

Strategic Transportation & Development Analysis



APPENDIX A

Toledo-Columbus Focus Corridor



Department of
Transportation

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Executive Summary

INTRODUCTION

While the Strategic Transportation and Development Analysis analyzes statewide and regional trends, forecasts, current and future needs, and risks across the state, focus corridor needs assessments take a deeper dive into six individual corridors identified based on risks associated with reliable and safe interregional mobility. Each focus corridor needs assessment examines outputs around population change, development, congestion, and statewide travel at the corridor level. This condensed review is paired with an examination of the facility's status, including traffic composition, origin-destination data, geometric conditions, access control, safety statistics, and other study areas, including existing and programmed Ohio Department of Transportation (ODOT) projects.

This effort contributes to identifying transportation system projects to support statewide economic growth, as stated in House Bill 23 (H.B. 23). In addition to two focus corridors specified by H.B. 23, Toledo-Columbus and Sandusky-Columbus, four other corridors were elevated through analysis of 33 markets and 38 corridors on the Study network by assessing economic value, performance risk, and risk of potential barriers to the interregional movement of people and goods. **Chapter 3** of the Study provides more information on this process. This Study Appendix details the needs assessment process and findings for the Toledo-Columbus focus corridor.

CONTEXT AND TRENDS

Transportation

The Toledo-Columbus focus corridor is defined around a primary path with multiple alternatives, see **Figure 1**. The highways making up the corridor are highly varied, ranging from two-lane, undivided, rural roads to 10-lane, fully access-controlled, urban freeways. These paths and alternatives are made up of the following 11 segments described in **Table 1**.



TABLE 1—TOLEDO-COLUMBUS FOCUS CORRIDOR SEGMENTS

Segment	Classification	Access Control	Length (miles)	Lanes
Primary Path				
I-75, US20/US23 in Perrysburg to SR15 in Findlay	Interstate	Full Access Control	37.3 mi	Six lanes
SR15/US68, I-75 in Findlay to US68 in Findlay	Other Principal Arterial	Partial Access Control	3.1 mi	Four lanes
SR15, US68 in Findlay to US23 in Carey	Other Principal Arterial	Partial Access Control	14.0 mi	Four lanes
US23, SR15 in Carey to I-270 in Columbus	Mix of Freeway Arterial and Other Principal Arterial	Mix of Full, Partial, and No Access Control	66.0 mi	Four to eight lanes
Western Alternative				
US68, SR15 in Findlay to SR31 in Kenton	Minor Arterial	No Access Control	24.7 mi	Two lanes
SR31, US68 in Kenton to US33 in Marysville	Minor Arterial	No Access Control	30.5 mi	Two lanes
US33, SR31 in Marysville to I-270 in Dublin	Freeway Arterial	Full Access Control	17.6 mi	Four to six lanes
Eastern Alternative				
US20/US23, I-75 in Perrysburg to US23 between Lemoyne and Woodville	Other Principal Arterial	Mix of Full and No Access Control	11.0 mi	Two to four lanes
US23, US20 between Lemoyne and Woodville to SR15 in Carey	Other Principal Arterial	No Access Control	38.3 mi	Two to four lanes
Alternative Routes				
US36, from US23 in Delaware to I-71 in Alum Creek	Other Principal Arterial	No Access Control	7.5 mi	Two to four lanes
I-71, US36 in Alum Creek to I-270 in Columbus	Interstate	Full Access Control	11.8 mi	Six to 10 lanes

This corridor connects Central Ohio to the Toledo area and beyond to markets like Chicago, Detroit, and Canada. The various segments of this corridor intersect with the following US and state routes: US6 in Bowling Green and Bradner, US224 in Findlay and south of Fostoria, US30 in Upper Sandusky, US36 and US42 in Delaware, SR4 and US36 in Marysville, SR420 in Lemoyne, and I-270 in Columbus.



FIGURE 1—TOLEDO-COLUMBUS FOCUS CORRIDOR



Development

Between Toledo and Columbus, the corridor passes through a range of counties with a mix of small- to medium-sized cities and rural agricultural areas. The cities and their suburbs along this corridor segment—including Findlay, Marion, and Marysville—have experienced relatively stable employment and population growth due to a relatively diverse economic base. Findlay is home to Marathon Petroleum and Cooper Tire. Marion is the location of large facilities for Whirlpool and Nucor Steel. The Marysville area is home to large Honda automobile manufacturing facilities. Marysville also benefits from its proximity to the higher growth areas in Delaware and Franklin counties. Rural areas in Hancock, Marion, and Union counties have experienced population declines over the last 20 to 30 years, consistent with trends at the statewide level.

Franklin and Delaware counties at the south end of the corridor have experienced substantial population and employment growth relative to other areas of the state. Central Ohio has benefited from the global shift to a knowledge-based economy. This region has been supported by The Ohio State University, the state's flagship research university, and investments in high-technology industries and services. Franklin County, at the heart of the Columbus metropolitan area, is first among Ohio counties in total population and population growth, adding almost 26,000 residents between 2017 and 2022, the largest absolute gain in population among Ohio counties. Over this same period, Franklin County ranks first among Ohio counties in growth in total employment, adding 67,000 jobs, and second in wage and salary employment growth, adding 15,000 jobs. Franklin County also had the largest gain in Real GDP among Ohio's counties between 2017 and 2022, adding more than \$9 billion in economic value. Delaware County on the north side of Columbus, I-71, US23, US42, and US36, experienced the second-largest increase in population among Ohio counties, adding 24,000 residents. During this period, Delaware County posted the fourth largest gains among Ohio counties in Real Gross Domestic Product (GDP) of \$2.5 billion, wage and salary employment of 6,000, and total employment of 15,500. This is partly due to the county's standing as a center for financial services, retail, and the Columbus Zoo and Aquarium.

Predicted development along the corridor is most heavily concentrated in the areas to the immediate west and north of Columbus. The highest growth levels are anticipated to occur along US23 in Delaware and Franklin counties, which will likely significantly impact the corridor due to a large increase in at-grade intersections. The greatest projected household change in the entire state occurs along the section of US23 between Columbus and Delaware to the north of I-270. This development would increase local traffic and likely lead to an overall increase in traffic traveling between Toledo and Columbus, adding pressure to an already congested highway and possibly exacerbating an existing trend of rear-end crashes.

In the Northwest Region, development is predicted to occur south of I-475 between Toledo and Bowling Green and around Findlay, increasing development pressure on I-75. Multiple major development sites have been identified on I-75 between Findlay and Toledo.

Corridor context and trend insights are located in **Figure 2** and summarized in **Table 2**.



FIGURE 2—CORRIDOR INSIGHTS MAP

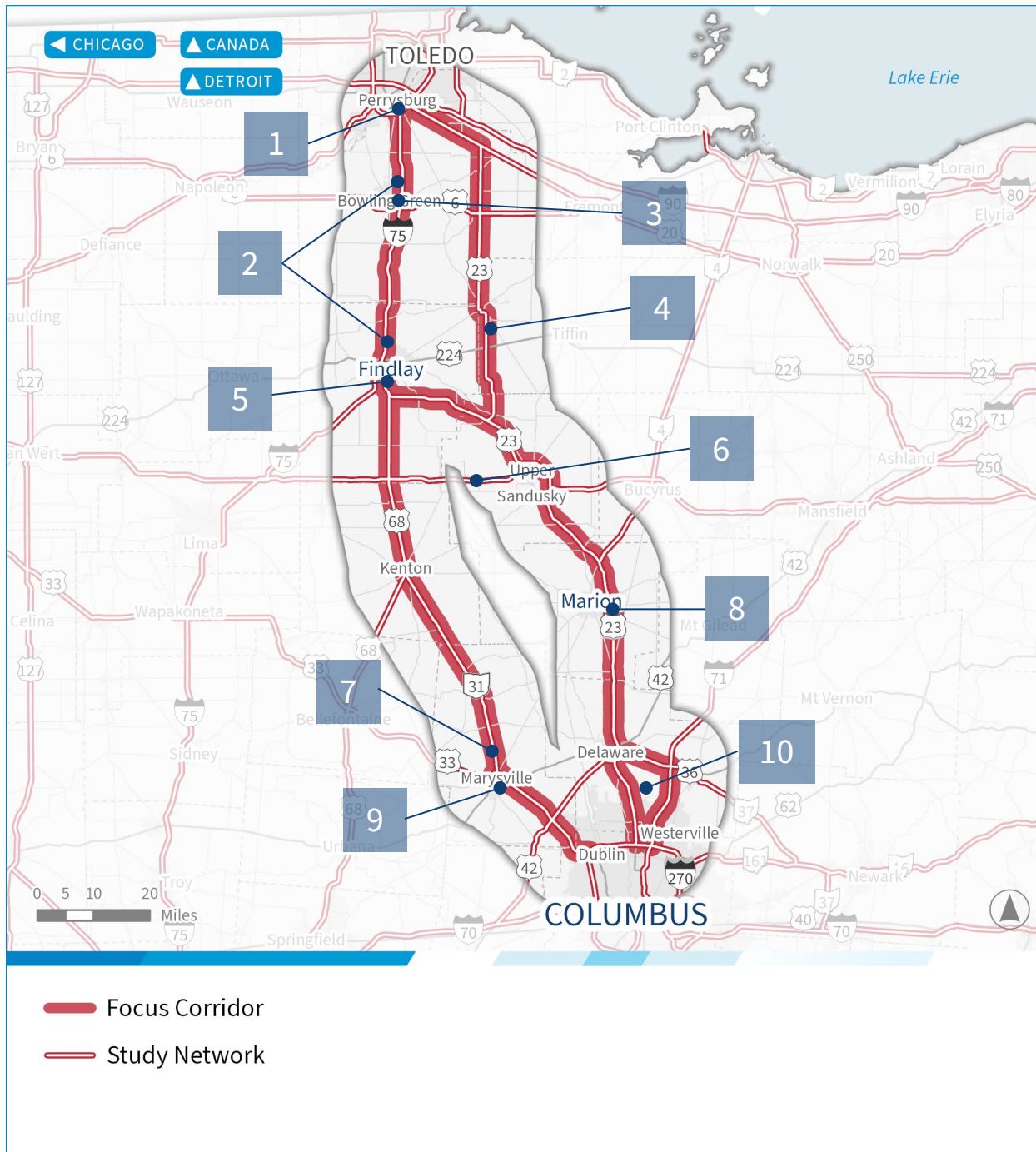


TABLE 2—CORRIDOR INSIGHT SUMMARY

Map Key	Corridor Insight
1	- Continued growth is projected in Toledo's southern suburbs, such as Perrysburg. - Growth in Perrysburg will extend commutes for workers traveling to Toledo.
2	Areas of potential development pressure along the I-75 corridor north of Bowling Green and areas around Findlay could increase future trip generation along the corridor.
3	- Bowling Green has a diverse economy that is home to Bowling Green State University, county employment, and a home for commuters traveling to Toledo. - This economic mix creates a high level of intracounty traffic as well as intercounty traffic.
4	Rural areas along the northern segment of US23 are projected to decline in population.
5	- Findlay currently has a stable population base, a diverse economy, and a central location at the junction of I-75 and US68. - Forecasts indicate that the population could decline.
6	- US30 provides a key east-west connection with partial access control between US68 and US23. - There is an opportunity to leverage US30 for freight-intensive and logistics-related industries and connect with Lima and Mansfield's economies.
7	It is unknown how far development growth will extend northward from Marysville on SR31 and US68 into Hardin County, which complicates infrastructure planning.
8	- Several areas of recent residential and commercial development growth have occurred along US23 to the west and south of Marion. - Marion is forecasted to experience population declines but could benefit from growth extending north from Delaware.
9	- Marysville has experienced steady population and employment growth related to the local Honda plants and associated supply chains. - Strong growth is forecasted for Marysville as development extends outward from Columbus and Delaware, creating additional pressure on US33. - There is uncertainty related to how far growth will extend north along SR31 and US33 as it will lead to longer commutes.
10	- Delaware and the northern Columbus suburbs will continue to grow and generate travel demand on the corridor. - The Delaware County economy will continue to diversify and grow its employment base.



CONDITIONS AND INVESTMENT

Corridor Conditions

The segments of the Toledo-Columbus focus corridor with traffic volume exceeding capacity exist near the I-475 and US20/US23 interchange, in Kenton, on US33 from Post Road in Dublin to I-270, on US36 approaching west to US23 in the Delaware, and on US23 between I-270 and Delaware. There are a few segments of the corridor predicted to have a congestion risk based on a congestion analysis of projected travel and development data to 2055: US23 between SR229 and I-270; US68 in Kenton; SR31 in Kenton, Mount Victory, and Marysville; US33 near I-270; US20/US23 near I-75; US36 between US23 and I-71; and I-71 between US36/SR37 and I-270.

The primary path represents a significant concentration of the top 100 Highway Safety Improvement Program (HSIP) priority segments. The primary path and alternative routes combined account for over 20% of the top 100 priority segments in the state. Vulnerable road users (VRUs) account for about 0.5% of the total crashes on the corridor for the period analyzed, indicating that VRU safety is not a disproportionate concern.

The primary path is 31% interstate, 3% freeway, and 66% other principal arterial. The western alternative is 24% freeway and 76% minor arterial. The eastern alternative is 100% other principal arterial. All highways along the Toledo-Columbus focus corridor travel along the generally flat plains of northwestern Ohio. No geometric concerns were noted in the corridor. The primary path is 50% full access control, 36% partial access control, and 14% no access control. The eastern and western alternatives include highways with mostly no access control. The lack of access control on US23 between Delaware and Columbus exacerbates the congestion issues caused by rapid.

Existing intelligent transportation systems (ITS) infrastructure tends to be limited to interstate highways and access-controlled highways, with higher traffic volumes and speed limits. Existing lighting on the corridor tends to be limited to urban and suburban areas. All rail crossings on the primary path are already grade-separated. Grade separation of existing at-grade crossings on other parts of the corridor presents challenges due to their proximity to existing roadway intersections. This is especially true for at-grade crossings that occur in towns.

Corridor Investments

Since 2015, completed and in construction projects have totaled \$30 million in the corridor. An additional \$145 million is anticipated for projects in development. ODOT also has identified an additional \$2.17 billion in proposed projects. Half of the 48 projects are currently in the ODOT proposed phase. Notably, seven of these projects include US23 improvements from Waldo to I-270, which accounts for \$1.8 billion of the \$2.34 billion total funding. These projects enhance safety and access management along this segment of US23.

The scope of projects along the corridor varies widely, with the three main categories of work being interchange improvements, \$2.04 billion; additional lanes, \$183 million; and intersection or safety improvements, \$62 million. The cost of the projects ranges from \$50,000 to \$380 million. However, 98% of the required funding has not been secured. Funding has been committed for projects completed and in construction, and all but 5% of the necessary funding for projects in development has been allocated.



NEEDS ASSESSMENT

The needs assessment considers congestion-related “hotspots” and expands on key takeaways related to development growth pressures, safety, access and geometric issues, and other considerations such as railroad crossings. These areas are highlighted in **Figure 3**.

Congestion

Segments with existing traffic volume exceeding capacity include the I-475 and US20 interchange in Kenton, US33 from Dublin to I-270, US36 approaching US23 in Delaware, and US23 between I-270 and Delaware. The corridor has other segments nearing capacity in Columbus, Delaware, small towns like Carey and Fostoria, and I-71 from I-270 to Gemini Place. In the future, the following segments have a risk of congestion: US20 near I-475 in Toledo, SR31 in Kenton, US33 near I-270, US23 from I-270 to US36 in Delaware, and I-71 from I-270 to US36.

Safety

The entire corridor accounts for 20% of the top 100 Highway Safety Improvement Program (HSIP) segments driven in part by over 400 at-grade intersections and almost 2,000 private driveways. Safety risk hotspots include:

- **I-75** between Perrysburg and Bowling Green and between Bowling Green and Findlay
- **US23** north of Delaware and between Delaware and I-270
- **I-71** south of US36 and at the US36/I-71 interchange
- **SR68** south of SR15, **SR31** north of Marysville, and **US33** east of US42

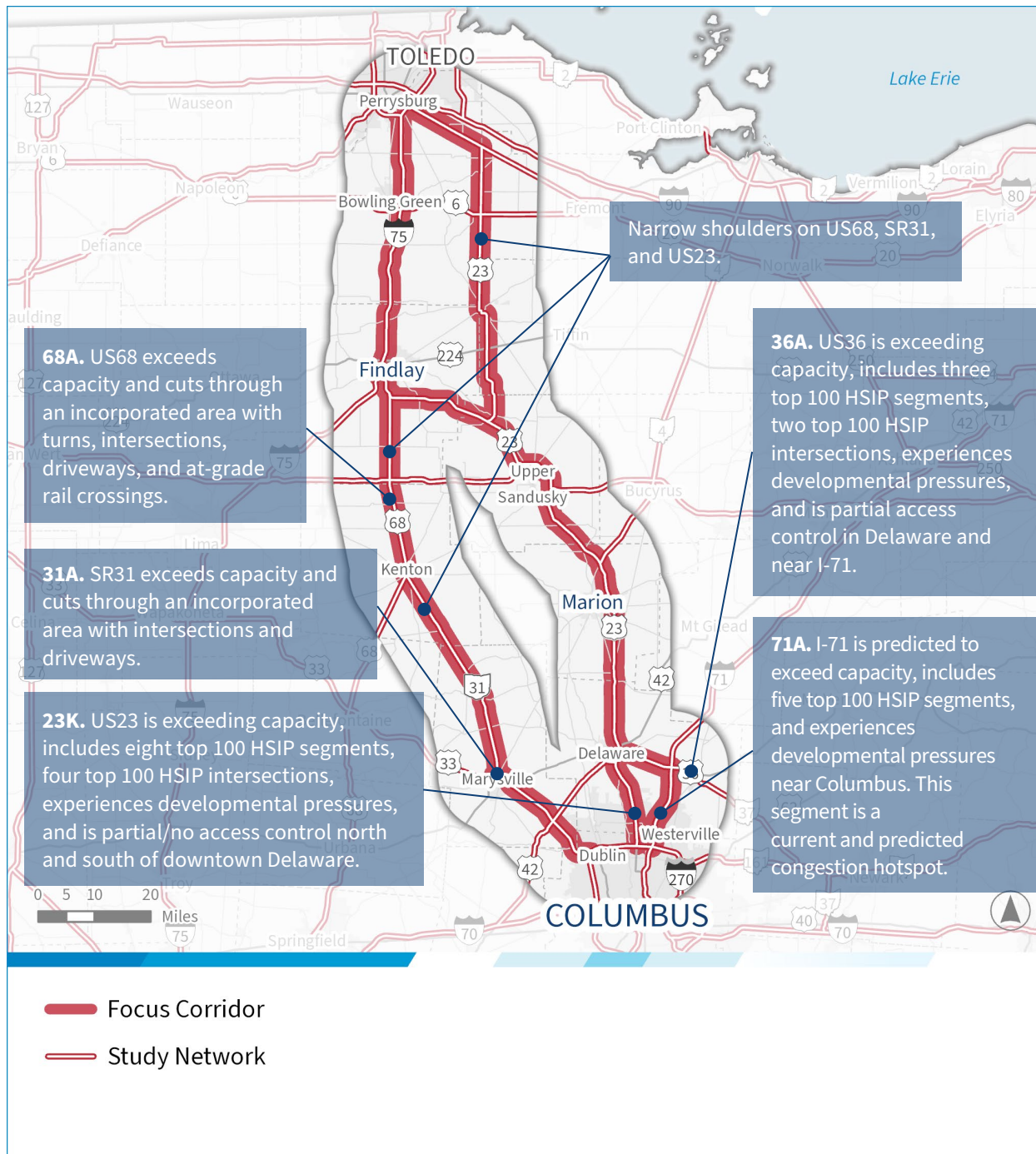
Access Control and Development

Predicted development along the corridor is most heavily concentrated in the areas to the immediate west and north of the City of Columbus, especially the area between Delaware and Columbus on US23. Access on the primary path is approximately 50% full access control, 36% partial access control, and 14% no access control. Growth on both ends of the corridor is exacerbating access concerns. Segments within the corridor along all paths include:

- **I-75**, beginning at I-475 south of Toledo to Findlay, is a six-lane freeway with full access control.
- **US68** from Findlay to Kenton is a two-lane roadway with no access control.
- **SR31** from Kenton to Marysville, is a two-lane roadway with no access control.
- **US33** from Marysville to I-270, is a four-lane freeway with full access control.
- **SR15** from US68 and US23, is a four-lane expressway with partial access control.
- **US23** from Toledo to Upper Sandusky is a two- to four-lane roadway with no access control, an expressway with partial to full access control from Upper Sandusky to Delaware, and a roadway with partial to no access control from Delaware to I-270.
- **US36**, where the east-west corridor connects US23 in Delaware to I-71 near Sunbury, is generally a two-lane urban roadway in Delaware and a four-lane divided highway east of Delaware with partial and no access control.



FIGURE 3—CORRIDOR NEEDS SUMMARY



Corridor Findings

The corridor needs were compared with ODOT-sponsored projects to assess how the existing projects address these needs. Currently, no areas of concern have fully funded projects in construction or previously constructed. The Toledo–Columbus focus corridor has individual and grouped hotspots throughout the primary path. The most immediate concerns are in Delaware and Franklin counties due to predicted growth and traffic patterns.

Narrow Shoulders on US68, SR31, and US23

This includes long segments of US68, SR31, and US23 (north of Carey) that connect smaller communities. Although not a congestion risk, these rural two-lane sections have narrow shoulder widths and adjacent ditches. These geometric conditions create operational challenges and driver anxiety. No projects are planned that could address this issue.

68A. US68 in Arlington and Dunkirk

Section 68A includes US68 from Arlington to Dunkirk. This area of concern is impacted by lower speed limits, signalized intersections, driveways, and at-grade rail crossings in incorporated areas. This segment also lacks appropriate shoulders for the roadway. Congestion along US23 is rerouting freight traffic to US68, causing congestion in smaller communities. There are currently two projects located on this segment, PID 118746 in Arlington and PID 116671 in Dunkirk. PID 118746 is a fully funded, under construction project that will replace a signal on Liberty Street. PID 116671 is a fully funded, proposed project to reconstruct US68 through Dunkirk by 2028. Neither of these projects will address the lack of shoulders between the two communities, nor the intersections and driveways that reduce travel speed.

31A. SR31 in Union County and Marysville

Section 31A includes SR31 between SR128 in Union County and US33 in Marysville. This area of is impacted by lower speed limits, signalized intersections, driveways, and at-grade rail crossings in incorporated areas. It also lacks appropriate shoulders for the roadway. Congestion along US23 is rerouting freight traffic to US68, causing congestion in smaller communities. Currently, no projects are planned to address the congestion and geometric concerns.

23K. US23 between Delaware and I-270

Section 23K includes US23 from downtown Delaware to I-270 in Franklin County. This section is exceeding capacity, experiencing intense development pressure, and lacks appropriate access control for the volume of traffic on the segment (with the exception of US23 from N Sandusky Street to US42 through downtown Delaware, which has full access control). It includes four top 100 HSIP segments and one top 100 HSIP intersection, and is experiencing the highest growth in development in the state. One project, PID 112768, is currently planned to address concerns in this area. It is split into seven segments, with segments 1 through 5 in this focus area. This project's goal is to greatly reduce the number of signalized intersections and construct median wall barriers, overpasses, and interchanges. The project is currently unfunded, with \$1.425 billion needed for construction.



36A. US36 between Delaware and I-71

Section 36A includes US36 from downtown Delaware to I-71. This section is exceeding capacity, experiencing intense development pressure, and lacks appropriate access control for the volume of traffic on the segment. It includes three top 100 HSIP segments and two top 100 HSIP intersections, and is impacted by development growth north of Columbus. This section has one project in construction and one in development. PID 103626, which is currently under construction, will install additional lanes on US36/SR37, improve the SR521 intersection, and reconstruct the Norfolk Southern Railroad bridge. It will be completed by 2025. PID 106961 will construct Sunbury Parkway from US36/SR37 to 3 Bs and K Road and widen Sunbury Parkway between 3 Bs and K Road to the west of I-71. This project is in development and partially funded, with \$2.74 million needed for construction, and scheduled to be completed by 2026.

71A. I-71 between US36 in Delaware County and I-270

Section 71A includes I-71 from US36 in Delaware County to I-270 in Franklin County. This section is exceeding capacity and experiencing intense development pressure from new construction north of Columbus. It also includes five top 100 HSIP segments. There are three projects planned to address these concerns. PID 106959, which is in development and fully funded, will construct a new interchange on I-71 with Sunbury Parkway just south of US36/SR37, with a planned opening of 2026. PID 105435, which is in development and is estimated to require \$40 million in committed funds, plans to widen the I-270 eastbound to I-71 northbound ramp to two lanes on the existing structure, convert a merge lane to add a lane on I-71 North, and add an option lane to the diverge ramp. PID 110964 will construct a new interchange at Big Walnut Road (TR109). This PID is for Stage 1 design and environmental clearance for Phases 1 and 2 and final design, right-of-way acquisition, and construction of Phase 1. This project is proposed and partially funded with a completion year of 2029. It requires an additional \$30 million in committed funding.



Introduction

OBJECTIVES

Context and Report Purpose

The Strategic Transportation and Development Analysis analyzes statewide economic, demographic, and transportation trends, forecasts travel needs, identifies transportation links and future potential risks to the transportation system, and develops actionable recommendations.

H.B. 23 requires the Ohio Department of Transportation (ODOT) to critically evaluate the Sandusky-Columbus and Toledo-Columbus corridors. ODOT refers to evaluating these corridors as focus corridor needs assessments. Additional focus corridors were identified through an analytical process relying on assessing economic value, performance risk, corridor volume growth, and access control. This analysis was conducted across 33 markets and 38 corridors on the statewide network to identify the corridors with the highest performance risk and economic value. Additional analysis was performed to identify interregional corridors at risk of growing barriers to the efficient and safe interregional movement of people and goods.

Based on the focus corridor analysis, four additional market-to-market connections were selected for the Study: Columbus-KY/WV, US23 South; Columbus-WV, US33 South; Dayton-Cincinnati, I-75; and Canton/Youngstown-WV/PA, US30/SR11. The focus corridor needs assessments identify current and conceptual projects to address congestion risk hotspots creating potential barriers to economic growth. This document synthesizes findings for the **Toledo-Columbus corridor**.

Report Organization

This report presents corridor-level perspectives on the transportation facilities, travel characteristics, existing and future conditions between Columbus and Toledo, and the communities served between those markets. Additionally, this report outlines current and proposed ODOT project investments in the corridor, future performance risks, and actionable recommendations for addressing those risks in the next 10, 20, and 30 years.

H.B. 23 Language

A statewide study of the Ohio transportation system, in collaboration with the Department of Development and the Governor's Office of Workforce Transformation. The study shall:

- Analyze **statewide and regional demographics**, investigate **economic development growth opportunities**, examine **current transportation systems and capacities**.
- Forecast **passenger and freight travel needs** over a ten-, twenty-, and thirty-year timeframe.
- Identify **current and future transportation links**, evaluate and rank **current and potential risks of future system congestion**.
- Make **actionable recommendations** for **transportation system projects to support statewide economic growth**, including improving links between Toledo and Columbus and between Sandusky and Columbus.

At any time, individual hotspot locations may receive advanced analysis of conceptual remedies with planning level costs.

The study shall be completed by December 31, 2024.



This analysis serves as **Appendix A** to the Study Report. **Chapter 5** summarizes the corridor recommendations.

CORRIDOR DESCRIPTION

The Toledo-Columbus focus corridor includes segments of I-75, US23, SR15, US68, SR31, US33, I-71, and US36 that connect Northwest Ohio with Central Ohio. The primary travel path between Toledo and Columbus includes I-75 from Toledo to Findlay, SR15 from Findlay to Carey, and US23 from Carey to Columbus. There is no existing route with full access control between Toledo and Columbus. **Figure 4** presents the extent of the corridor, the Study network, and the location of the primary cities. The Toledo-Columbus focus corridor consists of the following highway segments:

- **I-75:** The corridor begins at US20/US23 south of Toledo and travels south through Bowling Green to Findlay. This segment serves a combination of suburban and rural land uses. I-75 is a six-lane freeway with full access control.
- **US68:** The corridor transitions to US68 from Findlay to Kenton and serves several small rural communities. This segment of US68 is a two-lane highway with no access control. There is a short section between the interchanges of SR15 and I-75, where US68 is a four-lane divided highway with partial access control.
- **SR31:** The corridor transitions to SR31 from Kenton to Marysville, connecting several small rural communities. This segment of SR31 is a two-lane highway with no access control.
- **US33:** The corridor transitions to US33 from Marysville to I-270 in Dublin and serves the northwest suburbs of the Columbus metro area. This segment of US33 is a four-lane highway with full access control.
- **SR15:** The corridor includes a 14-mile segment of SR15 between US68 in Findlay and US23 in Carey. This segment of SR15 is a four-lane highway with partial access control.
- **US23:** The corridor also includes the entire length of US23 from Toledo to I-270 in Columbus. US23 travels southeast from Toledo and connects the communities of Fostoria, Upper Sandusky, Marion, and Delaware. The corridor ends at I-270 in Columbus. US23 is a two- to four-lane highway with no access control between Toledo and Upper Sandusky, where it transitions to a four-lane highway with partial to full access control from Marion to Columbus.
- **I-71 and US36:** The corridor begins at US23 in Delaware, travels on US36 to I-71, then south on I-71 to I-270. I-71 is a six-lane interstate highway with full access control that serves the northeast suburbs of Columbus and the Polaris mixed-use center. US36 is generally a divided four-lane roadway with no access control and serves rural and exurban areas east of Delaware as well as suburban residential and commercial areas within Delaware.

The Toledo-Columbus focus corridor also connects Northwest Ohio to the larger regional transportation network that links major Midwest cities and trade corridors in each direction. To the north, I-75 continues to Detroit and serves the US-Canada border crossings of the Detroit River at the Ambassador Bridge and the Detroit Windsor Tunnel. The Gordie Howe International Bridge, currently under construction and expected to open in 2025, will provide a third roadway crossing for automobiles and trucks. The bridge is expected to increase cross-border trade and auto and truck traffic on I-75 and through the Toledo-Columbus focus corridor.



FIGURE 4—TOLEDO-COLUMBUS FOCUS CORRIDOR



Corridor Context

This section summarizes demographic, economic, land use, and development trends that primarily drive transportation demand and performance along the Toledo-Columbus focus corridor. The assessment was developed based on the statewide and regional analysis in **Chapter 2** and **Chapter 3** of the Study Report and localized research tied to system opportunities, trends, and forecasts specific to the corridor.

POPULATION, DEMOGRAPHIC, AND ECONOMIC TRENDS

The Toledo-Columbus focus corridor traverses a range of communities with various demographic and economic strengths and challenges. **Figure 5** presents population change along the corridor since 1990. **Figure 6** shows employment locations in 2021, and **Figure 7** presents the change in employment since 2002.

Table 3 summarizes population and employment for each city along the corridor, major industries, and large employers with significant operations.

