

Logan-Union-Champaign regional planning commission

Director: Bradley J. Bodenmiller

Executive Committee Meeting Agenda Thursday, July 13, 2023, 1:15 pm

Call to Order– Wes Dodds, President **Roll Call** – Brad Bodenmiller **Action on Minutes of June 8, 2023 Financial Report** - Todd Freyhof, Treasurer **ODOT Reports**

RTPO Report – Tyler Bumbalough

- 1. Simon Kenton Trail East Lawn Avenue Feasibility Study
- 2. 2050 Long-Range Transportation Plan

New Business:

- 1. Review of Farm at Indian Run Final Plat (Union County) Staff Report by Brad Bodenmiller
- 2. Review of Homestead at Scotts Farm Phase 1B Final Plat (Union County) Staff Report by Brad Bodenmiller
- 3. Review of Industrial Parkway Data Center Campus Final Plat (Union County) Staff Report by Brad Bodenmiller
- 4. Review of Jerome Park Amended Preliminary Plat (Union County) Staff Report by Brad Bodenmiller
- 5. Review of The Courtyards of Hyland Meadows (VN-13) Preliminary Plat (Union County) Staff Report by Brad Bodenmiller
- 6. Review of Allen Township Zoning Parcel Amendment (Union County) Staff Report by Gram Dick
- 7. Review of Bloomfield Township Zoning Plan (Logan County) Staff Report by Aaron Smith
- 8. Review of Jerome Township Zoning Parcel Amendment (RU to LDR) (Union County) Staff Report by Gram Dick
- 9. Review of Jerome Township Zoning Parcel Amendment (RU to PD) (Union County) Staff Report by Aaron Smith
- 10. Review of Jerome Township Zoning Text Amendment (Union County) Staff Report by Aaron Smith
- 11. Review of Liberty Township Zoning Text Amendment (Union County) Staff Report by Gram Dick
- 12. Review of York Township Zoning Text Amendment (Union County) Staff Report by Gram Dick

Director's Report Comments from Individuals Adjourn

LUC Regional Planning Commission Treasurer's Report

Beginning Balance on June 1, 2023

\$ 630,300.06

Receipts	Terrain Evolution Terrain Evolution Homewood Corp Advanced Civil Design PulteGroup Champaign County Union County	Court Yard of Hyland Meadows Preliminary Plat Farm at Indian Run Final Plat Jerome Park Amended Preliminary Plat Industrial Parkway Data Center Homestead at Scotts Farm Final Plat CDBG & FH'ing Administration Interest	\$ \$ \$ \$ \$ \$	7,750.00 3,200.00 648.75 7,099.48 1,965.00 12,000.00 1,916.40	
Total Rece	eipts				\$ 34,579.63
Total Casl	n on Hand				\$ 664,879.69
Expenditu					
	Employee Salaries	2 Pay Periods	\$	18,326.40	
	PERS	2 Pay Periods	\$	2,565.70	
	Medicare	2 Pay Periods	\$	257.19	
	Worker's Compensation	2 Pay Periods	\$	90.46	
	CEBCO	Health Insurance	\$	2,712.68	
	Dental Insurance	Dental Insurance	\$	127.94	
	VSP	Vision Insurance	\$	5.02	
	Life Insurance	Life Insurance	\$	8.96	
	CRI Digital	Copier Maintenance	\$	152.34	
	CCTA TRC	2023 Membership dues	\$	25.00	
	Aaron Smith	per Lease agreement	\$ ¢	2,874.80	
		Mileage - March, April, May 2023	\$	773.53	
	Heather Martin Gram Dick	Mileage - May 2023	\$	95.70	
	Brad Bodenmiller	Mileage - May 2023	\$	110.55	
		Mileage - May 2023	\$ \$	284.35 788.68	
	Richwood Banking Visa	Miscellaneous Expenses	ф	/00.00	

Total Expenditures

Balance on Hand as of June 30, 2023

Respectfully Submitted,

MAL

Todd Freyhof, Treasurer

\$ 635,680.39

29,199.30

\$



Director: Bradley J. Bodenmiller

2023 Budget Summary

as of June 30, 2023

Revenues

]	Estimated	Received	Cash Balance	%
450112	Membership Contributions	\$	243,802.65	\$ 252,228.95	\$8,426.30	103%
450105	Grants	\$	24,400.00	\$ 12,000.00	(\$12,400.00)	49%
450105.LUC13	ODOT RTPO Grant	\$	-	\$ -	\$0.00	0%
420107	Charges for Services	\$	67,000.00	\$ 55,800.08	(\$11,199.92)	83%
420121	Subdivision Plats	\$	55,000.00	\$ 35,166.52	(\$19,833.48)	64%
420122	Mapping	\$	200.00	\$ 150.00	(\$50.00)	75%
470101	Interest	\$	4,479.98	\$ 8,857.06	\$4,377.08	198%
480108	Annual Dinner	\$	2,900.00	\$ -	(\$2,900.00)	0%
480111	Refund	\$	-	\$ -	\$0.00	
	Estimated Total Revenue	\$	397,782.63	\$ 364,202.61	(\$33,580.02)	92%

Expenditures:

			1						
]	Estimated	Iı	ntra-Fund	Adjusted		Twoondod	0/
			Budget	1	Fransfers	Budget	1	Expended	%
510100	Salaries & Wages	\$	245,000.00			\$ 245,000.00	\$	119,121.60	49%
510205	PERS	\$	34,300.00			\$ 34,300.00	\$	16,677.05	49%
510215	Medicare	\$	3,552.50			\$ 3,552.50	\$	1,679.71	47%
510225	Workers Compensation	\$	1,249.50			\$ 1,249.50	\$	590.90	47%
510305	Medical	\$	33,000.00			\$ 33,000.00	\$	16,276.08	49%
510310	Dental Insurance	\$	1,540.00			\$ 1,540.00	\$	767.64	50%
510315	Vision Insurance	\$	65.00			\$ 65.00	\$	30.12	46%
510320	Life Insurance	\$	120.00			\$ 120.00	\$	60.56	50%
520115	Office Supplies	\$	4,000.00	\$	3,500.00	\$ 7,500.00	\$	5,130.96	68%
520155	Subscription Fees	\$	2,000.00			\$ 2,000.00	\$	1,818.00	91%
520160	Membership & Dues	\$	5,000.00			\$ 5,000.00	\$	110.00	2%
530100	Contract Services	\$	13,500.00			\$ 14,507.54	\$	3,351.86	23%
530110	Tuition Reimbursement	\$	6,000.00			\$ 6,000.00	\$	2,278.50	0%
530171	Professional Development	\$	3,000.00			\$ 3,000.00	\$	10.00	0%
530310	Auditing Services	\$	-			\$ -	\$	-	0%
530650	Maintenance & Repair	\$	10,000.00	\$	(3,500.00)	\$ 6,500.00	\$	-	0%
	-	\$	4,000.00			\$ 4,000.00	\$	-	0%
530800	Building	\$	31,500.00			\$ 31,500.00	\$	17,268.30	55%
540100	Equipment	\$	2,500.00			\$ 2,500.00	\$	-	0%
550100	Travel & Expense	\$	8,000.00			\$ 8,000.00	\$	4,280.21	54%
	Contingencies	\$	7,500.00			\$ 8,258.03	\$	3,767.33	46%
	_	\$	415,827.00			\$ 417,592.57	\$	193,218.82	46%

STATEMENT:

Cash Balance January 1, 2023	\$ 464,696.00
Estimated Cash Balance December 31, 2023	\$ 429,953.26
Actual Cash On Hand December 31, 2023	
Estimated Total Revenue	\$ 397,782.63
Actual 2023 Revenue	\$ 364,202.61
Difference (+/Under)	\$ (33,580.02)
Estimated Adjusted Total Expenditures	\$ 417,592.57
Actual 2023 Expenditures	\$ 193,218.82
Difference (+/Under)	\$ 224,373.75

Memorandum

To: LUC Executive Committee

From: Louis Agresta TCC Transportation Director Phone 937-521-2134 lagresta@clarkcountyohio.gov

Re: RTPO Planning Report

Date: July 5, 2023

The following are items for discussion at the July 13, 2023 LUC Executive Committee Meeting.

2050 Long Range Plan

The 2050 Long Range Plan has been reviewed by ODOT and is now considered complete and is ready for LUC Executive Committee adoption. The resolution for approval and the entire 2050 Long Range Plan can be found on the LUC website. On behalf of the entire TCC staff, we would like to thank those individuals that served on the Long Range Plan Steering Committee and provided feedback throughout the planning process.

The 2050 Long Range Plan is a LUC adopted document. Because of this, RTPO staff is requesting approval of the Plan via resolution.

Simon Kenton Trail East Lawn Extension Feasibility Study

The Simon Kenton Trail East Lawn Extension Study was completed in June 2023. The stakeholder team reviewed the final memo and its recommendations and agreed upon its findings. The study identified multiple alternatives, including both off street and on street opportunities. The study identified the strengths and weaknesses of each alternative and also provided conceptual cost estimates.

The final memo can be reviewed in its entirety on the LUC website. Staff requests that the LUC Executive Committee accept the study by adopting the associated resolution.

<u>Other</u>

LUC TAC meeting dates for are as follows

- September 11, 2023
- December 4, 2023

All meetings will be held at the West Liberty Admin Village Offices and will begin at 9:30 am.

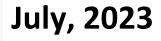
FY 2023 Budget Status (as of May 31, 2023)

					Percent	Monthly	YTD
	Work Elements	Te	otal Budget	Balance	Expended	Expense	Expenses
625.1	RTPO Planning	\$	122,990.83	\$ 54,212.24	56%	\$ 5,766.82	\$ 68,778.59
625.11	RTPO Planning (fy22)	\$	17,000.00	\$ 1,359.35	92%		\$ 15,640.65



LUC Regional Planning Commission





WWW.lucplanning.com/luc-member

LUC Board Members

LUC EXECUTIVE OFFICERS:

Wes Dodds: President Steve Robinson: First Vice President Tim Cassady: Second Vice President Todd Freyhof: Treasurer Brad Bodenmiller: Secretary

Ex-Officio Brian Davidson: ODOT District 6 Scott Schmid: ODOT District 7

Logan County

Commissioner: Mike Yoder (Add'l Committee - Budget & Finance) County Engineer: Scott Coleman (Add'l Committees - Zoning & Subdivision, Budget & Finance, Building, Subdivision Regulations, RTPO Technical Advisory Committee) City Engineer: Jim Bischoff (Add'l Committee - Budget & Finance, RTPO Technical Advisory Committee) Village Representative: Ryan Shoffstall (Lakeview) City Representative: Wes Dodds (Add'l Committee - Zoning & Subdivision) Township Representative: John Brose (Perry) Add'l County Representative: Ben Vollrath (At Large) Add'l County Representative: Ryan Smith (Logan County Electric Cooperative)

Union County

Commissioner: Steve Robinson (Add'I Committees - Zoning & Subdivision, Budget & Finance) County Engineer: Jeff Stauch (Add'I Committees - Zoning & Subdivision, Budget & Finance, Subdivision Regulations, Building) City Engineer, Dublin: Tammy Noble, Designated Rep (Add'I Committees - Zoning & Subdivision, Budget & Finance, Building) City Engineer, Marysville: Kyle Hoyng Village Representative: George Showalter (Richwood) City Representative: Ashley Gaver (Add'I Committee - Zoning & Subdivision, Records Commission) Township Representative: Jeff Rea (Liberty) Add'I County Representative: Beau Michael (Union Rural Electric)

Add'l County Representative: Matt Chamberlain (At Large)

Champaign County

Commissioner: Tim Cassady (Add'l Committee - Budget & Finance)
 County Engineer: Steve McCall (Add'l Committees - Zoning & Subdivision, Budget & Finance, Building Committee, Subdivision Regulations, Records Commission, RTPO Technical Advisory Committee)
 City Engineer: Tyler Bumbalough (Add'l Committees - Zoning & Subdivision, Records Commission, RTPO Technical Advisory

Committee)

Village Representative: Todd Freyhof (North Lewisburg) (Add'l Committees - Zoning & Subdivision, Budget & Finance, Records Commission)

City Representative: Preston Carter

Township Representative: Dennis Kauffman (Goshen)

Add'l County Representative: Todd Garrett (Pioneer Rural Electric)

Add'l County Representative: Todd Freyhof (At Large)

Additional Meeting Members

Tam Blakely:RTPO Technical Advisory CommitteeGary Ledford:RTPO Technical Advisory CommitteeScott Schmid -RTPO Technical Advisory CommitteeTCC Staff -RTPO Technical Advisory Committee

LUC Staff

Brad Bodenmiller	Director
Aaron Smith	Planner II
Heather Martin	Operations Manager
Gram Dick	Planner 1/GIS Operator

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This report was prepared in cooperation with the U.S. Department of Transportation's Federal Highway Administration, the Ohio Department of Transportation, and the local governments of Logan, Union, and Champaign Counties.

The preparation and publication of this document was financed cooperatively by the Federal Highway Administration, the Federal Transit Administration, the Ohio Department of Transportation, and the local governments of Logan, Union, and Champaign Counties.

The contents of this Plan reflect the views of the Logan-Union-Champaign Regional Planning Commission, which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official view and policies of the Ohio Department of Transportation or the U.S. Department of Transportation. This Plan does not constitute a standard, specification, or regulation.

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Introduction

The Logan-Union-Champaign Regional Planning Commission (LUC) was selected to serve as the Regional Transportation Planning Organization (RTPO) for a two county region Champaign and Logan counties and developed this transportation plan update. The plan identifies and prioritizes needed investments for maintaining and improving the region's multi- modal transportation network.

RTPO Long Range Plan

The RTPO long-range transportation plan is an important statement of the direction the region will be taking in transportation system investment. The plan identifies the multimodal and intermodal transportation policies and facilities needed to meet the RTPO's travel demand for a minimum 20-year planning horizon. An RTPO long-range transportation plan should be updated every five years and should cover transportation needs for the entire region. The plan should include both short and long term strategies designed to result in an integrated transportation system that facilitates the efficient movement of people and goods. Federal regulations (23 CFR 450.206) describe the factors that need to be considered in the nonmetropolitan planning process.

Essential Components of an RTPO Long-Range Transportation Plan

The essential components for RTPO long-range transportation plan development fall into the following categories:

•	Regional Vision, Goals, and Objectives	Page 8
•	Stakeholder Participation	Page 9
•	Inventory of Existing Conditions and Regional Trends	Page 15
•	Projection of Future Conditions and Regional Trends	Page 54
•	Recommended Strategies and Projects	Page 67
•	Environmental Justice Analysis	Page 72
•	Financial Forecast Background & Analysis	Page 100
•	Systems Performance Report	Page 105

Regional Vision, Goals, and Objectives

Transportation Safety

Improve and maintain safety of roadway network, reducing the number of crashes in the area and striving to fall within the nation's average range of crash data.

- Identify high crash areas.
- Identify traffic safety improvement.
- Create and implement a signage plan to assist in wayfinding, speed regulation, and traffic control.
- Evaluate existing signage for conformance to state standards in high crash areas (intersection and curves)

Network Connectivity, Reliability & Efficiency

Evaluate and improve the highway network to promote safe, reliable, and efficient travel for all road users.

- Evaluate crash data and traffic volume to identify areas of improvement.
- Evaluate the need for additional infrastructure at intersections with high traffic volumes.
- Assess local congestion and discuss infrastructure improvements.
- Perform feasibility study of congestion alleviation opportunities.
- Preserve and maintain the existing transportation network.
- Electric vehicles Study alternative fuel projects

Multimodal Access

Improve and expand the public transportation network and non-motorized transportation options to allow easy mobility for all residents and visitors.

- Create a comprehensive Bicycle and Pedestrian Plan for the two counties.
- Identify bicycle-pedestrian connections within activity centers such as schools, hospitals, shopping areas, universities, etc.
- Evaluate trip data for current public transportation.

Economic Vitality

Improve economic growth in the region by providing transportation options that support existing businesses and encourage new economic development opportunities.

- Ensure that large manufacturing businesses in the region have adequate access to the freight infrastructure network.
- Facilitate the movement of goods into and out of the area and improve the mobility of all freight modes. Identify locations for new Railroad yards.
- Employee to work transportation.

Stewardship

Commit to the future and longevity of the transportation network by evaluating the social, environmental, and financial circumstances surrounding each project.

Stakeholder Participation

The original process in 2015 that developed the plan, was driven by a Steering Committee of stakeholders from the two counties. Each section was prepared by LUC staff under the direction of a mentor agency— the Miami Valley Regional Planning Commission (MVRPC)—and recommended by the Steering.

Committee to the LUC Executive Committee. Both local and central office staff from ODOT participated in the development of the plan and LUC staff attended several trainings offered by the agency to develop transportation planning skills and expertise.

In addition to public and regional agency participation in the form of a Steering Committee and mentor relationship with MVRPC and ODOT, public participation was sought at the onset of the plan. This occurred through a survey performed by an ODOT consultant. The survey sought public input on the existing transportation network and future needs. This was used, in addition to input from the Steering Committee, MVRPC, and ODOT, to develop goals and guide the development of the plan.

The 2023 update is the review and update of the plan's vision as well as existing goals and objectives. The update was driven by the Steering Committee utilizing staff from LUC and Clark County Transportation Coordinating Committee. TCC is a planning area and LUC Planning are adjacent to each other and the population centers of the 2 counties are connected by the us 68 corridor. TCC has been conducting transportation planning since 1964 and began assisting LUC with this in 2017. The RTPO board approved the revised goals and objectives and approved the updated 2023 Long Range Plan.

Participation Principals

The Logan-Union-Champaign Regional Planning Commission prides itself on its strong commitment to public and stakeholder participation. LUC has a long history of civic involvement and employs several methods for dispersing information to the public and soliciting comments in return.

- Provide complete and easily understood information.
- Provide timely public notice of meetings and information.
- Provide full public access to key decisions throughout the planning process.
- Support early and continuing participation by the public.

Participation Objectives

- Actively engage the public in the transportation planning process
- Keep the public informed of current transportation related activities.
- Encourage participation in the transportation planning process.
- Continuously improve public participation

Public Participation Process Overview

The LUC's approved Public Involvement Process was followed for the development and adoption of the Transportation Plan update.

The process included:

- Poster advertisements and media releases of notices for public involvement meetings;
- Open house public involvement outreach and comment opportunities;
- Technical Advisory Committee review and action;
- LUC review of plan elements on several occasions;
- LUC review and action to adopt the Transportation Plan by resolution

Public Involvement Strategy

Public Meetings and Outreach

A total of four (4) public meetings were held:

- 2 held after the project list.
- Meeting in Logan County, on 3/20/2023
- Meeting Champaign County, on 3/21/2023
- 2 held before adoption.
- Meeting in Logan County, on 5/8/2023
- Meeting in Champaign County on DATE 5/9/2023

All public meetings were advertised through a notice in the local newspaper, at least one week prior to the event and were placed on LUC's website and posters advertisements.

Comments regarding the draft project list were accepted from 3/20/2023 through 4/4/2023, the dates of the appropriate public meetings through two weeks after the meetings were held.

No comments were received.

Comments regarding the draft plan were accepted from Date 5/8/2023 through Date 5/23/2023 the dates of the appropriate public meetings through two weeks after the meetings were held.

One comment was received. See Addendum A: Summary of Written Comment

The LUC website was updated with the development schedule and all draft documents during the development of the plan. Printed copies of all draft documents were available during normal business hours at LUC during the development of the plan. Interested parties could call or write to LUC Regional Planning Commission and hard copies were made available in accordance with LUC's Record Retention Policy.

Public Open Houses

The first of two Open Houses for the viewing of the 2050 Long Range Transportation Plan: Recommended Project List was held on Monday, March 20, 2023, from 4:00 p.m. to 6:00 p.m. at Logan County Commission Office, 117 E. Columbus Ave., Bellefontaine, OH 43311.

The Second Open House for the viewing of the 2050 Long Range Transportation Plan: Recommended Project List was held on Tuesday, March 21, 2023, from 4:00 p.m. to 6:00 p.m. at Champaign County Community Center Conference Room C., 1512 Hwy 68, Urbana, OH 43078.





The second set of Open Houses were conducted for the viewing of the 2050 Long Range Transportation Plan. The first Open House was held on Monday, May 8, 2023, from 4:00 p.m. to 6:00 p.m. at Logan County Commission Office, 117 E. Columbus Ave., Bellefontaine, OH 43311.

The Second Open House for the viewing of the 2050 Long Range Transportation Plan was held on Tuesday, May 9, 2023, from 4:00 p.m. to 6:00 p.m. at Champaign County Community Center Conference Room C., 1512 Hwy 68, Urbana, OH 43078.





Committees

The LUC Executive Committee is the policymaking governing board of the RTPO. The Board is primarily comprised of local elected officials that are representatives selected by their member organizations.

The Executive Committee is presently comprised of the president, first and second vice president, secretary, treasurer and twenty-eight people who are elected from the entire membership of 64 governments at the annual meeting. We have a President, 1st Vice-President, 2nd Vice-President, Secretary and Treasure along with Ex-officio members without voting privileges include the District Deputy Directors of the Ohio Department of Transportation's Districts Six and Seven and any chairman of a Study Committee who is not an elected member of the Executive Committee.

The Board of Executive Committee meetings are held the second Thursday of every month at 1:15 PM. Meetings currently are held at the LUC office at TRC.

Attendees should call the Logan Union Champaign Regional Planning Commission at (937) 666- 3431 or log on to www.lucplanning.com to verify meeting times and locations.

LUC Steering Committee, including an RTPO Tech Advisory Committee (TAC). This Committee is assigned to the RTPO.

Public Meetings

The setting of a public participation meeting can have an enormous impact on the success of the meeting. LUC will hold public meetings to distribute information on transportation plans, programs, and projects. The type of public meeting will vary depending on the nature of the information that is to be conveyed. Meetings should be attended by as many LUC and TCC staff members as feasible to ensure that all participants have a chance to speak with someone regarding the subject plan, program, or project. Meetings should be held, whenever feasible, at a site that is a central location to the citizens that are most affected by the subject plan, program, or project. This central location should also be within an Environmental Justice area if feasible. Meetings should be held in an ADA accessible venue and, whenever feasible, in an area close to a transit route. All meeting notifications should include language indicating that other special accommodations can be arranged by contacting the LUC staff. Meeting times should be set for the most convenient time of the day to maximize attendance. Meeting notices and material should be presented in clear and understandable language. Visualization techniques should be used at every meeting to help convey the subject material. Visualization techniques include maps of the study area, proposed project area, conceptual alternatives, and graphs, tables such as alternative matrices, 2020 Public Participation Plan 12 project rosters, budgets, and pictures of existing conditions or conceptual drawings on studies or projects. The public meeting format will vary depending on the nature of the meeting.

The types of meetings are:

- **Open Houses** general and open meetings with no (or short) presentations given. Open Houses provide the most interaction with the public as staff can communicate the subject material on a one-on-one basis. Open Houses should be held for approximately 2 hours to maximize public participation. Open houses will include a short period of time for attendees to address all participants as needed.
- Workshops meetings that have a hands-on component. Attendees participate in the development of the plan or project through their input. Workshops should have a defined start time and an organized program schedule.
- **Public Forums** meetings that begin with a short presentation outlining the plan or project and then allow for attendees to address all participants. Public Forums should have a defined start time and should last as long as each attendee's comment is allowed. In the interest of time, individuals may be required to sign-in and may be called in the order in which they sign in. Time limits may be set in the interest of time.
- **Public Hearings** formal meetings that are used to fulfill Federal, State, or local requirements. Public Hearings consist mostly of a presentation of the plan or project and allow for public comment after the presentation. Public Hearings should have a defined start time and all proceedings, including public comments, should be transcribed for the record. In the interest of time, individuals may be required to sign-in and may be called in the order in which they sign in. Time limits may be set in the interest of time.
- **Online/Web Based** meetings that will be held online, for times when in-person public meetings cannot be accommodated. The structure for these meetings should follow available USDOT and ODOT guidance.

Inventory Existing Transportation Conditions and Regional Trends

Pavement Conditions Ratings (PCR)

To determine the condition of a roadway, a pavement condition rating (PCR) must be calculated. According to ODOT's 2006 PCR manual, PCRs establish a standard critical threshold level below which the pavement is considered unacceptable and in need of major maintenance or rehabilitation.

The PCR rating method is based upon a visual inspection of pavement distress and although the relationship between pavement distress and performance is not well defined, there is general agreement that the ability of a pavement to sustain traffic loads in a safe and smooth manner is adversely affected by the occurrence of observable distress. The roadway is then assigned a rating using a mathematical equation.

Pavements are rated based on pavement condition ratings on a system wide basis. There are three system types of priority, general and urban. The system average PCR is weighted by traffic ADT, length and number of lanes. Priority, General and Urban Systems metrics assess the roadways from visual inspections of pavements that determine the severity and extent of various distress types.

The PCR scale has a range from 0 to 100. A value of 100 represents a pavement with perfect condition, no observable distress. A value of 0 represents a pavement with all distress present at their highest levels of severity. There are six groupings of PCR values as shown below.

