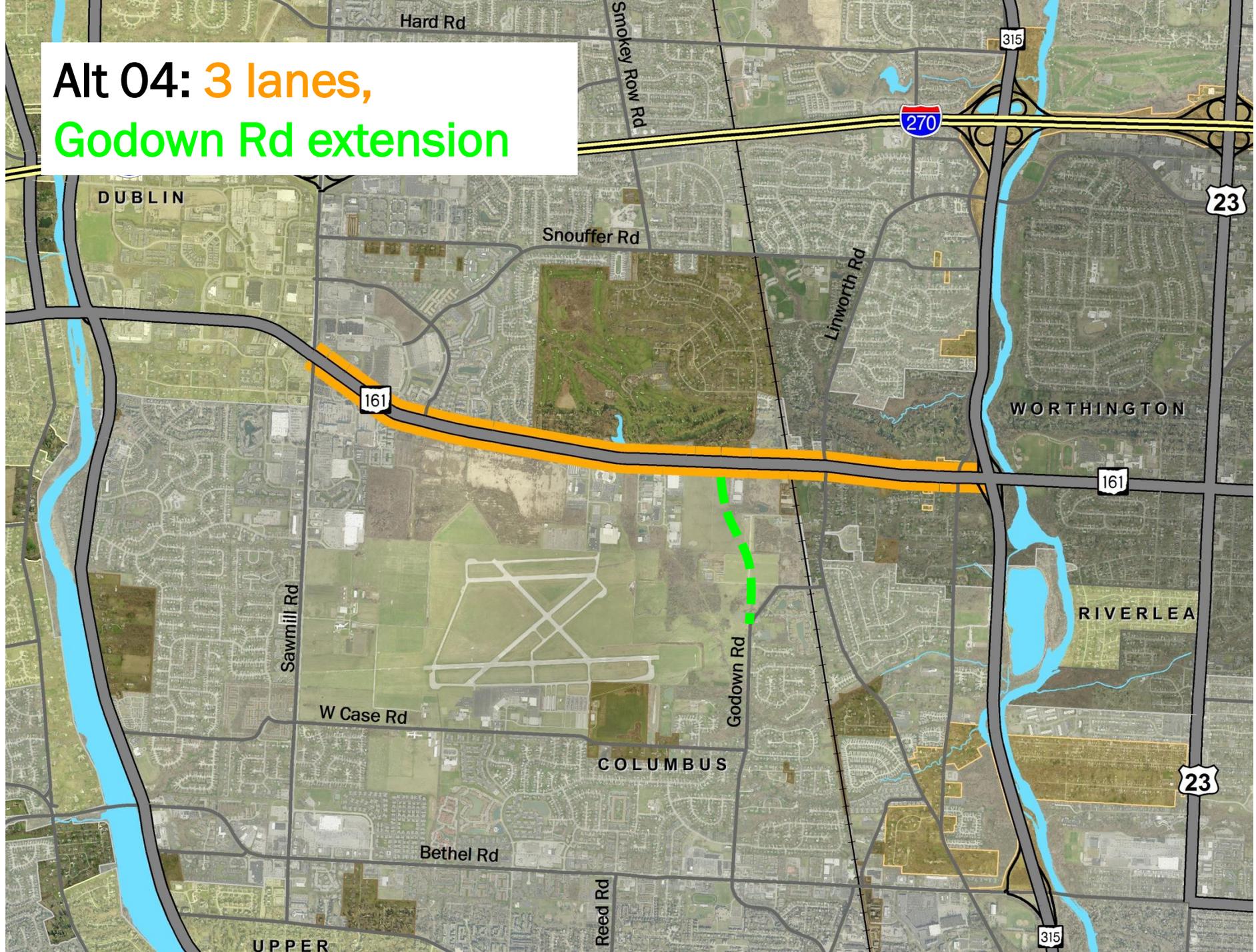
Alt 02: 5 lanes



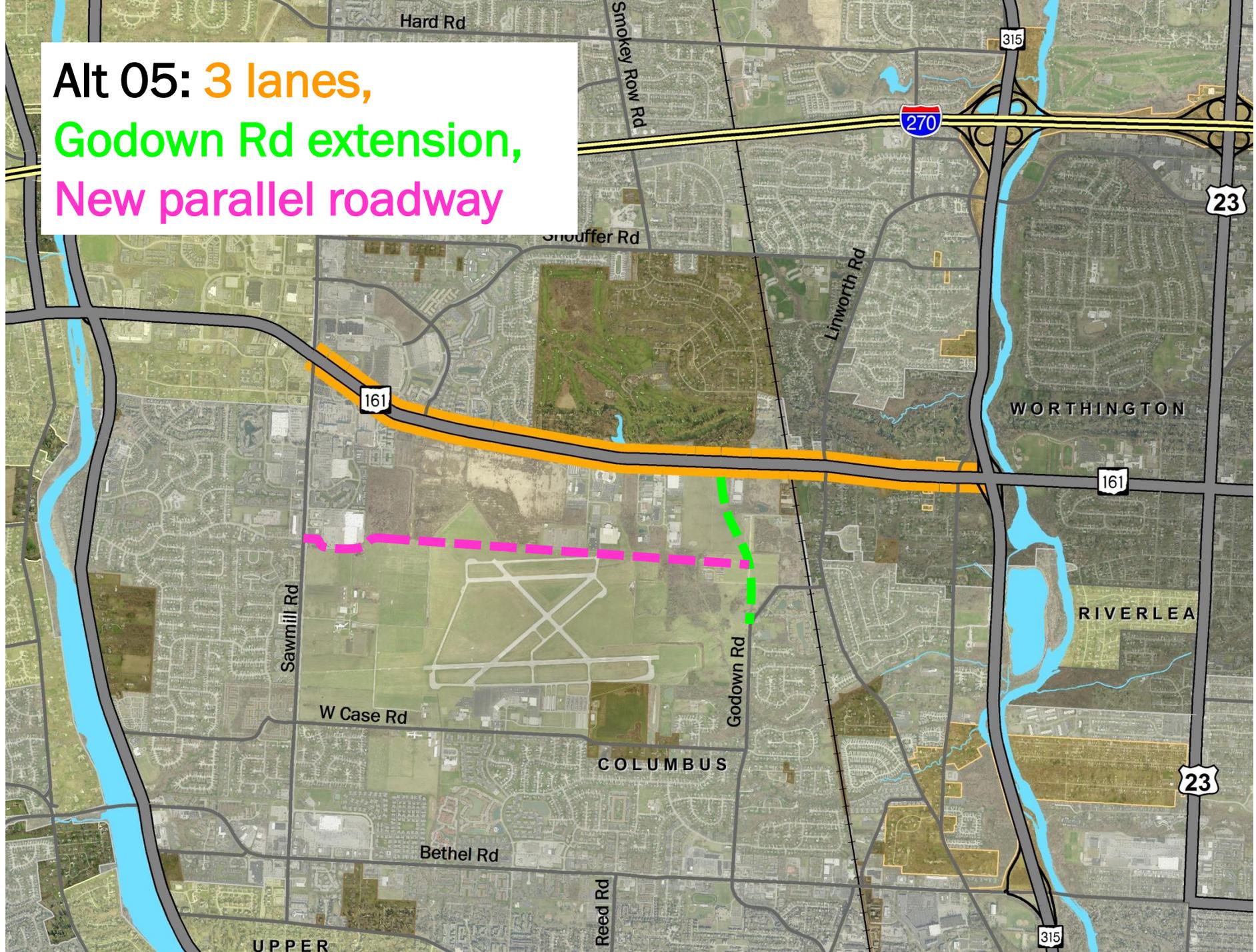
Alt 03: 5 lanes/3 lanes



Alt 04: 3 lanes,
Godown Rd extension



Alt 05: 3 lanes,
Godown Rd extension,
New parallel roadway



Key Findings – Future Scenarios

00: WHAT IF no improvements were made?

- Increased volumes exceed design capacity of existing facility
- Delay at all but one intersection increases significantly

Key Findings – Future Scenarios

01: WHAT IF the entire corridor had 3 lanes?

- Increased volumes approach maximum capacity of three-lane facility
- Associated intersection improvements could improve operation (could include additional through lanes)

Key Findings – Future Scenarios

02: WHAT IF the entire corridor had 5 lanes?

- Generates highest volumes
- Volumes do not exceed maximum capacity of five-lane facility
- Intersections can operate acceptably

Key Findings – Future Scenarios

03: WHAT IF the corridor had 5 lanes between Sawmill and Linworth Roads and 3 lanes between Linworth Road and SR 315?

- Volume increases consistent with 3- and 5-lane scenarios
- Traffic conditions dependent upon configuration and performance of SR 161/Linworth Rd intersection

Key Findings – Future Scenarios

04: WHAT IF the entire corridor had 3 lanes and Godown Road were extended to SR 161?

- Does not divert enough traffic to other routes to significantly impact conditions along study corridor
- Alternative not carried forward for further analysis

Key Findings – Future Scenarios

05: WHAT IF the entire corridor had 3 lanes and a new, parallel road existed just north of Don Scott Airport from Sawmill Road to Godown Road?

- Does not divert enough traffic from study corridor
- Traffic would still be required to use SR 161 to access SR 315
- Alternative not carried forward for further analysis

Other Key Findings

- SR 161/Linworth Rd intersection is most congested
- Intersection improvements alone would reduce delay at Linworth and Olentangy River Rd intersections; could move bottleneck to other parts of corridor
- Railroad crossing will continue to cause backups

Next Steps

ODOT has agreed to use study results to provide:

- Conceptual drawings of potential improvements at intersections
- Recommendations on a scope of improvements for a preliminary engineering study
 - Extensive public input
 - Additional field work
 - Determine specific multi-modal improvements



Full Report: morpc.org/transportation/highway/sr-161-traffic-study/index

Mid-Ohio Regional Planning Commission

State Route 161 Traffic Study

Technical Memorandum

Prepared for:
City of Columbus
City of Worthington
Perry Township
October 2014





Mid-Ohio Regional
Planning Commission

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