TABLE 3—POPULATION, EMPLOYMENT, MAJOR EMPLOYERS

City	Population (2022)	Employment (2021)	Major Industries/Employers
Toledo	266,500	115,200	Healthcare, University of Toledo, automotive manufacturing (GM, Stellantis), Owens Corning HQ, Port of Toledo, city and county government
Perrysburg	25,700	11,400	First Solar, Owens-Illinois HQ
Bowling Green	31,400	16,800	Bowling Green State University, manufacturing, county government
Findlay	40,000	29,800	Marathon Oil, Cooper Tire, Whirlpool, other manufacturing, county government
Marion	36,000	10,100	Whirlpool, Nucor Steel, healthcare, county government
Marysville	25,800	26,800	Honda, Scotts Miracle-Gro, county government
Delaware	41,900	15,900	Ohio Wesleyan University, healthcare, manufacturing, county government
Dublin	48,900	45,600	Healthcare, Wendy's, Nationwide Insurance, IGS Energy, financial and professional services
Columbus	909,000	539,220	The Ohio State University and other universities, city, county, and state government, healthcare, Nationwide Insurance, financial and professional services

Source: US Census American Community Survey, LEHD, Ohio Major Employers Report (2022)



In 2022, the Toledo Metropolitan Statistical Area (MSA) generated nearly \$46 billion in Gross Domestic Product (GDP), making it the 84th largest metropolitan economy among MSAs in the US. The Toledo MSA ranked fifth among MSAs in Ohio in terms of GDP and sixth in population, total employment, and wage and salary employment. Toledo has experienced modest population declines over the last 20 to 30 years, as manufacturing and other related industries have decreased employment, and residents have moved out of the region. Between 2017 and 2022, the Toledo MSA's economy has experienced a modest recovery with a 2.4% increase in total employment and a 3.7% increase in Real GDP. This data indicates that the economy has stabilized. Wood County, including Perrysburg, Bowling Green, and other areas in the southern portion of the Toledo MSA along I-75 and US23, has been an economic bright spot in the region, adding more than 5,000 wage and salary jobs between 2017 and 2022, 7%, the fifth largest increase in wage and salary employment among Ohio counties.

Between Toledo and Columbus, the corridor passes through a range of counties with a mix of small- to medium-sized cities and rural agricultural areas. The cities and their suburbs along this corridor segment—including Findlay, Marion, and Marysville—have experienced relatively stable employment and population growth due to a relatively diverse economic base. Findlay is home to Marathon Petroleum and Copper Tire, Marion is the location of large facilities for Whirlpool and Nucor Steel, and the Marysville area is home to large Honda automobile factories. Marysville also benefits from its proximity to the higher growth areas in Delaware and Franklin counties. Rural areas in Hancock, Marion, and Union counties have experienced population declines over the last 20 to 30 years, consistent with trends at the statewide level.

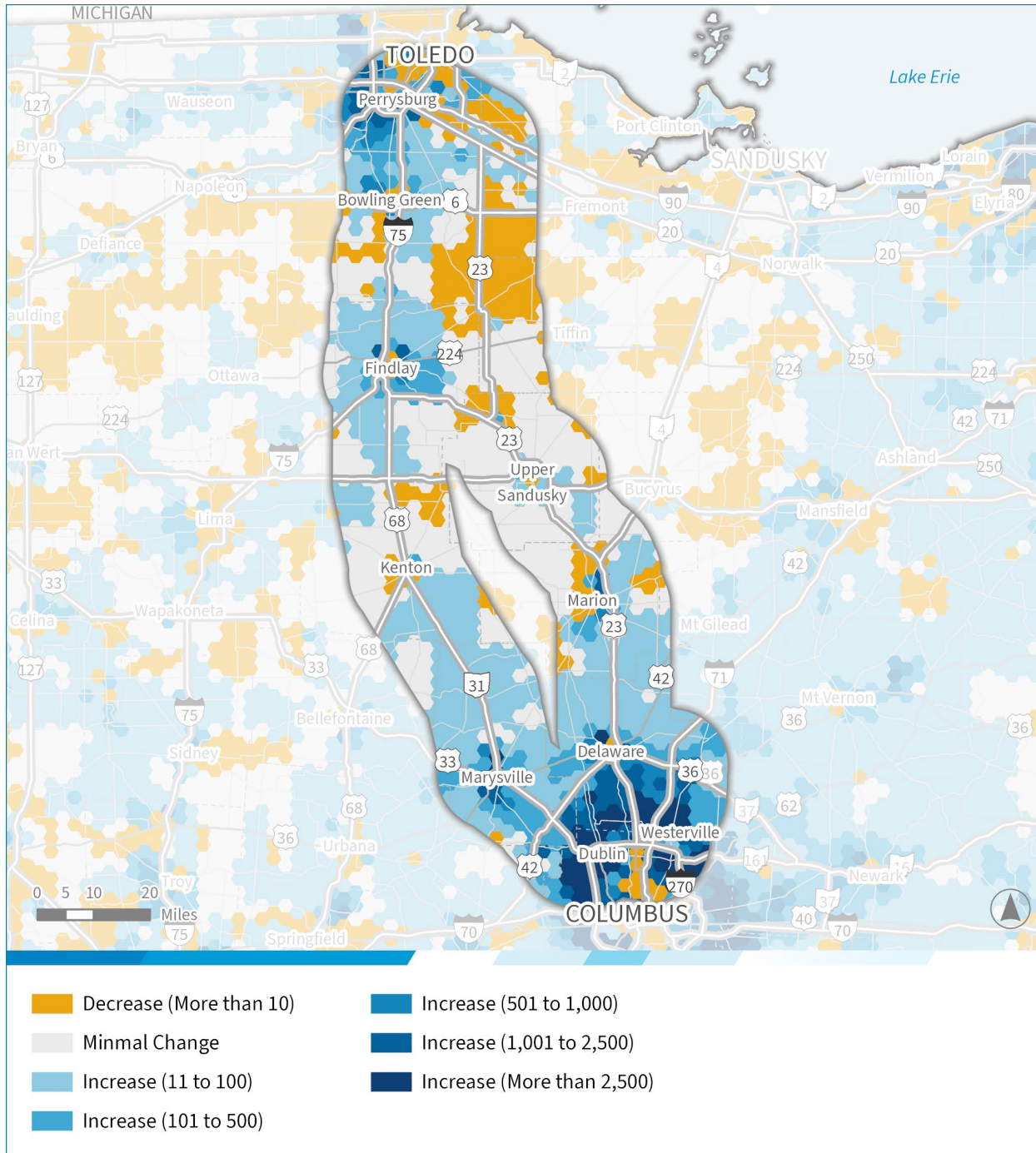
Franklin and Delaware counties at the south end of the corridor have experienced strong population and employment growth relative to other areas of the state. Central Ohio has benefited from the global shift to a knowledge-based economy. This region has been supported by the state's flagship research university and investments in high-technology industries and services. At the heart of the Columbus metropolitan area, Franklin County is first among Ohio counties in total population and absolute population growth, adding almost 26,000 residents between 2017 and 2022, 2%. Over this same period, Franklin County has ranked first among Ohio counties in growth in total employment, adding 67,000 jobs, 7%, and second in wage and salary employment growth, adding 15,000 jobs, 2%. Franklin County also had the largest gain in Real GDP among Ohio counties between 2017 and 2022, adding more than \$9 billion in economic value, 10%.

Delaware County on the north side of Columbus, located along I-71, US23, US42, and US36, experienced the second largest increase in population among Ohio counties, adding 24,000 residents, 12%. A center for financial services, retail, and the Columbus Zoo, during this period, Delaware County posted the fourth largest gains among Ohio counties in Real GDP of \$2.5 billion, 22% increase, wage and salary employment of 6,000 workers, a 6% increase, and total employment of 15,500, 12% increase, making Delaware County an economic center.

Along the corridor, population and workforce demographics from the 2022 American Community Survey generally mirror the state overall. The population's median age is lower in Franklin County at 34.4 years. It increases further north in Lucas County, where Toledo is located, to 38.1 years. Workforce participation rates are higher in Franklin and Delaware counties, 68.3% and 70.2%, respectively, but they decline further north in Lucas County, to 61.5%, and Wood County, 64.9%.



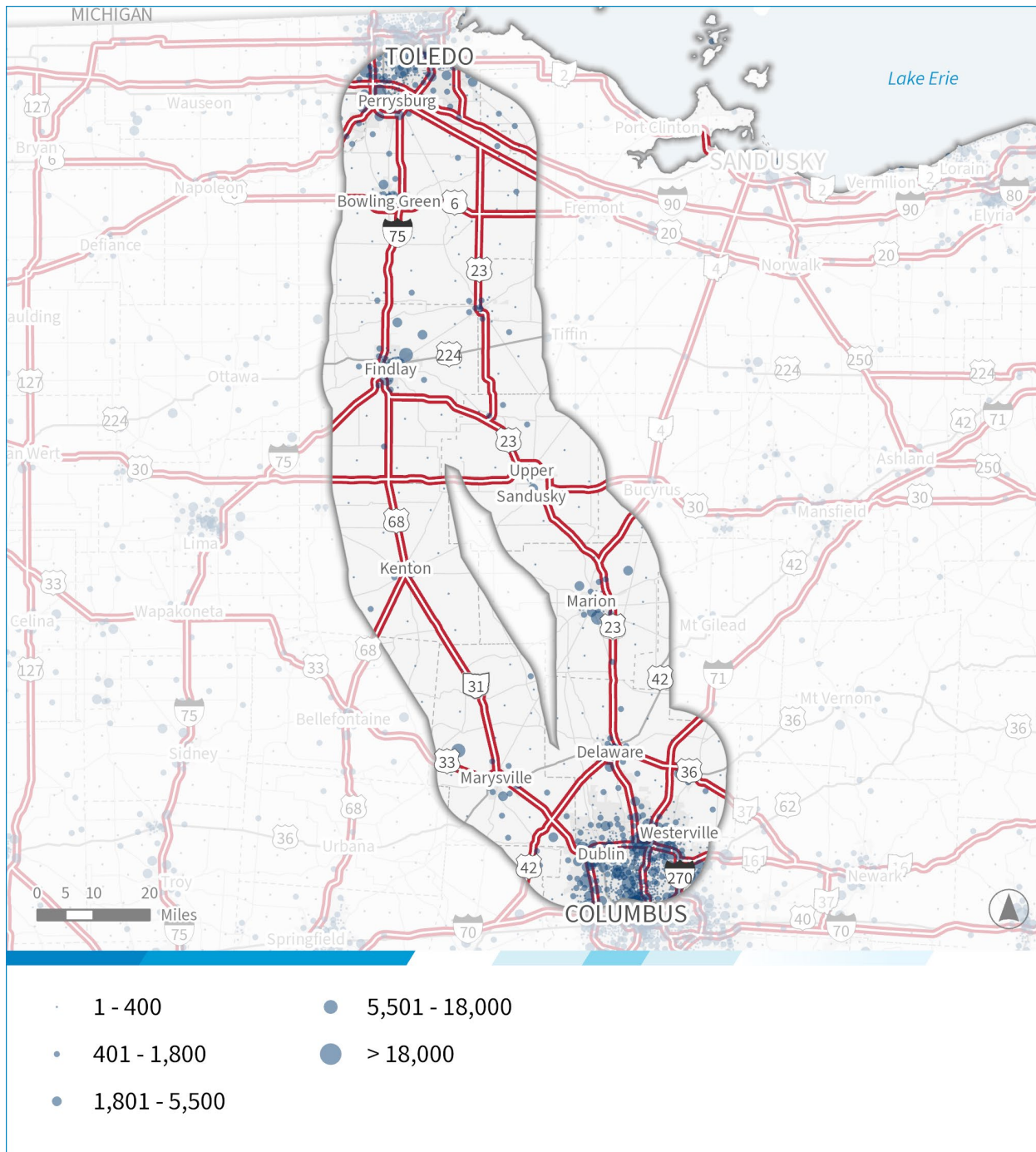
FIGURE 5—POPULATION CHANGE, 1990 TO 2020



Source: IPUMS NHGIS, University of Minnesota, www.nhgis.org. US Decennial Census, 1990, 2020



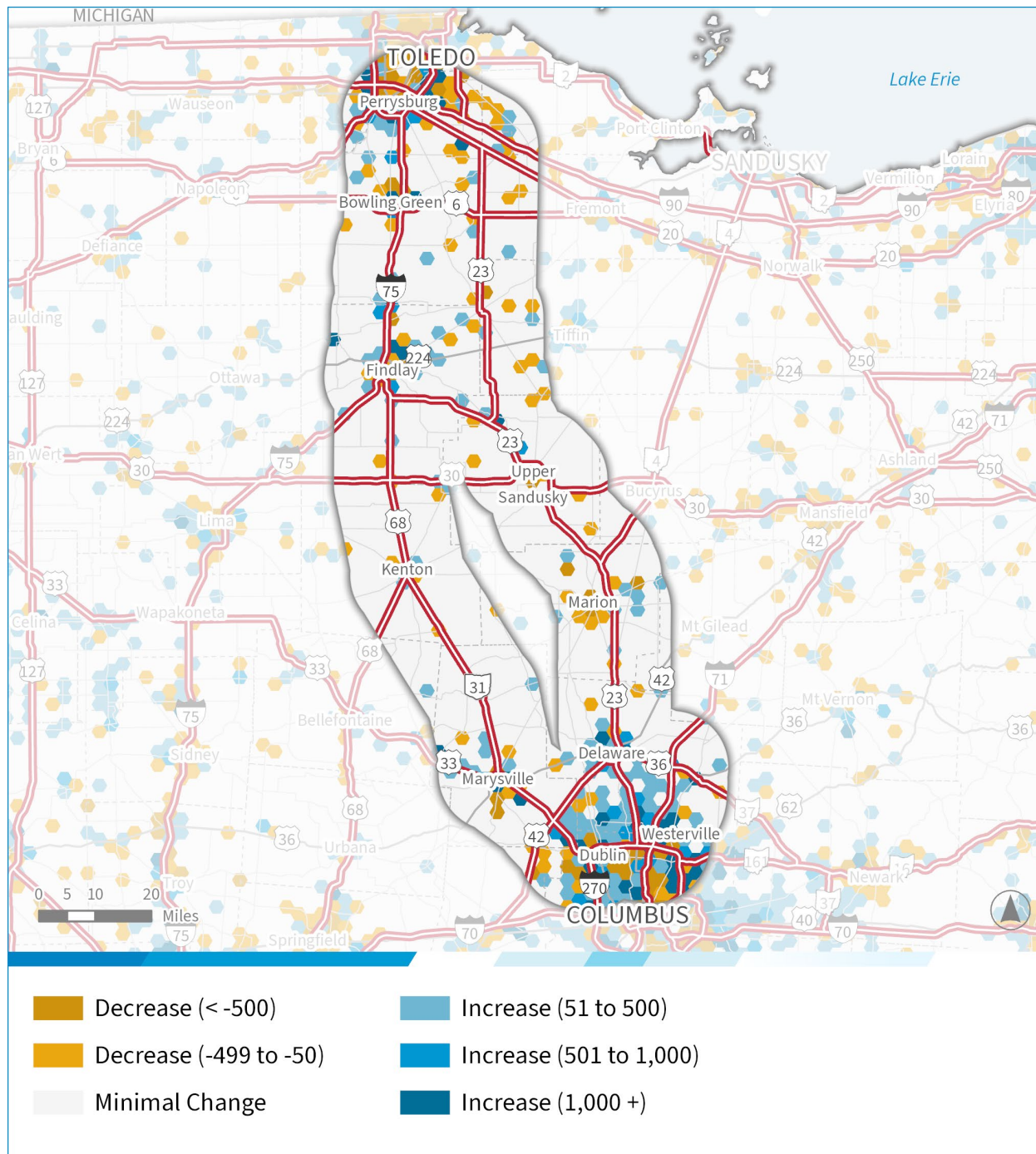
FIGURE 6—TOTAL JOBS BY WORK LOCATION, 2021



Source: US Census Bureau, Longitudinal Employer-Household Dynamics (LEHD) OnTheMap <https://onthemap.ces.census.gov/>



FIGURE 7—EMPLOYMENT CHANGE, 2002 TO 2021



Source: US Census Bureau, Longitudinal Employer-Household Dynamics (LEHD) OnTheMap <https://onthemap.ces.census.gov/>



LAND USE AND DEVELOPMENT TRENDS

Land use and development trends are crucial to Ohio's transportation needs. The patterns of how, where, and to what extent Ohio's land develops impact the types and levels of economic activity, which translates to travel demand. Existing and future development activity can influence choices about the suitability and need for future transportation system investments. Since 1990, widespread land use changes in Ohio have occurred primarily in urban and suburban counties, particularly around Columbus and Cincinnati.

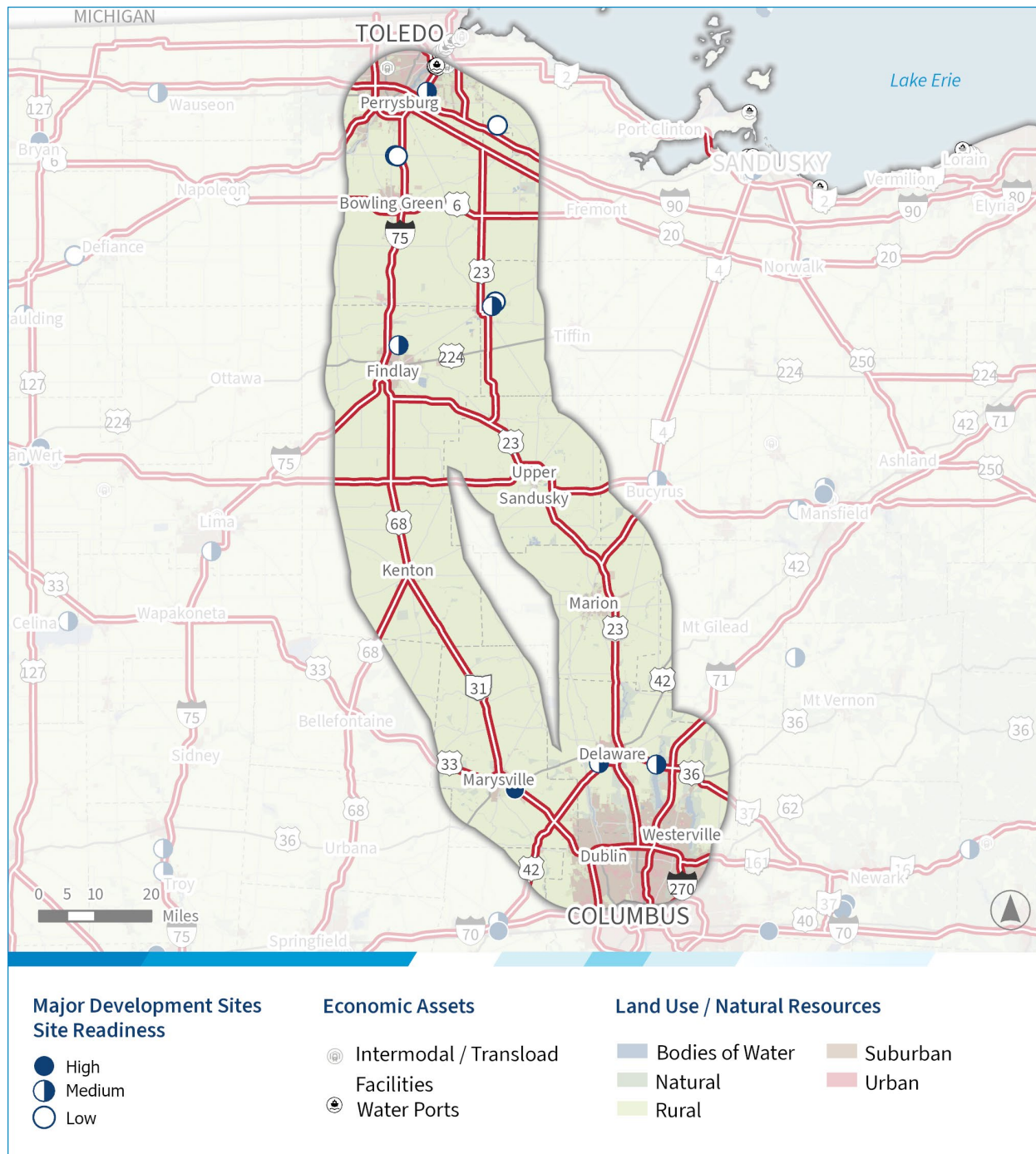
A combination of population growth and workforce accessibility in Franklin and Delaware counties and access to development-ready sites with robust utility infrastructure, optimal proximity to highways and interstates, and minimal environmental concerns influences land use and development patterns within the Toledo-Columbus focus corridor study area. **Figure 8** presents the context of land use and development along the corridor. The map also shows the location and readiness rating of priority development sites along the corridor included in the list of 78 sites assessed in the Study Report.

Figure 9 presents a bivariate analysis comparing the change in two variables: changes in impervious surface since 2011 and in population and jobs since 2010. Growth in population, employment, and impervious surface increase as development occurs, which are represented by 5-square-mile colored hexagons. Understanding changes in impervious surface areas relative to population and employment growth can provide insight into development patterns and pressures, economic vitality, and environmental sustainability. Where population and employment growth increase faster than the impervious surface, denser development could occur, suggesting an economic cluster. Areas with greater impervious surface growth than population and employment growth may indicate future growth pressures or lower-density urban sprawl, where infrastructure maintenance needs will be greater per mile or per capita. Areas between Perrysburg and Bowling Green and suburban areas around Findlay and Marysville appear to have high impervious surface growth and low population and employment growth.

This information on land use change and development provides a critical context for where Ohio is projected to continue to change in the coming decades and how that will impact travel demand and transportation system performance. **Chapter 2** and **Chapter 3** of the Study provide a comprehensive land use and development assessment that identifies future trends and site development readiness across Ohio. The assessment incorporated information from the Ohio Department of Development's (ODOD) population growth forecasts, ODOT land use and transportation models, analysis of site development readiness across 78 priority development sites tracked by ODOT's Office of Jobs and Commerce, and insights on priority development locations from local comprehensive plans and stakeholders participating in Study engagement during January through March 2024.



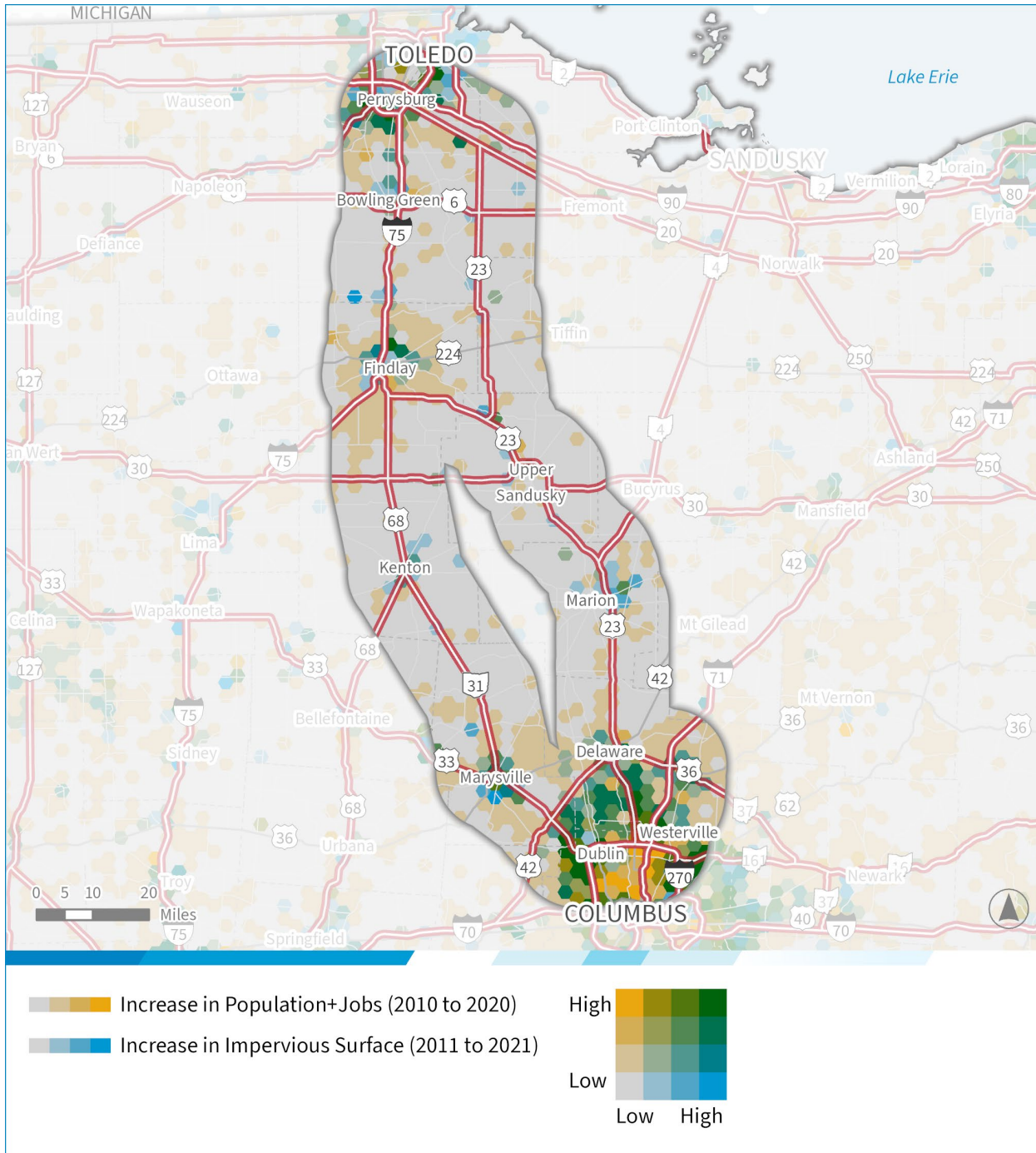
FIGURE 8—DEVELOPMENT CONTEXT



Source: Study Team, SiteOhio, ODOT



FIGURE 9—INCREASE IN POPULATION+JOBS AND IMPERVIOUS SURFACE



Source: Study Team, National Land Cover Database, US Census Bureau, Longitudinal Employer-Household Dynamics (LEHD)
OnTheMap <https://onthemap.ces.census.gov/>



FUTURE CHANGE

Future conditions along the Toledo-Columbus focus corridor will be influenced primarily by how development patterns and employment growth continue to move northward from Columbus along the US23 and US33 corridors and southward from Toledo along the I-75 corridor. **Figure 10** shows the ODOD's projected future population change for the state's "baseline" scenario, which assumes current fertility, mortality, and migration rates remain unchanged. The map shows that the highest growth areas are near the corridor's southern end near Delaware and Marysville, with more modest growth projected around Bowling Green. Areas along the middle of the Toledo-Columbus focus corridor, including Findlay and Upper Sandusky, are expected to continue to experience population decline in the future. These forecasts reflect concerns voiced during the statewide listening sessions regarding the ongoing population decline in many areas of the state.

Table 4 presents the population changes for counties along the corridor. The population along the corridor is expected to increase overall. Growth rates in the larger urban counties at either end are expected to outweigh the decreases in the smaller rural areas.

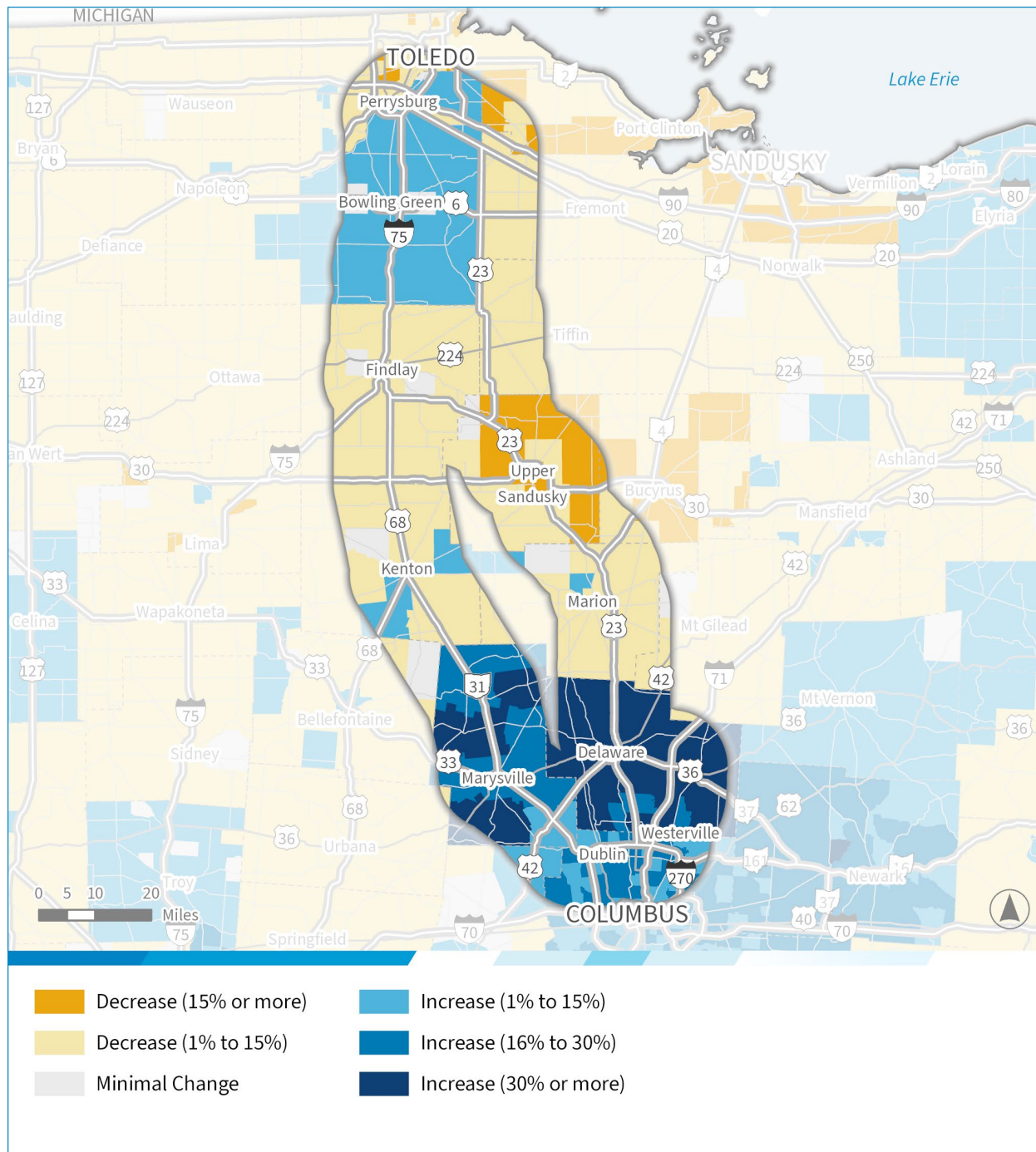
TABLE 4—POPULATION PROJECTIONS 2025 TO 2055, BASELINE SCENARIO

County	Population			
	2025	2055	Change	Percentage Change
Lucas	421,211	332,131	-89,080	-21.1%
Wood	133,022	134,872	1,850	1.4%
Hancock	74,001	60,697	-13,304	-18.0%
Seneca	53,744	43,425	-10,319	-19.2%
Hardin	29,749	24,611	-5,138	-17.3%
Wyandot	21,044	15,327	-5,717	-27.2%
Union	65,842	80,757	14,915	22.7%
Marion	64,032	54,516	-9,516	-14.9%
Delaware	231,045	350,682	119,637	51.8%
Franklin	1,371,832	1,502,692	130,860	9.5%
Total	2,465,522	2,599,711	134,189	5.4%

Source: ODOD



FIGURE 10—FUTURE POPULATION CHANGE, 2025 TO 2055, BASELINE SCENARIO



Source: ODOD and ODOT, Ohio Statewide Model



Key takeaways on future growth potential along the corridor include:

- Central Ohio, particularly Columbus and Franklin, Delaware, Union, and Licking counties, is forecasted to be the primary driver of demand along the Toledo-Columbus focus corridor.
- Concerns were raised about the decline in population and workforce availability in rural areas. Listening session participants see a mismatch between jobs and available skills and a lack of affordable housing as factors that risk business growth.
- They identified a potential increase in truck demand if the Port of Toledo expands and exports from the region increase.
- There is potential for expanding the renewable energy sector of solar, wind, and hydrogen due to available industrial space and growing population.
- Participants expressed optimism for potential industry growth in manufacturing, agricultural and food processing, technology and data centers, and the freight, logistics, and distribution sectors.
- Delaware County and the I-270 corridor south of the focus corridor study area near Columbus are home to a diverse economy with a wide range of industries, including manufacturing, information technology and data centers, biotechnology and life sciences, educational institutions, professional services, and significant residential and commercial construction activity.