<u>PCR</u>	Condition
90 to 100	Very Good
89 to 80	Good
79 to 70	Fair
69 to 66	Fair to Poor
65 to 25	Poor
0 to 24	Very Poor

The PCR chart below Figure 1 displays the rating distribution of each PCR rating. Over 93% of the roadways in the region have a 'Fair' PCR rating or higher; approximately 78% of the region's roadways have a 'Good' PCR rating, which indicates that the pavement conditions for half of the region are in good condition. It should be noted that U.S. Route 68 in Champaign County has been repaved since this data was published. Figures 2 and 3 are another representation of the distribution of the pavement roadway conditions for Champaign County and Logan County. Source: ODOT TIMS - 2021

		CHAMPAIGN COUNTY			LOGAN COUNTY				REGION		
PCR	Condition	Local	State	Total	%	Local	State	Total	%	Miles	%
90 - 100	Very Good	48.069	57.907	102.846	36%	53.55	56.736	110.286	37%	205.432	35%
89 - 80	Good	18.714	75.173	135.262	48%	6.272	62.894	69.166	23%	253.862	43%
79 - 70	Fair	4.019	58.956	38.946	14%	3.774	70.111	73.885	25%	87.333	15%
69 - 66	Fair to Poor	1.74	12.476	4.502	1%	0.27	15.966	18.236	5%	34.547	6%
65 - 25	Poor	1.248	5.765	2.511	1%	.299	31.116	31.415	10%	3.881	1%
0 - 24	Very Poor	0	0	0	0%	0	0	0	0%	0	0%
Grand Totals		73.79	210.277	284.067	100%	64.165	236.823	300.988	100%	585.055	100%

Figure: 1 PCR Summary Data

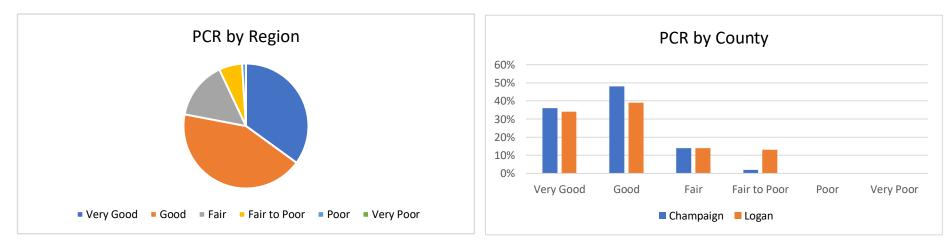
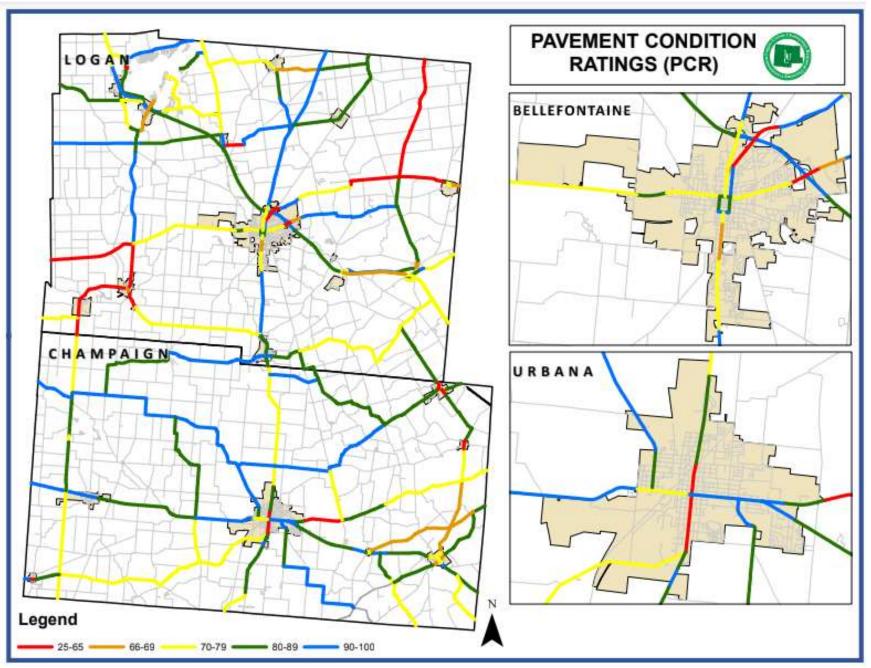




Figure: 3 PCR Summary



Regional PCR: Source – ODOT

Volume to Capacity Ration (AADT)

Traffic and Truck Volume

The Annual Average Daily Traffic (AADT) volume is a helpful measure in the transportation planning process as AADT often determines the desirable characteristic of a road. The annualized average 24-hour volume of vehicles at a given two directional point or section of highway is called a traffic count.

This raw traffic count is then mathematically adjusted for vehicle type, determined by an axle correction factor, then this volume is statistically corrected by a seasonal variation factor that considers time of the year and day of the week.

It is normally calculated by determining the volume of vehicles during a given period and dividing that number by the number of days in that period. AADT is a useful and simple measurement of how busy a roadway is. Traffic flows are essential to transportation planning because traffic count data can aid in defining transportation project needs.

The roadways with the highest AADT (greater than 12,000) in the region are US Highway 33, US Highway 36, US Highway 68 and a section of Logan County Road 503.

Demand to move goods from one place to another generates the need for truck traffic. Goods are moved over long distances from region to region and over short distances within individual townships, villages, or cities. In this plan, truck traffic data considers vehicles with more than two axles.

There are multiple reasons for shipping and receiving goods. Trucks move goods from places of production to places of consumption in support of manufacturing. Trucks move goods to service establishments, construction sites, retail industries, farms, fisheries, foreign establishments, and government-owned establishments.

Trucks move goods that are ancillary to the main purpose of the trip, such as service, utility, and construction trucks that carry goods to support their activities.

The road segment of State Route 55 and South Edgewood Avenue from US Highway 68 to State Route 29/US Highway 36/Miami Street has a high truck volume because it is near the highest concentration of manufacturers and employers in the City of Urbana. Six of the top eight employers in the City have direct roadway access to their facilities in this corridor.

According to ODOT TIMS 2021 Data the charts below show the 12 highest AADT Counts in Champaign and Logan Counties.

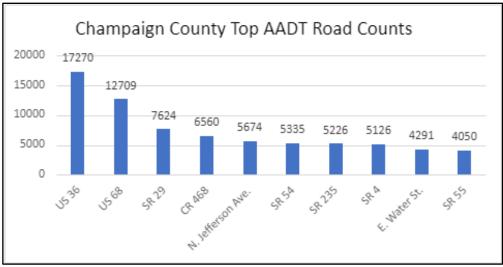


Figure 4: Champaign County Top AADT Road Counts

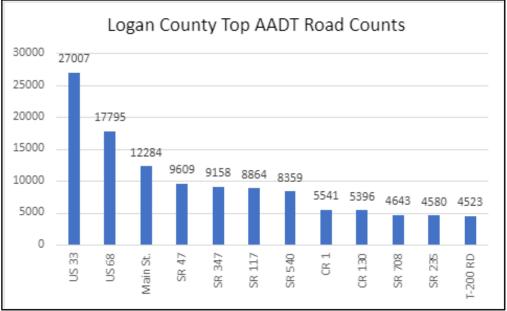
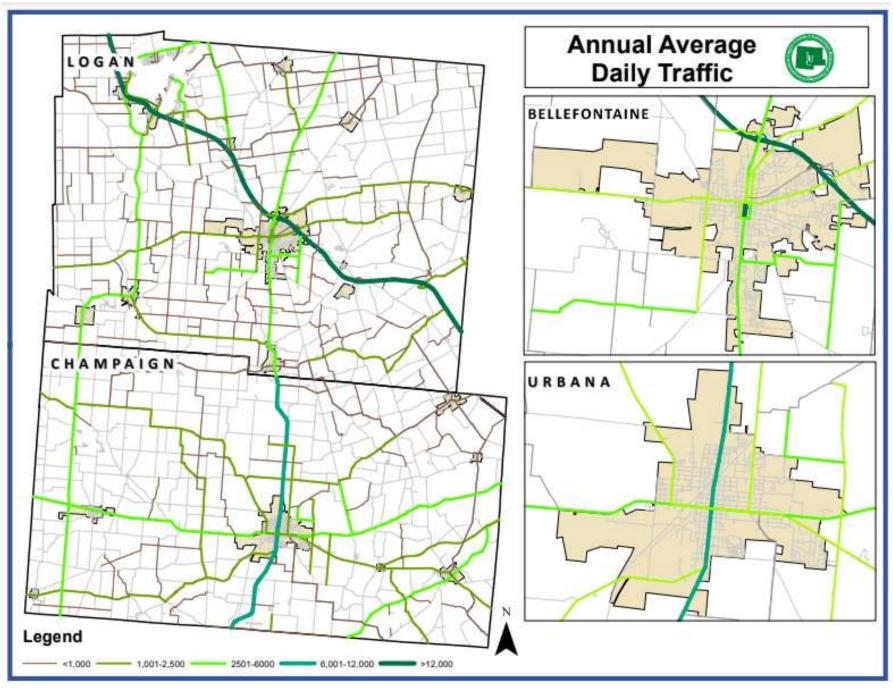


Figure 5: Logan County Top AADT Road Counts

Average Speeds

A roadway becomes congested as traffic on the road networks increases, this is characterized by average slower speed and longer trip times. This can be caused by various factors, such as construction or accidents. Most commonly congestion is caused when the traffic demand is greater than the capacity of the roadway. Knowing the volumes of traffic on the roadway network, it is important to also know the average speed of said volume.



Annual Average Daily Traffic (AADT) – Source ODOT

Bridges

Bridges are rated based on General Appraisal (GA) that assesses the physical condition of a bridge's major parts on a system wide basis. ODOT then calculates a weighted average GA for all bridges by factoring in the total area for each bridge along with its GA. ODOT currently maintains approximately 13,898 bridges statewide. There is an established statewide GA goal.

Bridge sufficiency rating is a rating formula method of evaluating factors that indicate a bridge's adequacy to remain in service. Sufficiency Rating takes into account a number of factors that include the condition of the bridge as well as geometrics. Besides the physical condition of a bridge, a bridge can be considered deficient because of outdated design, narrow lanes, or lack of shoulder space.

The result of the formula is a percentage, in which 100% represents an entirely sufficient bridge and 0% represents an entirely insufficient bridge. The sufficiency rating is never less than 0 nor more than 100.

	Chan	npaign County	Lo	gan County	Total		
Sufficiency	Count	ount Percentage		Percentage	Count	Percentage	
0-49	1	0.30%	8	1.85%	9	1.15%	
50-79	20	6.10%	67	14.86%	87	11.16%	
80-100	306	93.30%	367	81.37%	673	86.39%	
N/A	1	0.30%	9	1.92%	10	1.30%	
Total	328	100%	451	100%	779	100%	

Figure - 6 shows the dispersal of the sufficiency ratings for the region

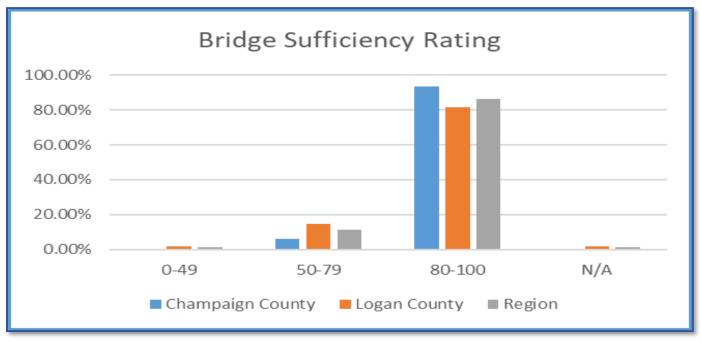


Figure - 7 Bridge Sufficiency rating by percentage.

The chart below is for the City of Urbana only. The ratings are 100-80 Good, 79-50 Fair and 49-0 Poor. Urbana has 8 Bridges in the Good category, 2 in the Fair Category and 1 in the Poor category.

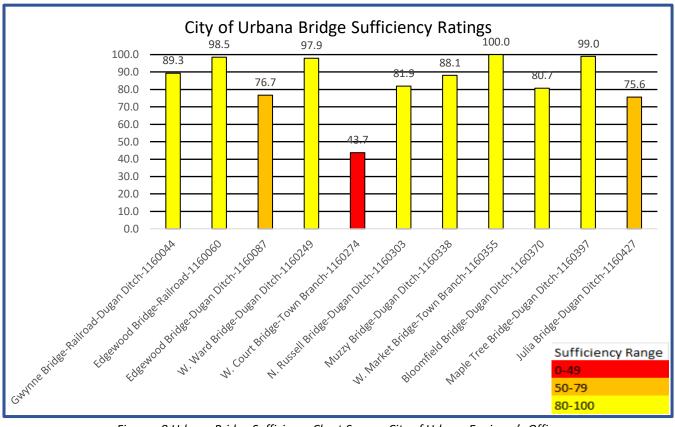


Figure - 8 Urbana Bridge Sufficiency Chart Source: City of Urbana Engineer's Office

A bridge's vertical clearance represents the distance between the structure and the underpass. A bridge vertical clearance restriction indicates a vertical clearance distance of less than or equal to 14'-6". All bridges, tunnels, overhead obstructions, and openings for traffic that have the actual minimum vertical clearance of 14'-6" or less are intended to have Advance Warning Low Clearance signs and Structure-mounted low clearance signs as per the guidelines of the Traffic Engineering Manual (TEM) and the Ohio Manual of Uniform Traffic Control Devices (OMUTCD).

These signs are present to warn the roadway users and vehicular traffic which pass either on or below the bridge. Below is a list of all the bridge locations that have a clearance less than recommended height. The street name, street location, and sufficiency rating of the bridge are also listed.

Champaign County
 College Way east of Storms Avenue (NA)
 Logan County
 State Route 245 west of junction US Highway 68 (0)
 Railroad east of junction State Route 235 (0)

Roadway Functional Classification

Roadways are classified by ODOT and FHWA by functional classification. Functional classification is the grouping of roads, streets, and highways in a hierarchy based on the type of highway service they provide.

According to ODOT's Ohio Roadway Functional Class Background Information document, streets and highways do not operate independently, they are part of an interconnected network and each one performs a service in moving traffic throughout the system. Streets and highways provide either traffic mobility or land access and can be ranked in terms of the proportion of service they perform.

There are three levels of classification, and they include arterial, collector and local. Figure 12 is a chart taken from the FHWA's Highway Functional Classification Concepts, Criteria and Procedure document, which shows the relationship between the functional classification and travel characteristics.

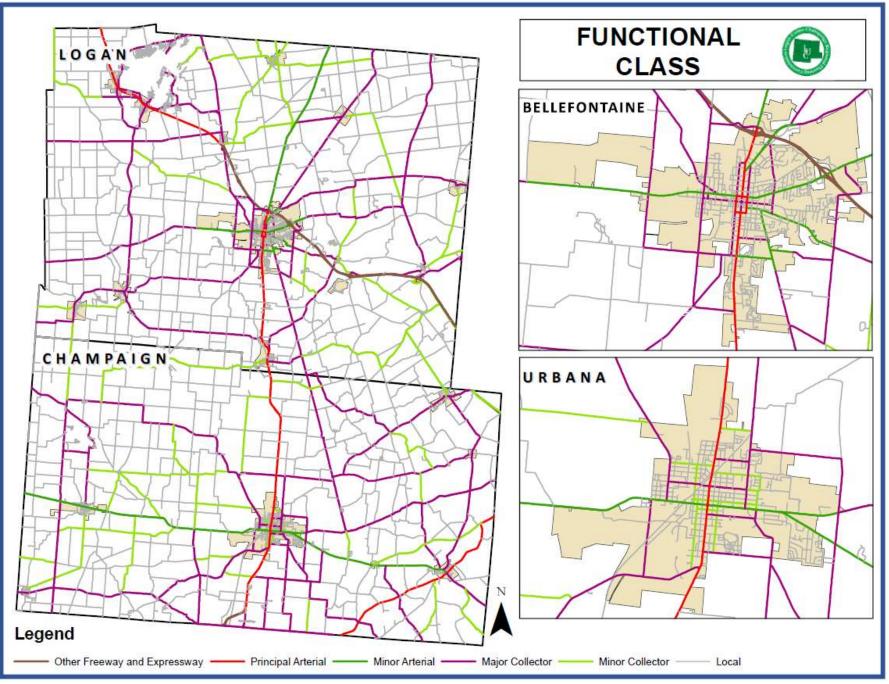
Functional Classification	Distance Served (and Length of Route)	Access Points	Speed Limit	Distance between Routes	Usage (AADT and DVMT)	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer

Figure - 9 Relationship between Functional Classification and Travel Characteristics

The first level of classification is materials, and they include those classes of highways emphasizing a high level of mobility for the through movement of traffic; land access is not important to the primary function of arterials. The travel speeds and distances are generally greater on the arterials when compared to the other classes. Interstates and freeways, which are the highest classes of arterials, have limited land access to allow the free flow of traffic.

The next level of classification are the collector roadways, which collect traffic from the local roadways and distribute the traffic to the arterials; they also provide both mobility and land access. Trip lengths, speeds, and volumes are moderate on collector roadways when compared to the arterial and local roadways.

The last level of classification is the local roadways, their primary function is to provide land access. Travel speeds, distances, and volumes are lower on the local roadways than the other classes.



Functional Classifications for Champaign and Logan Counties: Ohio Source - ODOT

There are no interstates that travel through the two counties. The principal arterial roadways in the region are US Highway 68, which travels north and south through both counties, US Highway 4, which has a short segment that travels through the southeast corner of Champaign County, and US Highway 33, which travels east and west through Logan County.

	Champaign			Logan	TOTAL	
Functional Class	Miles	Percentage	Miles	Percentage	Miles	Percentage
01 - Interstate	0.0	0.00%	0.0	0.0%	0.0	0.0%
02 - Freeway & Expressway	3.6	0.40%	48.1	4.10%	51.7	2.48%
03 - Other Principal Arterial	27.1	3.00%	21.2	1.80%	48.3	2.32%
04 - Minor Arterial	27.0	3.00%	22.9	1.90%	49.9	2.39%
05 - Major Collector	187.5	20.60%	189.3	16.10%	376.8	18.10%
06 - Minor Collector	107.0	12.00%	99.5	8.50%	206.5	9.9%
07 - Local	556.4	61.00%	794.4	67.60%	1350.8	64.81%
TOTAL	908.6	100.0%	1175.4	100.0%	2084	100.0%

Figure 10 - Functional Class Summary per County

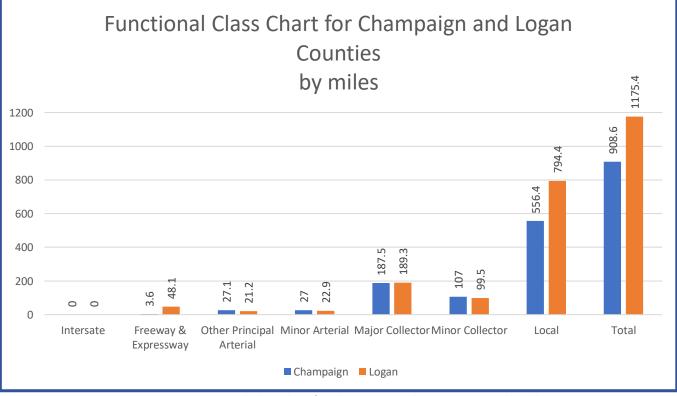
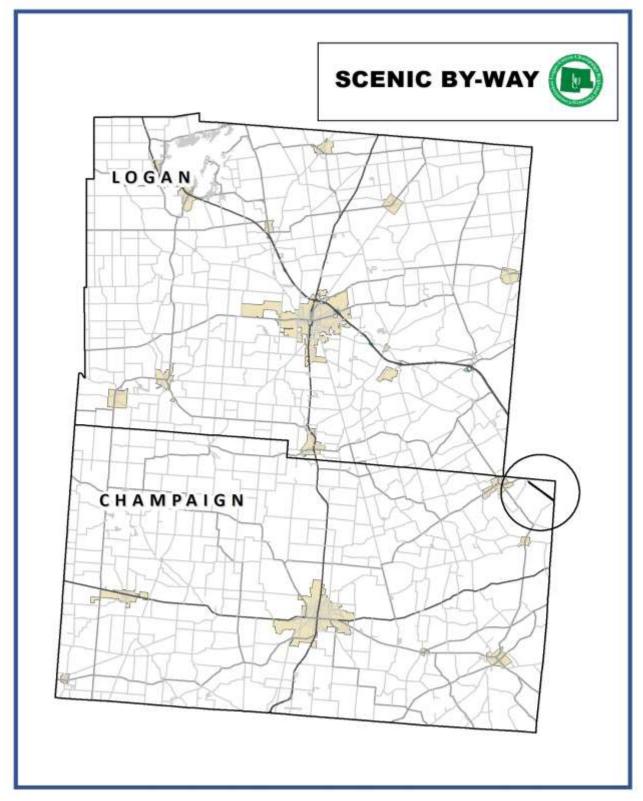


Figure 11 - Functional Class chart for Champaign and Logan Counties by miles

Scenic Byways

LUC has one Scenic Byway, the Big Darby Plains Scenic Byway. A small portion of the Scenic By-Way is located in Champaign County as indicated by the circle on the map below.



Big Darby Plains Scenic By-Way: Source - ODOT

Public Transit

Champaign County has one transit system, the Champaign County Transit System (CTS). CTS doesn't have fixed routes, operates on demand response, and serves the entire county. CTS has a service schedule during business hours (8am-5pm) on weekdays (Monday-Friday). According to the ODOT *Status of Public Transit* document, there are 26,662 annual passenger trips, 224,146 annual vehicles miles, and 17,863 annual vehicle hours traveled. The elderly and the disabled constitute approximately 42% of the total annual passengers. CTS has 11 vehicles for transportation and 14 drivers.

Logan County has one transit system, RTC Industries (RTC). RTC doesn't have fixed routes, operates on demand response, and serves the entire county. RTC has a service schedule during business hours (5am-10pm) on weekdays (Monday-Friday). According to the ODOT *Status of Public Transit* document, there are 22,575 annual passenger trips, 238,371 annual vehicles miles, and 9,153 annual vehicle hours traveled. The elderly and the disabled constitute approximately 23% of the total annual passengers. TLC has 14 vehicles for transportation.

Operating recovery ratio is the total fare box revenue plus contract service revenue divided by total operating expenses. Figures 15 and 16 display the operating expenses for both counties' transit systems as well as their performance measures. All data was compiled from ODOT Status of Public Transit in Ohio.

Operating Expenses Fixed Route Demand Response	Champaign	Logan
Total Operating Costs	\$330,128	\$452,902
Total Administrative Costs	\$152,592	\$224,060
Total Systems Costs	\$482,720	\$676,962

Figure 12: Operating Expenses – Source 2023 ODOT Status of Public Transit in Ohio

Performance Measures Fixed Route Demand Response	Champaign	Logan
Operating Recovery Ratio	53.35%	37.11%
Operating Expense/Vehicle Mile	\$1.92	\$2.82
Operating Expense/Trip	\$21.39	\$29.82
Passenger Trips/Vehicle Mile	0.09	0.10

Figure 13: Performance Measures - Source: 2023 ODOT Status of Public Transit in Ohio

Bike Trails

The bike trails in Champaign County and Logan County connect to the Little Miami Scenic Trail, which extends a total of 93 miles from Newton to Bellefontaine. The trail winds through the countryside of Southwest Ohio, sometimes running next to the Little Miami River.

At Springfield, the Little Miami Scenic Trail changes into the Simon Kenton Trail, which is the portion of the trail from Springfield to Urbana in Champaign County, approximately 16.6 miles long. This portion of the trail is paved in asphalt and is 10 feet wide. Of the total length of 16.6 miles, approximately 11 miles of the trail is located in the LUC region from County Line Road going north to The Depot where it travels east to the Urbana YMCA. This trail opened in 2001 and was finished in 2004 and 2005. The trail was built in Champaign County with the help of the Simon Kenton Pathfinders.

In 2012, the first phase of the Simon Kenton Trail extension toward Bellefontaine was completed as an asphalt surface and opened to the public from the Depot in Urbana to the northern corporation limits of Urbana. In May of 2015, an 18 mile extension was completed from Urbana to Carter Avenue in Bellefontaine with a ribbon cutting held in May of 2015. Originally the trail surface from Urbana to Bellefontaine was crushed aggregate. However, this surface was later completed as a double chip seal surface through the fundraising efforts of the Simon Kenton Pathfinders and the services of the Champaign County Engineer's Office and the Logan County Engineer's Office. Long-term, as this completed surface deteriorates, the goal is for this section of trail to be repaved with hot mix asphalt with financial assistance from state and federal grant programs.

There is also the North Lewisburg trail in Northeastern Champaign County. The trail starts in the Village of North Lewisburg and extends 0.5 miles before crossing the county line into Union County where it extends another 2.5 miles for a total of 3 miles. There is parking at both ends. The trail is comprised of a chip sealed surface. In addition, there are closed looped walking and cycling trails around Indian Lake, located in northwestern Logan County.

List of future trail related goals/projects:

-Pony Wagon Trail (St. Paris to Miami County line through the Village of St. Paris (see feasibility study completed by B&N); Miami County Park District is working to connect a trail between Piqua and the Champaign County/Miami County line; some sections are already completed in Miami County; possible future extension between St. Paris and Urbana); \$100,000.00 awarded to the Village of St. Paris through ODNR for the Champaign County portion of this project in the state capital budget passed in June of 2022.

-ODOT Systemic Safety Grant (Miami Street trail crossing; North Main Street trail crossing; design funding through LUC STBG allocation; ODOT construction grant funding awarded through ODOT (PID #115978); construction anticipated in 2025. Background: In August 2019, an ODOT abbreviated safety study (ODOT PID #110294) was completed for bike trail crossings along the Simon Kenton Trail that cross major US routes within the city. The short-term countermeasures identified for Miami Street (US 36) would be implemented and include signage and striping improvements and the installation of RRFBs. On North Main Street (US 68), the long-term countermeasures would be implemented and include the closure and removal of the section of Laurel Oak Street between North Main Street and Fyffe Street, trail crossing relocation to a point northward, realignment of the existing trail, construction of a refuge island at the new trail crossing location, signage and striping improvements, and installation of RRFBs.

-Trail crossing safety improvements (RRFBS or similar) @ Hickory Grove Road in Champaign County and County Road 200 in Logan County.

-Trail connector between the existing trail in the City of Urbana at Clark Road/East Lawn Avenue and Melvin Miller Park (feasibility study recently approved through the TAC).

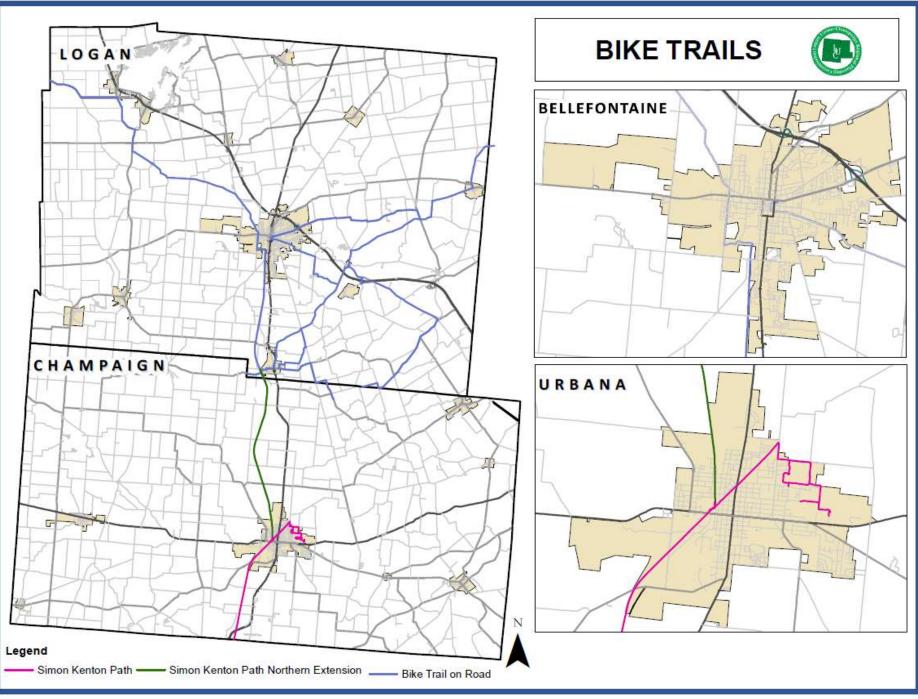
-Trail extension between Bellefontaine and Russells Point (Indian Lake) (feasibility study recently discussed/approved through the TAC).

-Trail connection/extension between existing terminuses in Bellefontaine at Carter Avenue to downtown Bellefontaine.