CORRIDOR INSIGHTS

This section summarizes the key insights shaping the corridor today and highlights potential issues that could impact its future transportation performance and mobility. **Figure 11** and **Table 5** summarize corridor-specific insights that are important considerations for Toledo-Columbus focus corridor characteristics presented in the **Corridor Conditions** section.



FIGURE 11—CORRIDOR INSIGHTS MAP

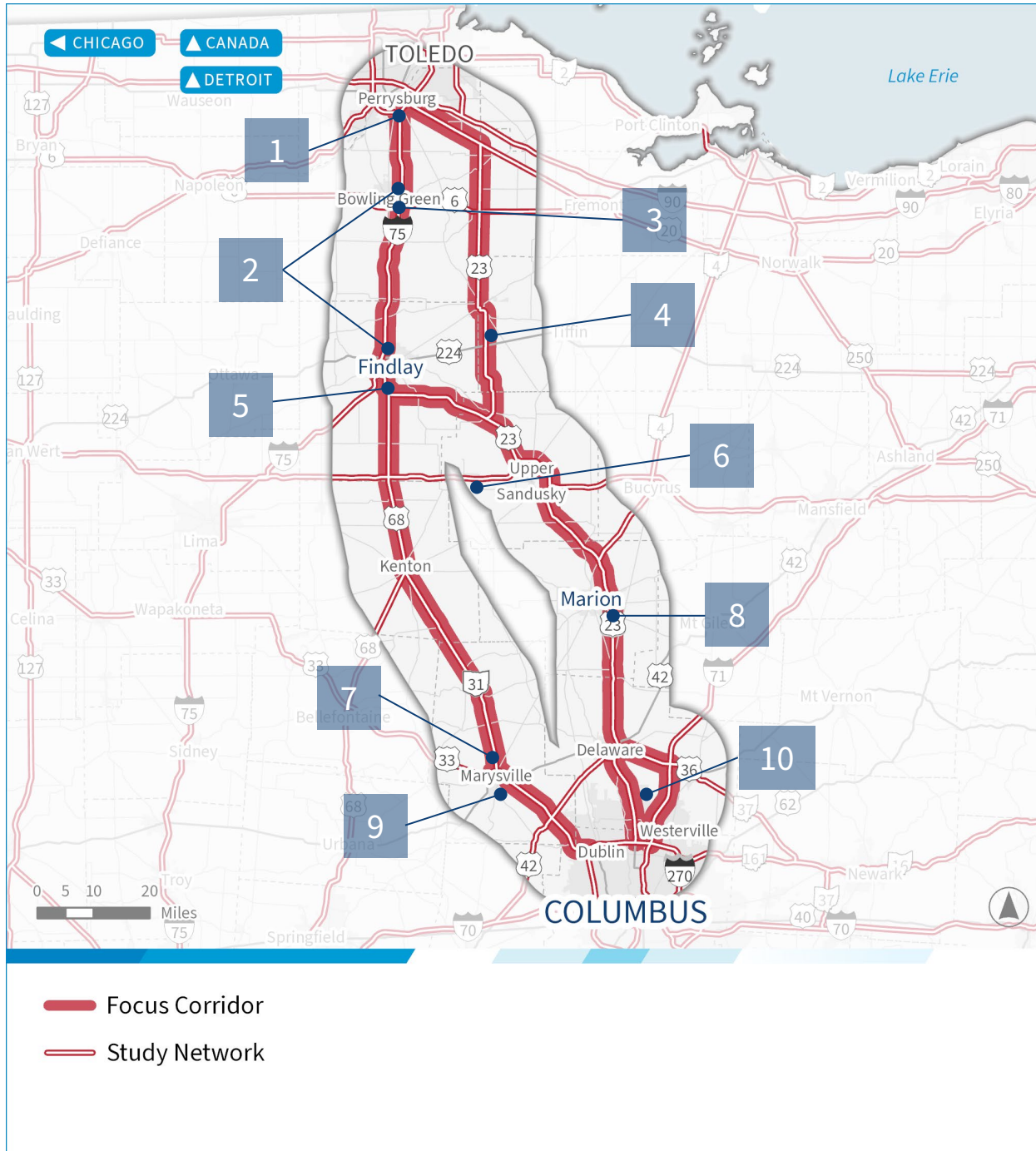


TABLE 5—CORRIDOR INSIGHT SUMMARY

Map Key	Corridor Insight
1	- Continued growth is projected in Toledo’s southern suburbs, such as Perrysburg. - Growth in Perrysburg will extend commutes for workers traveling to Toledo.
2	Areas of potential development pressure along the I-75 corridor north of Bowling Green and areas around Findlay could increase future trip generation along the corridor.
3	- Bowling Green has a diverse economy that is home to Bowling Green State University, county employment, and a home for commuters traveling to Toledo. - This economic mix creates a high level of intracounty and intercounty traffic.
4	Population in rural areas along the northern segment of US23 is projected to decline.
5	- Findlay currently has a stable population base, a diverse economy, and a central location at the junction of I-75 and US68. - Forecasts indicate that the population will decline in the future.
6	- US30 provides a key east-west connection with partial access control between US68 and US23. - There is an opportunity to leverage US30 for freight-intensive and logistics-related industries and connect with Lima and Mansfield's economies.
7	It is unknown how far development growth will extend northward from Marysville on SR31 and US68 into Hardin County, which complicates infrastructure planning.
8	- Several areas of recent residential and commercial development growth have occurred along US23 to the west and south of Marion. - Marion is forecast to experience population declines but could benefit from growth extending north from Delaware.
9	- Marysville has experienced steady population and employment growth related to the local Honda plants and associated supply chains. - Strong growth is forecasted for Marysville as development extends outward from Columbus and Delaware, creating additional pressure on US33. - There is uncertainty related to how far growth will extend north along SR31 and US33, as it will lead to longer commutes.
10	- Delaware and the northern Columbus suburbs will continue to grow and generate travel demand on the corridor. - The Delaware County economy will continue diversifying and growing its employment base.



Corridor Conditions

The corridor conditions assessment summarizes the key physical, geometric, and operational characteristics that influence how the Toledo-Columbus focus corridor currently functions concerning traffic flow and safety and examines the anticipated impacts of future growth and development in the region. This assessment was based on data gathered from ODOT's Transportation Information Mapping System (TIMS) and supported by visual observations to validate and supplement the base data.

The Toledo-Columbus focus corridor has a primary path along with multiple alternatives. The primary path includes I-75, SR15/US68, SR15, and US23, then Perrysburg to Columbus via Findlay. The western alternative comprises US68, Findlay to Kenton, SR31, Kenton to Marysville, and US33, and Marysville to Columbus. The eastern alternative is comprised of US23, between Perrysburg and Carey. An alternate route for the primary path cuts over to I-71 from Delaware via US36 to avoid US23 congestion in Delaware. The highways making up the corridor are highly varied, ranging from two-lane, undivided, rural roads to 10-lane, fully access-controlled, urban freeways. These paths and alternatives are made up of 11 segments described in **Table 6**.



TABLE 6—TOLEDO-COLUMBUS FOCUS CORRIDOR SEGMENTS

Segment	Classification	Access Control	Length (miles)	Lanes
Primary Path				
I-75, from US20/US23 in Perrysburg to SR15 in Findlay	Interstate	Full Access Control	37.3 miles	Six lanes
SR15/US68, from I-75 in Findlay to US68 in Findlay	Other Principal Arterial	Partial Access Control	3.1 miles	Four lanes
SR15, from US68 in Findlay to US23 in Carey	Other Principal Arterial	Partial Access Control	14.0 miles	Four lanes
US23, from SR15 in Carey to I-270 in Columbus	Mix of Freeway Arterial and Other Principal Arterial	Mix of Full, Partial, and No Access Control	66.0 miles	Four to eight lanes
Western Alternative				
US68, from SR15 in Findlay to SR31 in Kenton	Minor Arterial	No Access Control	24.7 miles	Two lanes
SR31, from US68 in Kenton to US33 in Marysville	Minor Arterial	No Access Control	30.5 miles	Two lanes
US33, from SR31 in Marysville to I-270 in Dublin	Freeway Arterial	Full Access Control	17.6 miles	Four to six lanes
Eastern Alternative				
US20/US23, from I-475 in Perrysburg to US23 between Lemoyne and Woodville	Other Principal Arterial	Mix of Full and No Controlled Access	11.0 miles	Two to four lanes
US23, from US20 between Lemoyne and Woodville to SR15 in Carey	Other Principal Arterial	No Controlled Access	38.3 miles	Two to four lanes
Alternative Routes				
US36, from US23 in Delaware to I-71 at Alum Creek	Other Principal Arterial	No Controlled Access	7.5 miles	Two to four lanes
I-71, from US36 at Alum Creek to I-270 in Columbus	Interstate	No Controlled Access	11.8 miles	Six to 10 lanes



This corridor connects Central Ohio through the Toledo area and beyond to markets like Chicago, Detroit, and Canada. The various segments of this corridor intersect with the following US and State Routes: US6 in Bowling Green and Bradner, US224 in Findlay and south of Fostoria, US30 in Upper Sandusky, US36 and US42 in Delaware, SR4 and US36 in Marysville, SR420 in Lemoyne, and I-270 in Columbus.

The adjacent land use around the paths in Columbus, Delaware, Dublin, and Perrysburg is primarily suburban commercial and single-family development. The other parts of the corridor are predominantly rural, with some traditional downtown typologies in Kenton, Upper Sandusky, Bowling Green, Fostoria, and Marysville, as well as suburban commercial and industrial in Marion. US23 serves as a connection to the Marion Industrial Center intermodal train yard. The corridor is utilized by Greyhound/Barons intercity bus routes connecting Columbus to Toledo, Cincinnati to Detroit, and local fixed-route transit services in the Columbus and Toledo metro areas. This corridor is in the Columbus and the Toledo JobsOhio regions.

No bridge vertical clearance issues were identified during field assessments of the corridor and discussions with district staff.

Initial observations of 261.3 miles of the Toledo-Columbus focus corridor include the following:

- The primary path has 33 existing grade-separated interchanges, 122 existing at-grade intersections, and 157 private driveway access points.
- The western alternative has eight existing grade-separated interchanges, 139 existing at-grade intersections, and 892 private driveway access points.
- The eastern alternative has three existing grade-separated interchanges, 163 existing at-grade intersections, and 928 private driveway access points.
- The alternative route has four existing grade-separated interchanges, 40 existing at-grade intersections, and 111 private driveway access points.

Additional corridor observations:

- The corridor generally has good horizontal and vertical alignment.
- The corridor contains 28 priority segments and eight priority intersections in the HSIP top 100 locations.



CONGESTION AND RELIABILITY

Existing and Future Congestion

To assess congestion on the Toledo-Columbus focus corridor, two measures are used: Volume-to-Capacity Ratio (v/c) and ODOT's Traffic Operation Assessment Systems Tool (TOAST), shown in **Figure 12** and **Figure 13** respectively. TOAST assigns scores to ODOT's road network based on a composite measure of bottlenecks, travel time performance, crash severity, rear-end crash percentages, traffic volume, and freight volume. The lower the score, the worse a segment is performing. **Figure 14** and **Figure 15** convey segments in the corridor prone to slower speeds due to congestion in the morning and afternoon peak periods.

The segments of the Toledo-Columbus focus corridor with v/c ratios exceeding capacity exist near the I-475 and US20 interchange, in Kenton, on US33 from Dublin to I-270, on US36 near US23 in Delaware, and on US23 between I-270 and Delaware. The corridor has a few segments nearing capacity in small towns like Carey and Fostoria, as well as I-71 from Gemini Place to I-270. There are two intercity-length segments of the corridor nearing capacity:

- US68 from TR100 to SR31 in Kenton, then south on SR31 through Mount Victory to TR240
- US23 from SR315 in Delaware to I-270

Low TOAST scores mirror the same locations where the v/c ratio is nearing or exceeding capacity, but there are locations with moderate and moderately low scores that are not found in the metric. These segments include:

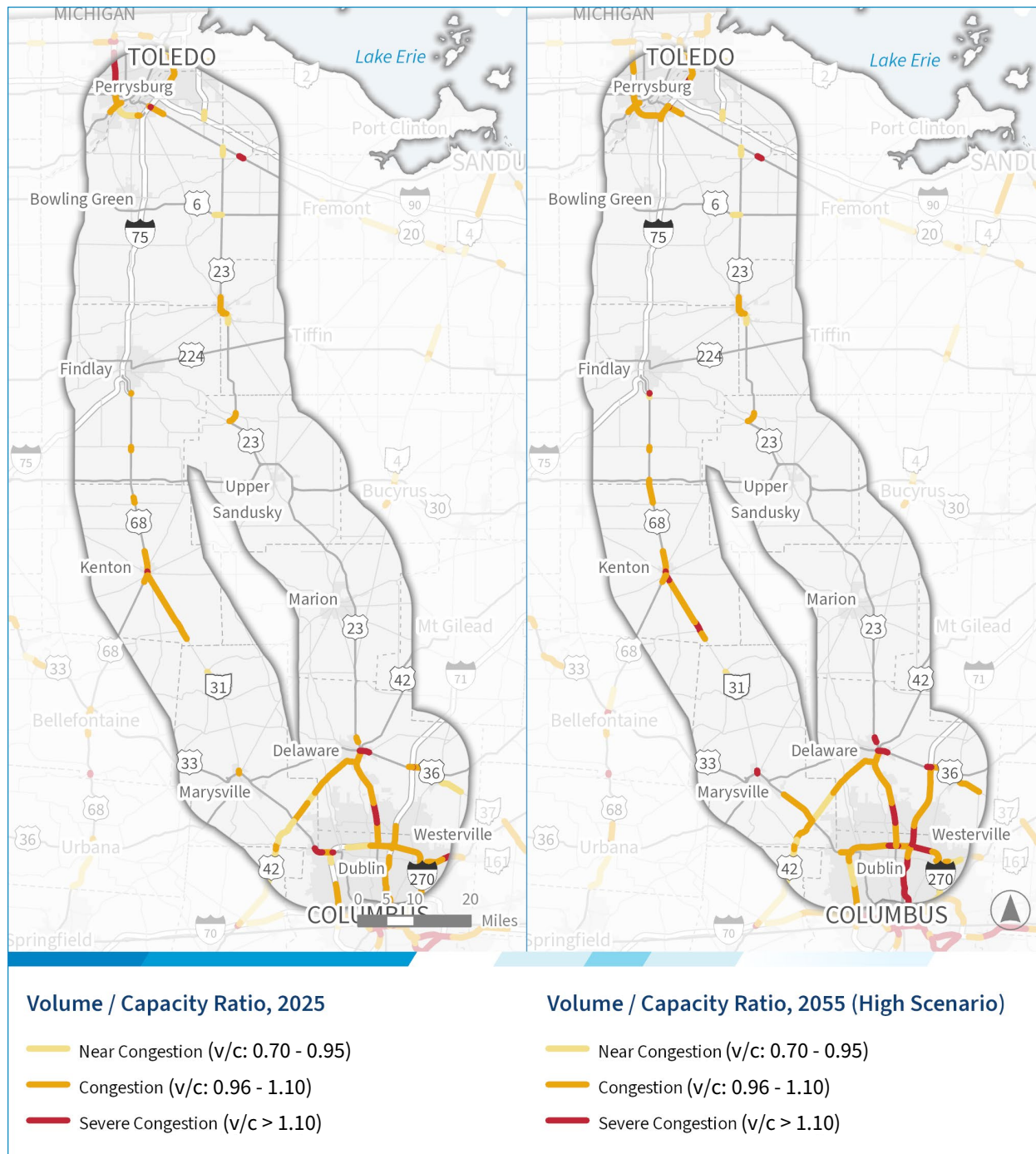
- I-75 north and south of its intersection with SR64 in Bowling Green, moderate TOAST score
- I-75 between SR15/US68 and SR18 north of Findlay, moderate TOAST score
- US20 from I-475 to US23, moderate TOAST score
- US23 north of Fostoria, moderate-low TOAST score
- US23 between Upper Sandusky and SR15, moderate TOAST score
- US23 between Delaware and Marion, moderate TOAST score
- I-71 from I-270 to US36, low TOAST score
- US33 between Dublin and Marysville, moderate TOAST score

Looking to the future, a few segments of the corridor are predicted to have congestion risk based on an analysis of projected travel and development data to 2055. These segments are already popping up as roadways with excessive volume to their capacity:

- US20/US23 near its interchange with I-475 in Toledo, moderate congestion risk
- US68/SR31 in Kenton, low congestion risk
- US33 is near its interchange with I-270, low congestion risk
- US23 from I-270 to US36 in Delaware, moderate to high congestion risk
- US36 at US23 and I-71, high congestion risk, and I-71 from US36 to I-270, moderate to high congestion risk



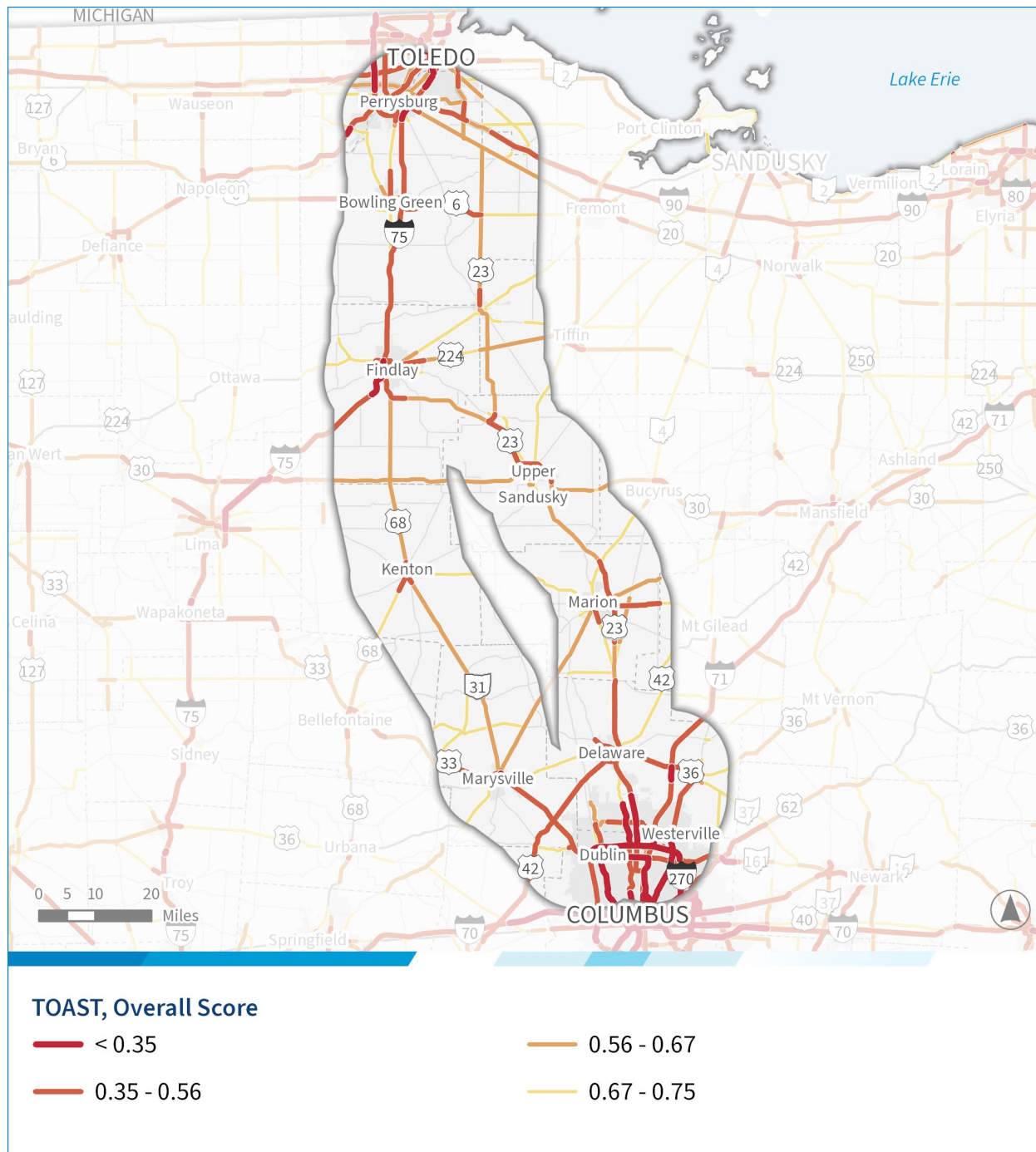
FIGURE 12—EXISTING AND FUTURE CONGESTION (PEAK PERIOD VOLUME TO CAPACITY RATIO)



Source: Study Team (ODOT Statewide Travel Demand Model)



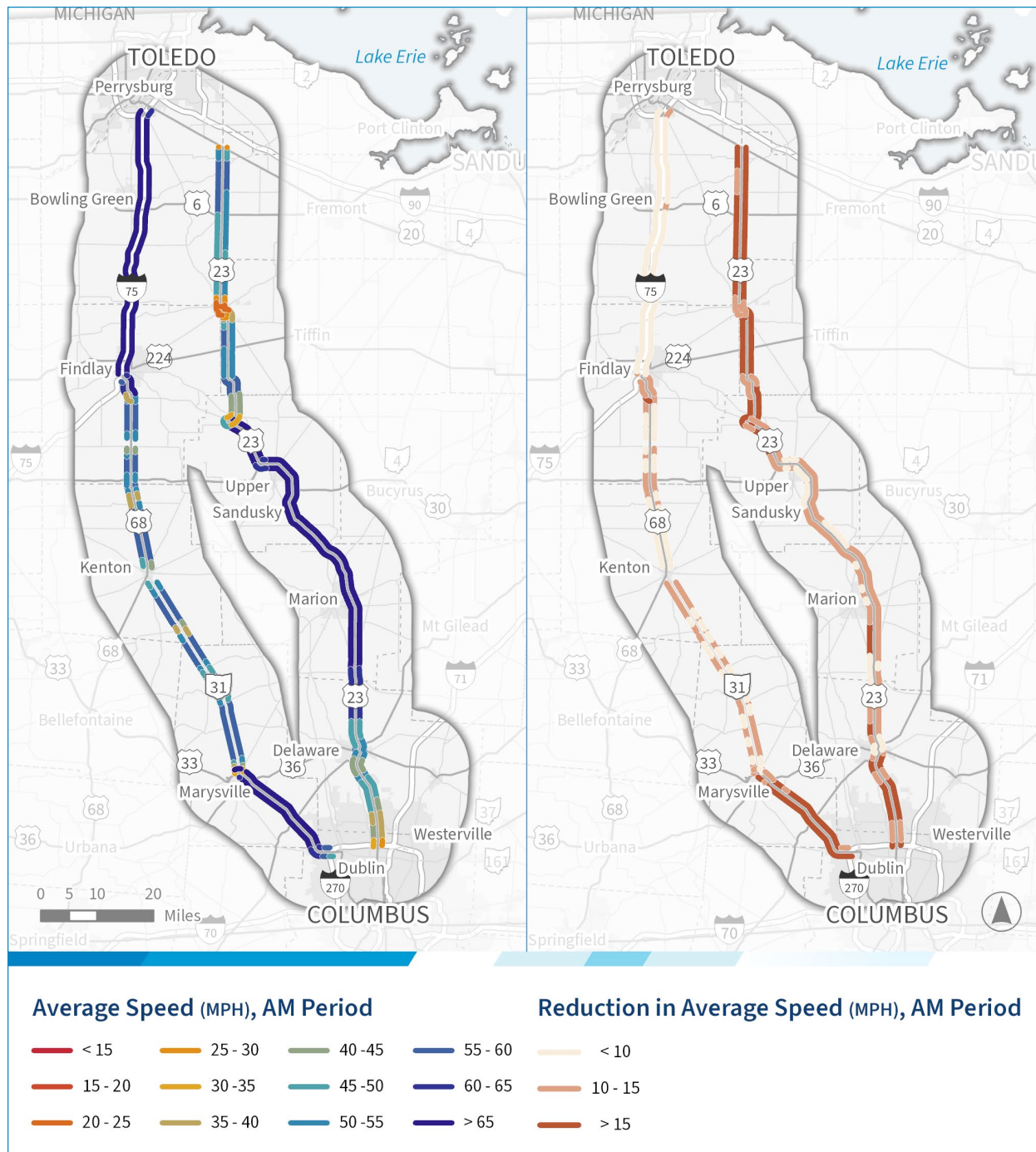
FIGURE 13—TRAFFIC OPERATIONAL ASSESSMENT SYSTEMS TOOL (TOAST)



Source: ODOT



FIGURE 14—CONGESTION, AM PERIOD, 2022

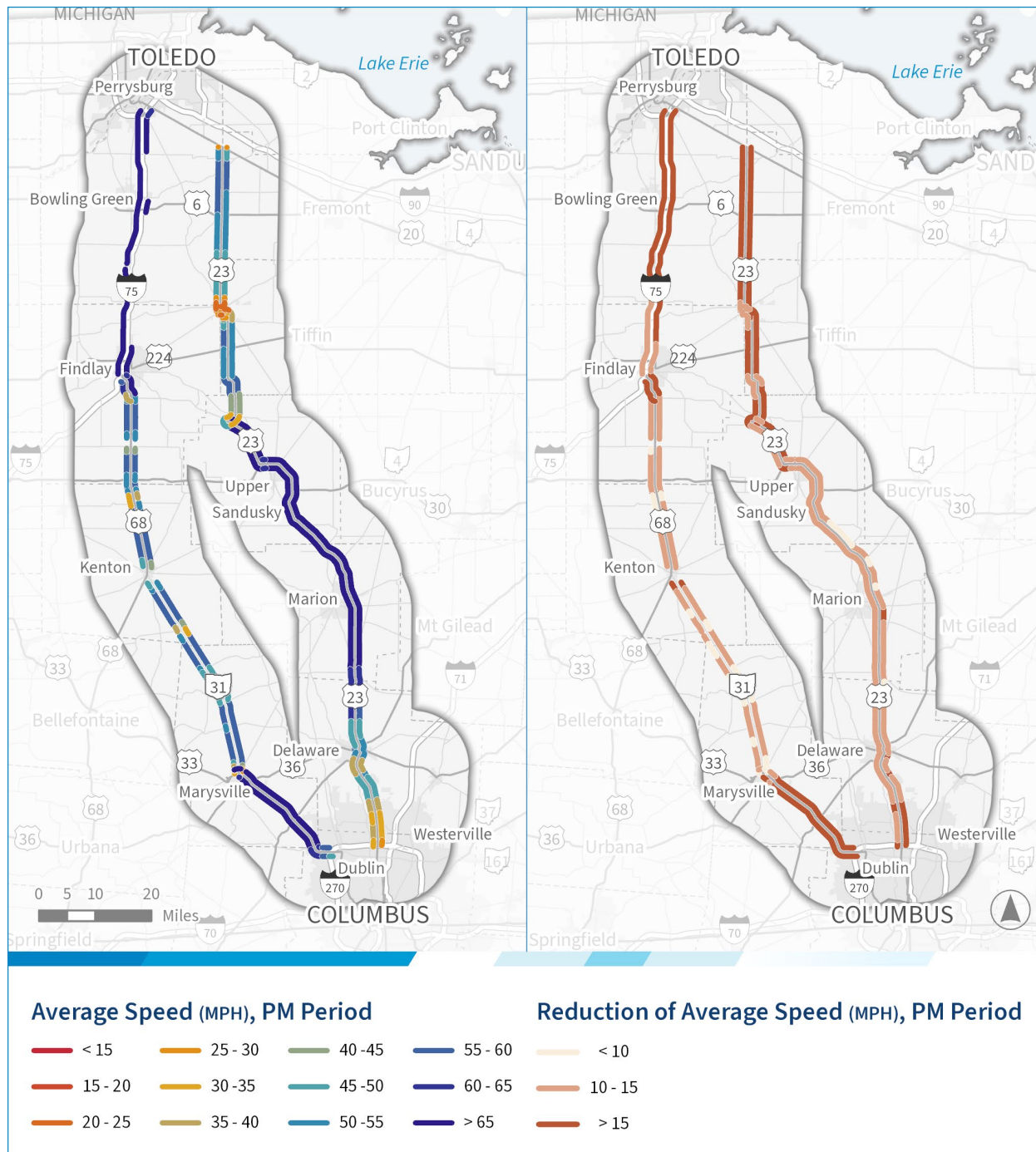


Source: INRIX, NPRMDS, Study Team

Note: INRIX and NPRMDS data for corridor displayed; data for some areas not available.



FIGURE 15—CONGESTION, PM PERIOD, 2022



Source: INRIX, NPRMDS, Study Team

Note: INRIX and NPRMDS data for corridor displayed; data for some areas not available.



Local Development

Predicted development along the corridor is most heavily concentrated in the areas to the immediate west and north of Columbus. The highest growth levels are anticipated to occur along US23 in Delaware and Franklin counties, which will likely have a significant impact on the corridor due to the number of at-grade intersections. The greatest projected household change in the entire state occurs along the section of US23 between Columbus and Delaware to the north of I-270. This development would increase local traffic and likely lead to an overall increase in traffic traveling between Toledo and Columbus, adding pressure to an already congested route and possibly exacerbating an existing trend of rear-end crashes.

In the Northwest Region, development is predicted to occur south of I-475 between Toledo and Bowling Green and around Findlay, increasing development pressure on I-75. Multiple major development sites have been identified on I-75 between Findlay and Toledo.

Overall, employment declined in the Northwest Region by 6% and increased in the Central Region by 16% from 2002 to 2022. GDP increased in all regions but at a faster rate in the Central and Southwest regions.

TRAFFIC COMPOSITION

Existing Traffic Patterns

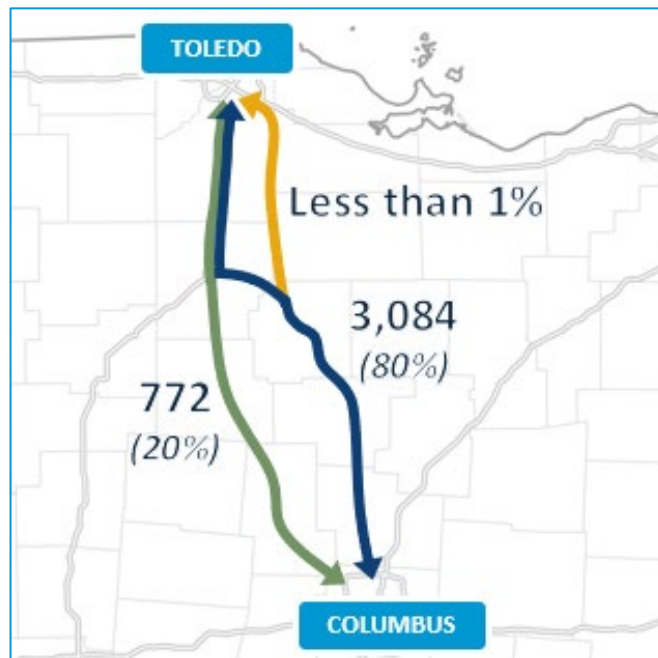
This section describes existing travel patterns and traffic composition along the Toledo-Columbus focus corridor. The analysis utilizes origin and destination (O-D) data for vehicle trips from StreetLight, which is a transportation “Big Data” analytics platform that uses GPS trace data from connected vehicles, commercial trucks, location-based services on mobile devices, and other sources to generate vehicle trip flows on the roadway network. The StreetLight data was used to estimate annual average daily traffic (AADT) for 2023 between the significant O-D gateways for roadways along the corridor. The StreetLight AADT data includes bi-directional auto and truck volumes for trips that travel through at least one of the gateways to the markets at the endpoints of the corridor to provide a market-to-market analysis. The StreetLight AADT numbers shown here do not include trips in the corridor that do not originate in at least one of the market gateways; therefore, they are not intended to be compared with traffic counts collected in the field. Truck volumes were estimated by applying truck percentage splits calculated from the count segments used in the Ohio Statewide Model (OSWM).



The analysis focuses on market-to-market vehicle trips that travel the entire length of the corridor between Toledo and Columbus. Truck flows were estimated by utilizing the truck percentages at the start and end of the corridor. The analysis also identifies the primary route used by drivers if there is more than one option and the major diversion gateways where vehicles enter/exit the corridor.

Figure 16 presents the AADT O-D flows between Toledo and Columbus for 2023. The StreetLight data indicate an AADT volume of 3,850 between the two markets. Truck percentages between Toledo and Columbus average 15% to 20%, indicating 570 to 770 trucks travel the corridor length daily. Approximately 80% of the 3,850 vehicles from market to market follow the primary path, blue line, of I-75, SR15/US68, SR15, and US23, Perrysburg to Columbus via Findlay; 20% use I-75, US68, SR31, and US33, green line. Less than 1% of traffic uses US23 exclusively to travel the length between Toledo and Columbus, blue and yellow lines.

FIGURE 16—MARKET-TO-MARKET AADT ORIGIN-DESTINATION FLOWS



SAFETY

The existing traffic safety and crash characteristics along the corridor reveal many high-priority segments and intersections, particularly in rural, urban, and suburban areas. These locations have been identified based on detailed crash analyses, including heat maps and hot spot locations for all crashes, injury crashes, and fatal/serious injury crashes.

Corridor safety was assessed using crash data gathered from ODOT's GIS crash analysis tool (GCAT) for calendar years 2017 to 2022. Data was filtered to include only crashes on the highways within the focus corridor. The safety hotspots on the Toledo-Columbus focus corridor include:

- I-75 between Perrysburg and Bowling Green and between Bowling Green and Findlay
- US23 between Columbus Sandusky Road and Troutman Road to the north of Delaware and between Delaware and I-270
- I-71 south of US36 and at the US36/I-71 interchange
- SR68 south of SR15
- SR31 north of Marysville
- US33 east of US42

The segments of highest safety concern are primarily found in suburban communities and on high-volume interstates. The most common safety issues on the corridor are rear-end crashes, 28%, sideswipes from passing vehicles, 19%, fixed object crashes, 19%, and crashes involving animals, 14%. Rear-end collisions are by far the most common type of crash on US23, especially in the segment south of US36, while the segment north of US36 sees similar numbers of rear-end and animal-related crashes. I-75 sees a high proportion of fixed object and sideswipe crashes. Crashes involving animals are the most common type of crash on US68, SR15, and SR31. On two-lane roadways, such as US68, SR15, SR31, and US23 north of Carey, sideswipe crashes occur infrequently, and angle crashes are much more common. The opposite trend holds for multi-lane roadways.

The corridor contains 28 HSIP priority segments and eight HSIP priority intersections in the top 100 locations by category. These are on freeways and non-freeways in urban, suburban, and rural development contexts. The highest concentration of top 100 HSIP segments is on US23 south of Waldo, with nine, and near the US36 and I-71 interchange, with seven, and the highest concentration of top 100 HSIP intersections is on US23 in the 1.25-mile stretch between Orange Road and Powell Road, with three. A summary of the top 100 HSIP segments and intersections by path is provided in **Table 7**.

TABLE 7—HSIP SUMMARY 2023

Route	Top 100 Segments	Top 100 Intersections
Primary Path: I-75, SR15/US68, US23	16	4
Western Alternative: US68, SR31, US33	5	1
Eastern Alternative: US20, US23	0	1
Alternative Routes: US36, I-71	7	2

To supplement HSIP locations, the corridors were also categorized by the Relative Severity Index (RSI) of their combined crashes. RSI represents the relative cost to society of a specific type of crash, e.g., head-on, rear-end, angle. The types of collisions on the roadways are relevant to safety performance, as some crash types are more likely to result in severe injuries and higher societal costs. For instance, on an urban freeway in Ohio, the average head-on crash, perhaps caused by a vehicle crossing the median, costs around \$101,000, and the average cost of a rear-end crash, a crash typically associated with congestion, is \$31,000. Mapping a combination of RSI and HSIP priority locations creates a metric that speaks for a variety of crashes that point to the potential for serious injury, in addition to seeing high-crash locations, especially on facilities that may have lower volumes.

The Federal Highway Administration (FHWA) Safe System Approach prioritizes improvements that can eliminate the opportunity for high-severity impacts, e.g., head-on, fixed object, and right angle, focusing on speed and angle of impacts in motor vehicle collisions, even if that improvement still provides a potential opportunity for slower and less-impactful angles of collision. For example, implementing roundabouts to remove the potential for high-speed right



angle collisions while potentially leading to low-speed rear-end or sideswipe crashes. The RSI provides higher costs to those types of crashes and helps prioritize corridors with the Safe System lens.

Vulnerable Road User (VRU) safety concerns tend to concentrate in downtown areas where pedestrians and bicyclists frequently use the roadway alongside motor vehicles. These locations typically have adjacent sidewalks but do not provide dedicated bicycle facilities. Larger cities and towns pose a greater risk to these users due to higher traffic volumes of both motor vehicles and VRUs. Other VRU safety concerns include the large Amish community in Hardin County, specifically around SR31. ODOT has identified the following locations along the corridor as high and critical-priority segments for pedestrian safety improvements:

- **Primary Path:** US23 between I-270 and Orange Road and US23 between SR315 and US36
- **Western Alternative:** US68 through Kenton
- **Eastern Alternative:** US23 through Fostoria and US20/US23 from I-75 to Crossroads Parkway near Toledo
- **Alternative Route:** US36 from US23 to Glenn Road

GCAT data was filtered to isolate crashes with a pedal cycle or pedestrian crash type code. This analysis identified 39 VRU-involved crashes in the corridor, involving eight cyclists and 31 pedestrians. Crash locations are clustered on US23 south of Delaware, with smaller clusters present on SR31 and US68 in Kenton, US23 in Fostoria, US20/US23 near the interchange with I-75 in Toledo, and US36 near Alum Creek Reservoir. The majority of VRU-involved crashes occur on roads with limited or no controlled access, where VRUs are more likely to share the roadway with motor vehicles, although six pedestrian-involved crashes occurred on I-75.

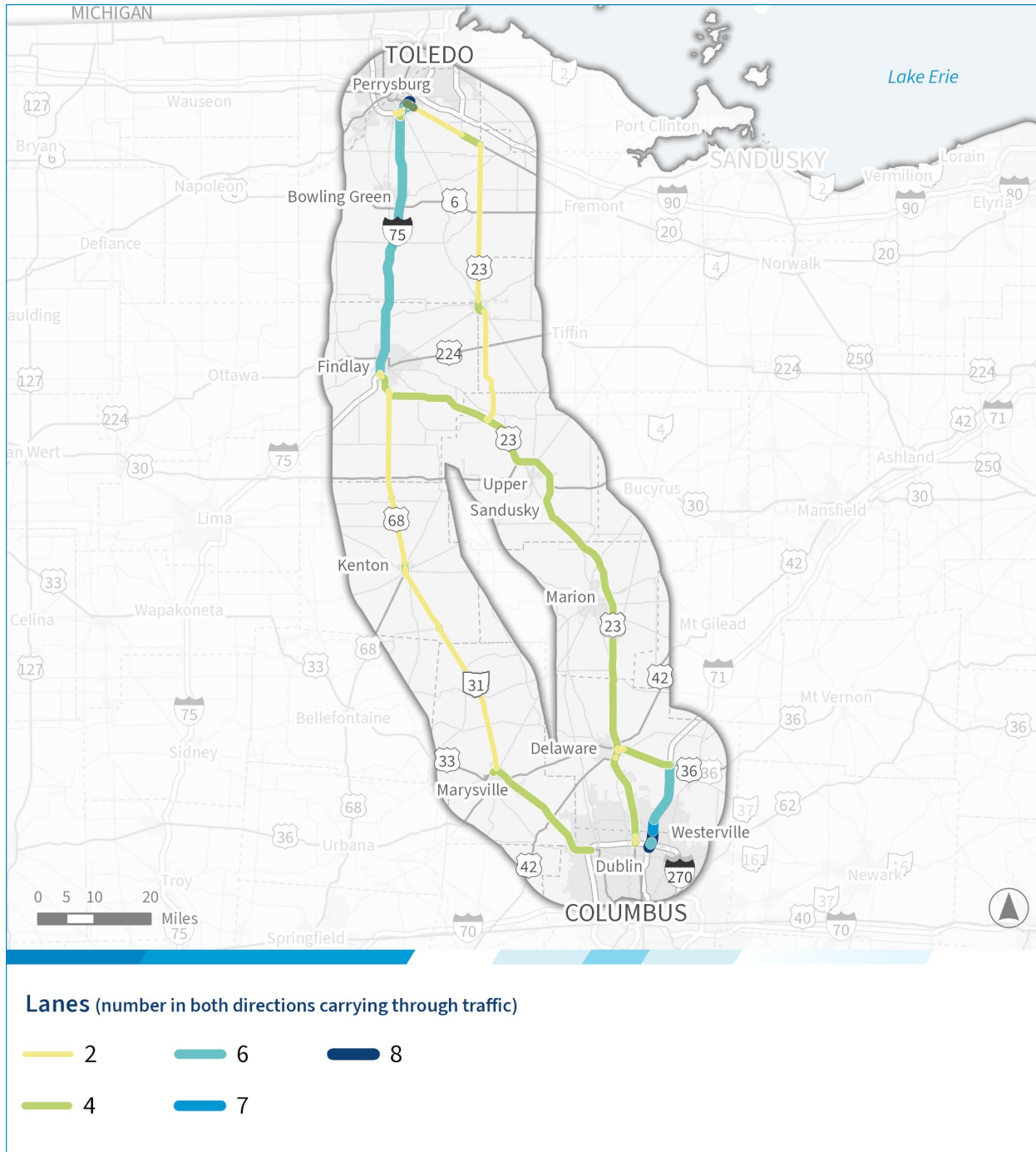
At-grade bike route crossings and concurrent routes present a risk to VRUs as many of these intersections occur in rural areas where the intersecting vehicles travel at high speeds. The crash data analysis did not indicate any VRU-involved crashes at bike route crossings. Two at-grade crossings with state- and US-designated bike routes are along the corridor. These crossings are detailed later in this analysis.

Key Safety Takeaways

- The Toledo-Columbus focus corridor primary path represents a major concentration of the top 100 HSIP priority segments. The primary path and alternative route combined account for over 20% of the top 100 priority segments in the state.
- VRUs account for about 0.5% of the total crashes on the corridor for the period analyzed, indicating that VRU safety is not a disproportionate concern.



FIGURE 17—CORRIDOR SAFETY LOCATIONS



Source: ODOT



ENVIRONMENTAL HAZARDS

Given the region's generally flat topography, this corridor is not subject to environmental hazards like rock falls or landslides. However, sections of the corridor may still be subject to flash flooding during heavy rainfall.

GEOMETRIC

Mileage by Functional Classification

The Toledo-Columbus focus corridor is comprised of principal and minor arterials. The functional classification of the segments can be found in **Table 8**.

TABLE 8—SUMMARY OF FUNCTIONAL CLASSIFICATIONS BY LINEAR MILES

Primary Path: I-75 from Perrysburg to Findlay, SR15 from Findlay to Carey, and US23 from Carey to Columbus	Centerline Mileage
Principal Arterial—Interstate	37.3 miles
Principal Arterial—Freeway	3.1 miles
Principal Arterial—Other	79.5 miles
Minor Arterial	0 miles
Western Alternative: US68 from Findlay to Kenton, SR31 from Kenton to Marysville, and US33 from Marysville to Columbus	Centerline Mileage
Principal Arterial—Interstate	0 miles
Principal Arterial—Freeway	17.6 miles
Principal Arterial—Other	0 miles
Minor Arterial	55.2 miles
Eastern Alternative: US23 from Perrysburg to Carey	Centerline Mileage
Principal Arterial—Interstate	0 miles
Principal Arterial—Freeway	0 miles
Principal Arterial—Other	49.3 miles
Minor Arterial	0 miles
Alternative Routes: US36 from Delaware to Alum Creek, I-71 from Alum Creek to Columbus	Centerline Mileage
Principal Arterial—Interstate	11.8 miles
Principal Arterial—Freeway	0 miles
Principal Arterial—Other	7.5 miles
Minor Arterial	0 miles



Mileage by Ownership

In general, ODOT owns and maintains interstate, US, and state highways in Ohio. Due to Ohio's status as a home-rule state, ownership and maintenance of US and state highways within municipal boundaries are typically devolved to the local municipality. Interstate highways are always owned and maintained by ODOT or the Turnpike Commission.

ODOT is responsible for about 87% of the primary path, 103.9 of 119.9 miles, 79% of the western alternative, 57.3 of 72.8 miles, and 84% of the eastern alternative, 41.3 of 49.3 miles. This mainly comprises I-75 and long segments through unincorporated land between Toledo and Columbus. Other entities with ownership are summarized in **Table 9**.

TABLE 9—ROADWAY OWNERSHIP BY AGENCY

Toledo-Columbus—Mileage by Ownership		
Path	Ownership	Centerline Mileage
Primary Path—I-75 from Perrysburg to Findlay, SR15/US68 in Findlay, SR15 from Findlay to Carey, and US23 from Carey to Columbus	ODOT	103.9 miles
	Findlay (City)	1.6 miles
	Vanlue (Village)	0.2 miles
	Carey (Village)	0.2 miles
	Upper Sandusky (City)	1.7 miles
	Marion (City)	1.3 miles
	Waldo (Village)	0.7 miles
	Delaware (City)	8.0 miles
	Columbus (City)	2.3 miles
Western Alternative—US68 from Findlay to Kenton, SR31 from Kenton to Marysville, and US33 from Marysville to Dublin	ODOT	57.3 miles
	Arlington (Village)	1.6 miles
	Dunkirk (Village)	0.8 miles
	Kenton (City)	3.1 miles
	Mount Victory (Village)	0.8 miles
	Marysville (City)	6.2 miles
	Dublin (City)	3.0 miles
Eastern Alternative—US23 from Perrysburg to Carey	ODOT	41.3 miles
	Carey (Village)	1.7 miles
	Upper Sandusky (City)	1.7 miles
	Marion (City)	1.3 miles
	Waldo (Village)	0.7 miles
	Delaware (City)	8.0 miles
	Columbus (City)	2.3 miles
Alternative Route—US36 from Delaware to Alum Creek, I-71 from Alum Creek to I-270	ODOT	16.9 miles
	Delaware (City)	2.4 miles



TYPICAL SECTION

Lanes and Shoulders

When traveling between Toledo and Columbus on the primary path, the corridor composition is 64% four-lane divided, 4% four-lane undivided, and 32% six- to eight-lane divided, except for 1.4 miles on US23 near Columbus, where it is undivided. Out of the three paths, the primary path contains the least number of uncontrolled segments and generally has larger shoulders.

On the western alternative, the corridor composition is 71% two-lane roadway, 24% four-lane divided, and 5% four-lane undivided. On the two-lane and four-lane undivided segments, shoulders are minimal. This is a concern for heavy traffic due to the lack of emergency pull-off locations, narrower lanes, and safety while passing on the left. The shoulders are wider throughout the corridor along divided sections with more lanes.

On the eastern alternative, the corridor composition is 81% two-lane roadway and 19% four-lane undivided. Like the western alternative, the uncontrolled, undivided segments have minimal shoulders and wider shoulders on divided segments with more lanes.

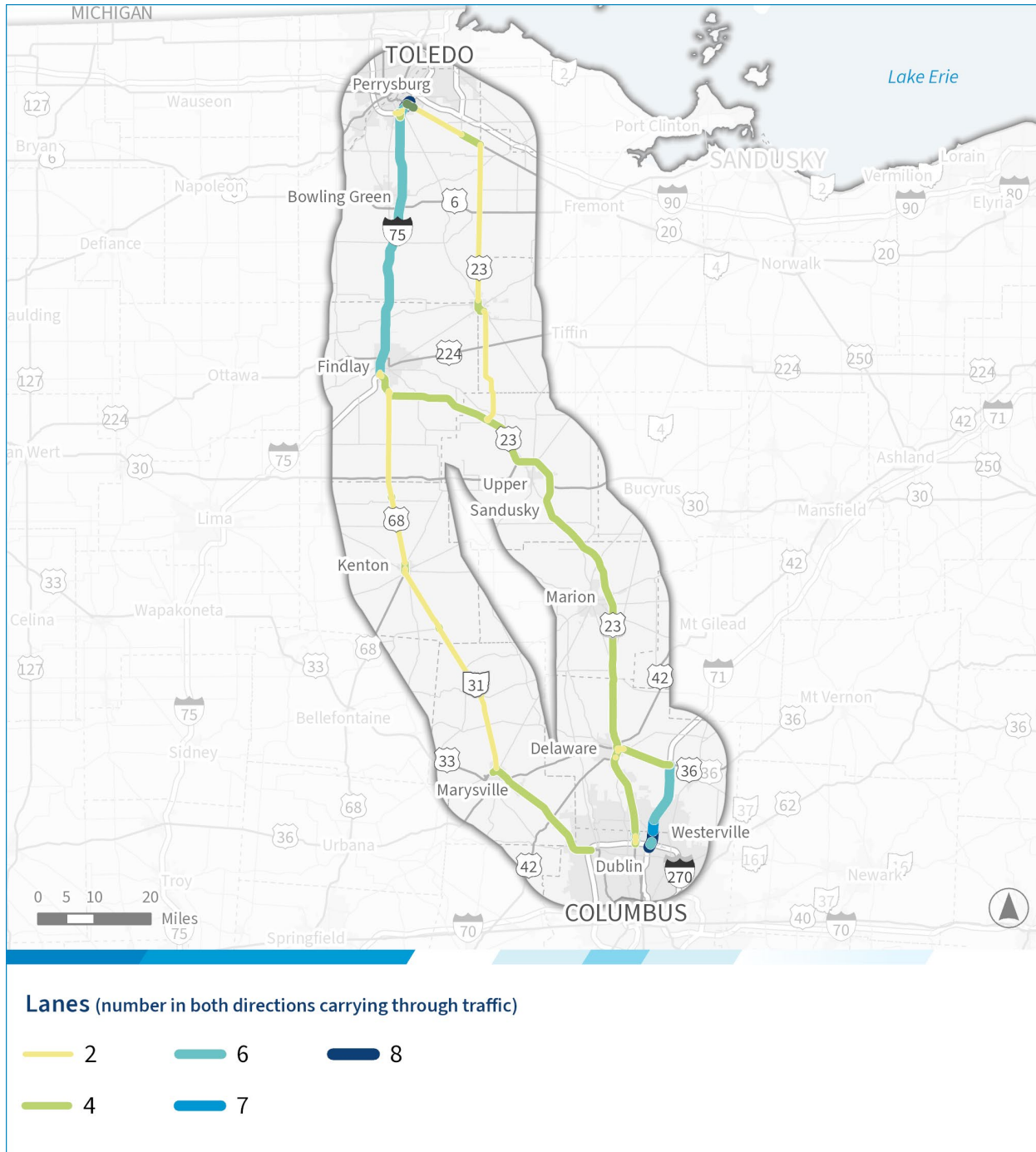
US36 from Delaware to Alum Creek is a four-lane divided roadway except for a small segment in Delaware where it narrows to two lanes. I-71 from Alum Creek to Columbus is a six-lane divided highway with wide shoulders.

TABLE 10—TYPICAL SECTION SUMMARY

Corridor Segment		Through Lanes
Primary Path	I-75 from Perrysburg to Findlay	6
	SR15/US68 from Findlay	4
	SR15 from Findlay to Carey	4
	US23 from Carey to Columbus	4-8
Western Alt	US68 from Findlay to Kenton	2-4
	SR31 from Kenton to Marysville	2-4
	US33 from Marysville to Dublin	4-6
Eastern Alt	US23 from Carey to Columbus	4-8
Alt Route	US36 from Delaware to Alum Creek	2-4
	I-71 from Alum Creek to Columbus	6-8



FIGURE 18—NUMBER OF LANES



Source: ODOT, Study Team



Median Treatments

On the primary path, I-75 from US20 to SR15/US68 is divided by concrete walls or grass median. A grass median separates SR15/US68 and SR15 from Findlay to Carey, except along the I-75 interchange where it has a concrete median. US23 has a grass median between Carey and Home Road; it is generally an undivided highway between Home Road and I-270 in Delaware County, except the segment that travels through the City of Delaware, which has a combination of treatments to separate directional lanes.

The western alternative splits off at the US68 and SR15 interchange. US68 and SR31 have no medians and are undivided between Findlay and Marysville. Then, US33 from Marysville to Dublin is divided by concrete walls or grass medians.

On the eastern alternative, US23 from Perrysburg to Carey is undivided and without a median.

US36 from Delaware to Alum Creek is divided by a grass median except for a small segment in Delaware. I-71 from Alum Creek to Columbus is divided by grass median.

ROADWAY ALIGNMENT

Horizontal and Vertical Curves

All highways making up the Toledo-Columbus focus corridor travel along the generally flat plains of Northwest Ohio. The entire corridor has predominantly Class A and B grades, with a grade of 2.4% or less. Horizontal and vertical curvature are not a concern for this corridor.

ACCESS

Major Access

Table 11 summarizes the corridor's major access points. Interchanges are defined as grade-separated junctions of highway segments and roadway or highway segments, and intersections are defined as any at-grade junction of roadways. Intersections on the corridor were categorized as one of four types: signalized, unsignalized with no mainline stop signs, unsignalized with mainline stop signs, or roundabout. Unsignalized intersections with no mainline stop signs and intersections with two-way stops on side streets, typically allow traffic on the mainline route to flow without stopping. In contrast, the other three conditions require traffic on the mainline route either to always come to a stop (mainline stop signs), to come to a stop frequently (signalized intersections), or to reduce speed significantly and change direction (roundabouts). In **Table 11**, intersections refer to all four conditions, whereas mainline interruptions refer only to the latter three conditions.



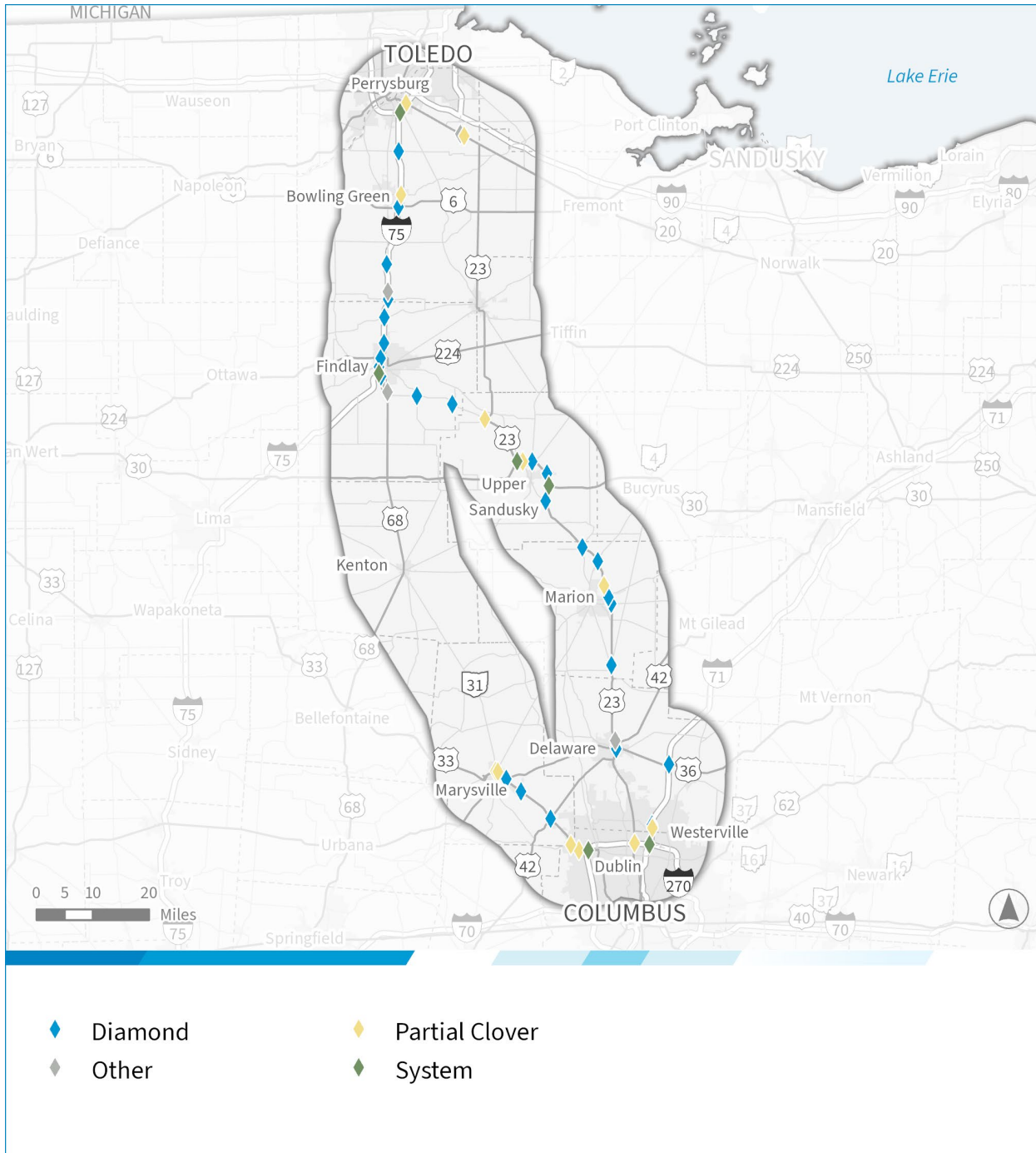
TABLE 11—ACCESS BY PATH

Path	Interchanges	Total Intersections	Mainline Interruptions
Primary	33	122	40
Western	8	139	17
Eastern	3	163	24
Alt Route	4	40	13

On all paths, mainline interruptions tend to be clustered together in areas of denser development such as towns or suburbs. Although the western and eastern alternatives contain fewer total mainline interruptions, these areas typically bypass access-controlled segments of the primary path, reducing their potential benefits. Significantly, selecting the alternative path of US36 and I-71 to avoid US23 congestion south of Delaware results in 25 fewer intersection traversals and 20 fewer mainline interruptions.

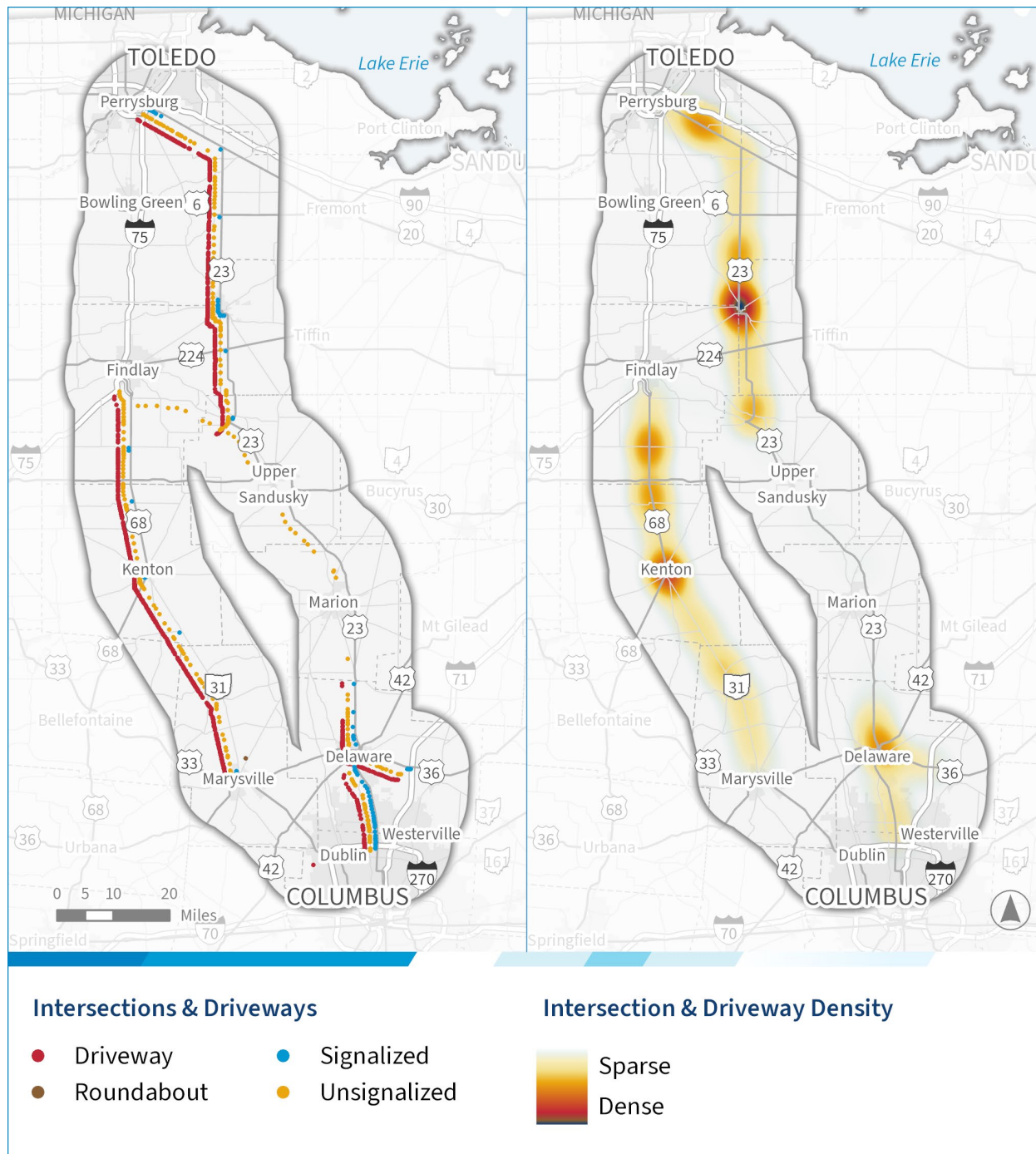


FIGURE 19—CORRIDOR INTERCHANGES



Source: Study Team

FIGURE 20—INTERSECTION/DRIVEWAY HEATMAP



Source: Study Team



Driveway Access

The sections of US68, SR31, US20, US23, and US36, which have no access control, have a high concentration of private driveway access for commercial and residential use. The density of driveway access in cities and villages along the corridor is two to five times the density of rural areas. Driveways are a major cause of congestion in highly developed areas, where they often occur close to signalized intersections. The image on the right shows a portion of US23 near Columbus with a high density of intersecting driveways and intersections.

Driveway access along the corridor is summarized in **Table 12**. The driveways and length columns were calculated for each individual segment and totaled for each path. Driveway density was calculated as the total number of driveways on each segment divided by the total mileage of each segment, which provides a general indication of the average number of driveways a vehicle will encounter on any given mile of the roadway segment.