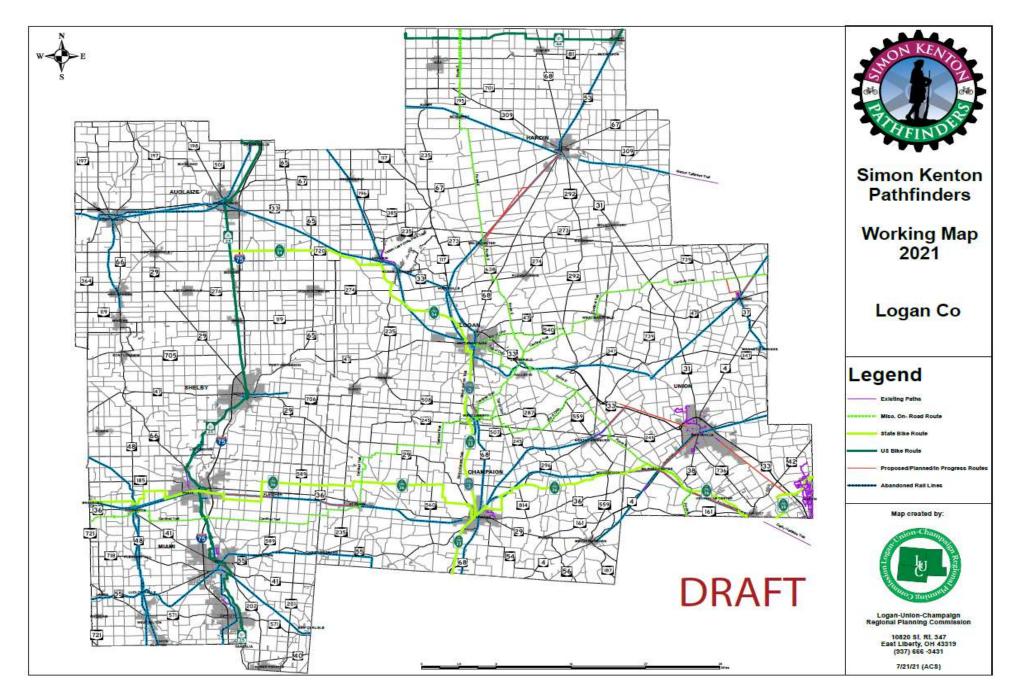
-On road and off road extension to Huntsville, Belle Center and Kenton

-Pursue a connection in Logan County that extends the trail to the Southwest Portion of Downtown Bellefontaine

The map on Page 35 shows the current Bike Trails whereas the map on Page 36 shows a draft of what the Bike Trails could potentially look like in the future.



Bike Trails in Champaign and Logan Counties: Source – Champaign and Logan Engineer's Office



Potential expansion of Bike Trails in the future: Source – LUC Regional Planning Commission

Aviation

Champaign County Airports



Grimes Field

- Grimes Field is a general aviation airport located one mile north of Urbana, Ohio on Route
 68. Facilities include a 4,400' runway with full parallel taxiway. Operations are supported by a GPS approach with vertical guidance and AWOS III weather reporting. Grimes Field is owned by the City of Urbana, but the Airport is 100% self-supporting, receiving no money from the City's General Operating Fund. Grimes Field is managed by 1 full-time and 2 part-time associates.
- Grimes Field is included in the National Plan of Integrated Airport Systems and a member of the National Aviation Heritage Area.
- Grimes Field is home to several on-airport businesses including:
 - Miami Valley Hospital's Careflight
 - Mad River Air Flight Instruction, Charter and Maintenance
 - W & W Aviation Maintenance
 - The Champaign Aviation Museum
 - The Grimes Flying Lab Museum
 - The Mid America Flight Museum of Texas "Restoration Wing"
 - The Airport Café
 - Services include a General Aviation Terminal building, Fuel Sales, Hangar Rental, Flight Instruction, Charter Operations, and Aircraft Maintenance.
- Currently there are 64 aircraft based at Grimes Field.
- The Champaign Aviation Museum continues to re-build a B-17 bomber to flying condition. Approximately 75% of the parts are being built brand new from scratch, so they are building a new B-17.
- The Grimes Flying Lab Museum & Foundation preserves and maintains the legacy of Warren Grimes, who is widely considered the 'Father of the Modern Aviation Lighting Industry'.
- The Mid America Flight Museum of Texas Restoration Facility currently is working on 2 projects, a 1929 Travel Air 6000 and a Stinson Model A Tri-Motor (The only existing one in the world).
- Grimes Field is the only airport in the United States with 3 museums on site and is a member of the National Aviation Heritage Area (NAHA)
- Weller Airport
- Privately Owned
- Located Just north of 3138 East Route 29, Urbana, OH 43078

Logan County Airport

Bellefontaine Regional Airport



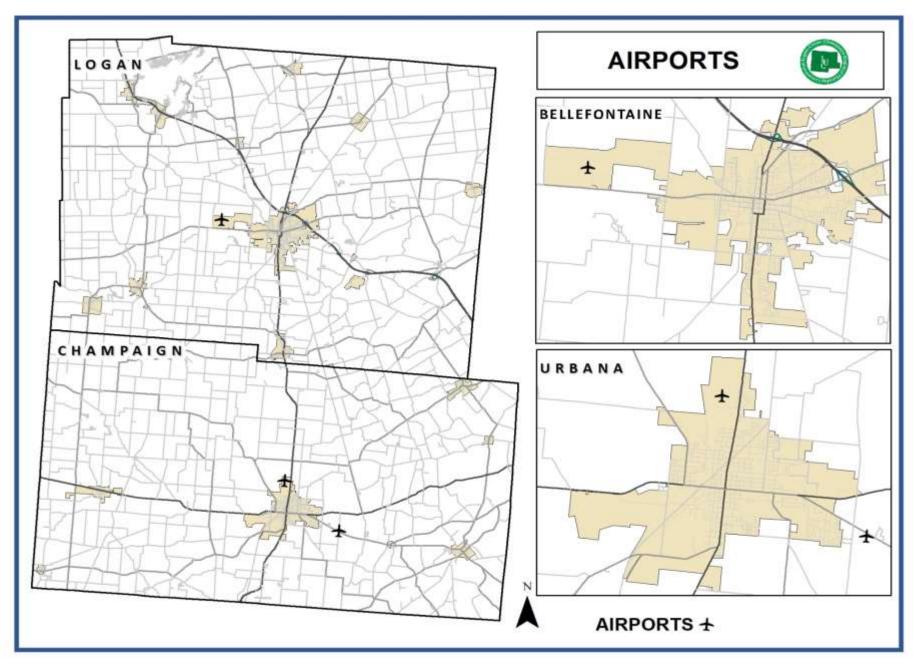
In Logan County there is one airport located in the City of Bellefontaine. The Bellefontaine Regional Airport is contractually managed by Midwest Corporate Air, Inc. Midwest Corporate Air is owned and operated by Steve Buchenroth. For airport management, he reports directly to the Service Safety Director of Bellefontaine. There is a terminal building with a lobby, facilities, and main hangar. Four large hangars (7ft. 9in. wide, 14ft. high and 40ft. deep) and 5 regular size hangars (41ft. 9 in. wide, 12ft. high and 36ft. deep) all offer concrete floors and electric overhead doors. One private hangar (8000 sq. ft.) and the City of Bellefontaine's hangar (8000 sq. ft.) The Bellefontaine Regional Airport also offers:

- a 5,000ft. X 100ft runway with both a GPS and VOR approach
- a spacious and clean terminal building that includes a uniquely decorated lobby,
- a pilot lounge with recliners and TV,
- a flight planning room with computer and printer,
- a small kitchen facility with vending and refrigerator
- a conference room that seats over 30 people and is available for rental.

Fuel Available: 100LL, JetA

Line Services: Tie Down

Flight Training: Private Pilot, Instrument rating, Commercial Pilot, Multi-Engine Rating, Airplane Transport Pilot, CFI / CFII & Cirrus Training Center



Airport locations in Champaign & Logan Counties: Source - ODOT

Railroad Freight

There are approximately 100 miles of active rail that currently extends through both Champaign County and Logan County. The rail lines are operated by three different entities, CSX, the West Central Ohio Port Authority (WESTCO) and the Indiana Ohio Railway (IORY). The rail lines primarily transport agricultural products such as corn, soybeans, and fertilizer. Because of this, the amount of carloads per year varies depending on the harvest yield for each year. In addition, salt and plastic are also shipped. Manufacturers also ship their manufactured items on the railways.

The CSX rail lines extend across southwestern and northeastern Logan County as well as another line in the northeastern corner. These two tracks comprise approximately 38 miles of railroad.

The one IORY rail line that extends across the western half of Champaign County and southwestern Logan County. This track comprises approximately 24 miles of railroad.

There are two WESTCO lines in the region, the Urbana Line that extends from Springfield to Bellefontaine, and the Mechanicsburg Line that extends from Springfield to Mechanicsburg. These two tracks comprise approximately 37 miles of railroad.

These amounts are shown in Figure 17 along with the percentage breakdown of mileage per county. The Railroads map shown, at the end of this section, displays the location of each rail line and the trains per day for each.

	(Champaign		Logan		Total
Rail Code	Miles	Percentage	Miles	Percentage	Miles	Percentages
CSX	0.0	0.0%	38.4	70.7%	38.4	38.5%
IORY	18.2	40.0%	6.2	11.4%	24.4	24.4%
WESTCO	27.3	60.0%	9.8	17.9%	37.1	37.1%
TOTAL	45.6	100.0%	54.4	100.0%	99.9	100.0%

Figure 14 - Railroad Mileage per County

		TRAIN OWNERS & V	OLUME PE	R DAY			
County	Rail Road Name	Rail Road Parent Company	Rail Road Type	Trains per Day	Freight Volume	Owner	Owner Entity
CHAMPAIGN	Indiana & Ohio Railway	Genesee & Wyoming, Inc.	Freight	1	1	West Central Ohio Port Authority	Port Authority
CHAMPAIGN	Indiana & Ohio Railway	Genesee & Wyoming, Inc.	Freight	1	1	West Central Ohio Port Authority	Port Authority
CHAMPAIGN	Indiana & Ohio Railway	Genesee & Wyoming, Inc.	Freight	4	1	Indiana & Ohio Railway	Private
CHAMPAIGN	Indiana & Ohio Railway	Genesee & Wyoming, Inc.	Freight	1	1	West Central Ohio Port Authority	Port Authority
CHAMPAIGN	Indiana & Ohio Railway	Genesee & Wyoming, Inc.	Freight	1	1		
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	16	3	CSX Transportation, Inc.	Private
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	30	5	CSX Transportation, Inc.	Private
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	30	5	CSX Transportation, Inc.	Private
LOGAN	Indiana & Ohio Railway	Genesee & Wyoming, Inc.	Freight	1	1	West Central Ohio Port Authority	Port Authority
LOGAN	Indiana & Ohio Railway	Genesee & Wyoming, Inc.	Freight	4	1	Indiana & Ohio Railway	Private
LOGAN	Indiana & Ohio Railway	Genesee & Wyoming, Inc.	Freight	1	1	West Central Ohio Port Authority	Port Authority
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	6	2	Honda of America	
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	30	5	CSX Transportation, Inc.	Private
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	1	1		
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	1	1		
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	30	5	CSX Transportation, Inc.	Private
LOGAN	CSX Transportation, Inc.	CSX Corporation	Freight	16	3	CSX Transportation, Inc.	

All public railroad grade crossings in Ohio either have active or passive warning devices at the crossing.

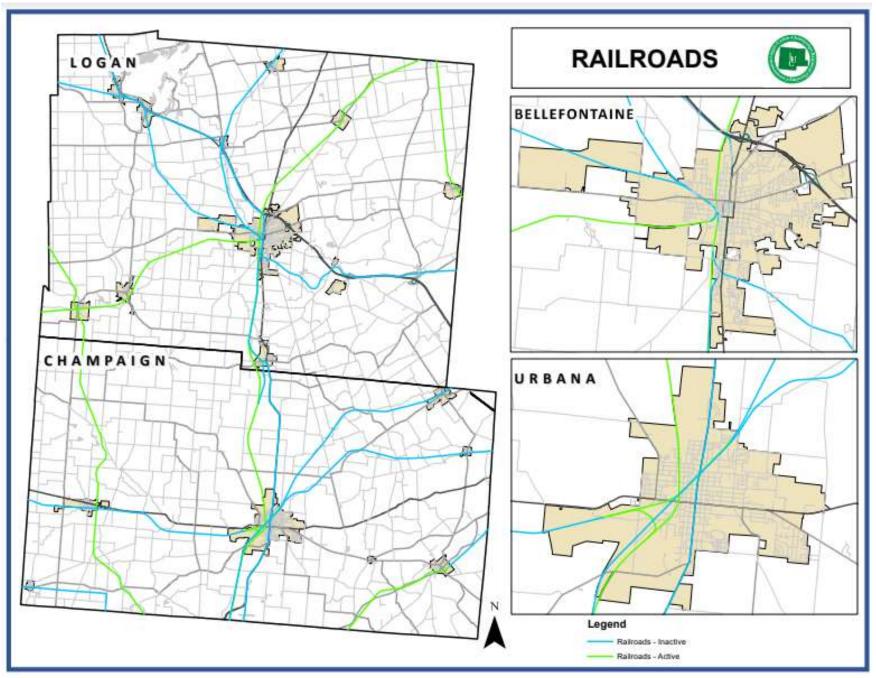
Active traffic control devices are those that give advance notice of the approach of a train. At crossings with active traffic control devices, a motorist is told when a train is approaching. The motorist must take appropriate action when the devices are activated.

Passive devices indicate that a crossing is present and that a highway user must look for an approaching train and take appropriate action. Passive rail crossing warning devices include signs (e.g., stop signs, cross bucks - the standard "X" signage) and pavement markings.

There are 120 crossings in the Logan-Champaign region and Figure 19 shows the percentage of active versus passive railroad crossing warning devices.

	C	Champaign		Logan		Total
Rail Code	Count	Percentage	Count	Percentage	Count	Percentages
CSX	47	73.44%	41	73.21%	88	73.33%
IORY	17	26.46%	15	26.29%	32	26.67%
TOTAL	64	100.00%	56	100.00%	120	100.00%

Figure 16 - Railroad Crossings per County



Map of Railroads in Champaign & Logan Counties: Source - ODOT

Vehicle Crash data for Champaign and Logan Counties was analyzed for 2019 through 2021 from ODOT GIS Crash Analysis Tool (GCAT). A total of 4770 crashes were reported in the two counties during the three years.

This represents crashes that led to property damage of or above \$1,000, an injury or a fatality. For this analysis, only the crashes that were located on a road classified as a collector or above were included. Additionally, crashes that occurred in construction zones were omitted. There were 4,770 crashes in the final analysis.

Figure 20 lists the total number of crashes for Champaign and Logan counties and displays the percentage for each county; Logan has the majority crashes between the two with 62% while Champaign has 38%.

County	Number	Percent
Champaign	1835	38%
Logan	2935	62%
Total	4770	100%

Figure 17 - Total Crashes per County: Source - ODOT

Figure 20 lists all the crash types for the two county regions as well as the percentage for each of the crash types. The crash types of fixed object, animal, rear end and angle crashes are the top four and make up 68% of all crash types that occur.

	Champaign County	Logan County	Number	Percent
Fixed Object	459	856	1315	28%
Animal	157	343	500	10%
Rear End	292	470	762	16%
Angle	291	376	667	14%
Sideswipe	118	241	359	8%
Parked Vehicle	147	111	258	5%
Left Turn	92	114	206	4%
Overturning	35	46	81	2%
Pedestrian	10	10	20	0%
Head on	40	53	93	2%
Right turn	35	61	96	2%
Other	159	254	413	9%
Total	1835	2935	4770	100%

Figure 18 - Total Crashes by Crash Type: Source - ODOT

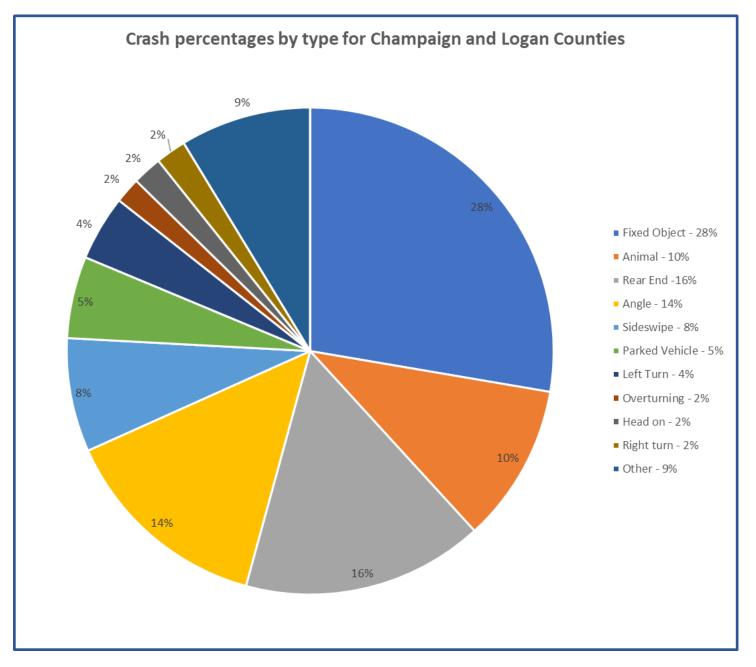


Figure 19 - Crash percentages Source: ODOT

Socio-Demographic Data

Socio-Demographic Conditions

Logan and Champaign counties were formed in the 1800's. When the region was formed, populations were generally clustered, which later became the cities and villages that we know today. More recently, development has been sprawled, tending to be spread throughout the more rural areas of the two counties through the development of rural lot splits and subdivisions.

Historically, the economy of the region has been driven by manufacturing and industrial employment. While these segments still drive a large portion of the economy, several major manufacturing employers have left the area in the last 20 years. Commercial retail development has significantly increased during this period as well.

The following sections detail the socio-demographic conditions for Champaign County and Logan County. Data was gathered from sources such as the Census 2020, U.S. Bureau of Economic Analysis, the Ohio Department of Job and Family Services' (ODJFS), the Ohio Office of Research and the Ohio Department of Development. The data was collected, then analyzed and mapped to provide an overview of the current socio-demographic conditions of the two county areas.

Overview

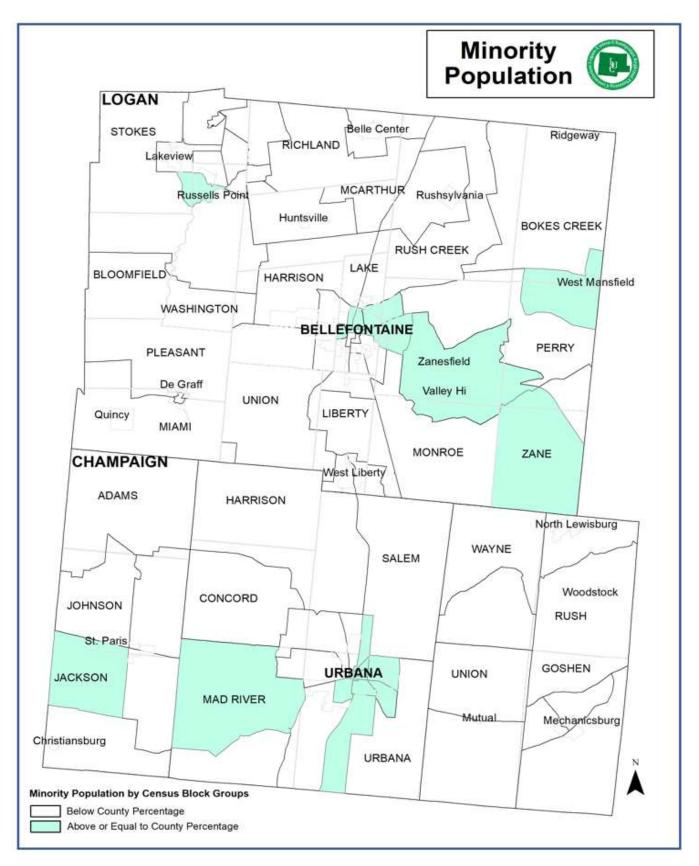
Logan and Champaign counties are located in west central Ohio, approximately 40 miles west of Columbus and 30 miles north of Dayton. Centrally located in both Ohio and the United States, Logan and Champaign counties are within 300 miles of numerous major cities, including Cincinnati, Toledo, Cleveland, Detroit, Indianapolis, Louisville, Lexington, Charleston, and Pittsburgh.

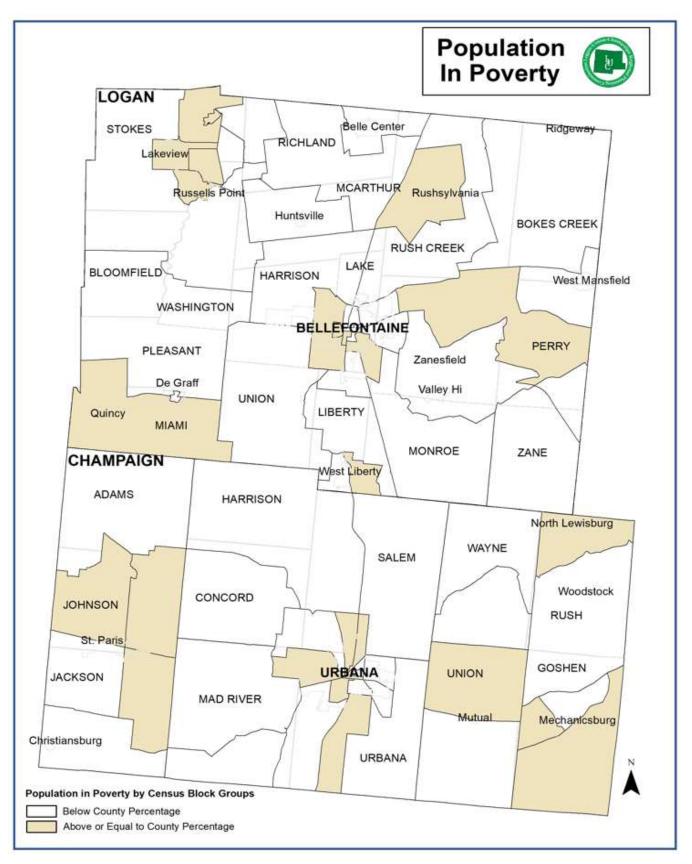
The 2020 census showed 84,864 people living in 888 square miles across the two counties. Within the two counties, there are 51 units of government, including the 2 counties, 29 townships, and 20 municipalities. Logan County and the City of Bellefontaine are home to the highest populations in the area. Figure 23 shows the population and households of both counties.

County	Рор	%Рор	Households	%Households
Champaign	38,714	45.60%	15,407	45.30%
Logan	46,150	54.40%	18,604	54.70%
Total	84,864	100%	34,011	100%

Figure 20 Population and Households: Source – Census

The following two pages represent a Minority Population map proceeded by a Population in Poverty Map.





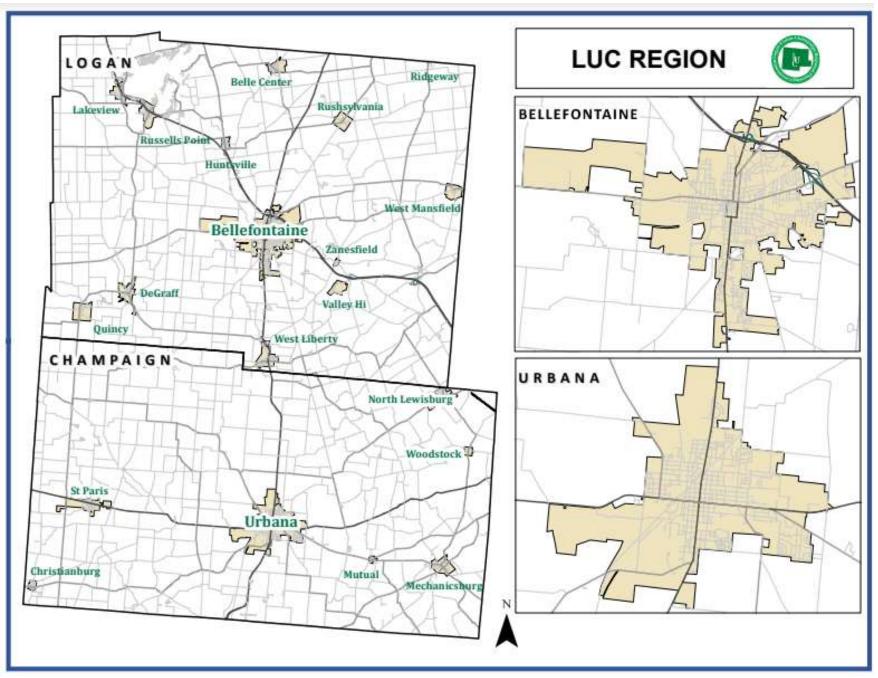
Planning Area

The area covered by the Plan consists of Champaign County, and Logan County in Ohio. Logan and Champaign counties are located in west central Ohio, approximately 40 miles west of Columbus and 30 miles north of Dayton. Centrally located in both Ohio and the United States, Logan and Champaign counties are within 300 miles of numerous major cities, including Cincinnati, Toledo, Cleveland, Detroit, Indianapolis, Louisville, Lexington, Charleston, and Pittsburgh.

The 2020 census showed 84,864 people living in 888 square miles across the two counties. Within the two counties, there are 51 units of government, including the 2 counties, 29 townships and 20 municipalities. Logan County and the City of Bellefontaine are home to the highest populations in the area.

The primary method of travel in the area is motor vehicle. However, both counties are served by a municipal airport, demand response transit service, and an ever-growing network of pedestrian transportation methods, including trails and sidewalks. The area is served by a network of roadways and rail lines to support the efficient movement of freight through the community.

63.6% of workers in Logan County work near home, being employed within the county. In Champaign County, less than 44.4% of employed persons work within the county. A majority of workers in Champaign County travel outside of the county for employment, with a large portion of them working in Clark, Union, Logan and Montgomery counties.



Shows the location of Champaign County and Logan County, along with the cities and villages located within the Planning area: Source - ODOT

Champaign County:

City

Urbana •

Villages

- Christiansburg
- Mechanicsburg

Townships

- Adams Concord
- Harrison • Jackson •

•

Goshen

Unincorporated communities

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- Bowlusville
- Cable
- Carysville
- Catawba Station
- Darnell Eris Five Points

Crayon

Kingscreek Kennard Grandview

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•

Lakeview

Ridgeway

Quincy

•

•

Lake

Flatwoods

Liberty

Fountain Park

Mutual

North Lewisburg

•

.

Johnson

Heights

Mad River

Rush

Salem

- Lippincott Middletown

•

.