Imagery source: Maxar, Microsoft

TABLE 12—DRIVEWAY ACCESS AND DENSITY

Path	Total Driveways	Segment	Driveways	Length (miles)	Density (driveways/mile)
Primary	154	US23, from Waldo to Columbus	154	24.8	6.2
Western	891	US68, from Findlay to Kenton	465	24.7	18.8
		SR31, from Kenton to Marysville	426	30.5	14.0
Eastern	1072	US20/US23, from Perrysburg to Lemoyne/Woodville	200	11	18.2
		US23, from Lemoyne/Woodville to Carey	718	38.3	18.7
Alt Route	111	US36, from Delaware to Alum Creek	111	7.5	14.8

Access Management and Local Development

Access control types in **Table 13** are defined by the ODOT Technical Services and Roadway Information GIS (RIGIS) and were field verified as part of the development of the corridor. Access control is categorized as:

- **Full Access Control:** Preference is given to through-traffic movements by providing interchanges with selected public roads and by prohibiting crossing at-grade and direct driveway connections (e.g., limited access to the facility).
- **Partial Access Control:** Preference is given to through-traffic movement. In addition to interchanges, there may be some at-grade crossings with public roads, but direct private driveway connections have been minimized with frontage roads or other local access restrictions. Control of curb cuts is not considered access control.
- **No Controlled Access:** There is no access control (i.e., full access to the facility is permitted).

Access control varies along the corridor segments. The primary path consists of 50% interstate and freeway with full access control, 36% roadway with partial access control, and 14% roadway with no access control. The western alternative consists of 24% interstate or freeway with full access control and 76% roadway with no access control. The eastern alternative consists of 4% roadway with partial access control and 96% roadway with no access control.

TABLE 13—ACCESS CONTROL SUMMARY

Path	Segment	Centerline Mileage	Access Control
Primary	I-75, from US20 in Perrysburg to SR15 in Findlay	37.3 miles	Full Control
	SR15/US68, from I-75 in Findlay to US68 in Findlay	3.1 miles	Partial Control
	SR15, from US68 in Findlay to US23 in Carey	14.0 miles	Partial Control
	US23, from SR15 in Carey to US30 in Upper Sandusky	6.9 miles	Partial Control
	US23, from US30 in Upper Sandusky to Township Highway 62, one exception at County Highway 121 in Upper Sandusky	9.4 miles	Full Control
	US23, Township Highway 62 to Linn Hipsher Road	11.4 miles	Partial Control
	US23, from Linn Hipsher Road to Newmans Cardington Road	11.2 miles	Full Control
	US23, from Newmans Cardington Road to Troutman Road	7.9 miles	Partial Control
	US23, from Troutman Road to Sandusky Street in Delaware	4.5 miles	No Control
	US23, from Sandusky Street in Delaware to US42 in Delaware	2.5 miles	Full Control
	US3, from US42 in Delaware to I-270 in Columbus	12.2 miles	No Control
Western	US68, from SR15 in Findlay to SR31 in Kenton	24.7 miles	No Control



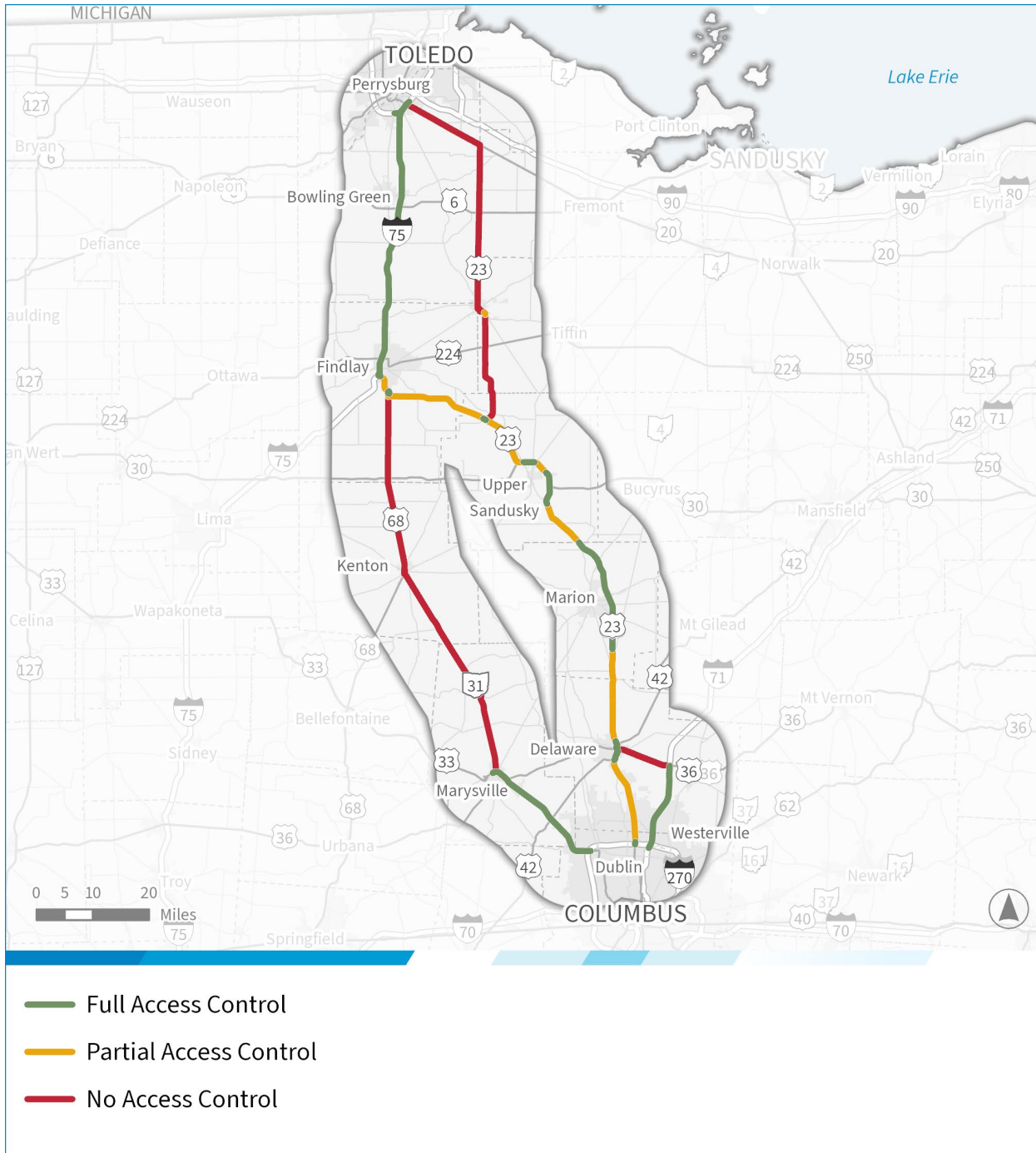
Path	Segment	Centerline Mileage	Access Control
	SR31, from US68 in Kenton to US33 in Marysville	30.5 miles	No Control
	US33, from SR31 in Marysville to I-270 in Dublin	17.6 miles	Full Control
Eastern	US20, from I-75 in Perrysburg to West Lemoyne Overhead in Lemoyne	7.2 miles	No Control
	US20, from West Lemoyne Overhead in Lemoyne to East Lemoyne Overhead in Lemoyne	0.6 miles	Partial Control
	US20, from East Lemoyne Overhead in Lemoyne to SR420 in Lemoyne	0.2 miles	No Control
	US20, from SR420 in Lemoyne to East of Pemberville Road	1.3 miles	Partial Control
	US20, from East of Pemberville Road to US23	1.7 miles	No Control
	US23, from US20 between Lemoyne and Woodville to SR15 in Carey	38.3 miles	No Control
	US36, from US23 in Delaware to I-71 near Alum Creek Reservoir	7.5 miles	No Control
Alt Route	I-71, from US36 near Alum Creek Reservoir to I-270 in Columbus	11.8 miles	Full Control

Key Access Management Takeaways

- The primary path is about 50% roadway with full access control, 36% roadway with partial access control, and 14% roadway with no access control.
- The eastern and western alternatives are primarily highways with no access control.



FIGURE 21—CORRIDOR ACCESS CONTROL



Source: ODOT, Study Team



Rail Crossings

Multiple railroads intersect with the Toledo-Columbus focus corridor. Most are grade-separated from the corridor's roadways, especially in rural contexts. This corridor has 10 at-grade crossings along the US68, SR31, US20, and US23 segments. The primary path has no at-grade crossings, the western alternative has six at-grade crossings, and the eastern alternative has four at-grade crossings.

Based upon conversations with stakeholders, the at-grade crossings have not been identified as concerns to corridor operations. A complete inventory of rail crossings is listed in **Table 14** below.

TABLE 14—RAILROAD CROSSING INVENTORY

Crossing	Location	Crossing Type
I-75 Mile 185.8 with CSX Transportation	Wood County	Roadway Over Railroad
I-75 Mile 173.8 with CSX Transportation	Wood County	Roadway Over Railroad
I-75 Mile 167.4 with CSX Transportation	North Baltimore	Roadway Over Railroad
I-75 Mile 162.5 with Norfolk and Southern	Hancock County	Roadway Over Railroad
I-75 Mile 156.9 with Norfolk and Southern	Findlay	Roadway Over Railroad
SR15 Mile 88.4 with CSX Transportation	Findlay	Roadway Over Railroad
US23 Mile 159.3 with CSX Transportation	Upper Sandusky	Roadway Over Railroad
US23 Mile 154.1 with Chicago Fort Wayne & Eastern	Upper Sandusky	Roadway Over Railroad
US23 Mile 139.0 with Norfolk Southern	Marion County	Roadway Over Railroad
US23 Mile 135.6 with CSX Transportation	Marion	Roadway Over Railroad
US23 Mile 118.5 with Norfolk Southern	Delaware County	Railroad over Roadway
US68 Mile 161.9 with CSX Transportation	Hardin County	At Grade-Crossing
US68 Mile 160.9 with Chicago Fort Wayne & Eastern	Dunkirk	At Grade-Crossing
SR31 Mile 31.4 with CSX Transportation	Kenton	At Grade-Crossing
SR31 Mile 30.9 with CSX Transportation	Kenton	At Grade-Crossing
SR31 Mile 29.8 with CSX Transportation	Kenton	At Grade-Crossing
SR31 Mile 22.5 with CSX Transportation	Mount Victory	At Grade-Crossing
US20 Mile 74.5 with CSX Transportation	Wood County	At Grade-Crossing



Crossing	Location	Crossing Type
US20 Mile 78.0 with CSX Transportation	Stony Ridge	At Grade-Crossing
US20 Mile 80.0 with CSX Transportation	Lemoyne	Roadway Over Railroad
US23 Mile 188.3 with CSX Transportation	Wood County	At Grade-Crossing
US23 Mile 183.3 with CSX Transportation	Fostoria	Railroad Over Roadway
US23 Mile 183.3 with Norfolk Southern	Fostoria	Railroad Over Roadway
US23 Mile 182.7 with CSX Transportation	Fostoria	Railroad Over Roadway
US23 Mile 182.7 with CSX Transportation	Fostoria	Railroad Over Roadway
US23 Mile 169.0 with CSX Transportation	Carey	At Grade-Crossing
US36 Mile 103.5 with CSX Transportation	Delaware	Railroad Over Road
US36 Mile 104.0 with Norfolk Southern	Delaware	Railroad Over Road
US36 Mile 105.8 with CSX Transportation	Delaware County	Railroad Over Road

Key Railroad Crossing Takeaways

- All rail crossings on the primary path are already grade-separated.
- Grade separation of existing at-grade crossings presents challenges due to many rail crossings close to existing roadway intersections. This is especially true for at-grade crossings in towns.

OPERATIONAL

Transportation System Management and Operations (TSMO) and Intelligent Transportation Systems (ITS)

Traffic control and operations systems exist on every segment in the corridor to varying degrees. It is most prevalent on the I-75 and US33 segments closest to Toledo and Columbus. ITS is particularly scarce on US68, SR31, and US23 north of Carey, but it does exist at some key intersections. US33, I-75, I-71, and the portion of US23 in Delaware and Franklin counties already have significant ITS infrastructure. Existing ITS devices along all paths primarily consist of CCTVs and Road Weather Information System (RWIS) stations for monitoring traffic and ambient weather conditions. The US33 Smart Mobility Corridor is a notable exception, featuring many roadside units (RSUs) for connected vehicle applications.



Lighting

Lighting is present around the Perrysburg, Bowling Green, and Findlay areas on I-75 but is scarce in between. SR15 does not have lighting except near Carey and intersections. US20/US23 also does not have street lighting except for the area near the SR420 interchange and signalized intersections. US23 does not have lighting except when passing through Fostoria, Carey, Upper Sandusky, and near Columbus. US68 and SR15 have lighting in Dunkirk, Kenton, and Mount Victory. US33 has highway lighting near Marysville and Dublin. US36 has lighting in Delaware and at the interchange of I-71. Lighting is also present on I-71 approaching Columbus.

Speed Limits

The speed limits along the paths vary based on the functional classification of the road and the setting. Along the primary path, the speed limit along I-75 is 65 mph within urban areas near Toledo and 70 mph in rural areas. The speed limit along SR15 and the freeway portions of US23 is 65 mph. The speed limit along US23 is reduced within the urban arterial areas. Along the western alternative, US68 and SR31 are predominantly 55 mph but reduced to 25 mph within incorporated areas. The speed limit along US33 varies from 70 mph to 55 mph. On the eastern alternative, US23 is predominantly 55 mph to 60 mph except in incorporated areas where it slows to 25 mph to 40 mph.

TABLE 15—SPEED LIMIT SUMMARY

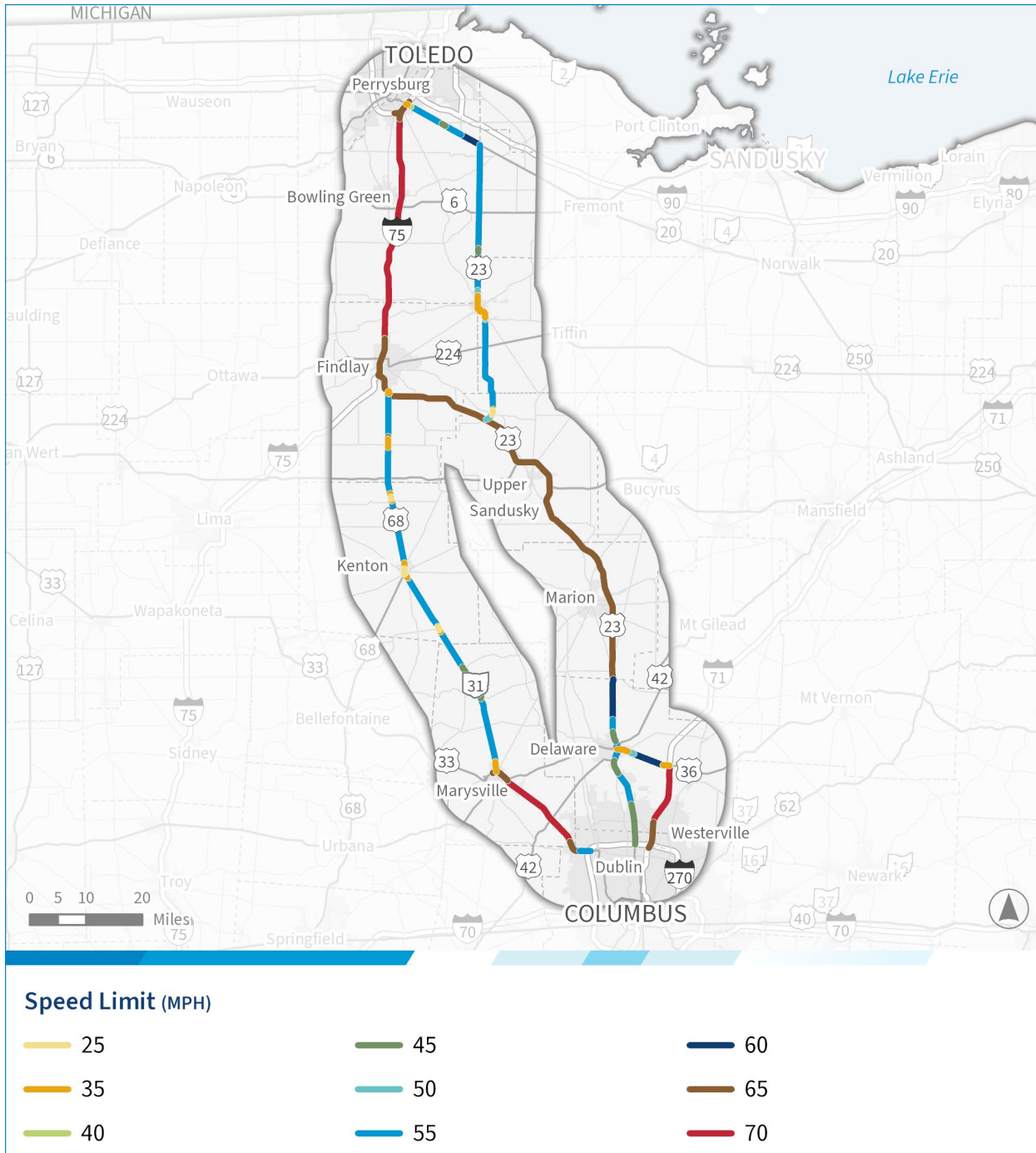
Path	Corridor Segment	Speed Limit
Primary	I-75, from Perrysburg to Findlay	65–70 mph
	SR15/US68, Findlay	65 mph
	SR15, Findlay to Carey	65 mph
	US23, Carey to Columbus	45–65 mph
Western	US68, Findlay to Kenton	25–55 mph
	SR31, Kenton to Marysville	25–55 mph
	US33, Marysville to Dublin	55–70 mph
Eastern	US20/US23, Perrysburg to Lemoyne/Woodville	40–60 mph
	US23, Lamoyne/Woodville to Carey	25–55 mph
Alt Route	US36, Delaware to Alum Creek	25–60 mph
	I-71, Alum Creek to Columbus	65–70 mph

Key Operational Takeaways

- Existing ITS infrastructure tends to be limited to interstate highways and access-controlled highways, with higher traffic volumes and speed limits.
- Existing lighting on the corridor tends to be limited to urban and suburban areas.



FIGURE 22—CORRIDOR SPEED LIMITS



Source: ODOT with field verification by Study Team



MULTIMODAL

Multimodal Characteristics

Intercity Bus and Rail Service

Three intercity bus and passenger rail lines serve or travel along parts of the Toledo-Columbus focus corridor. Greyhound and Baron's Bus run two of those routes, one that serves Toledo to Cincinnati on the I-75 segment, and another that serves Toledo to Columbus along I-75, SR15/US68, US68, SR31, and US33. Each bus service runs one to two buses per day along these routes in each direction. Amtrak's Lake Shore Limited does not intersect with the corridor but stops in Toledo. This route departs daily.

TABLE 16—INTERCITY BUS AND RAIL SERVICE

Intercity Bus / Rail Service	Mileage on Corridor	Cities Served
Greyhound/Baron's Bus Detroit-Cincinnati	37.3 miles	Toledo, Bowling Green
Greyhound/Baron's Bus Toledo-Columbus	112.7 miles	Toledo, Bowling Green, Kenton, Marysville, Columbus
Amtrak Lakeshore Limited Route, Chicago-Boston and New York City	N/A	Toledo

Local Transit Agencies

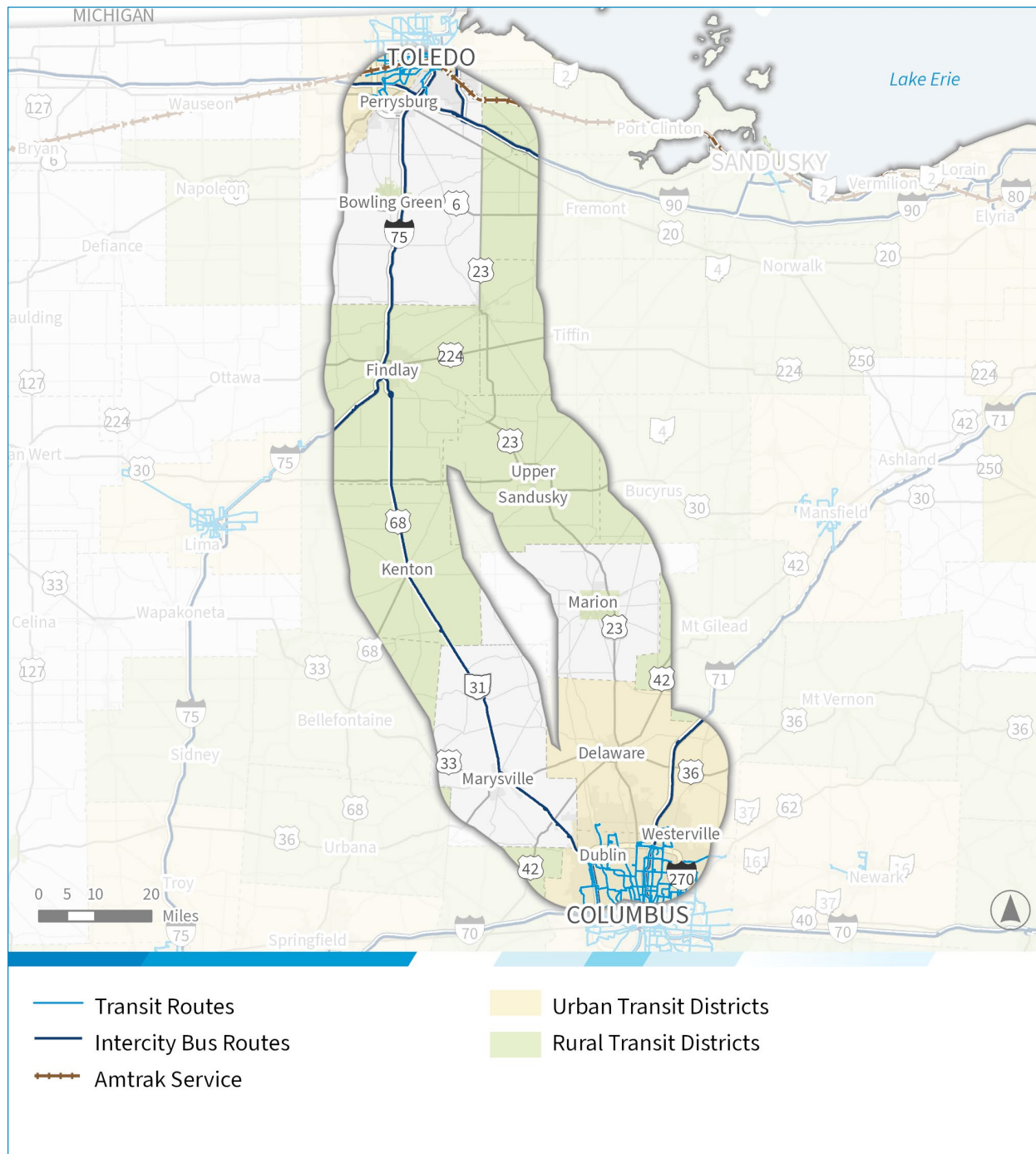
Two large transit agencies operate directly on the Toledo-Columbus focus corridor: the Toledo Area Regional Transit Authority (TARTA) and the Central Ohio Transit Authority (COTA).

- TARTA in the Toledo Region provides fixed-route and on-demand service.
- COTA in Franklin County and surrounding areas provides fixed-route and on-demand service. Line 102 travels from Downtown Columbus, north on High Street/US23 to Polaris, then east to Westerville; service frequency of less than 15 to 60 minutes. Line 41 is a rush hour line, operating only one bus from Polaris to Downtown Columbus and back during mornings and afternoons. It briefly shares Line 102's alignment on US23.

Other smaller transit systems near the corridor include Hancock Area Transportation Services, Marion Area Transit, Delaware County Transit, TRIPS in Sandusky County, and Seneca Crawford Area Transportation. All these systems provide on-demand services without specific routes along the corridor.



FIGURE 23—TRANSIT ROUTES AND DISTRICTS



Source: ODOT, National Transit Database



Intersecting Bike Facilities

A variety of bike facilities intersect with highways within the Toledo-Columbus focus corridor, most of which are on-street Ohio and US bike routes (OBR and USBR, respectively). This includes at-grade intersections for SBR90 and US20/US23 in Wood County, SBR39 and SR15 in Carey, and SBR52 and US36 in Delaware. There are also grade-separated intersections, including SBR90 and I-75 in Perrysburg, SBR39 and I-75 in Findlay, USBR44 and US23 in Upper Sandusky, SBR52 and US23 in Delaware, and SBR39 and US33 in Dublin.

Adjacent Pedestrian Facilities

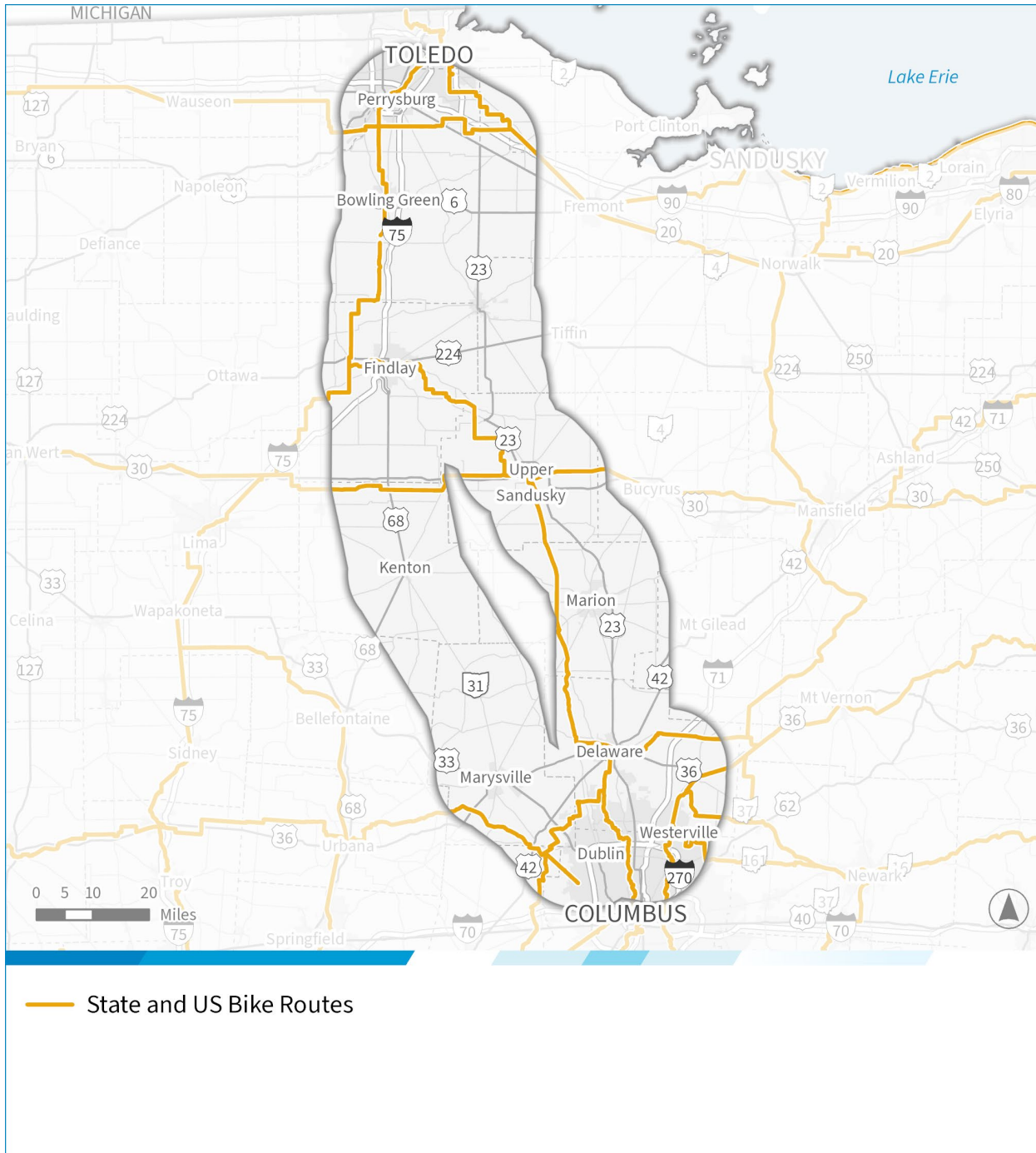
Sidewalks are generally present in the suburbs, small towns, and villages along the Toledo-Columbus focus corridor. These sidewalks are part of wider pedestrian networks that could pose potential conflicts with traffic on US23, US68, SR31, and US20. There are no significant stretches of multi-use trails along the corridor, and the rural segments between towns and villages do not have adjacent pedestrian facilities.

The communities with pedestrian facilities adjacent to the corridor include:

- **US23:** Perrysburg (US20), Fostoria, Carey, Columbus
- **US68:** Arlington, Dunkirk, Kenton
- **SR31:** Kenton, Mount Victory
- **US36:** Delaware



FIGURE 24—CORRIDOR ACTIVE TRANSPORTATION



Source: ODOT



Intermodal Points

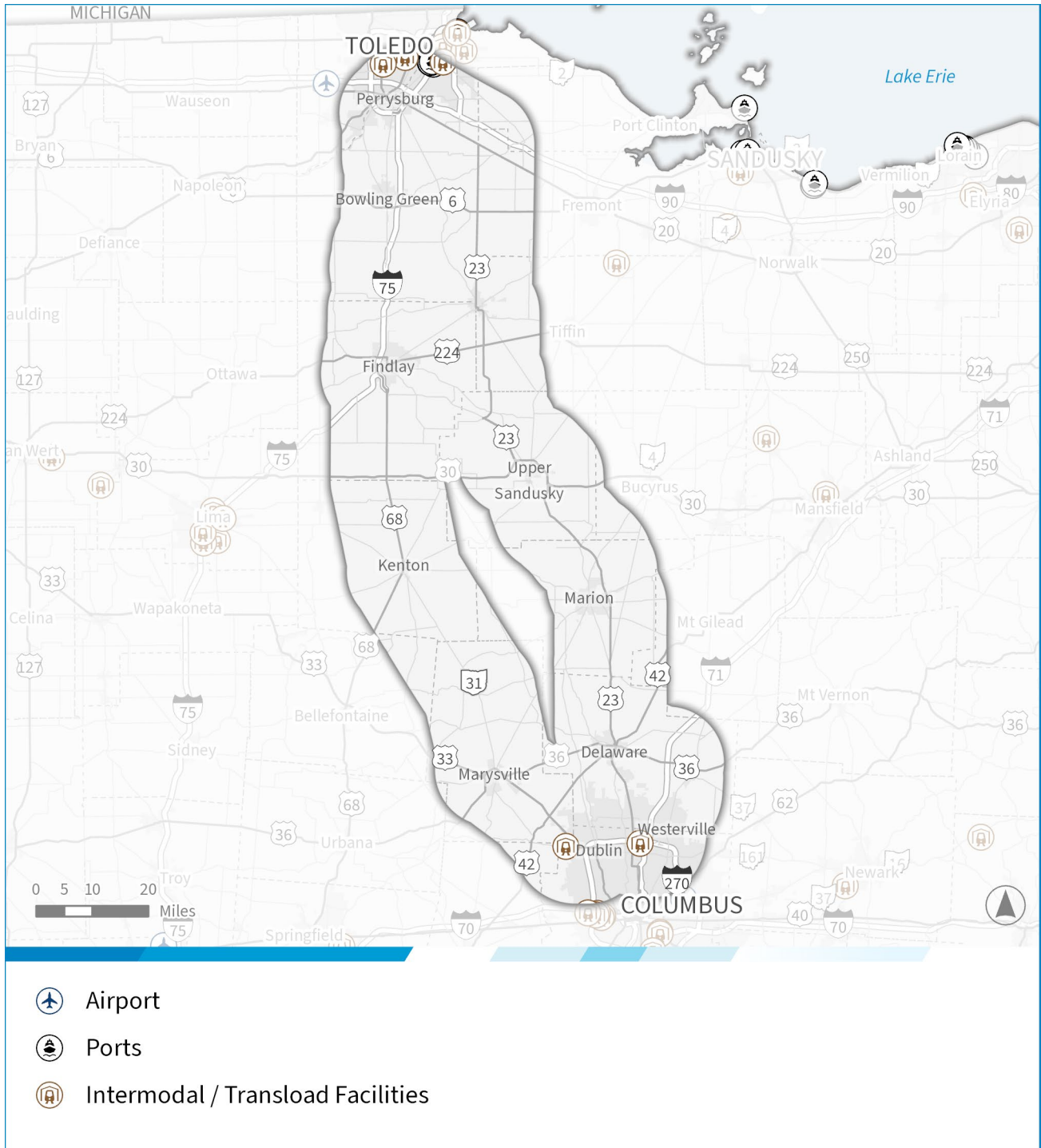
There are three intermodal points along, or served by, the highways within the Toledo-Columbus focus corridor. The CSX Intermodal Terminal in North Baltimore is off I-75, TIG Fleet Service is located along US23 in Perrysburg, and the Marion Industrial Facility is directly on the corridor, near US23 in Marion. Location of these intermodal points is presented in **Figure 25**.