- - Millerstown
 - Mingo

Union •

St. Paris

Woodstock

- Urbana
- Wayne
 - Northville ٠
 - Powhattan
 - •
- Springhills
 - Terre
- Thackery

•

- Westville
- Haute

Logan County:

City

Bellefontaine •

Villages

- **Belle Center** .
- De Graff
- Huntsville

Townships

- Bloomfield
- **Bokes Creek**
- Harrison
- Jefferson
- Miami •

•

•

•

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•

Unincorporated Communities

- **Big Springs**
- **Bloom Center**
- Cherokee •
 - East Liberty ٠
- Gretna Harper Horton
- •

- Rushcreek •

- New Jerusalem
- New Richland
- North
- Greenfield
- **Orchard Island**
- Pickrelltown •
- Santa Fe • Walnut Grove •
- White Town
- 46

- Rushsylvania • **Russells Point** •
- Valley Hi •

- Monroe
- Perry

- Lewistown
- Logansville
- McKees Town •
- Middleburg
- Northwood

- McArthur
 - Pleasant
 - Richland
- - Union
 - •

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- Washington
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Zanesfield

Zane

West Liberty

West Mansfield

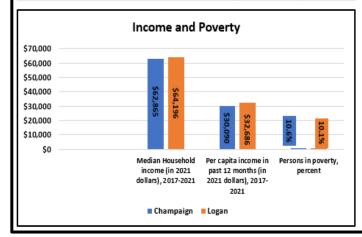
- Stokes

Social Demographics Data

Logan and Champaign counties were formed in the 1800's. When the region was formed, populations were generally clustered, which later became the cities and villages that we know today. More recently, development has been sprawled, tending to be spread throughout the more rural areas of the two counties through the development of rural lot splits and subdivisions. Historically, the economy of the region has been driven by manufacturing and industrial employment. While these segments still drive a large portion of the economy, several major manufacturing employers have left the area in the last 20 years. Commercial retail development has significantly increased during this period as well. The following charts detail the socio-demographic conditions for Champaign County and Logan County. Data was gathered from sources such as the Census 2020.

Social	Demograp	phics Data	

Land Use/Land Cover	Champaign	Logan
Developed, Lower Intensity	5.76%	7.66%
Developed, Higher Intensity	0.45%	0.93%
Barren (strip mines, gravel pits, etc.)	0.04%	0.17%
Forest	11.69%	15.22%
Shrub/Scrub and Grasslands	0.58%	0.39%
Pasture/Hay	7.84%	8.48%
Cultivated Crops	72.59%	64.00%
Wetlands	0.60%	1.15%
Open Water	0.46%	2.01%



Vehicle Ownership	Champaign	Logan
Total:	15,506	18,928
Owner occupied:	11,597	14,348
No vehicle available:	185	373
Householder 15 to 34 years	41	137
Householder 35 to 64 years	74	149
Householder 65 years and over	70	87
1 or more vehicles available:	11,412	13,975
Householder 15 to 34 years	1,203	1,740
Householder 35 to 64 years	6,481	7,969
Householder 65 years and over	3,728	4,266
Renter occupied:	3,909	4,580
No vehicle available:	501	739
Householder 15 to 34 years	34	101
Householder 35 to 64 years	205	445
Householder 65 years and over	262	193
1 or more vehicles available:	3,408	3,841
Householder 15 to 34 years	1,356	1,367
Householder 35 to 64 years	1,680	1,801
Householder 65 years and over	372	673
Registered motor Vehicles		
Passenger cars	51,572	63,721
Noncommercial trucks	29,511	35,781

Figure 21: Champaign & Logan Social Demographics

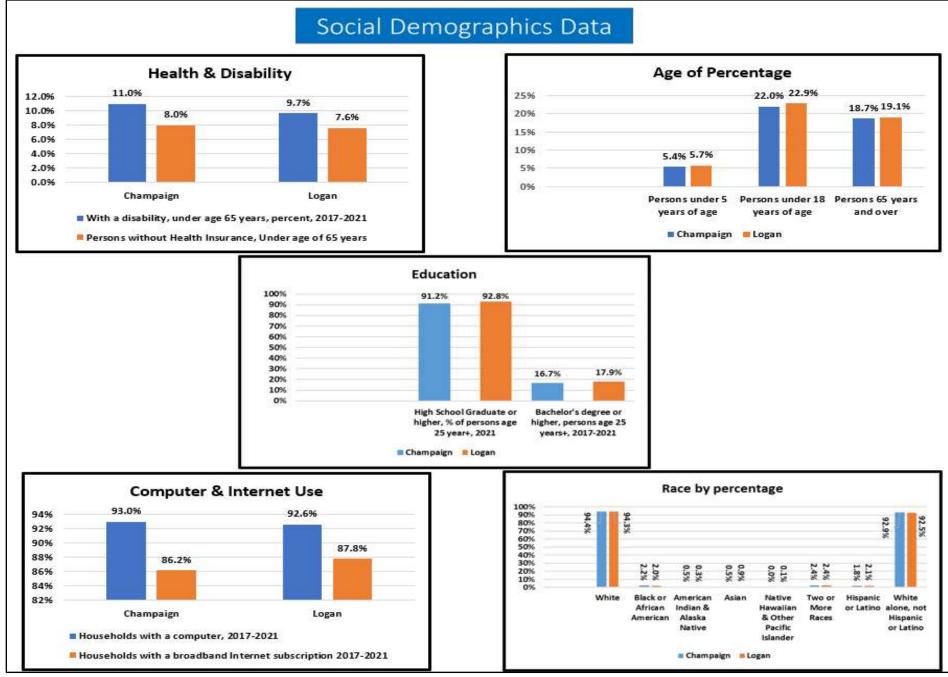


Figure 22 Social Demographics Data: Source - Census

Journey to Work Characteristics

The Journey to Work Characteristics for Champaign and Logan counties were examined using data from the 2010 and 2020 US Census with comparison calculated from the two data sets. When evaluating a transportation network it is especially important to examine work trip characteristics as this increase in vehicular traffic at peak times often strains the network to capacity. Particular attention should be given to ensure proper Levels of Service during those crucial peak times of traffic flow without over burdening an area with roadway surface.

The 2020 Census data revealed that 42.6% of Champaign County residents are employed within Champaign County whereas 45.2% of Logan County residents are employed within Logan County.

The three counties that pull the highest percentage of Champaign County residents for employment are Clark, Union and Franklin Counties respectively. While the three counties that pull the highest percentage of Logan County residents for employment are Union, Franklin and Shelby counties respectively.

Alternatively, the three counties Champaign County receives workers from are the same as leaving Clark, Logan and Miami Counties respectively. As for Logan County the three highest incoming workers for other counties are Union, Champaign and Hardin counties respectively.

Champaign County residents who work within Champaign County is down -1.9% from 2010 where the percentage rate was 30.0% compared to 28.1% in 2020. This indicates that more Champaign County residents are working outside of the County.

Logan County residents who work within Logan County is down -4.2% from 2010 where the percentage rate was 40.2% compared to 44.4% in 2020. This is also a decrease and indicates the same as Champaign County that more residents are working outside of the county in which they live.

The Mean travel to work (minutes), for workers age 16+ for Champaign County was 25.3 minutes and Logan was 22.1 minutes with the Region average being 23.7, National average being 27.6 minutes and Ohio average of 23.5 minutes.

Figure 23 displays the values for employment for Champaign County. The chart includes the number of workers who work in each county and the numbers where the workers live. There are 2010 and 2019 values and the change between those years is also shown.

Figure 24 increases the counties from 10 to 25 to show what counties workers live in that work in Champaign County as well as what counties Champaign county is drawing workers from.

Figure 25 displays the values for employment for Logan County. The chart includes the number of workers who work in each county and the numbers where the workers live. There are 2010 and 2019 values and the change between those years is also shown.

Figure 26 increases the counties from 10 to 25 to show what counties workers live in that work in Logan County as well as what counties Logan County is drawing workers

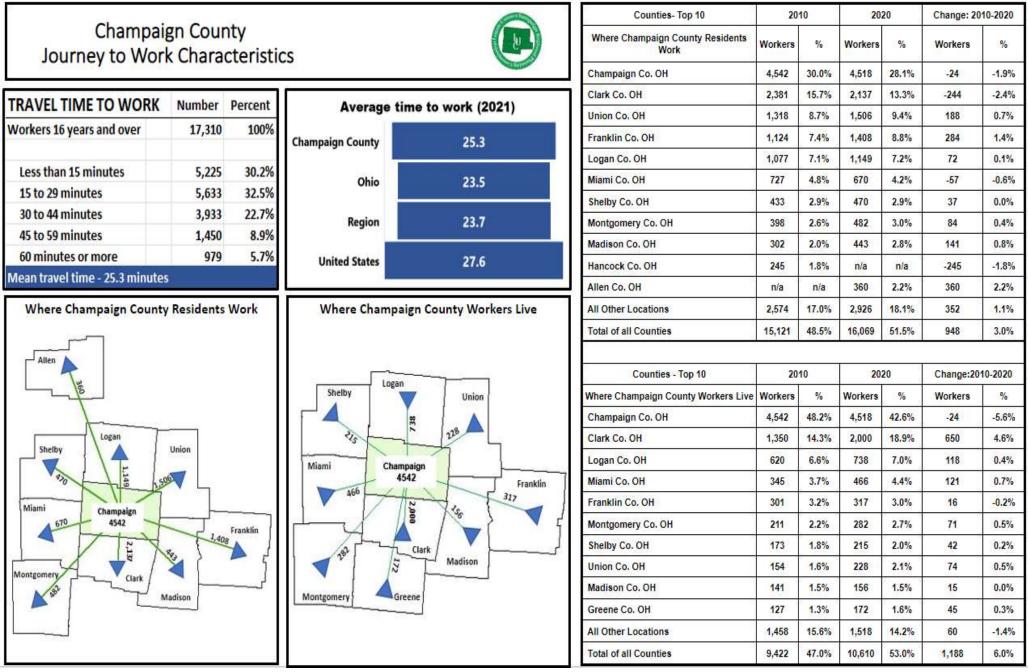


Figure 23 Work to Journey Champaign County: Source - Census

Champaign County's Journey to Work expanded to 25 Counties

Listed below are two charts. The first chart shows Champaign County's top 25 counties as to where workers live that are employed in the County. The second chart shows the top 25 counties where Champaign County residents travel to work.

	20	20		202	20
	Count	Share		Count	Share
Total All Jobs	10,610	100.0%	Total All Jobs	16,069	100.0%

Jobs Counts by Counties where workers live that work in Champaign Cou

County.		residents are e	mployed	
20	20		202	20
Count	Share		Count	Share
4,518	42.6%	Champaign Co. OH	4,518	28.1%
2,000	18.9%	Clark Co. OH	2,137	13.3%
738	7.0%	Union Co. OH	1,506	9.4%
466	4.4%	Franklin Co. OH	1,408	8.8%
317	3.0%	Logan Co. OH	1,149	7.2%
282	2.7%	Miami Co. OH	670	4.2%
228	2.1%	Montgomery Co. OH	482	3.0%
215	2.0%	Shelby Co. OH	470	2.9%
172	1.6%	Madison Co. OH	443	2.8%
156	1.5%	Allen Co. OH	360	2.2%
85	0.8%	Hancock Co. OH	281	1.7%
74	0.7%	Delaware Co. OH	246	1.5%
71	0.7%	Hamilton Co. OH	219	1.4%
69	0.7%	Lucas Co. OH	168	1.0%
64	0.6%	Cuyahoga Co. OH	152	0.9%
62	0.6%	Greene Co. OH	134	0.8%
51	0.5%	Marion Co. OH	124	0.8%
47	0.4%	Auglaize Co. OH	107	0.7%
46	0.4%	Butler Co. OH	78	0.5%
45	0.4%	Wyandot Co. OH	75	0.5%
44	0.4%	Wood Co. OH	72	0.4%
43	0.4%	Summit Co. OH	61	0.4%
37	0.3%	Richland Co. OH	51	0.3%

All Other Locations

Lorain Co. OH

Darke Co. OH

Figure 24 Journey to work Champaign County: Source- Census

44

42

1,072

0.3%

0.3%

7.2%

Licking Co. OH Auglaize Co. OH

29

29

722

0.3%

0.3%

6.8%

Champaign Co. OH

Clark Co. OH Logan Co. OH Miami Co. OH Franklin Co. OH Montgomery Co. OH

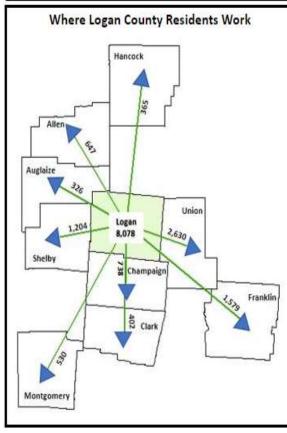
Union Co. OH Shelby Co. OH Greene Co. OH Madison Co. OH Darke Co. OH Delaware Co. OH Allen Co. OH Hamilton Co. OH Cuyahoga Co. OH Hardin Co. OH Butler Co. OH Preble Co. OH Lucas Co. OH Pickaway Co. OH Clermont Co. OH Warren Co. OH

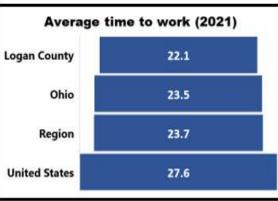
Richland Co. OH All Other Locations Jobs Counts by Counties where Champaign County

Logan County Journey to Work Characteristics

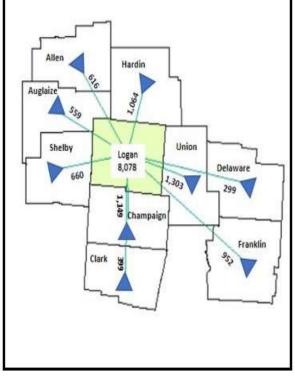


TRAVEL TIME TO WORK	Number	Percent	
Workers 16 years and over	20,105	100%	
Less than 15 minutes	6,903	34.3%	
15 to 29 minutes	7,767	38.6%	
30 to 44 minutes	3,073	15.3%	
45 to 59 minutes	1,159	5.8%	
60 minutes or more	1,203	6.0%	





Where Logan County Workers Live



Counties- Top 10	201	0	202	20	Change: 2010-2020		
Where Logan County Residents Work	Workers	%	Workers	%	Workers	%	
Logan Co. OH	7,941	44.4%	8,078	40.2%	137	-4.2%	
Union Co. OH	1,836	10.3%	2,630	13.1%	794	2.8%	
Franklin Co., OH	1,148	6.4%	1,579	7.9%	431	1.5%	
Shelby Co., OH	976	5.5%	1,204	6.0%	228	0.5%	
Champaign Co. OH	620	3.5%	738	3.7%	118	0.2%	
Allen Co. OH	484	2.7%	647	3.2%	163	0.5%	
Montgomery Co. OH	506	2.8%	530	2.6%	24	-0.2%	
Clark Co. OH	453	2.5%	402	2.0%	-51	-0.5%	
Hancock Co. OH	312	1.7%	365	1.8%	53	0.1%	
Auglaize Co. OH	;;		326	1.6%	326	1.6%	
Hardin Co. OH	288	1.6%			-288	-1.6%	
All Other Locations	3,305	18.6%	3,580	17.9%	275	0.7%	
Total of all Counties	17,869	47. <mark>1</mark> %	20,079	52.9%	2,210	5.8%	
Counties - Top 10	2010		2020		Change: 2010-202		
Where Logan County Workers Live	Workers	%	Workers	%	an Alexandra and a second		
Logan Co. OH	7,941	46.6%	8,078	45.2%	137	-1.4%	
Union Co. OH	1,129	6.6%	1,303	7.3%	174	0.7%	
Champaign Co. OH	1077	6.3%	1,149	6.4%	72	<mark>0.1</mark> %	
Hardin Co. OH	912	5.3%	1,064	6.0%	152	0.7%	
Franklin Co. OH	788	4.6%	952	5.3%	1 <mark>6</mark> 4	0.7%	
Shelby Co. OH	533	3.1%	660	3.7%	127	0.6%	
Allen Co. OH	519	3.0%	616	3.5%	97	0.5%	
Auglaize Co. OH	461	2.7%	559	3.1%	98	0.4%	
Clark Co. OH	437	2,6%	3 <mark>9</mark> 9	2.2%	-38	-0.4%	
Delaware Co. OH	25	1.5%	299	1.7%	274	0.2%	
All Other Locations	2,998	17.6%	2,773	15.6%	-225	-2,0%	
Total of all Counties	17,054	48.9%	17,852	51.1%	798	2.2%	

Figure 25 Journey to Work Logan County: Source- Census

Listed below are two charts. The first chart shows Logan County's top 25 counties as to where workers live that are employed in the County. The second chart shows the top 25 counties where Logan County residents travel to work.

Total All Jobs

	2020			
	Count	Share		
Total All Jobs	1,176	6.6%		

~~~~

Jobs Counts by Counties where workers live that work in Logan County.

|                | 2020  |       |  |  |
|----------------|-------|-------|--|--|
|                | Count | Share |  |  |
| Total All Jobs | 1,358 | 6.8%  |  |  |
|                |       |       |  |  |

Jobs Counts by Counties where Logan County Residents are Employed

|                   | 20    | 20    |                   | 20    | 020   |
|-------------------|-------|-------|-------------------|-------|-------|
|                   | Count | Share |                   | Count | Share |
| Logan Co. OH      | 8,078 | 45.2% | Logan Co., OH     | 8,078 | 40.2% |
| Union Co. OH      | 1,303 | 7.3%  | Union Co., OH     | 2,630 | 13.1% |
| Champaign Co. OH  | 1,149 | 6.4%  | Franklin Co., OH  | 1,579 | 7.9%  |
| Hardin Co. OH     | 1,064 | 6.0%  | Shelby Co., OH    | 1,204 | 6.0%  |
| Franklin Co. OH   | 952   | 5.3%  | Champaign Co. OH  | 738   | 3.7%  |
| Shelby Co. OH     | 660   | 3.7%  | Allen Co. OH      | 647   | 3.2%  |
| Allen Co. OH      | 616   | 3.5%  | Montgomery Co. OH | 530   | 2.6%  |
| Auglaize Co. OH   | 559   | 3.1%  | Clark Co. OH      | 402   | 2.0%  |
| Clark Co. OH      | 399   | 2.2%  | Hancock Co. OH    | 365   | 1.8%  |
| Delaware Co. OH   | 299   | 1.7%  | Auglaize Co. OH   | 326   | 1.6%  |
| Marion Co. OH     | 277   | 1.6%  | Miami Co. OH      | 281   | 1.4%  |
| Montgomery Co. OH | 213   | 1.2%  | Hamilton Co. OH   | 241   | 1.2%  |
| Miami Co. OH      | 201   | 1.1%  | Hardin Co. OH     | 237   | 1.2%  |
| Darke Co. OH      | 116   | 0.6%  | Delaware Co. OH   | 234   | 1.2%  |
| Madison Co. OH    | 102   | 0.6%  | Lucas Co. OH      | 207   | 1.0%  |
| Mercer Co. OH     | 92    | 0.5%  | Greene Co. OH     | 183   | 0.9%  |
| Lucas Co. OH      | 83    | 0.5%  | Marion Co. OH     | 166   | 0.8%  |
| Pickaway Co. OH   | 80    | 0.4%  | Cuyahoga Co. OH   | 149   | 0.7%  |
| Greene Co. OH     | 76    | 0.4%  | Butler Co. OH     | 109   | 0.5%  |
| Hamilton Co. OH   | 65    | 0.4%  | Wyandot Co. OH    | 86    | 0.4%  |
| Putnam Co. OH     | 63    | 0.4%  | Madison Co. OH    | 80    | 0.4%  |
| Cuyahoga Co. OH   | 62    | 0.3%  | Darke Co. OH      | 74    | 0.4%  |
| Hancock Co. OH    | 60    | 0.3%  | Warren Co. OH     | 61    | 0.3%  |
| Licking Co. OH    | 54    | 0.3%  | Summit Co. OH     | 60    | 0.3%  |
| Fairfield Co. OH  | 53    | 0.3%  | Mercer Co. OH     | 54    | 6.8%  |

Figure 26 Journey to Work Logan County: Source - Census

# Projection of Future Conditions and Regional Trends

To successfully plan for the future, it is important to understand how the LUC region could change over the next 30 years. Population, land use and employment shape transportation need therefore identifying possible future trends in these areas will allow for more meaningful and relevant analysis.

# Future Population Projections

The future conditions section exhibits the two county region's transportation system through the year 2050. Acknowledging that the future is capricious, many of the recommendations include both near- and long-term strategies with flexibility to respond to changing conditions. The overall plan will be re-examined approximately every five years to reflect emerging trends.

The Ohio Department of Development's 2050 population projections were used to identify the two county region's future socioeconomic characteristics. The population of the two county region is expected to slightly decrease 6.60% over the next 30 years. Figure 29 shows the population data for 2010, 2020, the projection for 2050, and the percent change from 2020-2050. The percentage of population for each county is also shown for each year.

| Year      | 2010 Census     | 2020 Census     | 2050 ODOD       | % Change ('20-'50) |
|-----------|-----------------|-----------------|-----------------|--------------------|
| Champaign | 40,097 (46.65%) | 38,714 (45.62%) | 35,800 (45.17%) | -3.92%             |
| Logan     | 45,858 (53.35%) | 46,150 (54.38%) | 43,460 (54.83%) | -3.00%             |
| Total     | 85,955          | 84,864          | 79,260          | -6.92%             |

Figure 27: Population Projections 2020-2050 Source - ODOD

There was approximately a -1.03% decrease in the population of Champaign County and approximately a 1.03 increase in the population of Logan County during the 10 year period from 2010-2020.

According to the ODOT "Access Ohio 2045" document, potential transportation impacts for Ohio are:

- Automated and connected vehicles enable more efficiency from existing roads.
- More integrated, connected and coordinated transit and shared mobility provide better options and attract more riders.
- Options for intercity travel expand, including improved intercity bus, rail and air services as well as new technologies like Hyperloop.
- New technologies allow more efficient freight movements (truck, rail, intermodal and maritime)
- Advances in communication technology require rapid infrastructure changes across the modes.

Access Ohio 2045 addresses current trends in Population, Economy, Development, and Technology of Ohio's future.

- Population Ohio's population continues to grow slowly while becoming older and more diverse; more people with disabilities, living in poverty and with specific mobility needs.
- Economy Ohio's economy remains diverse, with long-term growth in services, distribution and energy.
- Development Population growth continues to be concentrated in outer suburbs of existing major metropolitan areas, with some urban infill.
- Technology Ohioans use existing and new technologies; adoption varies across demographic groups and industries.

Strategy 11: Ohio will strengthen its transportation partnerships, in ODOT "Access Ohio 2045" document specifically addresses RTPOs relevance in Ohio:

More than 2,500 agencies collectively own, operate, plan and manage Ohio's transportation system. This includes ODOT, 17 MPOs, 6 RTPOs, 88 counties, 251 cities, 681 villages, 1,308 townships, 61 transit systems, 104 public airports, 38 railroads and eight ports. In addition, there are many more private and public partners that directly contribute to the success of Ohio's transportation system every day. As Ohio's transportation agencies collectively work to address emerging issues and opportunities, the number and range of partners continues to steadily grow. The ability of this growing network to come together and effectively collaborate is critical to the successful implementation of AO45 strategies.

In 2012, ODOT initiated a closer relationship with Ohio's RTPOs. The new partnership includes funding for transportation planning activities, collaboration among ODOT and RTPO staffs, and sharing resources and tools.

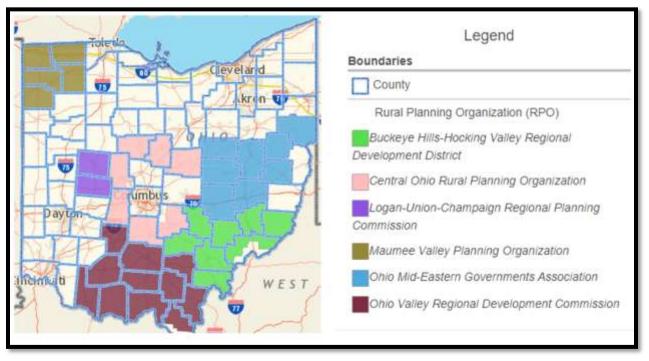


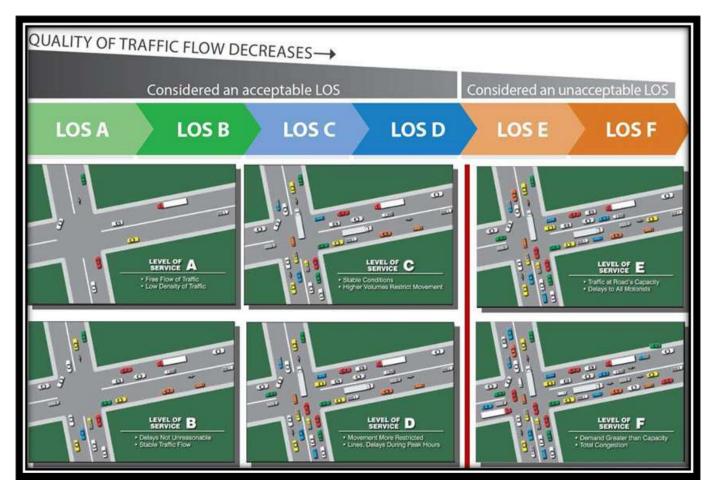
Figure 28 Map of Ohio's RTPOs: Source – Access Ohio 2045

To successfully plan for the future, it is important to understand how the LUC region could change over the next 25 years. Population, land use and employment shape transportation need therefore identifying possible future trends in these areas will allow for more meaningful and relevant analysis.

# Future Level of Service

Level of Service (LOS) is a qualitative measure ranked from 'A' to 'F' describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. LOS is measured by the degree of volume to capacity ratio.

LOS 'A' represents free flow conditions while LOS 'F' represents conditions where demand exceeds the capacity of a road. LOS A, B and C, represent good traffic conditions on the road network while roadways where LOS is D, E or F represent worsening traffic congestion conditions on the road network and are considered congested. Figure 4 illustrates the concept of level of service.



*Figure 29: demonstrates the color coding for each classification according to how each appears on a map and lists the Functional classifications.* 

# Current Level of Service rankings

Figure 5 is a representation of the LOS rankings for the Champaign Logan road network; approximately 94.3% of the functional class roadways in the two county region have a LOS ranking of an A, 3.9% have a rating of B, 1.2% have a rating of C and 0.1% have a rating of D. This means that 99.5% of the roadways have an acceptable level of service while only 0.5% do not.

Both counties have similar percentages for each LOS category. It is important to note that the LOS analysis is based on the results of the statewide travel demand model (STDM). Travel demand models are good at predicting the need for additional travel lanes, but often not so good for operational or safety improvements, such as the need for additional turn lanes at an intersection. Therefore, it is possible that additional congested locations exist in Logan and Champaign counties.

|                  | Cha   | ampaign    |       | Logan      | TOTAL  |            |  |
|------------------|-------|------------|-------|------------|--------|------------|--|
| Level of Service | Miles | Percentage | Miles | Percentage | Miles  | Percentage |  |
| А                | 619.0 | 96.2%      | 655.3 | 92.5%      | 1274.4 | 94.3%      |  |
| В                | 13.7  | 2.1%       | 39.3  | 5.6%       | 53.0   | 3.9%       |  |
| С                | 8.2   | 1.3%       | 8.3   | 1.2%       | 16.5   | 1.2%       |  |
| D                | 1.2   | 0.2%       | 0.0   | 0.0%       | 1.2    | 0.1%       |  |
| Е                | 0.0   | 0.0%       | 3.8   | 0.5%       | 3.8    | 0.3%       |  |
| F                | 1.1   | 0.2%       | 1.7   | 0.2%       | 2.8    | 0.2%       |  |
| TOTAL            | 643.3 | 100.0%     | 708.4 | 100.0%     | 1351.7 | 100.0%     |  |

Figure 30: Level of Service Summary

### Level of Service Maps for Champaign and Logan Counties for years 2022, 2025, and 2050

The next three pages depict maps provided from ODOT'S statewide travel demand model (STDM). Travel demand models showing the difference between years 2022, 2025 and 2050 respectively. Each map shows the roadway's Level of Service prediction through the years and whether or not the roadway will or has already exceeded its Level of Service.

The only change between the year 2022 and 2050 is a section of roadway on ST RT 68 just below the city of Bellefontaine in Logan County. The Yellow line indicates that the Level of Service "Might Exceed" the roads capacity.

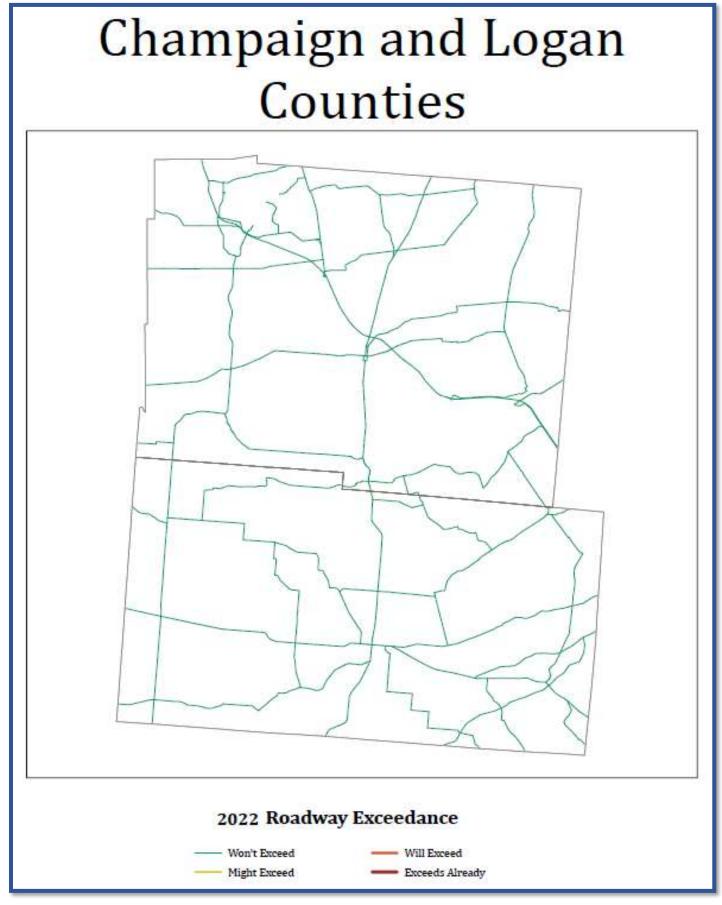


Figure 31: Level of Service year 2022 Source: ODOT

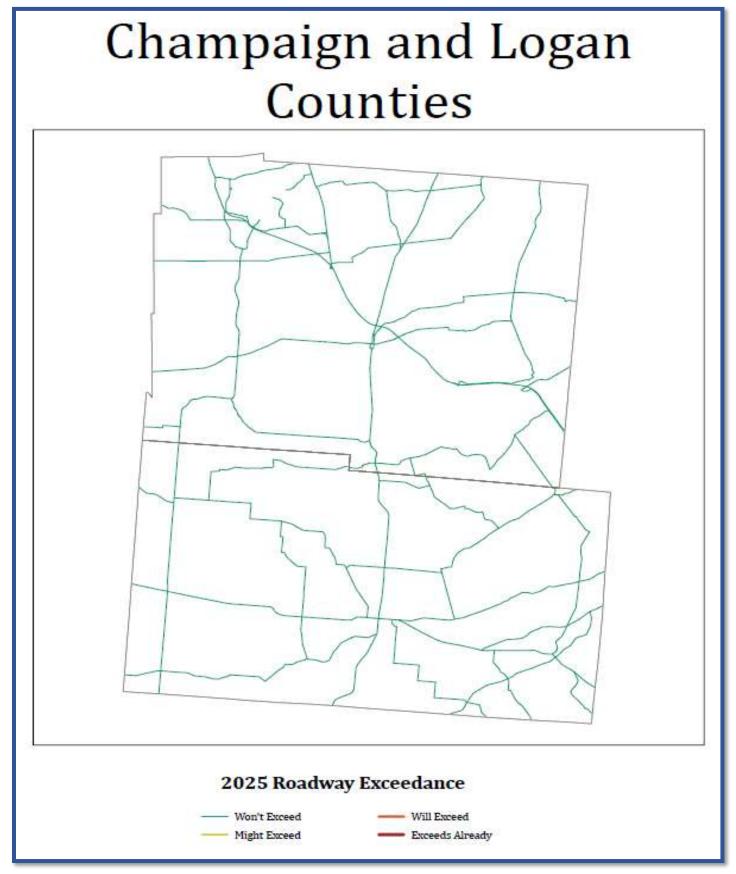


Figure 32: Level of Service predicted for year 2025 Source: ODOT

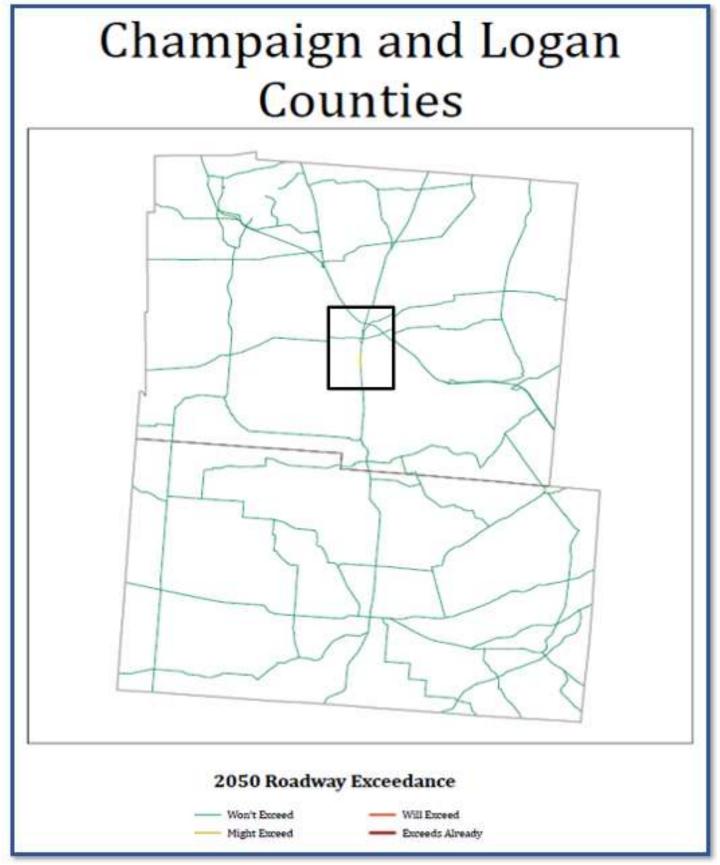


Figure 33: Level of Service predicted for year 2050 Source: ODOT

# Planning Process

Federal legislation establishes the transportation planning framework for all MPO's, RTPO'S, and State transportation agencies. Rules are established with specific concerns and criteria necessary to ensure that federal monies are allocated in a manner consistent with legislative intent. Due to the requirements of the legislation, the planning process entails extensive collaboration between various state and local governments while considering public input.

Many factors such as land use, commercial growth, residential shifts, and future needs go into the transportation planning process. These factors are documented in the current Comprehensive Plans. The Transportation Plan is the basis for furthering those projects to implementation in the Transportation Improvement Program.

The planning process diagram below explains how the transportation planning process is continuing, cooperative, and comprehensive, otherwise known as the "3C" process:

- Continuing reflects the ongoing nature of the planning process. Planning programs are routinely updated to address current and future socioeconomic and environmental conditions impacting regional transportation conditions.
- Cooperative references the effort to include all regional transportation stakeholders (public, private, and governmental) in the transportation decision-making process.
- Comprehensive means the planning programs address persons and goods movement for all transportation modes.

The transportation planning process culminates in a listing of transportation projects consistent with the goals and objectives of the local area for the efficient maintenance of the current transportation system, provides for the proposed growth and expansion of the area, and is fiscally constrained.

The RTPO process has been critical to the updating of this regional transportation plan and the development of staff skills and expertise in transportation planning. Without the RTPO process and financial support from ODOT, this transportation plan would not have happened. Through this process, LUC staff have participated in state-wide committees and regional groups it would otherwise not be participating in or of which it would be unaware. This document, and the state-wide and regional collaboration that has come with it, will guide both the State and this region's transportation decisions in the future; ultimately, resulting in better dialogue between the region's stakeholders and members of the public—acting as a single, collective body—to ODOT and the State.

# Purpose of Identifying Transportation Projects

There is a five-step process to identify projects for the Transportation Plan. These steps are:

- Assemble Multi-modal Transportation Needs Information from a Variety of Sources such as pavement, bridge, freight, congestion, safety management systems and transportation demand modeling;
- Process and Evaluate the Needs;
- Compare the Expected Benefits of Projects;
- Compute the Funding Expected to be Available to Satisfy Multi-modal Transportation Needs; and
- Prepare Multi-modal Project Listing Portion of the Transportation Plan.

The multi-modal transportation needs were identified by soliciting input from local governments, ODOT plans and programs, the results of the travel demand model, and the results of special studies. Local government planning documents include the 2015 Transportation Plan Document, the Public Participation Plan, and the cities, villages, and townships along with other area plans. In many cases, LUC staff participate in the development of the local plans. Public participation may also help identify transportation needs. The LUC follows the current Public Participation Process document in developing the Plan, the Transportation Improvement Program, modal plans for transit, trails and pedestrians, rail freight, safety, etc.

In addition, LUC is continually communicating with ODOT, and others to identify its plans for capacity expansion, major reconstruction projects, and regional Intelligent Transportation Systems-type projects.

Lastly, candidate projects are derived from the travel demand model. The model is used to forecast horizon year traffic on the existing system to identify deficiencies in the level of service. System improvements are then tested to determine if the level of service is improved to a satisfactory condition. Many system improvement considerations using model data are considered in local planning documents and special studies.

# Corridor, Sub-Area, Traffic and Other Studies

The transportation planning process requires that "...the preservation of right-of-way for construction of future transportation projects, including future transportation corridors" ... "be explicitly considered analyzed as appropriate, and reflected in the planning process products".

Where the need for a major transportation investment is identified, corridor or sub-area studies shall be undertaken to develop or refine the Long Range Plan and lead to decisions by the LUC, in cooperation with local government and transportation providers, on the design concept of the investment.

# Recently completed locally focused studies and plans

### Studies Completed

- Scioto Street Safety Study
- Scioto Street Safety Study Attachments
- IL Study
- Indian Lake Intersections Study
- LUC Autonomous Vehicle Report
- Freight Study
- Freight Study Presentation
- St. Paris Trail Feasibility Study
- SR 54 Curve Analysis (implemented with local funding)
- S. High Street Corridor Study (upcoming project in FY 2023 with federal, state and local funding local-let PID 112019)
- Speed Study for US 68 South (implemented with state and local funding)
- Scioto Street Safety Study (implemented with federal and local funding)
- S. Main Street Safety Study (implemented with federal and local funding)
- Miami Street Safety Study (upcoming project in FY 2023 with federal and local funding)
- Gwynne Street Bridge Maintenance Analysis (upcoming maintenance project, design in FY 2023
- 274 & 33 Interchange.
- Indian Lake Intersections

#### Upcoming Studies

• SKT East Lawn to Park Connectivity Study

### Funded Projects based on RTPO Studies

- S High St Upgrade Urbana
- Logan County Roundabout Completion date 2024

#### **Ongoing Studies**

ODOT Operational Improvement Study Strategic Plan US 68 & SR 31

ODOT Vision for Logan & Union Counties US 33 Corridor Plan

# Employment Data

Past and Current employment data is provided in the charts on the next two pages. The charts show Champaign County and Logan County job counts within their respective counties. The comparisons show the difference between the years 2010 and 2020.

# Champaign County Jobs

According to the data provided by the US Census Bureau: **Total All Jobs** - Champaign County added 1188 jobs between 2010 and 2020 at the same time there was an increase in Champaign County residents going outside of the county to work. **Jobs by Worker Age** - showed increases in all categories with the exception of the age group 30 to 54 of residents working in and outside of Champaign County shows a slight decrease. **Jobs by Earnings** indicates that there were increases in all earning categories with the exception of Jobs earnings \$1,250 per month or less, working in or outside of Champaign County there was a decrease of -1.7% in this category. **Jobs by NAICS Industry Sector** - Twelve Sectors had an increase with eight exceptions including Utilities, Wholesale Trade, Retail Trade, Information, Educational Services, Accommodation and Food Services, Other Services, Real Estate and Rental and Leasing, Arts, Entertainment, and Recreation. **Jobs by Worker Race** – all categories increased with the exception of both American Indian or Alaska Native Alone and Native Hawaiian or Other Pacific Islander Alone which had a small decrease. **Jobs by Worker Ethnicity** – Both categories had increases in jobs. **Jobs by Worker Educational Attainment** – All but 2 categories had increases in jobs. The categories with decreases were Champaign County jobs category "High School or Equivalent, no college" with a decrease of -1.80% and 'Some college or associate degree' category with a decrease of -1.80%. **Jobs by Work Sex** – Both categories increased.

Overall Champaign County showed a slight increase in overall jobs between the years 2010-2020. Which would indicate that Champaign County is continuing to have job growth.

### Logan County Jobs

According to the data provided by the US Census Bureau: **Total All Jobs** - Logan County added 789 jobs between 2010 and 2020 at the same time there was an increase in Logan County residents going outside of the county to work. **Jobs by Worker Age** - showed increases in all categories with the exception of the age group 30 to 54 of jobs in Logan County which showed a slight decrease. **Jobs by Earnings** - indicates that there were increases in all earning categories with the exception of Jobs earnings of more than \$3,333 per month of jobs located in Logan County, there was a decrease in this category of 7.4%. **Jobs by NAICS Industry Sector** - Most Sectors did increase however the exceptions included Mining, Quarrying, and Oil and Gas Extraction, Wholesale Trade, Information, Management of Companies and Enterprises, Educational Services, Health Care and Social Assistance, Other Services and Public Administration. **Jobs by Worker Race** – all categories increased with the exception of Native Hawaiian or Other Pacific Islander Alone which had a small decrease. **Jobs by Worker Ethnicity** – Both categories had increases in jobs. **Jobs by Worker Educational Attainment** – All but 2 categories had increases in jobs. The categories with decreases were Logan County jobs category "Some College" with a decrease of -2.20% and 'Bachelor's Degree' category with a decrease of -1.70%. **Jobs by Work Sex** – Male job increased by 5.5 % in 2020 while Female job decreased by 5.5% in 2020.

Overall Logan County showed a slight increase in overall jobs between the years 2010-2020. Which would indicate that Logan County is continuing to have job growth.

|                                                                 | Job Cour       | ts for Cha                                      | mpaign C                 | ounty          | Job Count                                                            | e of Chan      | anaign Co                | untv           |  |
|-----------------------------------------------------------------|----------------|-------------------------------------------------|--------------------------|----------------|----------------------------------------------------------------------|----------------|--------------------------|----------------|--|
| Home & Work Area Brofile Analysia                               |                | ides Cham                                       |                          |                | Job Counts of Champaign County<br>residents. This includes Champaign |                |                          |                |  |
| Home & Work Area Profile Analysis                               |                | s as well a                                     |                          |                | County jobs as well as jobs outside of                               |                |                          |                |  |
| Champaign County                                                |                |                                                 |                          |                | the County.                                                          |                |                          |                |  |
| Information provided by US Census Bureau                        |                | outside of Champaign County       2020     2010 |                          |                | 202                                                                  | <b>.</b>       | 2010                     |                |  |
| Information provided by 03 Census Buleau                        | Count          | Share                                           | Count                    | Share          | Count                                                                | Share          | Count                    | Share          |  |
| Total All Jobs                                                  | 10,610         |                                                 | 9,422                    | 100.0%         | 16,069                                                               | 100.0%         | 15,121                   | 100.0%         |  |
|                                                                 |                |                                                 |                          |                |                                                                      |                |                          |                |  |
| Jobs by Worker Age                                              |                |                                                 |                          |                |                                                                      |                |                          |                |  |
|                                                                 |                | 20                                              | 20                       |                |                                                                      |                |                          |                |  |
|                                                                 | Count          | Share                                           | Count                    | Share          | 202                                                                  |                | 201                      |                |  |
| Age 29 or younger                                               | 2,280          | 21.5%                                           | 1,870                    | 19.8%          | Count                                                                | Share          | Count                    | Share          |  |
| Age 30 to 54<br>Age 55 or older                                 | 5,584<br>2,746 |                                                 | 5,564<br>1,988           | 59.1%<br>21.1% | 3,722<br>8,483                                                       | 23.2%<br>52.8% | 3,199<br>9,039           | 21.2%<br>59.8% |  |
|                                                                 | 2,740          | 25.9%                                           | 1,900                    | 21.1%          | 3,864                                                                | 52.8%<br>24.0% | 2,883                    | 59.8%<br>19.1% |  |
| Jobs by Earnings                                                |                |                                                 |                          |                | 3,004                                                                | 24.070         | 2,000                    | 10.170         |  |
|                                                                 | 20             | 20                                              | 20 <sup>-</sup>          | 10             | 202                                                                  | 20             | 201                      | 10             |  |
|                                                                 | Count          | Share                                           | Count                    | Share          | Count                                                                | Share          | Count                    | Share          |  |
| \$1,250 per month or less                                       | 2,475          |                                                 | 2,452                    | 26.0%          | 3,728                                                                | 23.2%          | 3,761                    | 24.9%          |  |
| \$1,251 to \$3,333 per month                                    | 4,080          | 38.5%                                           | 3,678                    | 39.0%          | 6,129                                                                | 38.1%          | 5,878                    | 38.9%          |  |
| More than \$3,333 per month                                     | 4,055          | 38.2%                                           | 3,292                    | 34.9%          | 6,212                                                                | 38.7%          | 5,482                    | 36.3%          |  |
|                                                                 |                |                                                 |                          |                |                                                                      |                |                          |                |  |
| Jobs by NAICS Industry Sector                                   |                |                                                 |                          |                |                                                                      |                |                          |                |  |
|                                                                 | -              | 20                                              | 20                       |                | 202                                                                  |                | 201                      |                |  |
| Animulture Frencher Fielder eithert                             | Count          | Share                                           | Count                    | Share          | Count                                                                | Share          | Count                    | Share          |  |
| Agriculture, Forestry, Fishing and Hunting                      | 95             |                                                 | 80                       | 0.8%           | 131                                                                  | 0.8%           | 97                       | 0.6%           |  |
| Mining, Quarrying, and Oil and Gas Extraction<br>Utilities      | 16             |                                                 | 12<br>9                  | 0.1%<br>0.1%   | 25<br>54                                                             | 0.2%<br>0.3%   | 22<br>59                 | 0.1%<br>0.4%   |  |
| Construction                                                    | 211            | 2.0%                                            | 9<br>197                 | 2.1%           | 565                                                                  | 0.3%           | 59<br>392                | 0.4%           |  |
| Manufacturing                                                   | 4,213          | 39.7%                                           | 2,653                    | 28.2%          | 4,279                                                                | 26.6%          | 4,067                    | 2.6%           |  |
| Wholesale Trade                                                 | 250            |                                                 | 466                      | 4.9%           | 554                                                                  | 3.4%           | 4,007                    | 3.8%           |  |
| Retail Trade                                                    | 916            |                                                 | 1,053                    | 11.2%          | 1,395                                                                | 8.7%           | 1,608                    | 10.6%          |  |
| Transportation and Warehousing                                  | 313            |                                                 | 125                      | 1.3%           | 1,026                                                                | 6.4%           | 557                      | 3.7%           |  |
| Information                                                     | 88             |                                                 | 98                       | 1.0%           | 134                                                                  | 0.8%           | 147                      | 1.0%           |  |
| Finance and Insurance                                           | 148            |                                                 | 143                      | 1.5%           | 439                                                                  | 2.7%           | 380                      | 2.5%           |  |
| Real Estate and Rental and Leasing                              | 97             | 0.9%                                            | 89                       | 0.9%           | 134                                                                  | 0.8%           | 140                      | 0.9%           |  |
| Professional, Scientific, and Technical Services                | 310            | 2.9%                                            | 272                      | 2.9%           | 542                                                                  | 3.4%           | 518                      | 3.4%           |  |
| Management of Companies and Enterprises                         | 64             | 0.6%                                            | 56                       | 0.6%           | 198                                                                  | 1.2%           | 131                      | 0.9%           |  |
| Administration & Support, Waste Management and Remediation      | 87             | 0.8%                                            | 96                       | 1.0%           | 830                                                                  | 5.2%           | 639                      | 4.2%           |  |
| Educational Services                                            | 1,365          | 12.9%                                           | 1,643                    | 17.4%          | 1,402                                                                | 8.7%           | 1,558                    | 10.3%          |  |
| Health Care and Social Assistance                               | 1,094          |                                                 | 953                      | 10.1%          | 2,189                                                                | 13.6%          | 1,957                    | 12.9%          |  |
| Arts, Entertainment, and Recreation                             | 75             |                                                 | 96                       | 1.0%           | 141                                                                  | 0.9%           | 133                      | 0.9%           |  |
| Accommodation and Food Services                                 | 575            |                                                 | 670                      | 7.1%           | 1,027                                                                | 6.4%           | 1,083                    | 7.2%           |  |
| Other Services (excluding Public Administration)                | 325            | 3.1%                                            | 354                      | 3.8%           | 413<br>591                                                           | 2.6%           | 494                      | 3.3%           |  |
| Public Administration                                           | 361            | 3.4%                                            | 357                      | 3.8%           | 591                                                                  | 3.7%           | 557                      | 3.7%           |  |
| Jobs by Worker Race                                             |                |                                                 |                          |                |                                                                      |                |                          |                |  |
| Jobs by Worker Race                                             | 20             | 2020                                            |                          | 2010           |                                                                      | 2020           |                          | 2010           |  |
|                                                                 | Count          | Share                                           | Count                    | Share          | Count                                                                | Share          | Count                    | Share          |  |
| White Alone                                                     | 9,738          | 91.8%                                           | 8,929                    | 94.8%          | 15,225                                                               | 94.7%          | 14,516                   | 96.0%          |  |
| Black or African American Alone                                 | 547            | 5.2%                                            | 347                      | 3.7%           | 465                                                                  | 2.9%           | 376                      | 2.5%           |  |