TABLE 17—INTERMODAL SERVICE

Intermodal Points	Type	Location
CSX Intermodal Terminals	Rail	North Baltimore
TIG Fleet Service	Truck	Perrysburg
Marion Industrial Center	Truck, Rail	Marion



FIGURE 25—INTERMODAL POINTS



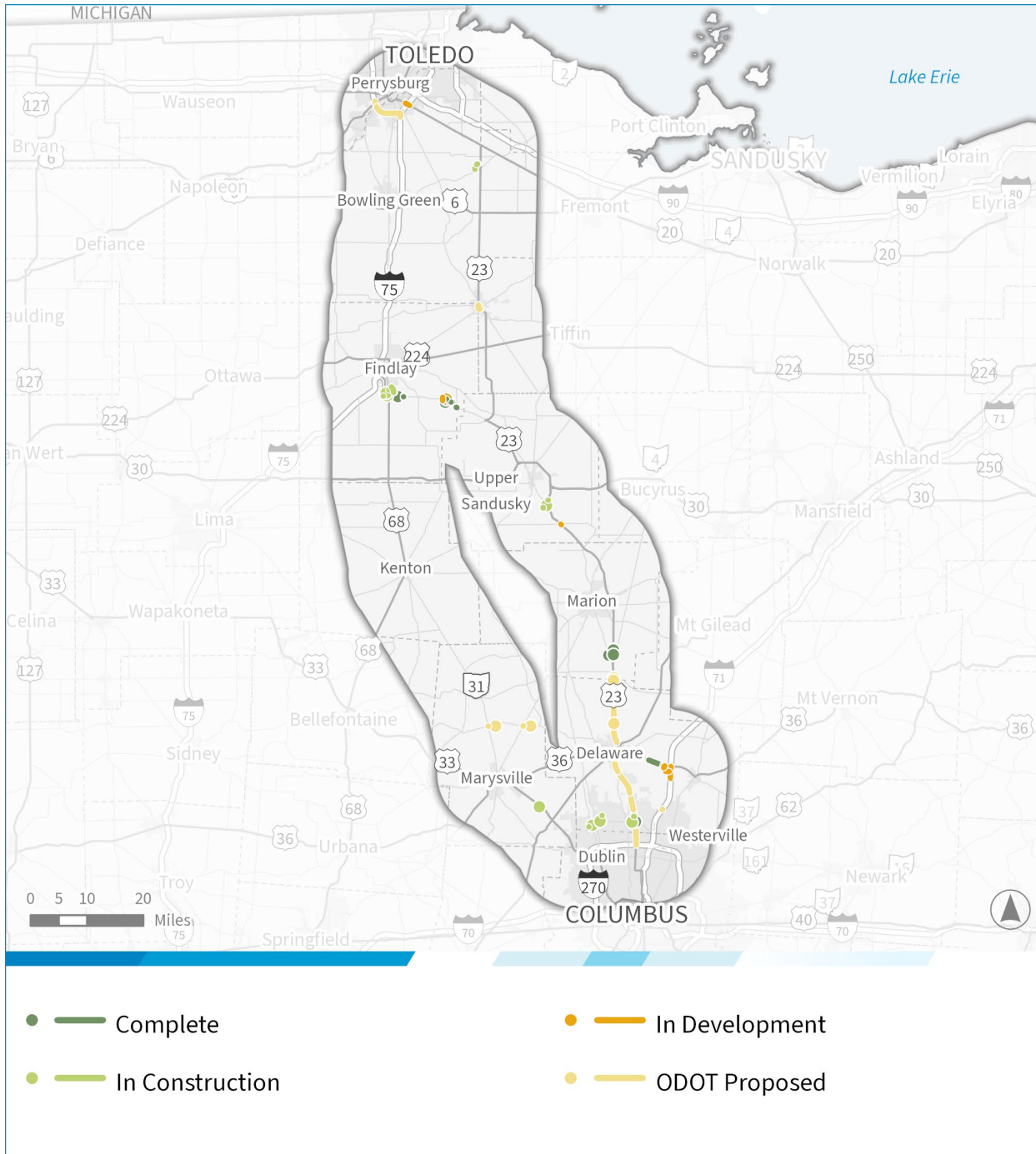
Corridor Investments

PROJECT LOCATION MAP

This section summarizes the totality of ODOT investment, meaning completed, in construction, in development, and proposed projects in the Toledo-Columbus focus corridor. This assessment was based on project data gathered from ODOT databases and verified through ODOT Districts in the corridor. **Figure 26** visually represents the number of projects by phase between Toledo and Columbus. This representation may not directly compare with the projects in the subsequent summary tables due to the additional grouping of projects used to assess hotspot analysis in the **Needs and Project Gaps** section.



FIGURE 26—PROJECT LOCATION MAP



Source: ODOT

IMPROVEMENT SUMMARY

The Toledo-Columbus focus corridor encompasses 48 projects with a total investment exceeding \$2.34 billion. These projects span the primary and alternative paths outlined in the previous section, starting from Toledo and extending to Columbus.

The projects are categorized based on their current phase.

- **Completed:** Projects that have been fully executed and finished since 2015. Projects before 2015 were not included.
- **In Construction:** Projects currently underway with active construction.
- **In Development:** Projects in the planning or design stages, where concepts are being developed for future construction.
- **ODOT Proposed:** Projects that have been considered but have not yet started.

Projects included in regional long-range plans were also collected and considered within the gap analysis.

TABLE 18—PROJECTS BY PHASE

Project Phase	# Projects	Funding Amount
Completed Projects	13	\$20 million
In Construction	4	\$10 million
In Development	7	\$145 million
ODOT Proposed	24	\$2,170 million
TOTAL	48	\$2,345 million



Completed Projects

Thirteen projects have been completed on the corridor from Hancock County south to Delaware County. Ten were safety projects and the other three were major rehabs. Their total investment is \$20 million.

TABLE 19—COMPLETED PROJECTS

Project Name (PID #):	HAN US68 5.10 Arlington Phase 1 (PID 103972)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Major Rehab	Completed	2019
Project Description: Phase 1 of 3 to reconstruct Main Street, US68, in the Village of Arlington, including curb, gutter, drainage and storm sewer. Construction limits for Phase 1 are from Liberty Street to the bridge over Buck Run.					
Funding Status	Project Cost		Funded		Unfunded
Full Funding	\$1,053,313		\$1,053,313		\$0
Project Name (PID #):	HAN US68 Arlington Phase 2 (PID 104001)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Major Rehab	Completed	2021
Project Description: Phase 2 of 3 to reconstruct Main Street, US68, in the Village of Arlington, including curb, gutter, drainage, and storm sewer. Construction limits for Phase 2 are from the south corporation limit of Arlington to Liberty Street.					
Funding Status	Project Cost		Funded		Unfunded
Full Funding	\$1,472,107		\$1,472,107		\$0



Project Name (PID #):	HAN US68 Arlington Phase 3 (PID 104002)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Major Rehab	Completed	2021

Project Description: Phase 3 of 3 to reconstruct Main Street, US68, in the Village of Arlington, including curb, gutter, drainage and storm sewer. Construction limits for Phase 3 are from the bridge over Buck Run to the north of Wardwell Street.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$952,517	\$952,517	\$0

Project Name (PID #):	HAN SR15/CR180 19.56/0.21 (PID 111379)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Intersection Improvement (Safety)	Completed	2023

Project Description: Eliminate the existing CR180 at-grade intersection with SR15 by constructing a grade separation using a fly-over bridge.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$5,886,964	\$5,886,964	\$0

Project Name (PID #):	HAN SR15 26.13 (PID 113199)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Intersection Improvement (Safety)	Completed	2023

Project Description: Construct an overpass at the CR169 and SR15 intersection.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$4,592,876	\$4,592,876	\$0



Project Name (PID #):	WYA US23/TR 44 (No PID)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	Completed	2022

Project Description: Median removal, ODOT district-funded project.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$50,000	\$50,000	\$0

Project Name (PID #):	WYA US23/CR50 (PID 108861)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	Completed	2019

Project Description: Cul-de-sac construction.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$238,334	\$238,334	\$0

Project Name (PID #):	WYA US23/TR 121 (PID 108861)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	Completed	2019

Project Description: Median removal.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$238,334	\$238,334	\$0



Project Name (PID #):	HAN SR15 25.30/27.17 (PID 113688)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Intersection Improvement (Safety)	Completed	2022

Project Description: Construction of cul-de-sacs on TR196 and TR198 at their intersections with SR15.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$596,996	\$596,996	\$0

Project Name (PID #):	MAR-23-3.32/3.93, MAR-423-1.60 (PID 118182)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Marion County	6	Central	Intersection Improvement (Safety)	Completed	2023

Project Description: Safety upgrade on US23 in Marion County. Remove at grade intersection at US23 and CR119, Bethlehem Road. Convert the intersection to right-in and right-out, construct an emergency turnaround in the median, and add northbound and southbound right turn lanes at US23 and TR 123.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$999,403	\$999,403	\$0

Project Name (PID #):	DEL US36 14.850 (PID 107214)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Intersection Improvement (Safety)	Completed	2021

Project Description: Add turn lanes and possibly restrict north and south through traffic to reduce crashes and increase safety at the intersections of DEL US36/SR37 at Lackey Old State Road (DEL CR 10) and at North Old State and Dunham roads, DEL-CR 10 & 10A.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$2,866,812	\$2,866,812	\$0



Project Name (PID #):	DEL-23-9.67 (PID 113769)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Intersection Improvement (Safety)	Completed	2024

Project Description: Convert the intersection of US23 and Hull Drive to a left-in/right-out only.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$431,315	\$431,315	\$0

Project Name (PID #):	DEL-23-1.39 (at Powell Road) (PID 110797)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Intersection Improvement (Safety)	Completed	2023

Project Description: Intersection improvement to increase safety and reduce congestion by adding a southbound right turn lane.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$332,278	\$332,278	\$0



Projects In Construction

Four projects are under construction along this corridor. They are in Wood, Sandusky, Hardin, Union, and Delaware counties and relate to safety, signal replacement, and bridge work. The total investment is \$10 million.

TABLE 20—IN CONSTRUCTION PROJECTS

Project Name (PID #):	UNI/DEL-33/VAR-17.95/VAR (PID 115685)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware and Union Counties	6	Central	Bridge Preservation	Construction	2024
Project Description: Replace the superstructure and raise the bridge carrying Beecher Gamble over US33. Also install a pedestrian hybrid beacon and sidewalk along SR750 and extend the curb and gutter along SR257.					
Funding Status	Project Cost		Funded	Unfunded	
Full Funding	\$2,924,696		\$2,924,696	\$0	
Project Name (PID #):	HAN US68 Arlington Signals (PID 118746)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Signal Replacement and Removal	Construction	2024
Project Description: Replace the signal at US68 and Liberty Street. Also, replace the signal in front of Arlington High School with a rectangular rapid flashing beacon (RRFB) crossing to promote pedestrian safety.					
Funding Status	Project Cost		Funded	Unfunded	
Full Funding	\$222,410		\$222,410	\$0	



Project Name (PID #):	HAN US68/SR15 Interchange (PID 112280)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Intersection Improvement (Safety)	Construction	2024

Project Description: Improve 0.17 miles along US68, including reconfiguring the intersection of US68 and the SR15 ramps to provide a single-lane roundabout. A portion of the existing SR15 southbound off-ramp will be removed and relocated to tie into the reconfigured intersection, while 0.38 miles of the existing southbound off-ramp will be converted to a two-lane township road as part of this project. Work will also include installing roundabout lighting, drainage, and permanent traffic control.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$2,836,362	\$2,836,362	\$0

Project Name (PID #):	WOO US23 17.88 Roundabout (PID 117545)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Sandusky and Wood Counties	2	Northwest	Intersection Improvement (Safety)	Construction	2025

Project Description: Construct a roundabout at the intersection of US23 and SR105 in Wood and Sandusky counties.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$4,053,725	\$4,053,725	\$0



Projects In Development

Seven projects are in development along this corridor. Five of the projects are in the Northwest Region and related to safety; one project is a major rehab. Two projects are in Delaware County: a new roadway and a new interchange. The total investment is \$145 million.

TABLE 21—IN DEVELOPMENT PROJECTS

Project Name (PID #):	WOO US20 2.55 Interchange (PID 117678)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wood County	2	Northwest	Interchange Improvement (Safety)	Development	2027
Project Description: Improve the safety performance at the interchange of I-75 and US20/23, Fremont Pike, in Wood County by constructing a diverging diamond interchange.					
Funding Status	Project Cost		Funded		Unfunded
Partial Funding	\$29,868,062		\$25,218,062		\$4,650,000
Project Name (PID #):	HAR US68/SR31 Roundabout (PID 121008)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hardin County	1	Northwest	Intersection Improvement and signal enhancements	Development	2027
Project Description: Construct a roundabout on US68 near the intersection of Perry Street and reroute SR31 to the roundabout.					
Funding Status	Project Cost		Funded		Unfunded
Full Funding	\$5,829,900		\$5,829,900		\$0



Project Name (PID #):		HAR Detroit Street Reconstruction (PID 115774 and PID 122464)			
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hardin County	1	Northwest	Roadway Major Rehab	Development	2025
Project Description: Full-depth reconstruction of Detroit Street, US68, including installation of new curb, curb ramps, and sidewalk.					
Funding Status		Project Cost		Funded	Unfunded
Full Funding		\$4,554,012		\$4,554,012	\$0
Project Name (PID #):		DEL-Sunbury Parkway (Ph B and C) (PIDs 106960 and 106961)			
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	New Roadway	Development	2026
Project Description: Construct Sunbury Parkway from US36 to 3 Bs and K Road and widen Sunbury Parkway between 3 Bs and K Road to W of I-71					
Funding Status		Project Cost		Funded	Unfunded
Partial Funding		\$45,234,000		\$42,494,000	\$2,740,000
Project Name (PID #):		DEL-71-8.91 (Ph A) (PID 106959)			
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Expansion	Development	2026
Project Description: Construct a new interchange on I-71 at Sunbury Parkway south of US36/SR37 and connect to Sunbury Parkway east of I-71.					
Funding Status		Project Cost		Funded	Unfunded
Full Funding		\$53,542,733		\$53,542,733	\$0



Project Name (PID #):	HAN SR15/CR 193 (PID 114008)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Intersection Improvement (Safety)	Development	2025
Project Description: Eliminate the existing CR193 at-grade intersection with SR15 by constructing a grade separation to increase safety along the SR15 corridor.					
Funding Status	Project Cost		Funded	Unfunded	
Full Funding	\$5,980,863		\$5,980,863	\$0	
Project Name (PID #):	WYA US23 6.63 (PID 119931)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	Development	2024
Project Description: Replace the at-grade intersection at TR62 and US23 in Wyandot County with a cul-de-sac.					
Funding Status	Project Cost		Funded	Unfunded	
Full Funding	\$413,502		\$413,502	\$0	
Project Name (PID #):	FRA-71/270-28.27/25.99A (PID 105435)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Expansion	In-Development	2027
Project Description: Widen the IR 270 EB to IR 71 NB ramp to two lanes using the existing structure. Convert merge to add lane on IR 71 NB. Add option lane to diverge ramp					
Funding Status	Project Cost		Funded	Unfunded	
Unfunded	\$40,000,000		\$0	\$40,000,000	



ODOT Proposed Projects

ODOT has proposed 24 projects along this corridor. Seven of these projects are associated with US23 corridor improvement projects focused on safety and access management improvements along the US23 corridor between I-270 and Waldo. Thirteen of the remaining 17 are in the Northwest Region. The other four are safety projects and an interchange expansion project in the Central Region. The total investment is \$2.17 billion. Of that, \$1.8 billion of these proposed projects are the US23 corridor improvement projects.

TABLE 22—PROPOSED PROJECTS

Project Name (PID #):		Widen I-475 from US24 to I-75—WOO/LUC (PID 113219)			
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wood and Lucas Counties	2	Northwest	Add Through Lane(s)	ODOT Proposed	2030
Project Description: Widen I-475 from I-75 in Wood County to US24 in Lucas County to three lanes. Project includes the widening/reconstruction of the I-475 bridges over CSX Railroad, Fort Meigs Rd. and Maumee River, reconstruction of the I-75/I-475 and I-475/US24 interchanges and realignment of the I-475/SR25 interchange.					
Funding Status		Project Cost		Funded	Unfunded
Unfunded		\$183,030,000		\$0	\$183,030,000
Project Name (PID #):		HAN SR15/CR 8 (No PID)			
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hancock County	1	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2026
Project Description: Cul-de-sac construction.					
Funding Status		Project Cost		Funded	Unfunded
Unfunded		\$375,000		\$0	\$375,000



Project Name (PID #):	WYA US23/TR 103 (No PID)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2028

Project Description: Median removal. Cost is included in the WYA US23/CR4 project.

Funding Status	Project Cost	Funded	Unfunded
Unfunded	\$0	\$0	\$0

Project Name (PID #):	WYA US23/CR 4 (No PID)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2028

Project Description: RCUT construction.

Funding Status	Project Cost	Funded	Unfunded
Unfunded	\$3,250,000	\$0	\$3,250,000

Project Name (PID #):	WYA US23/CR/TR 42 (No PID)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2028

Project Description: Median removal. Cost is included in the WYA US23/CR4 project.

Funding Status	Project Cost	Funded	Unfunded
Unfunded	\$0	\$0	\$0



Project Name (PID #):	WYA US23/TR 65 (PID 121424)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2027

Project Description: Cul-de-sac construction. Cost is included in PID 121424.

Funding Status	Project Cost	Funded	Unfunded
	\$0	\$0	\$0

Project Name (PID #):	WYA US23 3.47 (PID 121424)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Interchange Expansion	ODOT Proposed	2027

Project Description: Build a new interchange at the intersection of US23 and SR294.

Funding Status	Project Cost	Funded	Unfunded
Partial Funding	\$23,515,206	\$2,115,206	\$21,400,000

Project Name (PID #):	WYA US23/CR72 (PID -)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2027

Project Description: Cul-de-sac construction. Cost is included in PID 121424.

Funding Status	Project Cost	Funded	Unfunded
	\$0	\$0	\$0



Project Name (PID #):	WYA US23/CR74 (PID -)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2027

Project Description: Cul-de-sac construction. Cost is included in PID 121424.

Funding Status	Project Cost	Funded	Unfunded
	\$0	\$0	\$0

Project Name (PID #):	WYA US23/TR 68 (PID -)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Wyandot County	1	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2027

Project Description: Cul-de-sac construction. Cost is included in 121424.

Funding Status	Project Cost	Funded	Unfunded
	\$0	\$0	\$0

Project Name (PID #):	DEL-23-21.43 (at SR229) (PID 119804)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware and Marion Counties	6	Central	Interchange Expansion	ODOT Proposed	2027

Project Description: Improve safety at the US23 and SR229 intersection.

Funding Status	Project Cost	Funded	Unfunded
Partial Funding	\$32,500,000	\$5,500,000	\$27,000,000



Project Name (PID #):	Segment 7 US23 Corridor Safety Recommendations (PID 112768)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Improvement (Safety)	ODOT Proposed	TBD

Project Description: This segment of US23 includes one of the last signals at SR229 traveling toward Toledo. ODOT recommends that an interchange be constructed to improve public safety. Traffic signals would be reduced from two to zero.

Funding Status	Project Cost	Funded	Unfunded
Unfunded	\$100,000,000	\$0	\$100,000,000

Project Name (PID #):	Segment 6 US23 Corridor Safety Recommendations (PID 112768)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Improvement (Safety)	ODOT Proposed	TBD

Project Description: This segment begins in front of the Delaware County Fairgrounds and continues north to Coover Road. Coover Road is the main access point for Buckeye Valley High School and has a high percentage of young drivers in the region. ODOT recommends that an interchange be constructed to eliminate T-bone crashes. Traffic signals would be reduced from five to zero.

Funding Status	Project Cost	Funded	Unfunded
Unfunded	\$295,000,000	\$0	\$295,000,000



Project Name (PID #):	Segment 5 US23 Corridor Safety Recommendations (PID 112768)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Improvement (Safety)	ODOT Proposed	TBD

Project Description: ODOT recommends building an overpass in this segment between SR315 and US42. This upgrade would maintain access from neighborhoods to businesses and parks while also improving safety. Traffic signals would be reduced from eight to zero.

Funding Status	Project Cost	Funded	Unfunded
Unfunded	\$360,000,000	\$0	\$360,000,000

Project Name (PID #):	Segment 4 US23 Corridor Safety Recommendations (PID 112768)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Improvement (Safety)	ODOT Proposed	TBD

Project Description: ODOT recommends that an interchange be constructed at US23 and Glenn Parkway, which runs along the side of the City of Delaware. Traffic signals would be reduced from five to two.

Funding Status	Project Cost	Funded	Unfunded
Unfunded	\$225,000,000	\$0	\$225,000,000

Project Name (PID #):	Segment 3 US23 Corridor Safety Recommendations (PID 112768)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Improvement (Safety)	ODOT Proposed	TBD

Project Description: This segment includes Home Road, one of Delaware County's major east-west roadways. The Delaware County Engineer's Office is developing a railroad grade separation project east of US23 to improve safety and address delays. ODOT recommends the construction of an interchange at this location to connect to this major local road. Traffic signals would be reduced from five to zero.

Funding Status	Project Cost	Funded	Unfunded
Unfunded	\$240,000,000	\$0	\$240,000,000



Project Name (PID #):	Segment 2 US23 Corridor Safety Recommendations (PID 112768)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Improvement (Safety)	ODOT Proposed	TBD
Project Description: ODOT recommends constructing an interchange at US23 and SR750 to reduce traffic crashes and congestion. Traffic signals would be reduced from six to zero.					
Funding Status	Project Cost		Funded	Unfunded	
Unfunded	\$365,000,000		\$0	\$365,000,000	
Project Name (PID #):	Segment 1 US23 Corridor Safety Recommendations (PID 112768)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Improvement (Safety)	ODOT Proposed	TBD
Project Description: Add a lane to US23 and build a median barrier wall to reduce cross-over crashes. The recommendation also includes turning the Lazelle Road intersection into an interchange. Traffic signals in this segment would be reduced from eight to four.					
Funding Status	Project Cost		Funded	Unfunded	
Unfunded	\$235,000,000		\$0	\$235,000,000	
Project Name (PID #):	DEL-71-3.55 Phase 1 (PID 110964)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Interchange Expansion	ODOT Proposed	2029
Project Description: Construct a new interchange at I-71/Big Walnut Road (TR109). Four phases are proposed for this project. This PID is for Stage 1 design, environmental clearance for Phases 1 & 2, final design, RW acquisition, and construction of Phase 1.					
Funding Status	Project Cost		Funded	Unfunded	
Partial Funding	\$63,400,000		\$33,400,000	\$30,000,000	



Project Name (PID #):	SEN US23 12.35 Safety (PID 117136)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Seneca County	2	Northwest	Intersection Improvement (Safety)	ODOT Proposed	2025

Project Description: Implement a road diet on County Line Street. (US23) and replace unwarranted traffic signals on Main Street with all-way stops.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$2,285,000	\$2,285,000	\$0

Project Name (PID #):	HAR -US68 Dunkirk Reconstruction (PID 116671)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hardin County	1	Northwest	Roadway Rehab	ODOT Proposed	2028

Project Description: Rebuild US68 through Dunkirk, between Kenton and US30.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$2,683,605	\$2,638,605	\$0

Project Name (PID #):	HAR-SR31 Mount Victory Reconstruction (PID 116801)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Hardin County	1	Northwest	Roadway Rehab	ODOT Proposed	2031

Project Description: Rebuild SR31 through Mount Victory.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$2,634,775	\$2,634,755	\$0



Project Name (PID #):	DEL-23-15.61 (at Coover Road) (PID 119805)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Delaware County	6	Central	Intersection Improvement (Safety)	ODOT Proposed	2027

Project Description: Improve safety at the intersection of US23 and Coover Road, TR194, in Delaware County

Funding Status	Project Cost	Funded	Unfunded
Partial Funding	\$13,299,996	\$1,999,996	\$11,300,000

Project Name (PID #):	UNI-4/31-20.35/7.74 (PID 119806)				
Location:	ODOT District:	JobsOhio Region:	Work Category:	Project Status:	Estimated Year of Completion:
Union County	6	Central	Intersection Improvement (Safety)	ODOT Proposed	2028

Project Description: Construct roundabouts at the intersections of SR4 at SR347 and US31 at SR347.

Funding Status	Project Cost	Funded	Unfunded
Full Funding	\$6,997,500	\$6,997,500	\$0



COMMITTED FUNDING

Projects are shown as either fully funded, meaning all funds have been committed; partially funded, meaning a portion of the funds have been committed; or unfunded, meaning no funds have been committed. Twenty-four projects along the corridor are fully funded, and 10 more are partially funded. Twelve proposed projects from Toledo to Columbus are currently not funded.

TABLE 23—SUMMARY OF COMMITTED FUNDING

Project Phase	Fully Funded		Partially Funded			Unfunded	
	#	Funded Amount	#	Funded Amount	Unfunded Amount	#	Unfunded Amount
Completed Projects	13	\$20 million	–	–	–	–	–
In Construction	4	\$10 million	–	–	–	–	–
In Development	5	\$70 million	2	\$68 million	\$7 million	1	\$40 million
ODOT Proposed*	4	\$14 million	8	\$43 million	\$90 million	12	\$2,007 million
TOTAL:	24	\$114 million	10	\$111 million	\$97 million	13	\$2,047 million

*Two projects have unknown funding information.

Investments Summary

Since 2015, completed and in construction projects have totaled \$30 million in the corridor. An additional \$145 million amount is proposed for projects in development. ODOT has also identified an additional \$2.17 billion in proposed projects. Half of the 48 projects are currently in the ODOT proposed phase. Notably, seven of these projects are part of the Route 23 Connect initiative, which alone accounts for \$1.8 billion of the total \$2.34 billion funding. These projects enhance safety and access management along US23 from Waldo to Columbus.

The scope of projects along the corridor varies widely. The three main categories of work are interchange improvements at \$2.04 billion, additional lanes at \$183 million, and intersection improvements and safety at \$62 million. The cost of the projects ranges from \$50,000 to \$380 million. However, 98% of the required funding has not been secured. Funding has been committed for projects completed and in construction, and all but 5% of the necessary funding for projects in development has been allocated.

Future Studies

One future study is planned for this corridor, which will evaluate Detroit Street Reconstruction Phase 2 in Hardin County. Phase 1 is currently in development. The project is a full-depth reconstruction of Detroit Street with the installation of new curbs, curb ramps, and sidewalk from Carrol Street to Eliza Street. Phase 1 will go to construction in 2025. The Phase 2 project is not far enough along to have a PID number or cost currently.



Corridor Needs Assessment

OVERVIEW

This section presents recommendations for the corridor based on a comprehensive assessment of corridor needs, an analysis of existing projects, and identifies gaps in addressing specific needs. This section includes:

- **Needs Assessment:** The needs assessment incorporates results from the detailed corridor-specific hotspot analysis presented below, findings from the statewide congestion risk analysis, and insights from the corridor scans and District input related to spot location congestion risks, safety, geometric, operational, and development-related risks that could limit or constrain existing and/or future interregional passenger and freight-related mobility.
- **Project Overlap Analysis:** The needs assessment findings are compared with existing ODOT projects, whether under construction, in development, proposed, in study, etc., to identify any full or partial gaps along the corridor in addressing these needs. The analysis will also acknowledge other projects from MPOs/RTPOs that can potentially address corridor needs.

NEEDS ASSESSMENT

The needs assessment considers congestion-related hotspots along the corridor and expands on key takeaways, summarized in the **Corridor Conditions** section, related to development growth pressures, safety, access and geometric issues, and other considerations such as railroad crossings.

Congestion

H.B. 23, Section 203.47 states that the Study shall identify current and future transportation links, **evaluate and rank current and potential risks of future system congestion**, and make actionable recommendations for transportation system projects to support statewide economic growth. This analysis of existing and future congestion risk along the corridor is utilized to identify hotspots. Hotspots are then grouped based on proximity to other nearby segments with congestion or other risks to identify areas to focus on actionable recommendations.