| American Indian or Alaska Native Alone                          | 31             | 0.3%                                            | 20                       | 0.2%           | 31                                                                   | 0.2%           | 34                       | 0.2%           |  |
| Asian Alone                                                     | 110            |                                                 | 52                       | 0.6%           | 91                                                                   | 0.6%           | 78                       | 0.5%           |  |
| Native Hawaiian or Other Pacific Islander Alone                 | 8              |                                                 | 5                        | 0.1%           | 5                                                                    | 0.0%           | 7                        | 0.0%           |  |
| Two or More Race Groups                                         | 176            | 1.7%                                            | 69                       | 0.7%           | 252                                                                  | 1.6%           | 110                      | 0.7%           |  |
| Jobs by Worker Ethnicity                                        |                |                                                 |                          |                |                                                                      |                |                          |                |  |
| JODS by Worker Ethnicity                                        |                | 20                                              | 20                       | 40             |                                                                      |                | 2010                     |                |  |
|                                                                 | Count          | Share                                           | 20 <sup>-</sup><br>Count | Share          | 202<br>Count                                                         | Share          | Count                    | Share          |  |
| Not Hispanic or Latino                                          | 10,443         | 98.4%                                           | 9,332                    | 99.0%          | 15,821                                                               | 98.5%          | 14,966                   | 99.0%          |  |
| Hispanic or Latino                                              | 167            |                                                 | 90                       | 1.0%           | 248                                                                  | 1.5%           | 155                      | 1.0%           |  |
|                                                                 |                |                                                 |                          |                |                                                                      |                |                          |                |  |
| Jobs by Worker Educational Attainment                           |                |                                                 |                          |                |                                                                      |                |                          |                |  |
|                                                                 | 20             | 20                                              | 20                       | 10             | 202                                                                  | 20             | 201                      | 10             |  |
|                                                                 | Count          | Share                                           | Count                    | Share          | Count                                                                | Share          | Count                    | Share          |  |
| Less than high school                                           | 814            | 7.7%                                            | 632                      | 6.7%           | 1,129                                                                | 7.0%           | 969                      | 6.4%           |  |
| High school or equivalent, no college                           | 3,087          |                                                 | 2,793                    | 29.6%          | 4,325                                                                | 26.9%          | 4,340                    | 28.7%          |  |
| Some college or Associate degree                                | 2,734          | 25.8%                                           | 2,447                    | 26.0%          | 4,031                                                                | 25.1%          | 4,063                    | 26.9%          |  |
| Bachelor's degree or advanced degree                            | 1,695          |                                                 | 1,680                    | 17.8%          | 2,862                                                                | 17.8%          | 2,550                    | 16.9%          |  |
| Educational attainment not available (workers aged 29 or younge | r) 2,280       | 21.5%                                           | 1,870                    | 19.8%          | 3,722                                                                | 23.2%          | 3,199                    | 21.2%          |  |
| John by Worker Sex                                              |                |                                                 |                          |                |                                                                      |                |                          |                |  |
| Jobs by Worker Sex                                              |                | 20                                              |                          | 10             |                                                                      | 20             |                          | 10             |  |
|                                                                 | Count          | 20<br>Share                                     | 20 <sup>.</sup><br>Count | Share          | 202<br>Count                                                         | Share          | 20 <sup>.</sup><br>Count | Share          |  |
|                                                                 | Jount          | Unare                                           | oount                    | Ghare          | Jount                                                                | onare          | oount                    |                |  |
| Male                                                            | 5,757          | 54.3%                                           | 4,638                    | 49.2%          | 8,339                                                                | 51.9%          | 7,455                    | 49.3%          |  |

Figure 34: Champaign County Work & Home Area Analysis

|                                                                                    |                                                                      |               | 0                  | <b>T</b> 1.1.  | Jak Oau                                     |               | 0                  |               |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------|--------------------|----------------|---------------------------------------------|---------------|--------------------|---------------|
|                                                                                    | Job Counts for Logan County. This includes Logan County Residents as |               |                    |                |                                             |               |                    |               |
| Work & Home Area Profile Analysis                                                  | well as W                                                            | •             |                    |                | jobs as well as jobs outside of the County. |               |                    |               |
|                                                                                    | County                                                               |               | in outside         | or Logan       |                                             |               |                    |               |
| Logan County                                                                       | County                                                               |               |                    |                |                                             |               |                    |               |
| Information provided by the US Census Bureau                                       | 2020 2010                                                            |               |                    | 20             | 20                                          | 20            | 10                 |               |
|                                                                                    | Count                                                                | Share         | Count              | Share          | Count                                       | Share         | Count              | Share         |
| Total All Jobs                                                                     | 17,852                                                               | 100.0%        | 17,054             | 100.0%         | 20,079                                      | 100.0%        | 17,869             | 100.0%        |
|                                                                                    |                                                                      |               |                    |                |                                             |               |                    |               |
| Jobs by Worker Age                                                                 |                                                                      |               |                    |                |                                             |               |                    |               |
|                                                                                    | 202                                                                  | 20<br>Share   | 20 <sup>-</sup>    |                | 20                                          | 20<br>Share   | 20                 | 10<br>Share   |
| Age 29 or younger                                                                  | <b>Count</b> 4,003                                                   | 22.4%         | Count<br>3,270     | Share<br>19.2% | Count<br>4,591                              | 22.9%         | Count<br>3,860     | 21.6%         |
| Age 30 to 54                                                                       | 9,757                                                                | 54.7%         | 10,515             | 61.7%          | 10,783                                      | 53.7%         | 10,480             | 58.6%         |
| Age 55 or older                                                                    | 4,092                                                                | 22.9%         | 3,269              | 19.2%          | 4,705                                       | 23.4%         | 3,529              | 19.7%         |
| 0                                                                                  |                                                                      |               |                    |                |                                             |               |                    |               |
| Jobs by Earnings                                                                   |                                                                      |               |                    |                |                                             |               |                    |               |
|                                                                                    | 202                                                                  | 20            | 201                | 10             | 20                                          | 20            | 20                 | 10            |
|                                                                                    | Count                                                                | Share         | Count              | Share          | Count                                       | Share         | Count              | Share         |
| \$1,250 per month or less                                                          | 3,969                                                                | 22.2%         | 3,871              | 22.7%          | 4,784                                       | 23.8%         | 4,576              | 25.6%         |
| \$1,251 to \$3,333 per month                                                       | 7,802                                                                | 43.7%         | 6,109              | 35.8%          | 8,027                                       | 40.0%         | 6,937              | 38.8%         |
| More than \$3,333 per month                                                        | 6,081                                                                | 34.1%         | 7,074              | 41.5%          | 7,268                                       | 36.2%         | 6,356              | 35.6%         |
| Joho by NAICS Industry Sector                                                      |                                                                      |               |                    |                |                                             |               |                    |               |
| Jobs by NAICS Industry Sector                                                      | 202                                                                  | 20            | 20 <sup>,</sup>    | 10             | 20                                          | 20            | 20                 | 10            |
|                                                                                    | Count                                                                | Share         | Count              | Share          | Count                                       | 20<br>Share   | Count              | 10<br>Share   |
| Agriculture, Forestry, Fishing and Hunting                                         | 104                                                                  | 0.6%          | <b>Count</b><br>85 | 0.5%           | 142                                         | 0.7%          | <b>Count</b><br>95 | 0.5%          |
| Mining, Quarrying, and Oil and Gas Extraction                                      | 28                                                                   | 0.0%          | 31                 | 0.3%           | 142                                         | 0.1%          | 32                 | 0.3%          |
| Utilities                                                                          | 49                                                                   | 0.3%          | 44                 | 0.3%           | 77                                          | 0.4%          | 70                 | 0.4%          |
| Construction                                                                       | 626                                                                  | 3.5%          | 486                | 2.8%           | 762                                         | 3.8%          | 541                | 3.0%          |
| Manufacturing                                                                      | 5,205                                                                | 29.2%         | 5,144              | 30.2%          | 5,006                                       | 24.9%         | 4,369              | 24.5%         |
| Wholesale Trade                                                                    | 296                                                                  | 1.7%          | 410                | 2.4%           | 715                                         | 3.6%          | 627                | 3.5%          |
| Retail Trade                                                                       | 1,572                                                                | 8.8%          | 1,572              | 9.2%           | 1,788                                       | 8.9%          | 1,858              | 10.4%         |
| Transportation and Warehousing                                                     | 2,134                                                                | 12.0%         | 1,307              | 7.7%           | 1,641                                       | 8.2%          | 1,051              | 5.9%          |
| Information                                                                        | 87                                                                   | 0.5%          | 156                | 0.9%           | 160                                         | 0.8%          | 216                | 1.2%          |
| Finance and Insurance                                                              | 244                                                                  | 1.4%          | 225                | 1.3%           | 443                                         | 2.2%          | 347                | 1.9%          |
| Real Estate and Rental and Leasing                                                 | 173                                                                  | 1.0%          | 139                | 0.8%           | 178                                         | 0.9%          | 151                | 0.8%          |
| Professional, Scientific, and Technical Services                                   | 738                                                                  | 4.1%          | 285                | 1.7%           | 879                                         | 4.4%          | 581                | 3.3%          |
| Management of Companies and Enterprises                                            | 19<br>1,092                                                          | 0.1%<br>6.1%  | 108<br>1,158       | 0.6%<br>6.8%   | 203<br>1,268                                | 1.0%<br>6.3%  | 158<br>1,138       | 0.9%<br>6.4%  |
| Administration & Support, Waste Management and Remediation<br>Educational Services | 1,092                                                                | 7.4%          | 1,138              | 8.7%           | 1,497                                       | 7.5%          | 1,657              | 9.3%          |
| Health Care and Social Assistance                                                  | 2,083                                                                | 11.7%         | 2,202              | 12.9%          | 2,677                                       | 13.3%         | 2,335              | 13.1%         |
| Arts, Entertainment, and Recreation                                                | 169                                                                  | 0.9%          | 108                | 0.6%           | 178                                         | 0.9%          | 141                | 0.8%          |
| Accommodation and Food Services                                                    | 1,112                                                                | 6.2%          | 1,003              | 5.9%           | 1,393                                       | 6.9%          | 1,260              | 7.1%          |
| Other Services (excluding Public Administration)                                   | 276                                                                  | 1.5%          | 578                | 3.4%           | 454                                         | 2.3%          | 589                | 3.3%          |
| Public Administration                                                              | 530                                                                  | 3.0%          | 528                | 3.1%           | 600                                         | 3.0%          | 653                | 3.7%          |
|                                                                                    |                                                                      |               |                    |                |                                             |               |                    |               |
| Jobs by Worker Race                                                                |                                                                      |               |                    |                |                                             |               |                    |               |
|                                                                                    | 202                                                                  |               | 201                |                | 20                                          |               | 2010               |               |
| 14/1 1/2 - A 1                                                                     | Count                                                                | Share         | Count              | Share          | Count                                       | Share         | Count              | Share         |
| White Alone                                                                        | 16,535                                                               | 92.6%         | 16,184             | 94.9%          | 19,024                                      | 94.7%         | 17,216             | 96.3%         |
| Black or African American Alone                                                    | 723                                                                  | 4.0%          | 545                | 3.2%           | 481                                         |               | 339                | 1.9%          |
| American Indian or Alaska Native Alone                                             | 50<br>287                                                            | 0.3%<br>1.6%  | 38<br>181          | 0.2%           | 54<br>203                                   | 0.3%<br>1.0%  | 43<br>149          | 0.2%<br>0.8%  |
| Native Hawaiian or Other Pacific Islander Alone                                    | 8                                                                    | 0.0%          | 11                 | 0.1%           | 8                                           | 0.0%          | 149                | 0.0%          |
| Two or More Race Groups                                                            | 249                                                                  | 1.4%          | 95                 | 0.6%           | 309                                         | 1.5%          | 112                | 0.6%          |
| , ,                                                                                |                                                                      |               |                    |                |                                             | 2.7           |                    |               |
| Jobs by Worker Ethnicity                                                           |                                                                      |               |                    |                |                                             |               |                    |               |
|                                                                                    | 202                                                                  | 20            | 201                | 10             | 2020                                        |               | 2010               |               |
|                                                                                    | Count                                                                | Share         | Count              | Share          | Count                                       | Share         | Count              | Share         |
| Not Hispanic or Latino                                                             | 17,450                                                               | 97.7%         | 16,881             | 99.0%          | 19,712                                      | 98.2%         | 17,682             | 99.0%         |
| Hispanic or Latino                                                                 | 402                                                                  | 2.3%          | 173                | 1.0%           | 367                                         | 1.8%          | 187                | 1.0%          |
|                                                                                    |                                                                      |               |                    |                |                                             |               |                    |               |
| Jobs by Worker Educational Attainment                                              |                                                                      |               |                    |                |                                             |               |                    |               |
|                                                                                    | 202                                                                  |               | 20 <sup>-</sup>    |                |                                             | 20<br>Chana   |                    | 10<br>Chasa   |
| Less than high school                                                              | Count<br>1 327                                                       | Share         | Count              | Share          | Count                                       | Share         | Count              | Share<br>6.0% |
| Less than high school<br>High school or equivalent, no college                     | 1,327<br>5,129                                                       | 7.4%<br>28.7% | 1,008<br>5,053     | 5.9%<br>29.6%  | 1,495<br>5,467                              | 7.4%<br>27.2% | 1,079<br>5,288     | 6.0%<br>29.6% |
| Some college or Associate degree                                                   | 4,610                                                                | 25.8%         | 4,772              | 28.0%          | 5,114                                       | 25.5%         | 4,776              | 26.7%         |
| Bachelor's degree or advanced degree                                               | 2,783                                                                | 15.6%         | 2,951              | 17.3%          | 3,412                                       | 17.0%         | 2,866              | 16.0%         |
| Educational attainment not available (workers aged 29 or younger)                  | 4,003                                                                | 22.4%         | 3,270              | 19.2%          | 4,591                                       | 22.9%         | 3,860              | 21.6%         |
|                                                                                    |                                                                      |               |                    |                |                                             |               |                    |               |
| Jobs by Worker Sex                                                                 |                                                                      |               |                    |                |                                             |               |                    |               |
|                                                                                    | 202                                                                  | 20            | 201                | 10             | 2020                                        |               | 2010               |               |
|                                                                                    | Count                                                                | Share         | Count              | Share          | Count                                       | Share         | Count              | Share         |
| Male                                                                               | 9,863                                                                | 55.2%         | 8,836              | 51.8%          | 10,390                                      | 51.7%         | 8,864              | 49.6%         |
| Female                                                                             | 7,989                                                                | 44.8%         | 8,218              | 48.2%          | 9,689                                       | 48.3%         | 9,005              | 50.4%         |

Figure 35: Logan County Work & Home Area Analysis

# **Recommended Strategies and Projects**

# Needs Analysis

#### Economic Development

As the two county region continues to develop, it is important to plan a wide-ranging transportation system that aids travelers using the various modes of transportation. There are various locations around the two county region that are expected to grow in the future. This growth consists of industrial growth, business growth, residential growth, and also institutional growth.

Most of the anticipated growth is along the major thoroughfares of the region. There are also various areas in the numerous townships that have the potential to create economic growth for residential, business and industrial uses. While some Township and Municipalities have separate stand-alone Comprehensive Plans, others have future land uses codified in their zoning maps.

# Transportation Projects

Pages 70 and 71 consist of a table listing all of the submitted projects. The number (NO.) column is the project number, and the number is represented on the map on page 69 to display the geographical boundaries for the project.

The county (CO) column lists the county that the project occurs in, while the Sponsor column lists the source from which the project was submitted. The participation sponsors include the Champaign County Engineer's Office (CCEO), the Logan County Engineers Office (LCEO), the City of Bellefontaine (BELL), the City of Urbana (URBA), and the Simon Kenton Pathfinders (SKBT), Village of West Liberty (WLIB), Village of North Lewisburg (NLEW).

### **Implementation**

After the submitted, projects were evaluated using the project evaluation matrix, the data was analyzed and is represented in the following charts and tables. Figure 36 shows the sum of the cost for all the projects listed in specific funding years. The prices for funding years range from approximately \$11 million to approximately \$114 million. The total cost for all submitted projects is approximately \$169 million.

| Feasibility Timeframe | Cost          |
|-----------------------|---------------|
| 2021-2025             | \$11,672,325  |
| 2026-2030             | \$43,626,000  |
| 2031-2035             | \$114,302,000 |
| 2036-2040             | \$0           |
| 2041-2045             | \$0           |
| 2046-2050             | \$0           |
| Grand Total           | \$169,600,325 |

Figure 36 Total Cost for Project Years

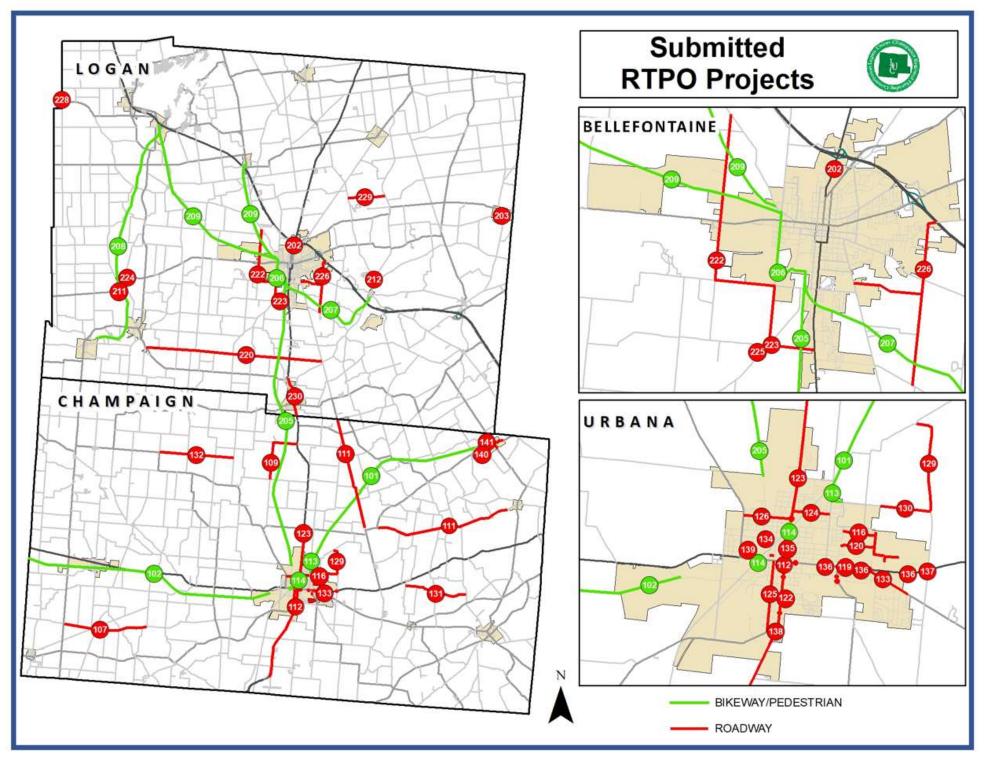
| Sponsor                       | 2021-<br>2025 | 2026-<br>2030 | 2031-<br>2035 | 2036-<br>2040 | 2041-<br>2045 | 2046-<br>2050 | Total |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| City of Bellefontaine         | 3             | 2             | 0             | 0             | 0             | 0             | 5     |
| Champaign County<br>Engineer  | 0             | 3             | 4             | 0             | 0             | 0             | 7     |
| Logan County Engineer         | 0             | 6             | 5             | 0             | 0             | 0             | 11    |
| Simon Kenton Bike Trail       | 0             | 3             | 0             | 0             | 0             | 0             | 3     |
| City of Urbana                | 4             | 7             | 7             | 0             | 0             | 0             | 18    |
| Village of North<br>Lewisburg | 2             | 0             | 0             | 0             | 0             | 0             | 2     |
| Logan County                  | 0             | 0             | 1             | 0             | 0             | 0             | 1     |
| Other                         | 0             | 4             | 0             | 0             | 0             | 0             | 4     |
| Total                         | 9             | 25            | 17            | 0             | 0             | 0             | 51    |

Figure 37 Number of Projects by Project Submitter

Figure 37 lists the number of projects by submitter. It also displays how many projects are listed for each funding cycle as well as the grand total. The City of Urbana had the most submitted projects followed by the Logan County Engineer's Office.

| Sponsor                       | 2021-2025    | 2026-2030    | 2031-2035     | 2036-2040 | 2041-2045 | 2046-2050 | Total         |
|-------------------------------|--------------|--------------|---------------|-----------|-----------|-----------|---------------|
| City of<br>Bellefontaine      | \$550,000    | \$3,375,000  |               |           |           |           | \$3,925,000   |
| Champaign<br>County Engineer  |              | \$5,400,000  | \$81,402,000  |           |           |           | \$86,802,000  |
| Logan County<br>Engineer      | \$1,125,000  | \$3,400,000  | \$6,400,000   |           |           |           | \$10,925,000  |
| Simon Kenton<br>Bike Trail    |              | \$8,601,000  |               |           |           |           | \$8,601,000   |
| City of Urbana                | \$7,036,000  | \$19,600,000 | \$23,200,000  |           |           |           | \$49,836,000  |
| Village of North<br>Lewisburg | \$4,086,325  |              |               |           |           |           | \$4,086,325   |
| Logan County                  |              |              | \$3,300,000   |           |           |           | \$3,300,000   |
| Other                         |              | \$2,125,000  |               |           |           |           | \$2,125,000   |
| Total                         | \$12,797,325 | \$42,501,000 | \$114,302,000 |           |           |           | \$169,600,325 |

Figure 38 Cost of Projects by Project Submitted



| NO   | CO  | SPNSR | LOCATION            | LIMITS                                                                                                                                                    | DESCRIPTION                                                                                             | SFY       | MI COST          | PROJECTED FUNDING SOURCE                                         |
|------|-----|-------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------|------------------|------------------------------------------------------------------|
| 112  | CHA | CCEO  | US 68               | Improvements US 68 from Springfield Urbana Pike to SR 296                                                                                                 | Improve Roadway to improve Freight Congestion and Safety Issues                                         | 2030-2035 | 3.5 \$75,000,000 | D TRAC, STP*                                                     |
| 119  | СНА | URBA  | See Limits          | Intersection of SR 29 East (Scioto St) and US 36 East @Bon Air/Berwick/Ames                                                                               | Construct Intersection Improvements and Enhance pedestrian connectivity                                 | 2031-2035 | NA \$3,000,000   | Safety*                                                          |
| 111  | CHA | CCEO  | Urbana Woodstock Rd | SR 296 to the County Line                                                                                                                                 | To mill, grade, compact, widening, improving shoulder                                                   | 2026-2030 | 8.9 \$1,900,000  | CEAO-STP, OPWC*                                                  |
| 202  | LOG | BELL  | Dowell Ave          | Along Dowell Ave running from N Main St (US 68) east 750 feet                                                                                             | Connect drainage, lower the hillcrest, and widen the turn radius at Main<br>St                          | 2021-2025 | NA \$250,000     | OPWC*                                                            |
| 122  | CHA | URBA  | East Powell Ave     | East Powell Ave at South Main St. (US 68)                                                                                                                 | Improve turning radius for eastbound traffic                                                            | 2031-2035 | NA \$200,000     | SAFETY, STP*                                                     |
| 224  | LOG | LCEO  | TR 21               | CR 24 to SR 47                                                                                                                                            | Widen existing commuter and agricultural route                                                          | 2026-2030 | 0.8 \$175,000    | OPWC*                                                            |
| 225  | LOG | LCEO  | See Limits          | CR 18, TR 200, and TR 216 intersection Improvement                                                                                                        | Intersection Improvement                                                                                | 2026-2030 | 0.2 \$550,000    | SAFETY, STP                                                      |
| 223  | LOG | LCEO  | TR 200              | CR 18 to Bellefontaine Corp.                                                                                                                              | Widen and improve profile of existing business and commuter route                                       | 2031-2035 | 0.5 \$300,000    | SAFETY, STP                                                      |
| 226  | LOG | LCEO  | See Limits          | TR 179 from TR 55 to CR 29 and TR 185 from CR 1 to TR 179                                                                                                 | Widening of existing business, school, and commuter route                                               | 2031-2035 | 5.5 \$1,000,000  | STP                                                              |
| 109  | CHA | CCEO  | Upper Valley Pike   | Lippencott to Sullivan Rd to US Route 68                                                                                                                  | To mill, grade, compact, widening, improving shoulder                                                   | 2026-2030 | 5.9 \$2,500,000  | STP, OPWC                                                        |
| 203  | LOG | BELL  | See Limits          | Various signalized intersections under the City's jurisdiction                                                                                            | Upgrade with Siemens' Epac controllers in the vicinity of SR 47/540 and US 68                           | 2021-2025 | NA \$100,000     | SAFETY                                                           |
| 220  | LOG | LCEO  | TR 30               | CR 1 to SR 508                                                                                                                                            | Widen existing pavement to accommodate commuter traffic                                                 | 2031-2035 | 9.6 \$2,000,000  | SAFETY, STP, OPWC                                                |
| 229  | LOG | LCEO  | TR 136              | CR 25 to CR 5                                                                                                                                             | Widening existing student transportation route, Bridge replacement                                      | 2026-2030 | 2.5 \$1,000,000  | SAFETY, STP, OPWC                                                |
| 222  | LOG | LCEO  | See Limits          | US, 68, CR 200, TR 216, CR 11, CR 32, CR 130                                                                                                              | Bypassing from US 68 to US 33                                                                           | 2031-2035 | 10.0 \$700,000   | STP                                                              |
| 228  | LOG | LCEO  | See Limits          | CR17 and SR 720                                                                                                                                           | Safety improvements of existing intersection                                                            | 2026-2030 | 0.1 \$400,000    | SAFETY, STP                                                      |
| 124  | CHA | URBA  | Bloomfield Ave      | Bloomfield Ave between North Main St (US 68) and East Lawn Avenue                                                                                         | Street reconstruction: drainage improvements: replacement/installation of curb, gutter and sidewalk     | 2031-2035 | 0.6 \$4,000,000  | TAP, STP, SAFETY, OPWC                                           |
| 211  | LOG | LCEO  | CR 21               | 21-1.00 over Great Miami River                                                                                                                            | Rehab historic truss as tourist attraction                                                              | 2031-2035 | 0.1 \$2,400,000  | ТАР                                                              |
| 212  | LOG | LCEO  | CR 5                | CR 25 and CR 2 over Mad River                                                                                                                             | Bridge Replacement                                                                                      | 2026-2030 | 0.1 \$1,000,000  | LOCAL                                                            |
| 125  | CHA | URBA  | S High St           | Miami St (US 36 West) to Lewis B Moore Dr. (SR 55) (PID) #112019)                                                                                         | Street improvements, including roadway, drainage, bicycle, pedestrian, and traffic calming improvements | 2023      | 1.1 \$6,014,000  | SAFETY, STP, TAP, OPWC                                           |
| 120  | СНА | URBA  | See Limits          | Washington Ave & Boyce St to Summit Ave; Community Dr. to Washington Ave fron<br>Summit Avenue to Dugan Place PUD                                         | n Construct extensions                                                                                  | 2026-2030 | 1.1 \$9,000,000  | OPWC, LOCAL, TIF                                                 |
| 230  | LOG | WLIB  | US 68               | US 68 from County Line to SR 508                                                                                                                          | Freight & Safety Study West Liberty                                                                     | 2025-2030 | N/A \$25,000     | STP                                                              |
| 205  | LOG | SKBT  | See Limits          | North edge of Urbana to Carter Avenue in Bellefontaine                                                                                                    | Resurface of existing trail                                                                             | 2026-2030 | 15.6 \$1,280,000 | Private, TAP, ODNR Clean Ohio,<br>ODNR Rec Trails*               |
| 206  | LOG | BELL  | See Limits          | From SW Bellefontaine to Downtown Bellefontaine                                                                                                           | Extending what was constructed in 2014                                                                  | 2021-2025 | 1.0 \$200,000    | Private, TAP, ODNR Clean Ohio,<br>ODNR Rec Trails*               |
| 209A | LOG | BELL  | See Limits          | Along the former Mad River and Lake Erie RR corridor to Huntsville                                                                                        | A 10-foot paved multi-use trail                                                                         | 2026-2030 | 10.0 \$1,500,000 | Private, TAP, ODNR Clean Ohio,<br>ODNR Rec Trails*               |
| 114  | СНА | URBA  | See Limits          | Simon Kenton Trail Bike Path at Miami St (at Depot) and at North Main St (PID<br>#115978)                                                                 | Improve existing bike trail crossings with signage, striping, and flashing beacons                      | 2025      | NA \$400,000     | SAFETY, STP                                                      |
| 126  | СНА | URBA  | See Limits          | West Light St between North Main St (US 68) and North Oakland St (SR29)                                                                                   | Street reconstruction; drainage improvements; replacement/installation of curb, gutter, and sidewalk    | 2026-2030 | 0.7 \$6,000,000  | TAP, STP, SAFETY, OPWC                                           |
| 101  | CHA | SKBT  | See Limits          | NE Champaign County to North Lewisburg                                                                                                                    | Continuing and connecting 2 trails                                                                      | 2026-2030 | 13.5 \$2,025,000 | VARIOUS                                                          |
| 102  | CHA | SKBT  | See Limits          | Urbana to Champaign County – Miami County line                                                                                                            | Continuation of the Simon Kenton Trail in Urbana                                                        | 2026-2030 | 14.7 \$5,296,000 | VARIOUS                                                          |
| 128  | СНА | URBA  | See Limits          | Create Transit Connections from Champaign County to Border Counties; See Clark<br>County 2030 Transit Plan and MVRPC (Greater Region Mobility Initiative) | Create public transit connections between neighboring counties                                          | 2026-2030 | NA \$100,000     | 5311 (RURAL TRANSIT PROGRAM)<br>Ohio Transit Partnership Program |
| 204  | LOG | RTC   | See Limits          | County wide                                                                                                                                               | Develop a route to transport individuals to and from identified locations                               | 2026-2030 | NA \$400,000     | Transit                                                          |
| 208  | LOG | COUN  | See Limits          | Along the Great Miami River connecting Russells Point, DeGraff and Quincy                                                                                 | A 10-foot paved multi-use trail                                                                         | 2031-2035 | 22.0 \$3,300,000 | ТАР                                                              |
| 209B | LOG | LCEO  | See Limits          | Along abandoned Penn Central RR from Bellefontaine to Russells Point                                                                                      | 10-foot-wide path                                                                                       | 2026-2030 | 10.0 \$1,400,000 | ТАР                                                              |

| NO  | CO  | SPNSR          | LOCATION                            | LIMITS                                                                                                                                                             | DESCRIPTION                                                                                                      | SFY       | MI    | COST        | PROJECTED FUNDING SOURCE                                |
|-----|-----|----------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------|-------|-------------|---------------------------------------------------------|
| 207 | LOG | BELL           | See Limits                          | Former T&OC RR Corridor east from SW Bellefontaine to Zanesfield                                                                                                   | A 10-foot paved multi-use trail                                                                                  | 2026-2030 | 12.5  | \$1,875,000 | ТАР                                                     |
| 113 | CHA | URBA           | See Limits                          | Dellinger Rd & East Lawn Ave to Melvin Miller Park on Children' s Home Rd                                                                                          | Create a protected or off-roadway connection between two existing sections of bike path                          | 2026-2030 | 0.4   | \$500,000   | Private, ODNR Clean Ohio, ODNR<br>Rec Trails, TAP, OPWC |
| 116 | CHA | URBA           | See Limits                          | Boyce St between North Jefferson Ave and dead end of Boyce St                                                                                                      | Eliminate sidewalk gaps and improve pedestrian access/safety & drainage                                          | 2026-2030 | 0.4   | \$1,000,000 | TAP, OPWC                                               |
| 123 | CHA | URBA           | See Limits                          | North Main St (US 68) from Bloomfield Ave to Grimes Circle                                                                                                         | Improve pedestrian access/safety: close sidewalk gaps: drainage<br>improvements                                  | 2031-2035 | 0.5   | \$4,000,000 | TAP, STP, SAFETY, OPWC                                  |
| 107 | CHA | CCEO           | Old Troy Pike                       | SR 235 to SR Kite Rd                                                                                                                                               | Mill, grade, compact, widening, improving shoulder, overlay                                                      | 2031-2035 | 6.868 | \$3,000,000 | OPWC, County                                            |
| 129 | CHA | Urbana<br>Twp. | Dugan Road                          | Eastlawn Ave to Children's Home Road                                                                                                                               | Widening, improving shoulder, overlay                                                                            | 2024-2030 | 3.13  | \$1,400,000 | OPWC, Safety, SS4A, Township, City                      |
| 130 |     | Urbana<br>Twp. | Children's Home Road                | Urbana Corp to Dugan                                                                                                                                               | Widening, improving shoulder, overlay                                                                            | 2024-2030 | 0.98  | \$300,000   | OPWC, Safety, SS4A, Township, City                      |
| 131 | CHA | CCEO           | Stringtown Road                     | Mutual Union Road to Parkview Road                                                                                                                                 | Mill, grade, compact, widening, improving shoulder, overlay                                                      | 2031-2035 | 3.54  | \$1,593,000 | OPWC, County                                            |
| 132 | CHA | CCEO           | Nine Mile Road                      | SR 29 to Wesley Chapel Road                                                                                                                                        | Mill, grade, compact, widening, improving shoulder, overlay                                                      | 2031-2035 | 4.02  | \$1,809,000 | OPWC, County                                            |
| 133 | СНР | URBA           | Scioto Street                       | State Route 29 East (Scioto Street) from Intersection of SR 29 East (Scioto Street) and US 36 East to Parkway Boulevard                                            | Drainage improvements; add curb and gutter; install sidewalks;<br>improve pedestrian connectivity/safety         | 2031-2035 | 0.8   | \$6,000,000 | TAP, STD, SAFETY, OPWC                                  |
| 134 | CHP | URBA           | Gwynne Street                       | Gwynne Street Bridge over Simon Kenton Trail/Dugan Ditch (Run)/WESTCO/I&O<br>Railroad                                                                              | Rehab bridge deck and superstructure                                                                             | 2021-2025 | N/A   | \$185,000   | LOCAL, Municipal Bridge Program                         |
| 135 | CHP | URBA           | North/South Main Street<br>(US 68)  | North Main Street @ Light, Washington, Ward, Church, Court; South Main Street @<br>Market, Water, Reynolds, Park, Powell, 55                                       | Upgrade obsolete signal heads, pedestrian crosswalk heads, and signal controllers; congestion mitigation         | 2026-2030 | N/A   | \$1,650,000 | STP, SAFETY                                             |
| 136 | CHP | URBA           | Miami/Scioto Street (US<br>36/SR29) | Miami @ Oakland (SR 29), High; Scioto @ Kenton, East Lawn Avenue; Jefferson;<br>Finch; Split of 29/36; US36/Lippencott Ln.; S. Jefferson Ave. (SR 54)/E. Water St. | Upgrade obsolete signal heads, pedestrian crosswalk heads, and signal controllers; congestion mitigation         | 2026-2030 | N/A   | \$1,350,000 | STP, SAFETY                                             |
| 137 | СНР | URBA           | US 36/Dugan                         | Intersection of US 36 East/Dugan Road                                                                                                                              | Intersection Improvement for safety; install sidewalk connections                                                | 2031-2035 | N/A   | \$3,000,000 | SAFETY                                                  |
| 138 | СНР | URBA           | US 68/SR 55                         | Intersection of South Main Street (US 68) and Lewis B. Moore Drive (SR 55)                                                                                         | Intersection Improvements to increase capacity, improve safety;<br>install sidewalk connections                  | 2031-2035 | N/A   | \$3,000,000 | SAFETY                                                  |
| 139 | СНР | URBA           | West Court Street                   | West Court Street between North High Street and North Russell Street (PID #115394)                                                                                 | Replace existing structurally deficient concrete beam bridge with new precast, circular reinforced concrete pipe | 2025      | 0.1   | \$437,000   | Ohio Bridge Partnership                                 |
| 140 | CHP | NLEW           | SR 559                              | Village of North Lewisburg                                                                                                                                         | SR 559 Reconstruction of 2900 LF x 24 Feet                                                                       | 2021-2025 | N/A   | \$2,899,300 | OPWC                                                    |
| 141 | СНР | NLEW           | SR 245                              | Village of North Lewisburg                                                                                                                                         | SR 245 Reconstruction of 5000 LF x 31 Feet                                                                       | 2021-2025 | N/A   | \$1,187,025 | OPWC                                                    |

Figure 39 - Submitted Projects

TRAC – Transportation Review Advisory Council

STP – State Surface Transportation Program

OPWC – Ohio Public Works Commission

CEAO STP – County Engineers Association of Ohio – Surface Transportation Program

TAP – State Transportation Alternatives Program

ODNR – Ohio Department of Natural Resources

# **Environmental Justice Analysis**

## Environmental Mitigation Overview

The following sections detail the existing environmental conditions for Champaign County and Logan County. Environmental data was gathered from sources such as the Federal Emergency Management Agency (FEMA), the National Oceanic and Atmospheric Administration (NOAA), the National Park Service (NPS), the Ohio Department of Natural Resources (ODNR), the Ohio Department of Transportation (ODOT), and the United States Geological Survey (USGS).

Section 4(f) of the Department of Transportation Act requires that special effort be made to preserve public parks and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) specifies that federally funded transportation projects requiring the use of land from a public park, recreation area, wildlife and waterfowl refuge or land of significant historic site can only occur if there is no feasible and prudent alternative. Using Section 4(f) land requires all possible planning to minimize harm. Ohio has numerous Federal, state and local parks, wildlife and waterfowl refuges and national registrar historic sites. These sites are important to our communities and heritage. However at times, transportation projects impact Section 4(f) resources and require specific measures to minimize harm or mitigate the impacts. These activities involve close coordination with the officials that have jurisdiction of the specific resources.

Investigation of Section 4(f) resources and investigation of potential impacts occur throughout ODOT's project development process for individual projects. The intent of evaluating project resources throughout the process helps to guide projects toward practical solutions while minimizing impacts when no feasible and prudent alternative exists. The availability of detail during the PDP on the preferred alternative allows for closer examination of the potential for Section 4(f) impacts and a clearer determination of how impacts should be processed. Once this is known, project sponsors and officials that own the resources can follow a process for mitigation.

Often times, transportation officials are aware of and account for regional Section 4(f) resources that are important for preservation and community cohesion. Other resources may not be as well-known but are afforded the same protection under Section 4(f). Long range planning should account for well-known Section 4(f) resources throughout the region that would pose a significant loss if impacted. It is, however, premature to analyze individual projects' Section 4(f) impacts this early in the process.

## **Mitigation**

In cases where projects do have Section 4(f) impacts and there is no feasible and prudent alternative to avoid use of the resource, the project approval process requires the consideration of "all possible planning to minimize harm". Minimization of harm may entail both alternative design modifications that lessen the impact on 4(f) resources and mitigation measures that compensate for residual impacts. Minimization and mitigation measures should be determined through consultation with the official or the agency owning or administering the resource. Neither the Section 4(f) statue nor regulation requires the replacement of 4(f) resources used for highway projects, but this option is appropriate as a mitigation measure for direct project impacts.

Mitigation measures involving public parks, recreation areas, or wildlife and waterfowl refuges may involve a replacement of land and/or facilities of comparable value and function, or monetary compensation, which could be used to enhance the remaining land.

Mitigation of historic sites usually consists of those measures necessary to preserve the historic integrity of the site and agreed by FHWA. In any case, the cost of mitigation should be a reasonable public expenditure in light of the severity of the impact on the Section 4(f) resource in accordance with Federal requirements. Mitigation for common Section 4(f) resource impacts may be:

- Improving access or expansion/pavement of parking area
- Landscape or screening of resource
- Installation of beautification enhancements such as park benches, trash receptacles, signage, etc.
- Maintenance of traffic accommodation or rerouting of traffic
- Minimizing construction noise or limiting construction to specific times
- Direct compensation for improvements to on-site resources
- Design refinements

### Watersheds, Wetlands and Floodplains

#### Water Overview

ODOT strives to avoid, to the fullest extent practicable, any activity that adversely impacts streams or wetlands during the design, construction, or maintenance of the state transportation system. ODOT takes appropriate action throughout the project development process to avoid, minimize, and mitigate impacts as required by federal, state, and local law. In the event that impacts to streams and wetlands are unavoidable, ODOT considers a wide variety of mitigation strategies, which always begins with evaluation of on-site opportunities (e.g. natural channel design techniques, bank full culverts, wetland creation, etc.) within the project work area. Once the on-site (within the project area) resources are exhausted, the search for mitigation opportunities may shift to on-site, within one mile of the project area, followed by a search within a specific 8 Digit Hydrological Unit Code (HUC) watershed. Mitigation opportunities may include mitigation banking, stream and wetland creation, restoration, and/or preservation, and possibly even preservation of upland buffer adjacent to stream and wetland resources. Impact analysis and mitigation are integral parts of the project development process.

Early review and analysis of project alternatives by regulatory and resource agencies combined with effective inter-office coordination are required to develop successful transportation projects. ODOT follows guidelines for the development of mitigation as required by the U.S. Army Corps of Engineers (USACE) and Ohio Environmental Protection Agency (OEPA). The USACE mitigation guidelines are outlined in the latest USACE Regulatory Guidance Letter (RGL) 02-02, dated December 24, 2002. This guidance can be located in Appendix T. Ohio EPA has specific guidelines for wetland mitigation which is included in the Ohio Administrative Code Sections 3745-1-50 through 3745-1-54, "The Wetland Water Quality Standards." Although mitigation is now being required for unavoidable impacts to streams there are currently no formal rules in Ohio. Stream mitigation for ODOT projects is being accomplished on a case-by-case basis and is negotiated with OEPA and USACE by OES through the pre-application/coordination and waterway permit processes.

#### Water Mitigation

ODOT's general procedure for securing required mitigation for stream and wetland impacts includes:

- Determination of mitigation needs. The Ecological Survey Report (ESR) documents these potential project impacts.
- Analyze potential mitigation opportunities within the project area and/or close proximity (one mile) or within a specific 8 Digit Hydrological Unit Code (HUC) watershed where the impacts are anticipated to occur. This may require a partnership between ODOT and various organizations or individuals such as a watershed groups, conservation groups, a local park districts, the Ohio Department of Natural Resources, or even a private landowner to secure appropriate mitigation.
- Develop preferred plan of action for mitigation.
- Select mitigation site(s); [on-site, off-site, or mitigation banks]
- Provide funds to partnering organization for mitigation projects.
- Pursue conservation easements.
- Develop conceptual mitigation plan/report.
- Coordinate conceptual mitigation plan/report with resource and regulatory agencies.
- Submit approved conceptual mitigation plan/report with waterway permit applications.
- Develop final mitigation plan, for submission to agencies prior to permit authorization.
- Develop construction plans.
- Procure conservation easements.
- Provide funds to partnering agencies.
- Procure credits at Mitigation Banks
- Construct Mitigation Project
- Monitor Mitigation Project

ODOT performs post construction monitoring on all mitigation sites for a minimum of 5 years to assure successful development and to meet waterway permit conditions. ODOT-Office of Environmental Services in cooperation with ODOT Districts, the ODOT-Office of Real Estate, the ODOT-Office of Aerial Engineering, and project consultants coordinate to develop all stream and wetland mitigation projects. According to the USGS 'Hydrologic Unit Maps' document, the United States is divided and sub- divided into sequentially smaller hydrologic units which are classified into four levels: regions, sub-regions, accounting units, and cataloging units.

Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of two to twelve digits based on the six levels of classification in the hydrologic unit system. The hydrologic units are arranged from the largest geographic area, which includes the regions HUC-2, to the smallest geographic area, which includes the sub-watersheds HUC-12.

Watersheds are studied and Total Maximum Daily Load (TMDL) Plans developed for the purpose of identifying impaired waters, the causes of impairments, potential solutions, and to allocate pollutant loading to achieve attainment of water quality standards. The mix of proposed approaches to improve water quality is determined by the unique issues in each watershed.

For transportation projects, TMDL projects specify the amount a pollutant needs to be reduced to meet water quality standards, allocates pollutant load reductions, and provides the basis for taking actions needed to restore a water body if affected by a project.

## **Watersheds**

In 1990, Ohio EPA initiated an organized, sequential approach to monitoring and assessment. One of the principal objectives of this approach was to better coordinate the collection of ambient stream and river monitoring data so that information and reports were available in time to support water quality management activities such as the reissuance of wastewater discharge (NPDES) permits, development of watershed Total Maximum Daily Load (TMDL) documents, and periodic revision of the Ohio Water Quality Standards (WQS).

Further refinement of the monitoring approach occurred in the early 2000s in response to Ohio EPA's decision to embark on a progressive watershed-based monitoring, assessment, and reporting approach to facilitate the collection of data to support development of TMDLs. To this end, Ohio EPA adopted as basic watershed assessment units the U.S. Geological Survey 11-digit Hydrologic Unit (HUC-11), eventually transitioning to HUC-12s during the 2008 survey year. Beginning with the 2010 Integrated Water Quality Monitoring and Assessment Report, 1,538 HUC-12 watershed assessment units (WAUs) became the primary reporting unit for watershed survey monitoring and assessment, as well as TMDL development and implementation.

The HUC-12 WAU scale is used to categorize and assess stream and river sites draining watersheds up to 500 square miles. For Ohio's largest rivers—greater than 500 square miles—large river assessment units (LRAUs) were developed to report independently on these large water bodies, since they are unique in their importance and cannot be readily included and effectively assessed in small HUC-12 watersheds. At this size, rivers generally are impacted more by the character of and activity in the accumulated drainage area and less by what is happening adjacent to the channel (i.e., on the stream bank) or in the immediate adjacent landscape. Currently, 45 LRAUs have been established for the 30 largest rivers in Ohio.

There are currently eight watersheds in the two county region. Big Darby Creek, Bokes Creek, Mill Creek, Scioto River (Upper), Deer Creek, The Great Miami River (upper), Great Miami River (middle), and Mad River.

**Big Darby Creek** watershed is located in central Ohio, draining agricultural areas and suburbs to the northwest and west of Columbus. The basin is primarily in Logan, Union, Champaign, Clark, Madison, Franklin, and Pickaway counties.

**Bokes Creek** is located in Union, Delaware, and Logan counties in central Ohio and drains 108 square miles to the Scioto River. Land use in the watershed is predominantly comprised of cultivated crops with pockets of pasture and hay lands. Municipalities include West Mansfield, Magnetic Springs and a small portion of Delaware.

**Mill Creek** is in the Scioto River basin, and flows through Logan, Union, and Delaware counties before its confluence with the Scioto River. The Mill Creek watershed is located in Union, Logan and Delaware counties. Municipalities include Marysville and Ostrander. Land use in the watershed is 63 percent cultivated crops, 13 percent pasture and hay lands, 12 percent forested, and 11 percent developed. Marysville obtains its drinking water from surface waters in the watershed.

**Upper Scioto River** watershed is located in the northwestern portion of central Ohio. The Scioto River flows into the Ohio River at Portsmouth in Scioto County. The majority of the upper Scioto River watershed is located in Hardin, Marion and Union counties. Smaller portions are located in Allen, Auglaize, Logan, Wyandot, Crawford and Delaware counties. The predominant land use in the watershed is cultivated crops at 80 percent. Other relatively common land uses include developed land (8 percent), forest (6 percent) and pasture/hay (4 percent).

**Deer Creek** is located in south central Ohio. Deer Creek flows into the Scioto River north of Chillicothe in Ross County. Small portions of the watershed are located in Champaign, Clark, Franklin and Fayette counties. The remainder of the watershed is located in Madison, Pickaway and Ross counties. Land use in the watershed is predominantly comprised of row crop (79 percent), barren land (7 percent), developed land (6 percent) and forest (6 percent). The watershed contains several recreational lakes, including Lake Choctaw, Madison Lake, Clark Run Lake and Deer Creek Lake. There are also two Ohio State Parks located in the watershed: Madison Lake State Park and Deer Creek State Park.

**Great Miami River (upper)** watershed is located in western Ohio in Logan, Shelby, Mercer, Auglaize, Darke, Champaign, Hardin and Miami counties and drains 748 square miles. The river flows into the Ohio River west of Cincinnati. The upper portion of the watershed covers approximately one-third of the drainage area of the Great Miami River basin and is home to two lakes used heavily for recreation (Indian Lake and Lake Loramie). Bellefontaine, Sidney and Minster are the three largest communities in the watershed. Land use in the Great Miami River (upper) watershed is comprised of 71 percent cultivated crops, 8 percent pasture and hay, 9 percent forest and 9 percent developed land.

**Great Miami River (middle)** Watershed - The majority of the watershed is located in Shelby, Miami and Montgomery counties. Small portions are located in Champaign and Clark counties. Land use in the watershed is dominated by cultivated crops (65 percent) and developed land (20 percent), with an additional 8 percent forest and 5 percent pasture/hay. In general, the northern portion of the watershed is more agricultural while the southern portion is more urban and suburban developed land.

**Mad River** is located in southwest Ohio in Logan, Champaign, Clark, Miami, Greene, and Montgomery counties. The Mad River is a sub watershed of the Great Miami River, flowing southwest until it joins with the Great Miami River in Dayton. The watershed drains 657 square miles.

# <u>Wetlands</u>

Wetlands are intermediate areas between land and water. Wetlands are saturated with water or covered by shallow water at least part of the year. Wetlands include swamps, marshes, and bogs. However, less obvious wetlands may only hold water for a few weeks in the spring.