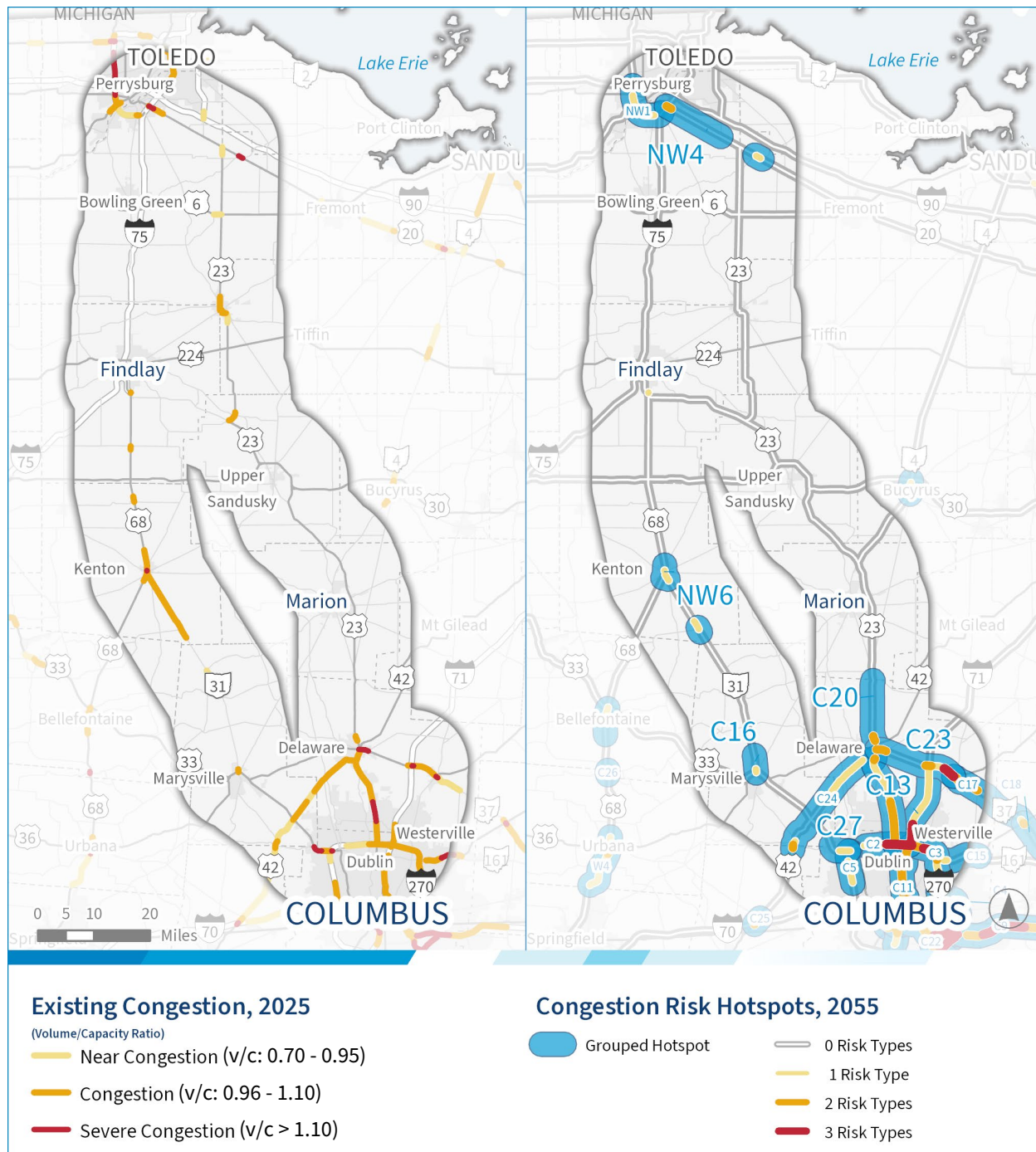


Figure 27 presents the 2025 congestion levels based on v/c ratios and the 2055 congestion risk hotspots for segments along the corridor and on nearby segments of the Study network. The 2025 hotspot analysis examined segments of the statewide network with immediate or near-term v/c ratio that is nearing (0.95-1.0) or exceeding (1.1+) roadway capacity. The 2055 congestion risk is a congestion score, from 0 to 4, that aggregates risk across five elements of congestion: peak period severe congestion that disrupts the flow of people and goods on the Study network; site development, which captures the impacts of site trip generation; workforce access, which focuses on the loss of access to workers within a 40-minute commute due to congestion; business and logistics efficiency, which focuses on total daily truck delay; and quality places, which focuses on access management and projected development.

Table 24 to **Table 27** presents the hotspots and groupings for the primary path, western and eastern alternatives, and alternative routes. The Toledo-Columbus focus corridor has six existing 2025 hotspots, with one on the primary path, two on the western alternative, one on the eastern alternative, and two on alternative routes. The corridor also has 12 predicted 2055+ hotspots, with four on the primary path, four on the western alternative, and four on alternative routes. The corridor has eight grouped hotspots with two on the primary path, three on the western alternative, one on the eastern alternative, and two on alternative routes. The 2055 congestion risk notes a number that indicates which risk exists at each hotspot location: peak period, site development, workforce access, and truck bottleneck.



FIGURE 27—2025 / 2055 HOTSPOTS AND HOTSPOT GROUPING MAP



Source: ODOT, Study Team



TABLE 24—CONGESTION RISK HOTSPOT LOCATIONS AND HORIZON YEAR – PRIMARY PATH

Grouped Hotspot	Roadway	Hotspot Start Point	Hotspot End Point	2025 V/C	2055 Congestion Risk
C20	US23	Panhandle Road in Delaware County	North Sandusky Street in Delaware County	1.02	Moderate CR (1, 3)
C13	US23	US36 in Delaware	US42 in Delaware	1.01	No CR
C13	US23	US42 in Delaware	South Sandusky Street in Delaware	1.04	Moderate CR (2, 3)
C13	US23	South Sandusky Street in Delaware	Home Road in Delaware County	1.05–1.07	Low CR (3)
C13	US23	Home Road in Delaware County	Powell Road in Delaware County	1.20	Moderate CR (1, 3)
C13	US23	Powell Road in Delaware County	I-270 in Franklin County	1.07–1.09	Moderate CR (1, 3)



TABLE 25—CONGESTION RISK HOTSPOT LOCATIONS AND HORIZON YEAR – WESTERN ALTERNATIVE

Grouped Hotspot	Roadway	Hotspot Start Point	Hotspot End Point	2025 v/c	2055 Congestion Risk
NW6	US68	Pattison Avenue in Kenton	Carrol Street in Kenton	0.99–1.02	No CR
NW6	US68	Carrol Street in Kenton	Columbus Street in Kenton	1.14	Low CR (1)
NW6	US68	Columbus Street in Kenton	Espy Street in Kenton	1.0–1.09	No CR
NW6	Espy Street	US68 in Kenton	SR31 in Kenton	1.04	No CR
NW6	SR31	Carrol Street in Kenton	Lynn Street in Kenton	1.02–1.05	No CR
NW6	SR31	Lynn Street in Kenton	SR292 in Kenton	1.02–1.03	Low CR (1)
NW6	SR31	Township Road 206 in Hardin County	Taylor Street in Mount Victory	1.02	Low CR (1)
NW6	SR31	Taylor Street in Mount Victory	Mount Victory Corp Limit	1.04	No CR
C16	SR31	Mill Road/Echo Drive in Marysville	US33 in Marysville	1.06	Low CR (3)
C27	US33	South of Union/Franklin County Line	Avery Road in Franklin County	1.38	No CR
C27	US33	Avery Road in Franklin County	I-270 in Franklin County	1.03	Low CR (3)



TABLE 26—CONGESTION RISK HOTSPOT LOCATIONS AND HORIZON YEAR – EASTERN ALTERNATIVE

Grouped Hotspot	Roadway	Hotspot Start Point	Hotspot End Point	2025 v/c	2055 Congestion Risk
NW4	US20/US23	I-75 Interchange	Simmons Road in Wood County	1.14	Moderate CR (1, 3)
NW4	US20/US23	Simmons Road in Perrysburg	Lime City Road in Wood County	1.06	No CR

TABLE 27—CONGESTION RISK HOTSPOT LOCATIONS AND HORIZON YEAR – ALTERNATE ROUTES

Grouped Hotspot	Roadway	Hotspot Start Point	Hotspot End Point	2025 v/c	2055 Congestion Risk
C23	US36	US23 in Delaware	SR37 in Delaware	1.18	Moderate CR (1, 3)
C23	US36/SR37	SR37 in Delaware	Kilbourne Road in Delaware	3.96	Moderate CR (1, 3)
C23	US36/SR37	South 3 Bs and K Road in Delaware County	I-71 in Delaware County	1.09	Moderate CR (1, 3)
C2	I-71	US36 in Delaware County	Southbound I-71 diverge ramp to Gemini Place in Delaware County	0.60	Low CR (3)
C2	I-71	Southbound I-71 diverge ramp to Gemini Place in Delaware County	Westbound I-270 merge ramp with northbound I-71 in Franklin County	0.99	High CR (1, 3, 4)
C2	I-71	Westbound I-270 merge ramp with northbound I-71 in Franklin County	I-270 in Franklin County	0.99	Moderate CR (1, 3)



The segments with congestion concerns are grouped into larger clusters of proximity. These areas include:

- US23 between Delaware and I-270
- US68/SR31 between Kenton and Mount Victory
- US33 near Dublin
- US20/US23 in Perrysburg
- US36 between US23 and I-71
- I-71 between US36 and I-270

The table in the section above contains all the hotspots and segments approaching a 2025 v/c ratio of 1.10 within the grouped hotspots.

Table 28 contains segments that are not in grouped hotspots but approaching the threshold for severe congestion, above 0.9 and/or approaching 1.1 peak period v/c ratio in 2025, or are a 2055 congestion risk. Most other segments with congestion concerns are in small communities with higher intersection and driveway density.

TABLE 28—CORRIDOR SEGMENTS ABOVE 0.9 AND/OR APPROACHING 1.1 PEAK PERIOD V/C IN 2025

Path	Roadway	Hotspot Start Point	Hotspot End Point	2025 v/c	2055 Congestion Risk
Western Alt	US68	On-ramp to southbound SR15/US68 in Hancock County	Off-ramp from northbound SR15/US68 in Hancock County	0.99	Low CR (1)
Western Alt	US68	East Main Cross Street in Arlington	Waterloo Drive in Arlington	1.03	No CR
Western Alt	US68	Union Street in Dunkirk	East Geneva Street in Dunkirk	1.03	No CR
Western Alt	US68	Township Road 100 in Hardin County	Pattison Avenue in Kenton	0.99	No CR
Western Alt	SR31	SR292 in Kenton	Township Road 206 in Hardin County	0.97	No CR
Western Alt	SR31	Mount Victory Corp Limit	Township Road 240 in Hardin County	1.04	No CR
Eastern Alt	US23	Carrie Lane in Fostoria	East Lytle Street in Fostoria	1.05–1.09	No CR
Eastern Alt	US23	Brayton Street in Carey	SR15/US23 interchange in Carey	1.03–1.04	No CR



Predicted development along the corridor is most heavily concentrated in the demographically highest growth area in the state, which is to the immediate west and north of Columbus. The highest growth is anticipated along US23 in Delaware and Franklin counties, which will likely add significant congestion to the corridor, impacting future travelers. The anticipated development would increase local traffic and likely lead to an increase in the overall volume of traffic between Toledo and Columbus, adding pressure to an already congested route and possibly exacerbating an existing trend of rear-end crashes. Beyond the Central Ohio region, smaller growth hotspots are predicted around Perrysburg along US20/US23.

Table 29 summarizes the key locations for congestion concerns throughout the corridor.

TABLE 29—CONGESTION AND RELIABILITY NEEDS SUMMARY

Location	Congestion and Reliability Needs
I-75 and I-475 interchange	Growth hotspots predicted around Perrysburg.
US23 between SR229 and I-270 in Delaware and Franklin counties	The highest growth levels in the state are predicted to occur along US23 in Delaware and Franklin counties. Lack of fully controlled access leads to conflict points and congestion.
US68/SR31 between Pattison Avenue and Bales Road in Kenton	Current congestion along US23 is rerouting freight traffic to the western alternative causing congestion in small towns.
SR31 in Mount Victory	Current congestion along US23 is rerouting freight traffic to the western alternative causing congestion in small towns.
SR31 between SR128 in Union County and US33 in Marysville	Current congestion along US23 is rerouting freight traffic to the western alternative causing congestion in small towns.
US33 between SR31 in Marysville and I-270 in Dublin	Heavy congestion near the I-270 interchange.
US20/US23 between I-75 and SR420 in Perrysburg	Growth hotspots predicted around Perrysburg. Congestion near the interchange of US20/US23 and I-75.
US36 between US23 and I-71 in Delaware County	Predicted development along the corridor is most heavily concentrated in the areas to the immediate west and north of Columbus. Intersection of two major hotspots at US36 and I-71.
I-71 between US36 and I-270 in Delaware and Franklin counties	Predicted development along the corridor is most heavily concentrated in the areas to the immediate west and north of Columbus. Intersection of two major hotspots at US36 and I-71.



Roadway Geometry and Operations

The most significant geometric issues occur in small communities where geometry cannot be significantly altered without impacting the character of the existing development. In many of these smaller towns and villages, the corridor travels through incorporated areas with higher intersection and driveway density. Narrow shoulders along two-lane undivided roadways in the corridor can make drivers less comfortable at high speeds, when passing, or during inclement weather. These segments also do not allow drivers in disabled vehicles to pull over safely. The geometry of each path is described below:

Primary Path

- The primary path is 64% four-lane divided, 4% four-lane undivided, and 32% six- to eight-lane divided, except for 1.4 miles on US23 near Columbus, where it is undivided.
- I-75 from US20/US23 to SR15/US68 is divided by concrete walls or grass median. A grass median separates SR15/US68 and SR15 from Findlay to Carey, except by the I-75 interchange, where it has a concrete median. US23 has a grass median between Carey and Home Road; it is a mostly undivided highway between Home Road and I-270 in Delaware County, except the segment that travels through the City of Delaware, which has a combination of treatments to separate directional lanes.

Western Alternative

- The western alternative is 71% two-lane roadway, 24% four-lane divided, and 5% four-lane undivided. The uncontrolled, undivided segments of this path have minimal shoulder width.
- The western alternative splits off at the US68 and SR15 interchange. US68 and SR31 have no medians and are undivided between Findlay and Marysville. US33 from Marysville to Dublin is divided by concrete walls or grass medians.

Eastern Alternative

- The eastern alternative is 81% two-lane roadway and 19% four-lane undivided. The uncontrolled, undivided segments of this path have minimal shoulder width.
- US23 from Perrysburg to Carey is undivided and without a median.

Alternate Routes

- US36 is 89% four-lane divided roadway except for 11% in Delaware County, where the roadway shrinks to two lanes.

Figure 28 and **Figure 29** are photos of typical sections along the corridor.



FIGURE 28—TYPICAL TWO-LANE ROADWAY SECTIONS WITH NARROW SHOULDERS



FIGURE 29—SR31 IN MOUNT VICTORY



Operational issues throughout the corridor have not been a significant point of interest, but some are still worth noting in this section. In general, TSMO, ITS, and lighting are present in more urban areas and not in rural areas across the corridor. Speed limits vary depending on the roadway and location.

- ITS is particularly scarce on US68, SR31, and US23 north of Carey, but it does exist at some key intersections. US33, I-75, I-71, and the portion of US23 in Delaware and Franklin counties already have significant ITS infrastructure.
- Existing ITS infrastructure tends to be limited to interstate highways and partial access-controlled highways, where traffic volumes and speed limits are higher.
- Existing lighting on the corridor tends to be limited to urban and suburban areas.

Across the corridor, speed limits are predominantly 55 to 70 mph except in incorporated areas. In these communities, speed limits decrease to 25 mph to 35 mph due to the frequency of intersections, the number of driveways, and pedestrian safety. These communities are not suited for heavy freight traffic. Almost all corridor segments in these incorporated areas appear as a 2025 v/c ratio of at least 0.95.

This corridor has 10 at-grade railroad crossings located along the US68, SR31, US20, and US23 segments. The primary path does not have any at-grade crossings, the western alternative has six, and the eastern alternative has four. Sidewalks are generally present in the suburbs, cities, and villages along the Toledo-Columbus corridor. **Table 30** lists the at-grade rail crossings along the corridor. **Figure 30** provides a photo of a typical at-grade rail crossing.

TABLE 30—LOCATIONS OF AT-GRADE RAIL CROSSINGS

Crossing	Location
US68 Mile 161.9 with CSX Transportation	Hardin County
US68 Mile 160.9 with Chicago Fort Wayne & Eastern	Dunkirk
SR31 Mile 31.4 with CSX Transportation	Kenton
SR31 Mile 30.9 with CSX Transportation	Kenton
SR31 Mile 29.8 with CSX Transportation	Kenton
SR31 Mile 22.5 with CSX Transportation	Mount Victory
US20 Mile 74.5 with CSX Transportation	Wood County
US20 Mile 78.0 with CSX Transportation	Stony Ridge
US23 Mile 188.3 with CSX Transportation	Wood County
US23 Mile 169.0 with CSX Transportation	Carey



FIGURE 30—SR31 RAIL CROSSING IN KENTON

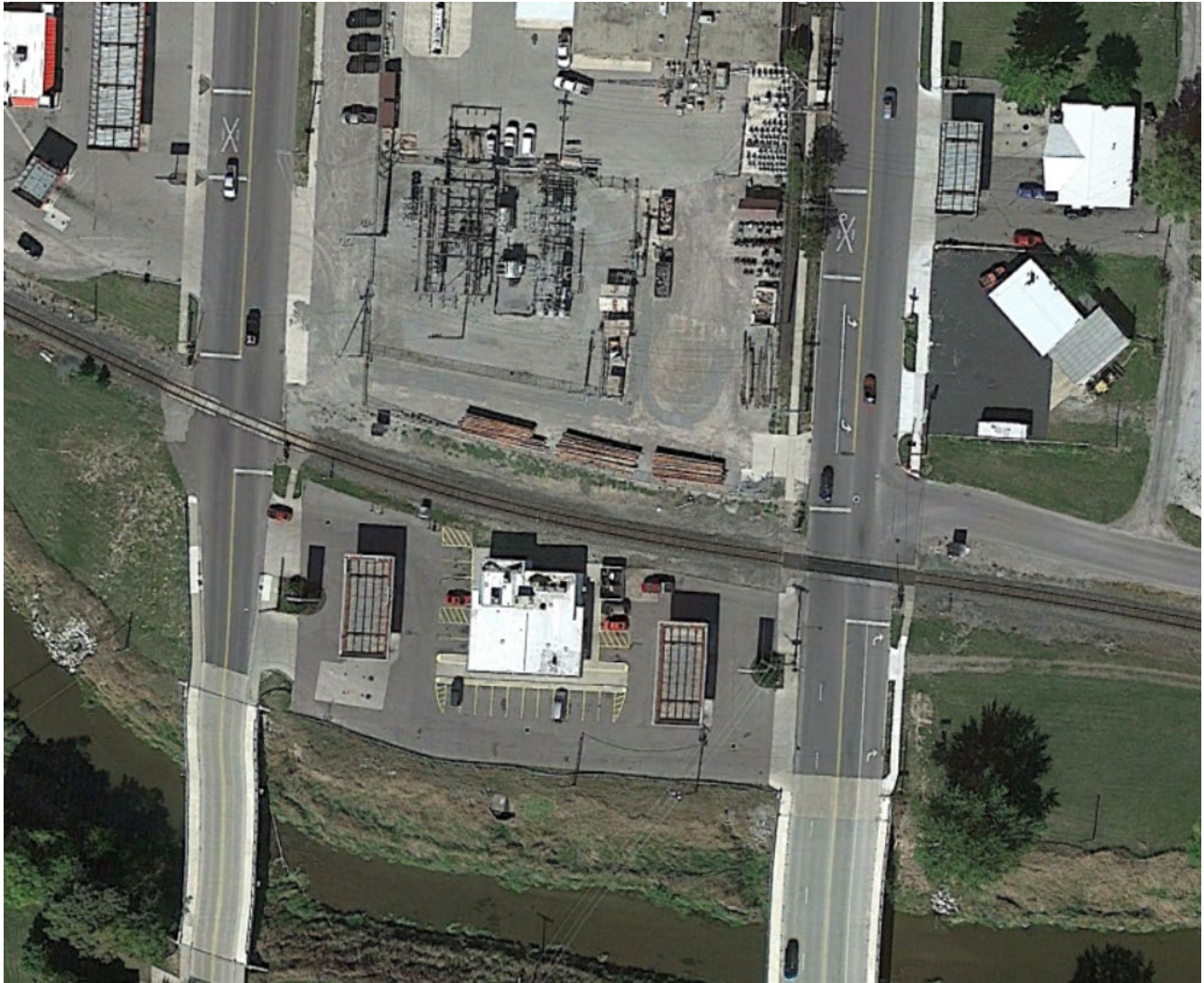


Table 31 summarizes the geometric and operations issues along the corridor.

TABLE 31—ROADWAY GEOMETRY AND OPERATIONS

Location	Geometry and Operational Needs
US23 between SR229 and N Sandusky Street in Delaware County	Corridor cuts through an incorporated area with intersections and driveways. Conversion to full access control would require additional interchanges and access roads.
US23 between US42 and I-270 in Delaware and Franklin counties	Corridor cuts through an incorporated area with intersections and driveways. Conversion to full access control would require additional interchanges and access roads.
US68 in Arlington	Corridor cuts through an incorporated area with intersections and driveways.
US68 in Dunkirk	Corridor cuts through an incorporated area with intersections, driveways, and at-grade crossings.
US68/SR31 between Pattison Avenue and Bales Road in Kenton	Corridor cuts through an incorporated area with numerous turns, intersections, driveways, and at-grade crossings.
SR31 in Mount Victory	Corridor cuts through an incorporated area with intersections, driveways, and at-grade crossings.
SR31 between SR128 in Union County and US33 in Marysville	Corridor cuts through an incorporated area with intersections and driveways.
US23 in Fostoria	Corridor cuts through an incorporated area with numerous turns, intersections, and driveways.
US23 between Brayton Street and SR15 in Carey	Corridor cuts through an incorporated area with intersections, driveways, and at-grade crossings.
US36 between US23 and I-71 in Delaware County	Corridor cuts through an incorporated area with intersections and driveways in Delaware County and near the I-71 interchange.
I-71 between US36 and I-270 in Delaware and Franklin counties	Existing lanes nearing capacity and additional lanes are currently planned.



Safety

The corridor contains 28 HSIP priority segments and eight HSIP priority intersections in the top 100 locations by category. These are on freeways and non-freeways in urban, suburban, and rural development contexts.

- The highest concentrations of top 100 HSIP segments are located on US23 south of Waldo with nine segments; near the US36 and I-71 interchange, with eight segments; I-75, six segments; and US33, four segments. Other top 100 HSIP segments include SR31 in Mount Victory and US23 near SR294 in Wyandot County.
- US23 has top 100 HSIP segments in portions of the roadway without access control and a high frequency of intersections. There are two significant clusters of top 100 HSIP segments along this roadway. The first is near the Delaware-Franklin County line, where driveway access significantly increases, and the other cluster is just north of the City of Delaware, where access again becomes uncontrolled.
- There is a significant cluster of segments around the US36/SR37 and I-71 interchange where the Sunbury Project is currently planned. US36/SR37 contains the number one rural freeway segment.
- I-75 has six top 100 HSIP rural freeway segments. There is a cluster of four segments at the border of Wood and Hancock counties.
- US33 contains four top 100 HSIP segments, including the number one urban non-freeway segment overlapping with the hotspot grouping near I-270.
- The highest concentrations of top 100 HSIP intersections are on US23 in the 1.25-mile stretch between Orange and Powell roads, with three, and on US36 at Africa Road and Fourwinds Drive, with two. Other top 100 HSIP intersections include US23 at Coover Road in Delaware County, SR31 at SR347 in Union County, and US23 at SR105 in Wood County.
- The three intersections of concern along US23 include Powell Road, Meadow Park Avenue, and Orange Road. These three intersections have large footprints that foster capacity and traffic volume concerns in the future. The intersection with Powell Road is ranked as the number one suburban intersection.
- US36 transitions from partial access controlled to no access controlled at Alum Creek. Both intersections occur immediately after this transition occurs at Africa Road and Fourwinds Drive.

Table 32 through **Table 35** summarize safety for the corridor's paths and identify if the location overlaps with a grouped congestion hotspot.



TABLE 32—ROADWAY SAFETY – PRIMARY PATH

Location	HSIP Top 100 Ranking	Grouped Hotspot Overlap
I-75 near SR582 Interchange	#11 Rural Freeway	No
I-75 near Cygnet Road Interchange	#13 Rural Freeway	No
I-75 near Eagleville Road	#17 Rural Freeway	No
I-75 near SR18	#9 Rural Freeway	No
I-75 near TR114	#89 Rural Freeway	No
I-75 north of SR613 Interchange	#88 Rural Freeway	No
US23 near SR294 Intersection	#100 Rural Nonfreeway	No
US23 near SR47 Intersection	#16 Rural Nonfreeway	No
US23 just south of SR229	#52 Rural Nonfreeway	Yes, C20
US23 near Radnor Road Intersection	#9 Rural Nonfreeway	Yes, C20
US23 north of Troutman Road Intersection	#31 Rural Nonfreeway	Yes, C20
US23 at Coover Road	#44 Rural Intersection	Yes, C20
US23 between Home Road and Corduroy Road	#91 Suburban Freeway	Yes, C13
US23 near Orange Road	#92 Suburban Freeway	Yes, C13
US23 at Orange Road	#51 Suburban Intersection	Yes, C13
US23 at Meadow Park Avenue	#67 Suburban Intersection	Yes, C13
US23 between Neverland Road and Columbus Pike	#66 Suburban Freeway	Yes, C13
US23 at Powell Road	#1 Suburban Intersection	Yes, C13
US23 between Flint Road and Dimension Drive	#82 Suburban Freeway	Yes, C13
US23 between Dimension Drive and I-270	#96 Suburban Freeway	Yes, C13

TABLE 33—ROADWAY SAFETY – WESTERN ALTERNATIVE

Location	HSIP Rank	Hotspot Overlap
SR31 in Mount Victory	#86 Rural Nonfreeway	Yes, NW6
SR31 at SR347	#67 Rural Intersection	No
US33 north of US42 Interchange	#45 Rural Nonfreeway	No
US33 near US42 Interchange	#20 Rural Nonfreeway	Yes, C27
US33 near SR9 Overpass	#74 Rural Nonfreeway	Yes, C27
US33 East of Avery Road Interchange	#1 Urban Nonfreeway	Yes, C27



TABLE 34—ROADWAY SAFETY – EASTERN ALTERNATIVE

Location	HSIP Rank	Hotspot Overlap
US23 at SR105	#48 Rural Intersection	No

TABLE 35—ROADWAY SAFETY – ALTERNATE ROUTES

Location	HSIP Rank	Hotspot Overlap
US36/SR37 between Lackey Old State Road and Big Run Road	#30 Rural Nonfreeway	Yes, C23
US36/SR37 near CR10A/N Old State Road Intersection	#70 Rural Nonfreeway	Yes, C23
US36/SR37 at Africa Road	#21 Rural Intersection	Yes, C23
US36/SR37 between N 3 Bs and K Road and I-71	#1 Rural Nonfreeway	Yes, C23
US36/SR37 at Fourwinds Drive	#4 Rural Intersection	Yes, C23
I-71 near US36/SR37 Interchange	#8 Rural Freeway	Yes, C2
I-71 south of US36/SR37 Interchange	#7 Rural Freeway	Yes, C2
I-71 south of US36/SR37 Interchange	#2 Rural Freeway	Yes, C2
I-71 north of Cheshire Road Overpass	#41 Rural Freeway	Yes, C2
I-71 north of Cheshire Road Overpass	#14 Rural Freeway	Yes, C2

Access Control and Development

Driveways and intersections along the corridor are present and significant in number in all areas with no access control. They are most problematic in congested areas such as southern Delaware County, but also problematic along rural two-lane segments. Turning vehicles at any driveway or side street impedes progression and/or delay through capacity since there is no way to get around slowed or stopped vehicles. In general, driveway density increases about 2.5 times in urban areas compared to rural uncontrolled segments.

- The primary path consists of 50% full access-controlled interstate and freeway, 36% partial access-controlled roadways, and 14% no access-controlled roadways. The driveway density is 6.2 driveways per mile along SR23 between Waldo and Columbus.
- The western alternative consists of 24% full access-controlled interstate or freeway and 76% no access-controlled roadways. The driveway density is 18.8 driveways per mile along US68 and 14.0 driveways/mile along SR31.
- The eastern alternative consists of 4% partial access-controlled roadways and 96% no access-controlled roadways. The driveway density is 18.2 driveways per mile along US20/US23 and 18.7 driveways per mile along US23 between Lemoyne/Woodville and Carey.
- US36 has driveway density of 14.8 driveways per mile.



Figure 31 and **Figure 32** show access control in the City of Kenton, which features a tight traditional street grid with small blocks and many access points, and US23 in Delaware County, which has lower-density suburban development with large blocks and limited access points. **Table 36** summarizes the access control and development issues.

FIGURE 31—US68/SR31 IN KENTON – SMALL COMMUNITY CUT THROUGH

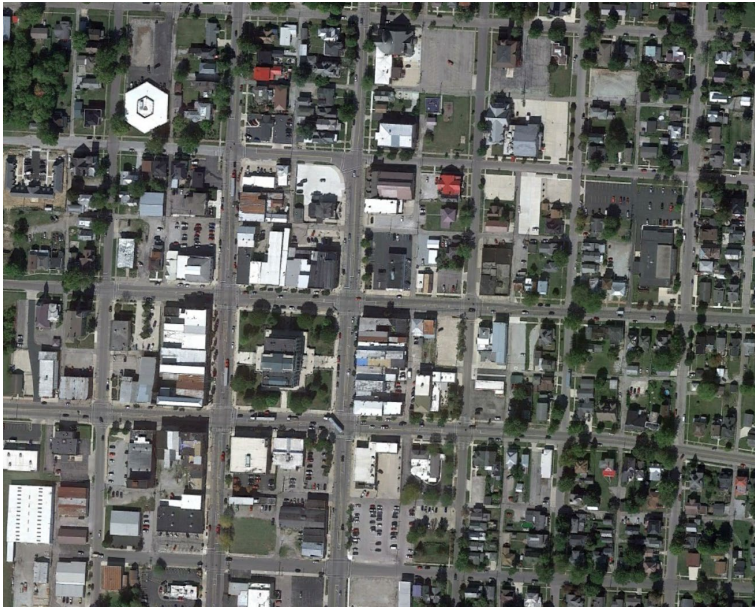


FIGURE 32—US23 IN DELAWARE COUNTY



TABLE 36—ACCESS CONTROL AND DEVELOPMENT

Location	Access Control	Development
SR15 between I-75 and US23 in Carey	Partial Access Control	No major development concerns identified.
US23 between SR15 in Carey and US30 in Upper Sandusky	Partial Access Control	No major development concerns identified.
US23 between US30 in Upper Sandusky and SR4 in Marion County	Partial Access Control	No major development concerns identified.
US23 between SR4 in Marion County and SR229 in Delaware County	Partial Access Control	The highest growth levels in the state are predicted to occur along US23 in Delaware and Franklin counties.
US23 between SR229 and N Sandusky Street in Delaware County	No/Partial Access Control	The highest growth levels in the state are predicted to occur along US23 in Delaware and Franklin counties.
US23 between US42 and I-270 in Delaware and Franklin Counties	No Access Control	The highest growth levels in the state are predicted to occur along US23 in Delaware and Franklin counties.
US68 in Arlington	No Access Control	No major development concerns identified.
US68 in Dunkirk	No Access Control	No major development concerns identified.
US68/SR31 between Pattison Avenue and Bales Road in Kenton	No Access Control	No major development concerns identified.
SR31 in Mount Victory	No Access Control	No major development concerns identified.
SR31 between SR128 in Union County and US33 in Marysville	No Access Control	No major development concerns identified.
US20/US23 between I-75 and SR420 in Perrysburg	No Access Control	Growth hotspots predicted around Perrysburg.
US23 in Fostoria	No Access Control	No major development concerns identified.
US23 between Brayton Street and SR15 interchange in Carey	No Access Control	No major development concerns identified.
US36 between US23 and I-71 in Delaware County	No Access Control	Predicted development along the corridor is most heavily concentrated in the areas to the immediate west and north of Columbus.

Needs Assessment Summary

Figure 33 summarizes the needs along the corridor and **Figure 34** locates each need with a map ID.

Table 37 provides additional detail on each need, organized by map ID, and whether the need is associated with congestion, geometric, operational, safety, and access and development issues.



FIGURE 33—CORRIDOR NEEDS SUMMARY

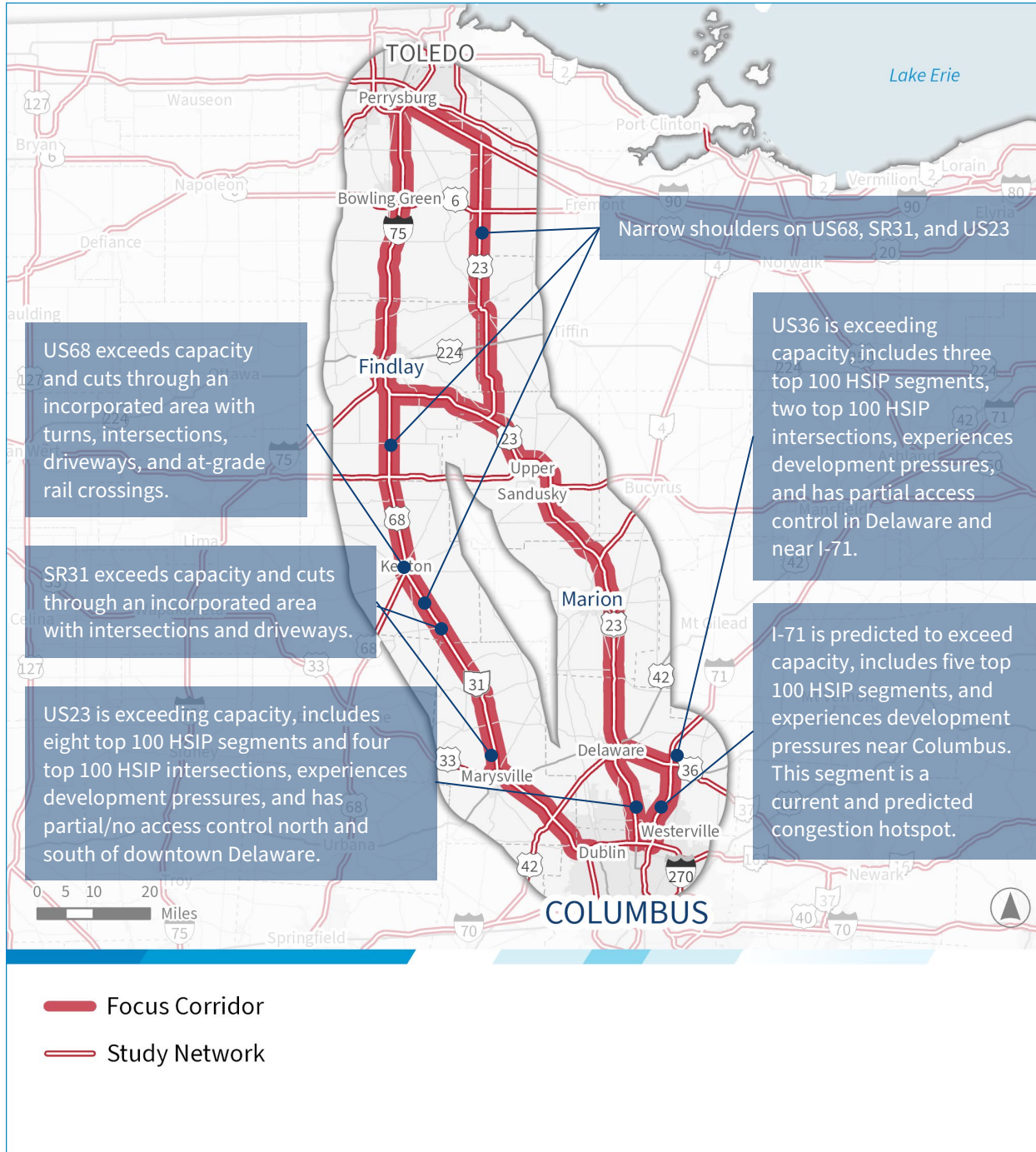


FIGURE 34—CORRIDOR NEED LOCATION IDS

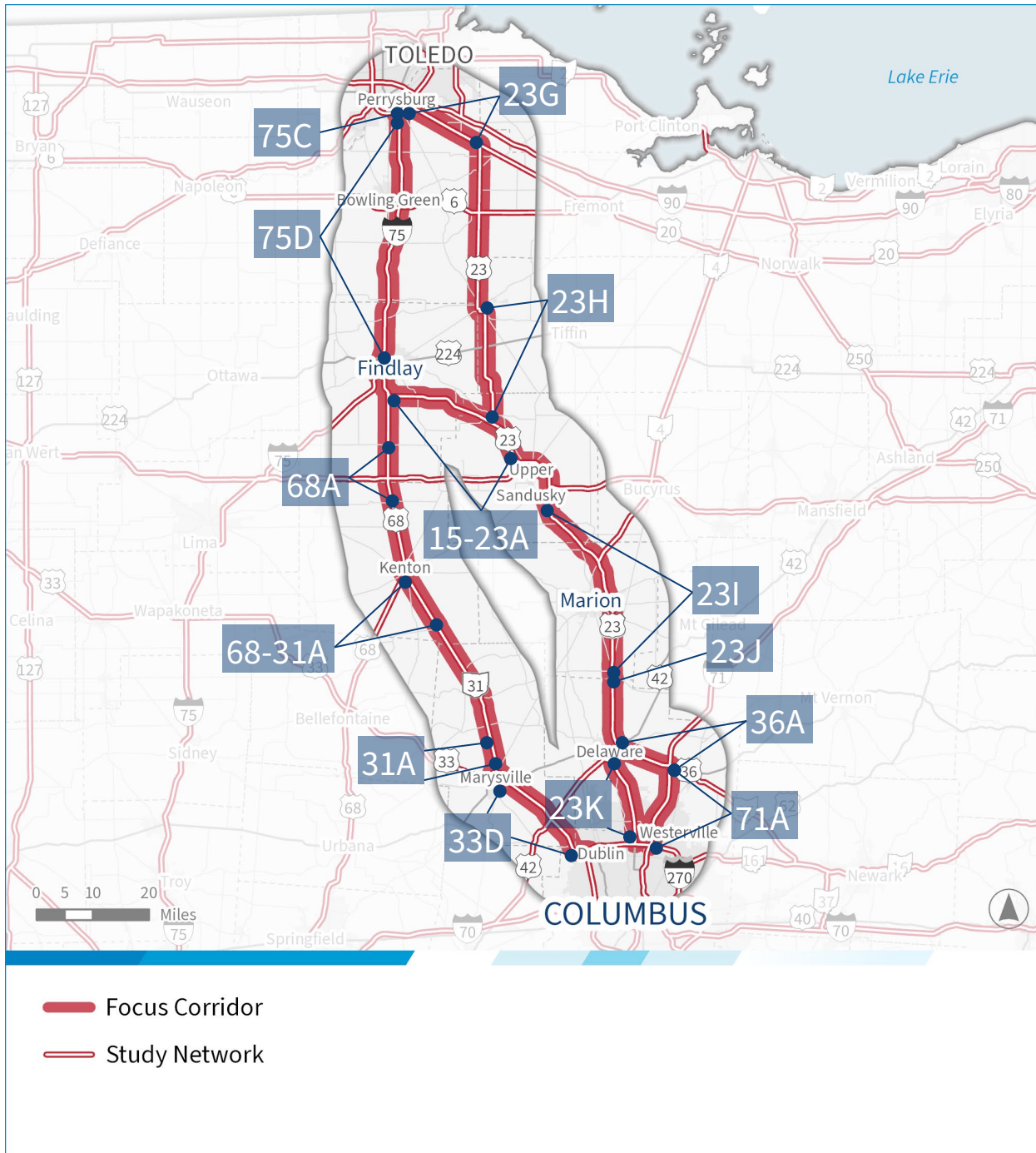


TABLE 37—CORRIDOR NEEDS SUMMARY

Map ID	Location	Congestion		Geometric	Operational	Safety		Access and Development
		Statewide Hotspot	Corridor Hotspot			HSIP Top 100	RSI	
75C	Interchange of I-75 and I-475, one mile	X	X					
	This segment experiences development pressures due to growth around Perrysburg.							
75D	I-75 between I-475 in Perrysburg and SR15/US68 in Findlay, 34.7 miles					X	X	
	This segment includes six top 100 HSIP segments .							
15-23A	SR15 between I-75 and US23 in Carey, 16.6 miles							X
	This segment is partial access control with intersection conflict points on a four-lane divided roadway.							
	US23 between SR15 in Carey and US30 in Upper Sandusky, 7.1 miles							X
23I	This segment is partial access control with intersection conflict points on a four-lane divided roadway.							
	US23 between US30 in Upper Sandusky and SR4 in Marion County, 12.8 miles					X		X
	This segment includes one top 100 HSIP segment and is partial access control with intersection conflict points on a four-lane divided roadway.							
23J	US23 between SR4 in Marion County and SR229 in Delaware County, 16.3 miles							X
	This segment is partial access control with intersection conflict points on a four-lane divided roadway.							
	US23 between SR229 and N Sandusky Street in Delaware County, 8.3 miles	X	X	X	X	X	X	X
23K	This segment is exceeding capacity, includes four top 100 HSIP segments and one top 100 HSIP intersection, experiences developmental pressures, and has partial/no access control north of Delaware.							
	US23 between US42 and I-270 in Delaware and Franklin counties, 12.2 miles	X	X	X	X	X	X	X



Map ID	Location	Congestion		Geometric	Operational	Safety		Access and Development
		Statewide Hotspot	Corridor Hotspot			HSIP Top 100	RSI	
	This segment is exceeding capacity, includes four top 100 HSIP segments and three top 100 HSIP intersections, experiences development pressures, and has partial/no access control south of downtown Delaware.							
68A	US68 in Arlington, 1.5 miles			X				X
	This segment cuts through incorporated area with intersections and driveways .							
	US68 in Dunkirk, 0.8 mile			X				X
	This segment cuts through incorporated area with intersections, driveways, and at-grade rail crossings .							
68-31A	US68/SR31 between Pattison Avenue and Bales Road in Kenton, 2.8 miles	X	X	X	X			X
	This segment is exceeding capacity and cuts through incorporated areas with turns, intersections, driveways, and at-grade rail crossings .							
	SR31 in Mount Victory, 1.8 miles	X	X	X		X		X
	This segment is exceeding capacity, includes one top 100 HSIP segment , and cuts through incorporated area with intersections, driveways, and at-grade rail crossings .							
31A	SR31 between SR128 in Union County and US33 in Marysville, 2.3 miles	X	X	X			X	X
	This segment is exceeding capacity and cuts through incorporated area with intersections and driveways .							
33D	US33 between SR31 in Marysville and I-270 in Dublin, 17.6 miles		X			X	X	X
	This segment is exceeding capacity, has four top 100 HSIP segments , and experiences development pressures in Dublin near I-270.							
23G	US20/US23 between I-75 and SR420 in Perrysburg, 8.3 miles	X	X				X	X
	This segment is exceeding capacity and experiencing development pressures in Perrysburg.							



Map ID	Location	Congestion		Geometric	Operational	Safety		Access and Development
		Statewide Hotspot	Corridor Hotspot			HSIP Top 100	RSI	
23H	US23 in Fostoria, 4.2 miles			X			X	X
	This segment cuts through incorporated area with turns, intersections, and driveways .							
	US23 between Brayton Street and SR15 interchange in Carey, 1.9 miles			X				X
36A	US36 between US23 and I-71 in Delaware County, 7.5 miles	X	X	X	X	X	X	X
	This segment is exceeding capacity, includes three top 100 HSIP segments and two top 100 HSIP intersections, experiences development pressures, and has partial access control in Delaware and near I-71.							
71A	I-71 between US36 and I-270 in Delaware and Franklin counties, 11.8 miles	X	X	X	X	X	X	
	This segment is exceeding capacity, includes five top 100 HSIP segments, and experiences development pressures near Columbus.							



NEEDS AND PROJECT OVERLAP ANALYSIS

The corridor needs presented in the previous section were compared with ODOT-sponsored projects to assess how the existing projects address these needs. **Table 38** lists ODOT-sponsored projects for each of the corridor needs presented in the previous section. The columns in the table indicate the status of each project and include the following:

- **Addressed:** Fully funded projects in construction or in sold/active status that will fully address the need location
- **Partially Addressed:** Partially funded projects that will fully address the need location when constructed and open to traffic, or fully funded projects in construction or in sold/active status that will partially address the need location
- **Ongoing Planning:** Recent or ongoing/proposed study or ODOT proposed project in the PDP planning phase anticipated to address the need location
- **Planning Gap:** No current ODOT project or study to address the need location

Current projects are described after the table.



TABLE 38—NEEDS AND PROJECT OVERLAP SUMMARY

Map ID	Location	Project Count (and PIDs) by Status				Overlap/ Gap
		Construction	Development	Proposed	Study	
75C	Interchange of I-75 and I-475, 1 mile			PID 113129		Ongoing Planning
75D	I-75 between I-475 in Perrysburg and SR15/US68 in Findlay, 34.7 mile					Planning Gap
15-23A	SR15 between I-75 and US23 in Carey, 16.6 miles	PID 112280 PID 117545	PID 114008	HAN SR15/CR8		Partially Addressed
	US23 between SR15 in Carey and US30 in Upper Sandusky, 7.1 miles			WYA US23/TR103 WYA US23/CR4 WYA US23/CR42		Partially Addressed
23I	US23 between US30 in Upper Sandusky and SR4 in Marion County, 12.8 miles		PID 119931	PID 121424		Partially Addressed
	US23 between SR4 in Marion County and SR229 in Delaware County, 16.3 miles					Planning Gap
23J	US23 between SR229 and N Sandusky Street in Delaware County, 8.3 miles			PID 119804 PID 119805	PID 112768	Ongoing Planning
23K	US23 between US42 and I-270 in Delaware and Franklin counties, 12.2 miles				PID 112768	Ongoing Planning
68A	US68 in Arlington, 1.5 miles	PID 118746				Planning Gap
	US68 in Dunkirk, 0.8 mile			PID 116671		Partially Addressed



Map ID	Location	Project Count by Status				Overlap/ Gap
		Construction	Development	Proposed	Study	
68-31A	US68/SR31 between Pattison Avenue and Bales Road in Kenton, 2.8 miles		PID 121008 PID 115774 PID 122464		Detroit Street Phase 2	Partially Addressed
	SR31 in Mount Victory, 1.8 miles			PID 116801		Partially Addressed
31A	SR31 between SR128 in Union County and US33 in Marysville, 2.3 miles					Planning Gap
33D	US33 between SR31 in Marysville and I-270 in Dublin, 17.6 miles	PID 115685				Partially Addressed
23G	US20/US23 between I-75 and SR420 in Perrysburg, 8.3 miles		PID 117678			Partially Addressed
23H	US23 in Fostoria, 4.2 miles			PID 117136		Planning Gap
	US23 between Brayton Street and SR15 interchange in Carey, 1.9 miles					Planning Gap
36A	US36 between US23 and I-71 in Delaware County, 7.5 miles	PID 103626	PID 106961			Partially Addressed
71A	I-71 between US36 and I-270 in Delaware and Franklin counties, 11.8 miles		PID 106959 PID 105435	PID 110964		Partially Addressed



75C – I-75 and I-475 Interchange

This area of concern is encountering development pressures due to growth around Perrysburg and has congestion concerns on I-475 near the I-75 interchange. There is currently one proposed project, PID 113129, that will widen I-475 between I-75 and US24 and reconstruct the I-75/I-475 interchange. This project should address the concerns but is currently unfunded and has a scoping gap.

75C – Interchange of I-75 and I-475

*One current unfunded project addresses development/congestion issues but has a scoping gap.
This \$183,030,000 project is unfunded.*

75D – I-75 between I-475 in Perrysburg and SR15/US68 in Findlay

This area of concern has a moderate TOAST score and six top 100 HSIP segments. This segment has no geometric, operational, congestion, or development concerns. There are currently no projects planned to address the safety concerns.

75D – I-75 between I-475 in Perrysburg and SR15/US68 in Findlay

There are currently no projects that plan to address the safety concerns in this area of need.

15-23A – SR15 between I-75 and US23 in Carey

This area of concern is partial access control with intersection conflict points on a four-lane divided roadway. There are two projects, PID 114008 and HAN SR15/CR8, that plan to address some of the access concerns. PID 114008 will eliminate the existing CR193 at-grade intersection by constructing a grade separation to increase safety and restrict access. This project is in development and fully funded with a completion year of 2025. HAN SR15/CR8 will convert the existing intersection into a cul-de-sac to restrict access. This project is proposed and unfunded with a completion year of 2026.

There is also one project, PID 112280, that plans to address congestion concerns at the US68 ramp intersections by constructing a roundabout. This project is currently under construction and fully funded, with a completion year of 2024. This should resolve a 2055 hotspot listed in the previous sections of this report.



15-23A – SR15 between I-75 and US23 in Carey

There are two projects that address some of the access concerns. There is also one project that aims to address a congestion hotspot concern at the US68 interchange. Two projects are fully funded, and one is unfunded, equating to \$8,817,000 of the \$9,192,000 total cost of the projects.

15-23A – US23 between SR15 in Carey and US30 in Upper Sandusky

This area of concern is partial access control with intersection conflict points on a four-lane divided roadway. There are three proposed projects, WYA US23/TR103, WAY US23/CR4, and WYA US23/CR42, to address some of the access concerns. Two of these projects are median removals, and one is to convert the intersection into an RCUT. All of these are unfunded with a completion year of 2028.

15-23A – US23 between SR15 in Carey and US30 in Upper Sandusky

There are three projects that address some of the access concerns. The projects are anticipated to be a total cost of approximately \$3,250,000 and are currently unfunded.

23I – US23 between US30 in Upper Sandusky and SR4 in Marion County

This area of concern is partial access control with intersection conflict points on a four-lane divided roadway. There are two projects, PID 119931 and PID 121424, to address some of the access concerns. PID 119931 will replace the intersection with TR62 with a cul-de-sac. This project is in development and fully funded with a completion year of 2024. PID 121424 will construct a new interchange with SR294 and construct new cul-de-sac in locations at TR65, CR72, CR74, and TR68. This project is proposed and partially funded with a completion date of 2027. There will still be four at-grade intersections after this project's completion.

23I – US23 between US30 in Upper Sandusky and SR4 in Marion County

*There are two projects planned to address some access and safety concerns.
One project is fully funded, and the other is partially funded.
Total funding equates to \$2,115,000 of the \$23,929,000 total cost of these projects.*



23I – US23 between SR4 in Marion County and SR229 in Delaware County

This area of concern contains one top 100 HSIP segment and is partial access control with intersection conflict points on a four-lane divided roadway. There are currently no projects planned to address these concerns.

23I – US23 between SR4 in Marion County and SR229 in Delaware County

There are currently no projects that plan to address the access and safety concerns in this area of need.

23J – US23 between SR229 and N Sandusky Street in Delaware County

This area of concern is exceeding capacity, includes four top 100 HSIP segments and one top 100 HSIP intersection, encounters development pressures, and is partial/no access control north of Delaware. The highest growth levels in the state are predicted to occur along US23 in Delaware and Franklin counties. The segment of US23 between North Sandusky Street and US42 has already been converted to full access control. There are currently two projects, and one study planned, PID 112768, PID 119804, and PID 1198005, to address concerns in this area. PID 112768 spans 23J and 23K areas of concern, but two of the seven segments of this study are in 23J. On one of the segments, ODOT recommends an interchange at Coover Road, TR194, and reducing traffic signals from five to zero. On the other segment, ODOT recommends an interchange at SR229 and reducing traffic signals from two to zero. This study is proposed and unfunded without a completion year set. PID 119804 will improve safety at the SR229 intersection. This project is proposed and partially funded with a completion year of 2027. PID 119805 will enhance safety at the Coover Road, TR194, intersection. This project is proposed and partially funded with a completion year of 2027.

23J – US23 between SR229 and N Sandusky Street in Delaware County

There are currently three projects that plan to address the access, safety, congestion, and development concerns in this area of need. One project is unfunded and the other two are partially funded. Currently \$7,500,000 of \$440,800,000 (only includes two segments of PID 112768). Currently \$7,500,000 of \$440,800,000 (only includes two segments of PID 112768). Currently \$7,500,000 of \$440,800,000 is funded (only includes two segments of PID 112768).



23K – US23 between US42 and I-270 in Delaware and Franklin Counties

This area of concern is exceeding capacity, includes four top 100 HSIP segments and one top 100 HSIP intersection, experiences development pressures, and is partial/no access control north of Delaware. The highest growth levels in the state are predicted to occur along US23 in Delaware and Franklin counties. The segment of US23 between N Sandusky Street and US42 has already been converted to full access control.

One study, PID 112768, is currently planned to address concerns in this area. PID 112768 spans 23J and 23K areas of concern; segments 1 through 5 of this study are in 23K. Segment 1 will add a lane to US23, build a median barrier wall, convert the Lazelle Road intersection into an interchange, and reduce traffic signals from eight to four. On segment 2, ODOT recommends an interchange at SR750 and reducing traffic signals from six to zero. Segment 3 includes a railroad-grade separation project just east of US23 near Home Road. ODOT recommends an interchange with Home Road to improve safety and address delays. Traffic signals would go from five to zero. On segment 4, ODOT recommends an interchange at Glenn Parkway and reducing traffic signals from five to two. On segment 5, ODOT recommends building an overpass between SR315 and US42. This upgrade would maintain access from neighborhoods to businesses and parks while also improving safety. Traffic signals would be reduced from eight to zero. This study is proposed and unfunded without a completion year set.

23K – US23 between US42 and I-270 in Delaware and Franklin Counties

There is currently one project that plans to address the access, safety, congestion, and development concerns in this area of need. This \$1,425,000,000 project is unfunded (only includes five segments of PID 112768).

68A – US68 in Arlington

This area of concern cuts through incorporated areas with intersections and driveways. Geometric improvements are difficult due to existing access and community impacts. Lower speed limits and signalized intersections slow traffic flow in this area. Current congestion along US23 is rerouting freight traffic to the western alternative, causing congestion in smaller communities. There is currently one project planned, PID 118746, that will replace a signal at Liberty Street. This project is under construction and fully funded, with a completion year of 2024. This project will not address the access concerns in this area.

68A – US68 in Arlington

There is currently one project planned, but it does not address the access concerns in this area of need. This \$222,000 project is funded.



68A – US68 in Dunkirk

This area of concern cuts through incorporated areas with intersections, driveways, and at-grade rail crossings. Geometric improvements are difficult due to existing access and community impacts. Lower limits and signalized intersections also slow traffic flow in this area. Current congestion along US23 is rerouting freight traffic to the western alternative, causing congestion in small communities. There is currently one project planned, PID 116671, that will reconstruct US68 through Dunkirk. This project is proposed and fully funded and scheduled to be completed by 2028. This project may not address the access concerns in this area.

68A – US68 in Dunkirk

*There is currently one project that could address the access concerns in this area of need.
The project is fully funded with a total investment of \$2,683,605.*

68-31A – US68/SR31 between Pattison Avenue and Bales Road in Kenton

This area of concern is exceeding capacity and cuts through incorporated areas with turns, intersections, driveways, and at-grade rail crossings. Geometric improvements are difficult due to existing access and community impacts. Lower speed limits and signalized intersections also slow traffic flow. Current congestion along US23 is rerouting freight traffic to the western alternative, causing congestion in small communities.

There are three projects, PID 121008, PID 115774, and PID 122464, to address the congestion and geometric concerns. PID 121008 will construct a roundabout near the intersection of Perry Street and reroute SR31 to the roundabout. This project is in development and fully funded, with a completion year of 2027. PID 115774 is a full-depth reconstruction of Detroit Street from downtown. This project is in development and fully funded, with a completion year of 2027. PID 122464 is pavement reconstruction work on Detroit Street. This project is in development and unfunded, with a completion year of 2025. This project will undergo further study.

38-31A – US68/SR31 between Pattison Avenue and Bales Road in Kenton

There are currently three projects that plan to address the geometric and congestion concerns in this area of need. Two of these projects are fully funded and the other is unfunded. \$10,384,000 of \$12,524,000 in projects are funded.



68-31A – SR31 in Mount Victory

This area of concern cuts through incorporated areas with intersections, driveways, and at-grade rail crossings. Geometric improvements are difficult due to existing access and community impacts. Lower limits and signalized intersections also slow traffic flow. Current congestion along US23 is rerouting freight traffic to the western alternative, causing congestion in small communities. There is currently one project planned, PID 116801, that will reconstruct SR31 through Mount Victory. This project is proposed and fully funded to be completed by 2031. This project may not address the access concerns in this area.

68-31A – SR31 in Mount Victory

There is currently one project that could address the access and congestion concerns in this area of need. This \$2,634,775 is fully funded.

31A – SR31 between SR128 in Union County and US33 in Marysville

This area of concern is exceeding capacity and cuts through incorporated areas with intersections and driveways. Geometric improvements are difficult due to existing access and community impacts. Lower speed limits and signalized intersections slow traffic flow. Current congestion along US23 is rerouting freight traffic to the western alternative, causing congestion in small communities. Currently, no projects are planned to address the congestion and geometric concerns.

31A – SR31 between SR128 in Union County and US33 in Marysville

There are currently no projects that plan to address the access, safety, and operational concerns in this area of need.



33D – US33 between SR31 in Marysville and I-270 in Dublin

This area of concern is exceeding capacity, has four top 100 HSIP segments, and experiences development pressures in Dublin near I-270. One project, PID 115685, will replace the superstructure and raise the Beecher Gamble Road Bridge, install a pedestrian hybrid beacon and sidewalk along SR750, and extend the curb and gutter along SR257. This project is under construction and fully funded, with a completion year of 2024. This project will not address the congestion or developmental concerns in this area of need. This project can potentially address some of the safety concerns in this area.

33D – US33 between SR31 in Marysville and I-270 in Dublin

There is currently one project that plans to address the safety concerns in this area of need. This \$2,925,000 project is fully funded.

23G – US20/US23 between I-75 and SR420 in Perrysburg

This area of concern is exceeding capacity and experiencing developmental pressures in Perrysburg. Growth hotspots are predicted around Perrysburg. Currently, one project, PID 117687, is planned to address the concerns in this area. PID 117687 will convert the interchange with I-75 to a diverging diamond. This project is in development and partially funded with a completion year of 2027.

23G – US20/US23 between I-75 and SR420 in Perrysburg

There is currently one project that plan to address congestion and development concerns in this area of need. Currently, \$25,218,000 or \$29,868,000 in projects is funded.



23H – US23 in Fostoria

This area of concern cuts through incorporated area with turns, intersections, driveways, and at-grade rail crossings. Geometric improvements are difficult due to existing access and community impacts. Lower speed limits and signalized intersections slow traffic flow. There is currently one project planned, PID 117136, that will implement a road diet and replace unwarranted traffic signals on Main Street with all-way stops. This project is proposed and fully funded with a completion year of 2025. This project will not address the concerns in this area.

23H – US23 in Fostoria

There is currently one project planned, but it does not address the access concerns in this area of need. This \$2,285,000 project is fully funded.

23H – US23 between Brayton Street and SR15 interchange in Carey

This area of concern cuts through incorporated areas with intersections and driveways. Geometric improvements are difficult due to existing access and community impacts. Lower speed limits and signalized intersections slow traffic flow. There are currently no projects planned to address the geometric concerns.

23H – US23 between Brayton Street and SR15 interchange in Carey

There are currently no projects that plan to address the access concerns in this area of need.

36A – US36 between US23 and I-71 in Delaware County

This area of need is exceeding capacity, includes three top 100 HSIP segments and two top 100 HSIP intersections, experiences development pressures, and is partial access control in Delaware and near I-71. Predicted development along the corridor is most heavily concentrated in the areas to the immediate west and north of Columbus. Currently, two projects, PID 103626 and PID 106961, are planned to address the concerns in this area. PID 103626 will construct additional lanes on US36/SR37, reconstruct and lengthen the Norfolk Southern Railroad structure, and improve the SR521 intersection. This project is under construction and fully funded, with a completion year of 2025. PID 106961 will construct Sunbury Parkway from US36/SR37 to 3 Bs and K Road and widen Sunbury Parkway between 3 Bs and K Road to the west of I-71. This project is in development and partially funded with a completion year of 2026.

36A – US36 between US23 and I-71 in Delaware County

There are currently two projects that plan to address the safety, developmental, and congestion concerns in this area of need. One project is fully funded, and the other is partially funded. Total funding equates to \$83,190,000/\$86,203,000. Currently, \$83,190,000 of \$86,203,000 is funded.



71A – I-71 between US36 and I-270 in Delaware and Franklin Counties

This area of concern is exceeding capacity, includes five top 100 HSIP segments, and experiences development pressures near Columbus. Predicted development along the corridor is most heavily concentrated in the areas to the immediate west and north of Columbus. Currently, three projects, PID 106959, PID 105435, and PID 110964, are planned to address these concerns. PID 106959 will construct a new interchange on I-71 with Sunbury Parkway just south of US36/SR37. This project is in development and fully funded, with a completion year of 2026. PID 105435 plans to widen the I-270 eastbound to I-71 northbound ramp to two lanes on the existing structure, convert a merge lane to add a lane on I-71 North, and add an option lane to the diverge ramp. This project is in development and unfunded, with a completion year of 2027. PID 110964 will construct a new interchange at Big Walnut Road (TR109). This PID is for Stage 1 design and environmental clearance for Phases 1 and 2 and final design, right-of-way acquisition, and construction of Phase 1. This project is proposed and partially funded with a completion year of 2029.

71A – I-71 between US36 and I-270 in Delaware and Franklin Counties

There are currently three projects that plan to address the safety, developmental, and congestion concerns in this area of need. One project is fully funded, one is partially funded, and one is unfunded. Currently, \$86,943,000 of \$156,943 in projects is funded.



CONCLUSIONS

The Toledo-Columbus focus corridor has a range of congestion hotspots and areas of concern throughout each corridor path. The most immediate concerns in the corridor are in Delaware and Franklin counties due to predicted growth and traffic patterns. The primary path consists mostly of partial or full access control, except along the segments of US23. Congestion on US23 increases freight traffic on the western alternative, causing traffic diversion and access issues in incorporated areas. The US36/SR37 and I-71 segments on the alternative routes have congestion, safety, and developmental concerns due to growth in the area.

The following hotspots are the most critical areas of need within the corridor to support interregional travel and economic growth of Ohio.

23J, 23K - US23 in Delaware and Franklin Counties

This segment is over capacity, featuring eight top 100 HSIP segments and four top 100 HSIP intersections. It faces development pressures and has partial or no access control north and south of Delaware. As part of the primary path, congestion here reroutes freight traffic to the western alternative, which is not designed for the extra demand. Most of the primary path has partial or full access control except this segment of US23. A study, PID 112768, aims to limit access and reduce signalized intersections along its entire length. Currently, \$7,500,000 of \$1,865,800,000 in projects associated with the US23 corridor improvements is funded.

68-31A - US68/SR31 in Kenton

This area of concern exceeds capacity and cuts through an incorporated area with turns, intersections, driveways, and at-grade rail crossings. Three projects are currently planned to address access and congestion, including PID 121008, which will construct a roundabout near the intersection of Perry Street and reroute SR31. This will create a straight path for through traffic between US68 and SR31 in Kenton. Increased freight traffic on the western alternative impacts local traffic, and future travel demand is problematic in a downtown setting with numerous intersections and driveways. Currently, \$10,384,000 of \$12,524,000 in projects is funded.

31A - SR31 in Marysville

This area exceeds capacity and cuts through an incorporated area with intersections and driveways. Congestion on US23 reroutes freight traffic to the western alternative, causing congestion in small communities. Currently, no projects are planned to address these concerns.

36A - US36/SR37 between US23 and I-71

This area exceeds capacity, including three top 100 HSIP segments and two top 100 HSIP intersections, faces developmental pressures, and has partial access control in Delaware and near I-71. Two projects are planned, including PID 106961, which will construct Sunbury Parkway from US36/SR37 to 3 Bs and K Road and widen Sunbury Parkway between 3 B's & K Road west of I-71. Currently, \$83,190,000 of \$86,203,000 in projects is funded.



71B - I-71 between US36/SR37 and I-270

This area of concern exceeds capacity, includes five top 100 HSIP segments, and experiences developmental pressures near Columbus. It is a current and predicted congestion hotspot. Three projects are planned, including PID 106959, which will construct a new interchange on I-71 with Sunbury Parkway just south of US36/SR37. Currently, \$86,943,000 of \$156,943,000 in projects is funded.