Wetlands provide ecological and economic benefits because they protect and preserve drinking water supplies, provide a natural means of flood and storm damage protection, provide essential habitats for fish and wildlife provide special vegetation communities, and serve important functions for surface and groundwater supplies. Federal, state and local authorities regulate wetlands because of their importance.

If a transportation project affects a wetland a wide variety of mitigation strategies should be considered, which always begin with evaluation of on-site opportunities within the project work area. These on-site opportunities include natural channel design techniques, culverts, wetland creation, etc.

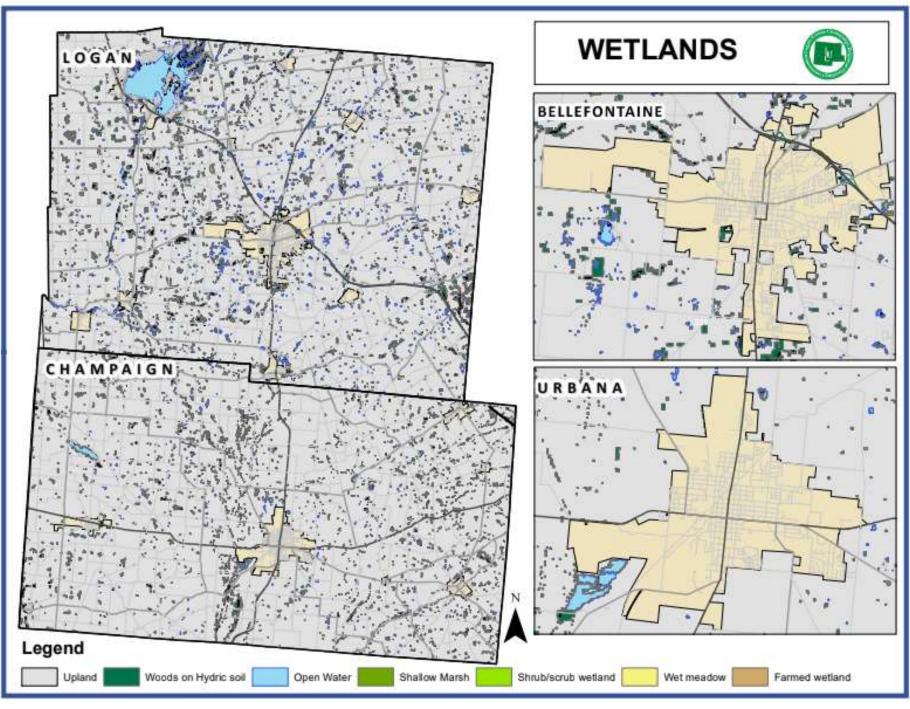
Once the on-site resources are exhausted, the search for mitigation opportunities may shift to off- site, within one mile of the project area, followed by a search within a specific 8 Digit HUC watershed.

Mitigation opportunities may include mitigation banking, stream and wetland creation, restoration, and/or preservation, and possibly even preservation of an upland buffer adjacent to stream and wetland resources.

The majority of wetlands are located in Logan County. There is a cluster of wetlands surrounding Indian Lake in the northwest region of Logan County and also another smaller cluster near the Union County border on the east side of Logan County. Approximately 1.2% (5,590 acres) of Champaign County is wetlands while approximately 3.1% (16,190 acres) of Logan County is wetlands.

The majority of the wetlands in Champaign County are composed of Cedar Bog. Cedar Bog State Nature Preserve is a protected area of about 450 acres. Ground water from the Mad River Valley percolate through hundreds of feet of gravel left behind from a glacier. The glacier also left behind plants that are unique to Cedar Bog, many of these plants are rare or endangered. Trees like Bog Birch and Northern White Cedar are also unique because they are more commonly found in the northern Boreal Forest.

According to the Ohio Department of Natural Resources (ODNR), the Ohio Wetlands Inventory is based on analysis of satellite data and is intended solely as an indicator of wetland sites for which field review should be conducted. The data reflect conditions during the specific year and season the data was acquired and all wetlands may not be indicated.



Wetlands: Source - ODNR

# **Floodplains**

A floodplain is an area of land next to a waterway that stretches from the channel banks to the surrounding valley wall banks. This area experiences flooding during periods of high discharge and therefore is prone to flooding.

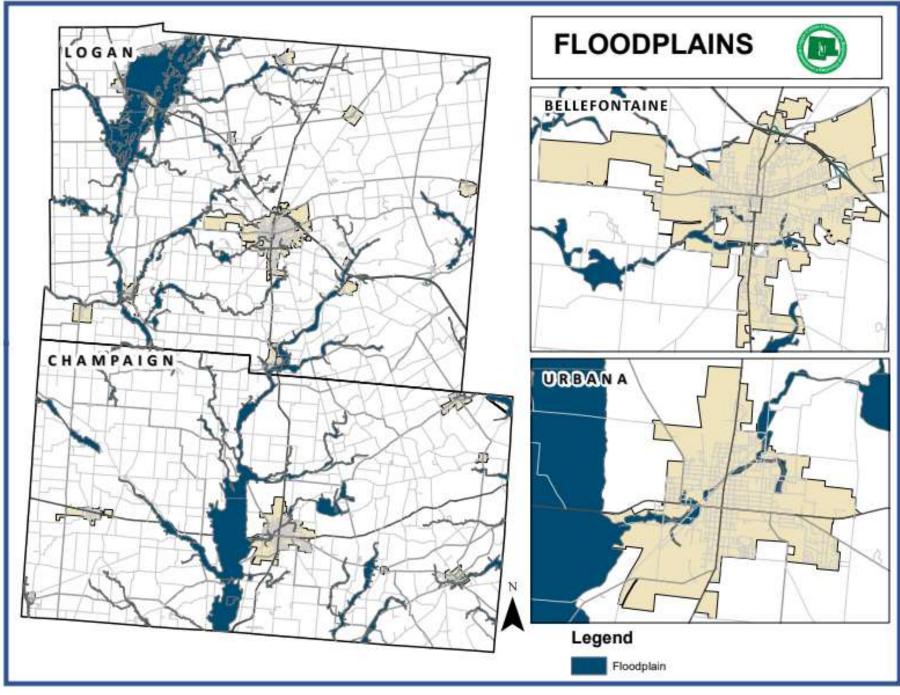
It is important to note the location of floodplains when planning future conditions and needs. If a transportation project is in a floodplain, costs are likely to increase due to the additional measures that must be taken for flood prevention and mitigation.

The largest floodplains in both Champaign County and Logan County follow the two largest rivers in the region, the Great Miami River and the Mad River, as well as surrounding the largest lake in the region, Indian Lake.

The Great Miami River is a tributary of the Ohio River and is approximately 160 miles in total length. The portion of the Great Miami River in the two county region is located in western Logan County, extending approximately 18 miles and connecting to Indian Lake.

The Mad River flows 66 total miles from Logan County to downtown Dayton, where it meets the Great Miami River. In the LUC region, the Mad River flows 29 miles southwest from its source near Campbell Hill through West Liberty, along U.S. Route 68 west of Urbana.

Flood hazard areas identified on the Floodplains map, shown at the end of this section, are identified as a Special Flood Hazard Area (SFHA). According to Federal Emergency Management Agency (FEMA), SFHA are defined as the area that will be inundated by the flood event having a 1- percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.



Flood Plains: Source - ODNR

# Land Use

Land use is distinct from land cover even though the two terms are often used interchangeably. Unlike land cover, land use cannot be determined from satellite imagery. Land use is a description of how people utilize the land and of socio-economic activity.

According to the Food and Agriculture Organization of the United Nations (FAO), land use involves the management and modification of natural environment or wilderness into the built environment such as settlements and semi-natural habitats such as arable fields, pastures, and managed woods. It also has been defined as the arrangements, activities and inputs people undertake in a certain land cover type to produce, change or maintain it.

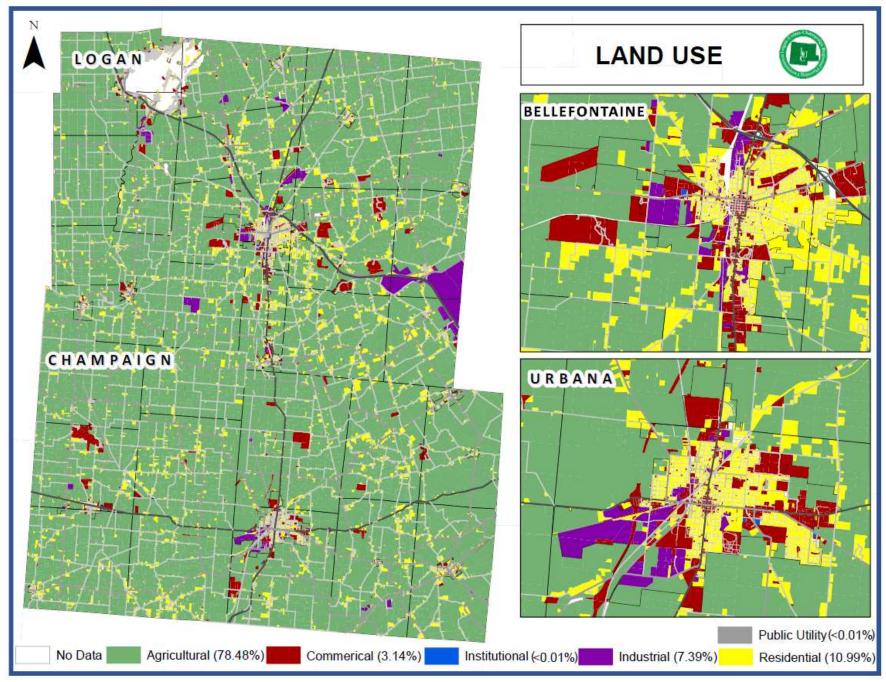
Land use can depict how a city has developed, may develop, where to provide specific types of transportation systems, and help make decisions that are cost effective.

Approximately 78.48% of the two county region is classified as agriculture, 10.99% residential, 3.14% commercial, 7.39% industrial, <0.01% industrial, <0.01% public utility. Parcels that do not contain a land use code are included in the category of "no data" and constitute 0% of the two county region.

Figure 40 shows the difference between 2014 and 2022 land use percentages. Noting the changes in the different categories – Agriculture decreased by -4.62%, Commercial increased by 2.34%, Industrial increased by 5.99%, Institutional decreased by -1.59%, and Residential increased by 3.09%.

|                        | 2014       | 2022       | Difference |
|------------------------|------------|------------|------------|
| Land Use               | Percentage | Percentage | Percentage |
| Agriculture/Open Space | 83.10%     | 78.48%     | -4.62%     |
| Commercial             | 0.80%      | 3.14%      | 2.34%      |
| Industrial             | 1.40%      | 7.39%      | 5.99%      |
| Institutional          | 1.60%      | 0.01%      | -1.59%     |
| Residential            | 9.40%      | 10.99%     | 3.09%      |
| Public Utility         | n/a        | 0.01%      | 0.01%      |
| NO DATA                | 5.00%      | 0.00%      | -5.00%     |

Figure 40: Land Use Percentages



Land Use: Source - ODNR

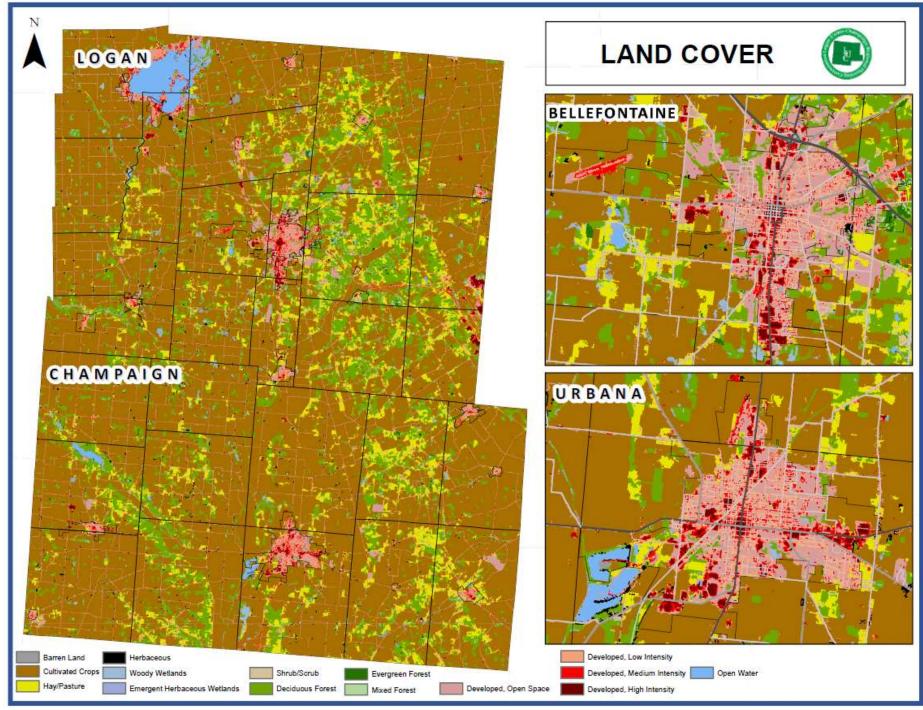
## Land Cover

According to the National Oceanic and Atmospheric Administration (NOAA) 'What is the difference between land cover and land use?' document, land cover demonstrates how much of a region is covered by forests, wetlands, impervious surfaces, agriculture, and other land and water types.

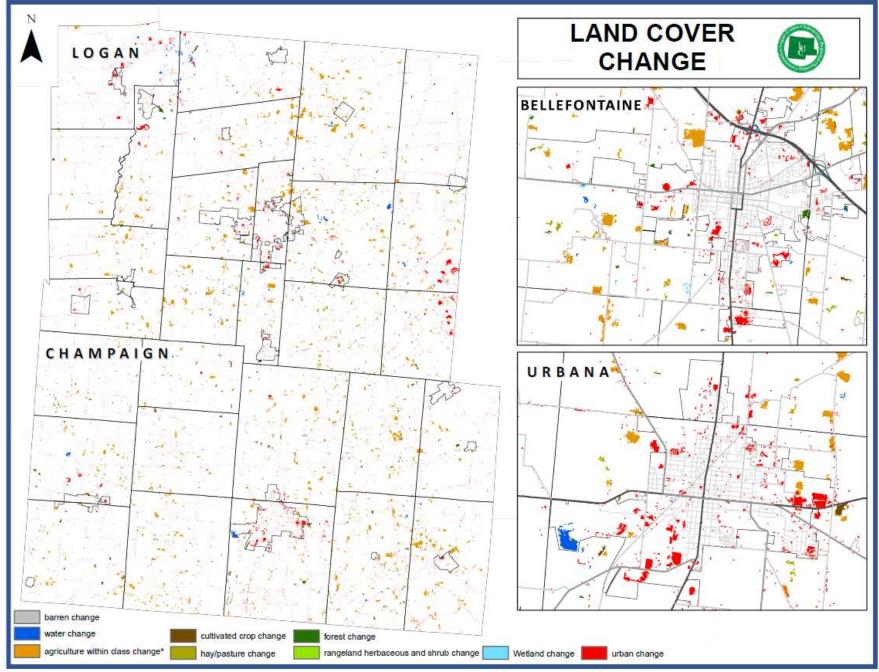
Land cover is usually determined by analyzing satellite and aerial imagery. Land cover maps provide information to help understand the current landscape. Using imagery for several different years, land cover maps can show a change over time.

Land cover maps can help assess urban growth, model water quality issues, predict and assess impacts from floods and storm surges, track wetland losses and potential impacts from sea level rise, prioritize areas for conservation efforts, and compare land cover changes with effects in the environment or to connections in socioeconomic changes such as increasing population.

The Land Cover map shown on the next page displays the most recent land cover available. The Land Cover Change map, that follows, displays the areas of land that changed from the 2011 map. The map represents what the land areas changed into but not what the areas were previously.



Land Cover: Source- ODNR



Land Cover Change: Source - ODNR

## Historic Places

Historic places were gathered from the National Park Service (NPS) database of The National Register of Historic Places (NRHP). NRHP generates, lists, and designates certain areas or buildings that have significant historical values worthy of preservation.

#### Historic places Overview

Cultural resource reviews for all ODOT projects are planned and designed to comply with the National Environmental Policy Act, the National Historic Preservation Act, the Department of Transportation Act, the Ohio Revised Code and 36 CFR Part 800 (the implementing regulations for Section 106 of the National Historic Preservation Act). All of these require that cultural resources be considered during the development of all highway projects in Ohio. An element of that consideration involves consulting with various entities, including the Federal Highway Administration (FHWA), the State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation (ACHP), City Historic Preservation Offices, local public officials, local organizations, and the public.

#### Historic Places Mitigation

Mitigation measures developed through the Section 106 Memorandum Of Agreement consultation process provide ways to avoid, minimize, or mitigate adverse effects to historic properties (i.e., those listed in or eligible for listing in the NRHP) impacted by projects. These mitigation measures are carried through as environmental document commitments and must be completed and accounted for with SHPO and FHWA.

Furthermore, the MOA is not closed until all stipulations are fulfilled. A failure to meet all stipulations can potentially jeopardize a project sponsor's funding or other agreements or projects.

A plan for mitigating an adverse effect is site/property specific and requires a separate research design or approach for each historic property impacted by the project. It should be based on the context development and refinement through the preceding Phase I and Phase II work.

Mitigation measures may involve a variety of methods including, but not limited to, aesthetic treatments, avoidance, archaeological data recovery, creative mitigation, salvage and re-use of historic materials, informing/educating the public, and Historic American Buildings Survey (HABS)/ Historic American Engineering Record (HAER) documentation. Approaches vary widely depending on the type of historic property, the qualities that enable the property to meet the National Register of Historic Places (NRHP) Criteria of Eligibility, the location of the historic property with respect to the project, etc. Mitigation plans are developed in consultation with ODOT, SHPO, FHWA, consulting parties (i.e., local officials, organizations, public), federally recognized Native American Indian tribes, and on occasion, the ACHP.

#### HABS/HAER Recordation

HABS/HAER recordation documents buildings and engineering structures (e.g., bridges), respectively, that are listed in or eligible for listing in the NRHP. In Ohio, the SHPO requires Level 2 documentation for

HABS/HAER recordation. Level 2 archival documentation consists of large-format (4'x5') black-and-white negatives and prints, a written historical report, and photographs or photographic reproductions of selected existing drawings.

Documentation must follow the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation:

- HABS/HAER Standards (U.S. Department of the Interior 1993)
- HABS Historical Reports (U.S. Department of the Interior 2000)
- Recording Historic Structures & Sites for the Historic American Engineering
- Record (U.S. Department of the Interior 1996)
- All are available online at <u>http://www.cr.nps.gov/habshaer</u>

#### Archaeological Data Recovery

Phase III archaeological data recovery investigations are intended to mitigate the adverse effect to archaeological sites listed in or eligible for listing in the NRHP. Mitigation is achieved through intensive large scale excavations and through detailed analysis of the resultant cultural remains which were encountered during these excavations. Archaeological data recovery plans are developed in consultation with ODOT's Office of Environmental Services and the SHPO. The results of all data recovery investigations are summarized as a technical report that are reviewed and approved by ODOT-OES and the SHPO. Completion of the fieldwork and the final report of findings are considered an environmental document commitment. Approval of the final report generally fulfills the agency's responsibility for the commitment.

Data recovery plans are developed on a project-by-project basis and are designed to recover appropriate types of pertinent information related to the context which makes the sites significant. Field investigations and analyses are problem oriented and are designed to answer specific questions regarding the site and its context.

Data recovery plans specifically outline the site context and formulate hypotheses how site research can address these hypotheses. The plans also outline field procedures and propose methods needed to record a site's physical context and any structural elements related to the resource. Each plan should also outline approaches to better recover data and devise analytical methods to best describe associated artifacts which may be recovered.

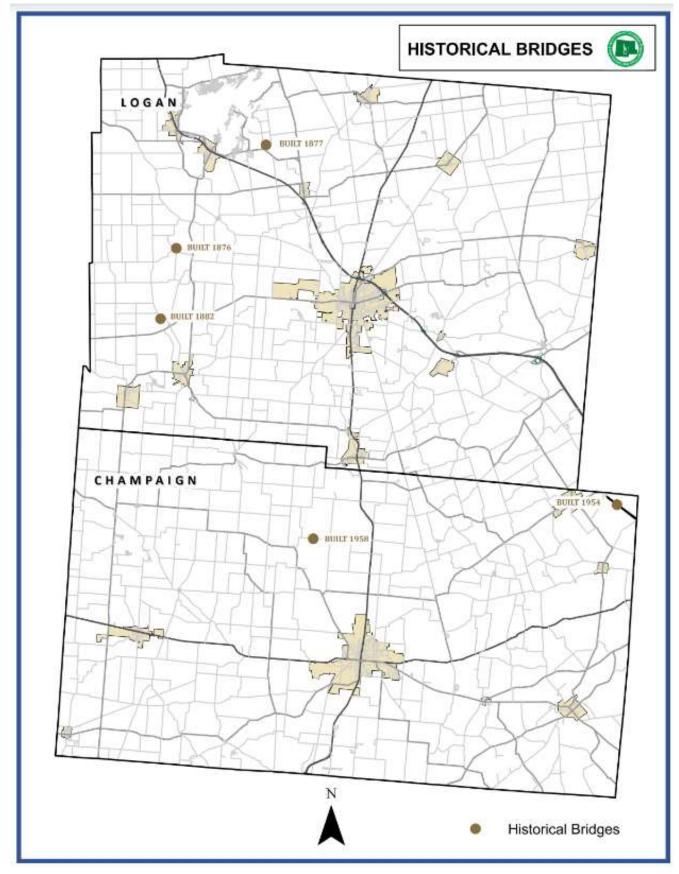
The final data recovery mitigation report should include a summary of the approach from the data recovery plan along with the findings of the excavation in order to address how the recovered assemblage relates to the site's historic context. Ways to publicly disseminate the results of data recovery investigations are also considered to be an important part of any mitigation plan. Approaches vary widely depending on the type of historic property, the qualities that enable the property to meet the National Register of Historic Places Criteria of Eligibility, the location of the historic property with respect to the project, etc.

In Champaign County and Logan County there are 5 historic bridges, 41 historic buildings and 4 historic districts. There is a higher concentration of historic buildings in the more urbanized municipalities. The remaining historic areas are located throughout the rural two county region. On the following pages the charts list the historic buildings, sites, and bridges throughout Champaign and Logan Counties.

| Champaign County                                        | Address                                                       | Listed Date | Other Name's                 | Area of Significance                |
|---------------------------------------------------------|---------------------------------------------------------------|-------------|------------------------------|-------------------------------------|
| Barr House                                              | Locust & Sandusky Sts.                                        | 8/29/1985   | Davis House                  | INDUSTRY; ARCHITECTURE              |
| Carl Potter, Mound                                      | Address Restricted                                            | 8/13/1974   | Hodge Mound II               | PREHISTORIC                         |
| Church Of Our Savior                                    | S. Main St.                                                   | 8/29/1985   |                              | ARCHITECTURE                        |
| Demand-Gest House                                       | 37 N. Main St.                                                | 8/29/1985   |                              | COMMERCE; ARCHITECTURE; AGRICULTURE |
| Dr. Adam Mosgrove, House                                | 127 Miami St.                                                 | 7/15/1982   |                              | ARCHITECTURE; SOCIAL HISTORY        |
| Dr. Clark, House                                        | 21 N. Main St.                                                | 8/29/1985   |                              | HEALTH/MEDICINE; ARCHITECTURE       |
| Dr. Ninchelser, House                                   | 28 N. Main St.                                                | 8/29/1985   | IOOF Lodge                   | HEALTH/MEDICINE; ARCHITECTURE       |
| Hamer's General Store                                   | 88 S. Main St.                                                | 8/29/1985   |                              | ARCHITECTURE                        |
| Henry Burnham, House                                    | N. Main St. & Rt. 559                                         | 8/29/1985   | Dr. Ream's Office            | ARCHITECTURE; AGRICULTURE           |
| John Q. A. Ward, House                                  | 335 College St.                                               | 7/30/1974   |                              | ART; ARCHITECTURE                   |
| Kimball House                                           | 115 N. Main St.                                               | 8/29/1985   | Doerman Residence            | ARCHITECTURE; AGRICULTURE           |
| Kiser Mansion                                           | 149 E. Main St                                                | 2/4/2011    | Garden Glow                  | ARCHITECTURE; COMMERCE; OTHER       |
| Lowler's Tavern                                         | N. Main St.                                                   | 8/29/1985   | D. Padamaden, Offices        | ARCHITECTURE                        |
| Magruder Building                                       | 16 S. Main St.                                                | 8/29/1985   | Saxbe Offices                | ARCHITECTURE                        |
| Maj. John C. Baker, House                               | 202 W. Main St.                                               | 8/29/1985   |                              | COMMERCE; ARCHITECTURE              |
| Masonic Temple                                          | N. Main St.                                                   | 8/29/1985   |                              | ARCHITECTURE; SOCIAL HISTORY        |
| Mechanicsburg Baptist Church                            | Walnut & Sandusky Sts.                                        | 8/29/1985   | Methodist Protestant Church  | ARCHITECTURE                        |
| Monitor House                                           | 375 W. Main St.                                               | 5/2/1974    |                              | ARCHITECTURE                        |
| Mt. Tabor Church Building,<br>Cemetery and Hitching Lot | OH 245, 300 meters S of jct. with<br>Mt. Tabor Rd., Salem Twp | 11/22/1995  | The Century Old Meetinghouse | ARCHITECTURE                        |
| North Ward District School                              | 626 N. Russell                                                | 2/21/2019   |                              | EDUCATION                           |
| Norvall Hunter, Farm                                    | S. Main St.                                                   | 8/29/1985   | Model Stock Farm             | ARCHITECTURE; AGRICULTURE           |
| Nutwood Place                                           | 1428 Nutwood Place                                            | 12/12/1976  |                              | ARCHITECTURE                        |
| Richards-Sewall House                                   | 222 College St.                                               | 8/14/1995   |                              | RELIGION; EDUCATION                 |
| Second Baptist Church                                   | Sandusky St.                                                  | 8/29/1985   | Methodist Church             | ARCHITECTURE; SOCIAL HISTORY        |
| South Ward District School                              | 725 S. Main St.                                               | 2/21/2019   |                              | EDUCATION                           |
| St. Michael Catholic Church                             | 40 Walnut St.                                                 | 8/29/1985   |                              | ARCHITECTURE                        |

| St. Paul AME Church                             | 316 E. Market St.                                          | 9/5/1997    |                                                  | SOCIAL HISTORY; RELIGION; BLACK; ETHNIC<br>HERITAGE; ARCHITECTURE |
|-------------------------------------------------|------------------------------------------------------------|-------------|--------------------------------------------------|-------------------------------------------------------------------|
| United Methodist Church                         | N. Main & Race Sts.                                        | 8/29/1985   | Methodist Episcopal Church                       | ARCHITECTURE                                                      |
| Urbana College Historic Buildings               | College Way                                                | 10/3/1980   | Bailey, Barclay and Oak Halls, Urbana<br>College | EDUCATION; RELIGION                                               |
| Urbana Country Club                             | 4761 E US 36                                               | 6/8/2018    |                                                  | ENTERTAINMENT/RECREATION                                          |
| Village Hobby Shop                              | N. Main St.                                                | 8/29/1985   | Trader's Bank; Schetter's Jewelry Store          | COMMERCE; ARCHITECTURE                                            |
| William Culbertson, House                       | 103 Race St.                                               | 8/29/1985   |                                                  | INDUSTRY; ARCHITECTURE                                            |
| Levi Rathburn House                             |                                                            |             |                                                  |                                                                   |
| Champaign County<br>Continued                   | Address                                                    | Listed Date | Other Name's                                     | Area of Significance                                              |
| Historic Districts                              |                                                            |             |                                                  |                                                                   |
| Mechanicsburg Commercial<br>Historical District | 1-11 S. Main St                                            | 8/29/1985   |                                                  | COMMERCE; ARCHITECTURE                                            |
| Scioto Street Historic District                 | Scioto St. from Locust to                                  |             |                                                  |                                                                   |
|                                                 | E. Lawn Ave.                                               | 2/9/1984    |                                                  | ARCHITECTURE                                                      |
| Urbana Monument Square<br>Historic District     | Roughly bounded by Market,<br>Walnut, Church & Locust Sts. | 3/1/1984    |                                                  | COMMUNITY PLANNING AND DEVELOPMENT;<br>COMMERCE; ARCHITECTURE     |
| Historic Bridges                                |                                                            |             |                                                  |                                                                   |
| Black Road west of                              |                                                            |             |                                                  |                                                                   |
| Inskeep Rd                                      |                                                            |             |                                                  |                                                                   |
| Mutual Union Road north of<br>State Route 29    |                                                            |             |                                                  |                                                                   |

| Logan County                                | Address                                                                     | Listed<br>Date | Other Name's                | Area of Significance               |
|---------------------------------------------|-----------------------------------------------------------------------------|----------------|-----------------------------|------------------------------------|
| Abram S. Piatt, and Donn S., House          | TR & SR 245 (Mac-a-Chee)                                                    | 5/3/1982       |                             | Military, Literature; Architecture |
| Dunns Pond Mound                            | Address restricted                                                          | 7/30/1974      |                             | Prehistoric                        |
| First Concrete Street in U.S.               | E. Court Ave.                                                               | 2/25/1974      |                             | Engineering, Transportation        |
| Lake Ridge Island Mounds                    | Address Restricted                                                          | 10/16/1974     | Wolf Mounds I-IV            | Prehistoric                        |
| Logan County Courthouse                     | Public Sq.                                                                  | 6/4/1973       |                             | Architecture                       |
| Martin Marmon, House                        | CR 153                                                                      | 2/20/1986      | Springate                   | Exploration/Settlement;            |
|                                             |                                                                             |                |                             | Architecture; Religion             |
| Shine's Holland Theatre                     | 125 E. Columbus St                                                          | 5/25/2001      | Holland Theatre; LOG-240-7  | Architecture                       |
| William Lawrence, House                     | 325 N. Main St                                                              | 8/24/1979      | Law Offices of MacGillvray, | Law; Politics/Government           |
|                                             |                                                                             |                | O'Connor & amp; Thorpe      |                                    |
| Historic Districts                          |                                                                             |                |                             |                                    |
| Downtown Bellefontaine Historic<br>District | Roughly bounded by Elm<br>St. Sandusky Ave, Mad<br>River St., & Auburn Ave. | 4/27/2020      |                             | Architecture; Commerce             |
| Historic Bridges                            |                                                                             |                |                             |                                    |
| McColly Covered Bridge                      | 2 mi. of Bloom Center                                                       | 5/28/1975      |                             | Engineering                        |
| County Bridge                               | County Road 21 west of<br>County Hwy 24N                                    | Eligible       |                             | Engineering                        |
| Bickham Covered Bridge                      | CR 38 N of SR 336                                                           |                |                             | Engineering                        |



Historical Bridges: SOURCE - ODOT

## Federally Listed Species

#### Overview

All ODOT projects are planned and designed to comply with the National Environmental Policy Act, Endangered Species Act, Clean Water Act, and Ohio Revised Code to name a few. The Endangered Species Act and Ohio Revised Code are the specific federal and state legislation that provides for the protection and conservation of plants and animals within Ohio. The rules and regulations associated with these laws dictate that ODOT will build and operate their roadway projects with no, or minimal impacts to protected species and their habitat (including potentially unoccupied habitat). Statewide, Ohio harbors a great diversity of wildlife and plant communities. Many species receiving federal or state protection are tied closely to their habitats. Land-use change has been the most common cause for decline in species range and diversity. Contamination and degradation of natural waters has also contributed to loss of habitat. Loss of wetlands and forests has contributed largely to the federal and/or state listing of over 500 plants and animals within Ohio, including a variety of mammals, birds, reptiles and amphibians, mollusks, insects, fishes, and plants. Of those species, there are less than 10 mammals including bobcat, black bear, and the Indiana bat.

During project development ODOT coordinates with numerous regulatory agencies to determine if protected species are likely to be encountered within the project area. If a threatened or endangered species is suspected of existing within the project area a specific survey is often undertaken to determine presence.

#### Endangered Species Mitigation

There are a variety of commitments and mitigation techniques that ODOT utilizes on projects to protect listed species. These differ depending on the habitat and the species that are to be protected. The more common commitments and mitigation ODOT makes regarding protecting federal and state listed species include:

- Restricting the clearing of trees to the period between September 15 and April 15 to avoid potential impacts to roosting Indiana bats.
- Relocation of listed mussel and plant species out of construction areas
- Prevention of disturbance of Indiana bats from blasting activities near sensitive subterranean areas (primarily in southeastern Ohio)
- Timely removal of carcasses from roadways to minimize the potential of vehicles striking scavenging bald eagles.
- Measures to allow terrestrial species such as bobcat, black bear, timber rattlesnake, etc. to pass unharmed through construction areas.
- Measures to ensure that all equipment is in proper working order to minimize construction noise and reduce the risk of equipment spills and leaks.
- Construction and post construction plan notes are included requiring strict adherence to ODOT's Construction and Material Specifications for Sedimentation and Erosion Control

Champaign County and Logan County have wetlands, river corridors, and farmland that serve as habitat for numerous plant and animal species.

Many species receiving federal or state protection are tied closely to their habitats, and land-use changes have been the most common cause for decline in species range and diversity. Contamination and degradation of natural waters has also contributed to loss of habitat.

On the following pages are a complete list of Endangered, Threatened, and Species of Concern for both Champaign and Logan Counties:

The Division uses six categories: endangered, threatened, species of concern, special interest, extirpated, and extinct, to further define the status of selected wildlife. These categories and the species contained within them are revised as knowledge of the statue of Ohio's wildlife evolves.

- Endangered: A native species or subspecies threatened with extirpation from the state. The danger may result from one or more causes, such as habitat loss, pollution, predation, interspecific competition, or disease.
- **Threatened:** A species or subspecies whose survival in Ohio is not in immediate jeopardy, but to which a threat exists. Continued or increased stress will result in it becoming endangered.
- **Species of Concern:** A species or subspecies which might become threatened in Ohio under continued or increased stress. Also, a species or subspecies for which there is some concern, but for which information is insufficient to permit an adequate status evaluation. This category may contain species designated as a furbearer or game species, but whose statewide population is dependent on the quality and/or quantity of habitat and is not adversely impacted by regulated harvest.
- **Special Interest:** A species that occurs periodically and is capable of breeding in Ohio. It is at the edge of a larger, contiguous range with viable population(s) within the core of its range. These species have no federal endangered or threatened status, are at low breeding densities in the state, and have not been recently released to enhance Ohio's wildlife diversity. With the exception of efforts to conserve occupied areas, minimal management efforts will be directed for these species because it is unlikely to result in significant increases in their population within the state.
- **Extirpated:** A species or subspecies that occurred in Ohio at the time of European settlement and that has since disappeared from the state.
- **Extinct:** A species or subspecies that occurred in Ohio at the time of European settlement and that has since disappeared from its entire range.

| Champaign                | County State I             | isted     | Animal S           | pecies     |
|--------------------------|----------------------------|-----------|--------------------|------------|
|                          |                            |           |                    | Federal    |
| Common Name              | Scientific Name            | Group     | State Status       | Status     |
| Upland Sandpiper         | Bartramia longicauda       | Bird      | Endangered         |            |
| Seepage                  | Argia bipuctulata          | Damselfly | Endangered         |            |
| Lilypad Forktail         | Ischnura kellicotti        | Damselfly | Endangered         |            |
| Elfin Skimmer            | Nannothemis bella          | Dragonfly | Endangered         |            |
| Tonguetied Minnow        | Exoglossum laurae          | Fish      | Endangered         |            |
| Indiana Myotis           | Myotis sodalis             | Mammal    | Endangered         | Endangered |
| Dark Green Drake         | Litobrancha recurvata      | Mayfly    | Endangered         |            |
| Clubshell                | Pleurobema clava           | Mollusk   | Endangered         | Endangered |
| Rayed Bean               | Villosa fabalis            | Mollusk   | Endangered         | Endangered |
| Eastern Massasauga       | Sistrurus catenatus        | Reptile   | Endangered         | Threatened |
| none                     | Hydroptila artesa          | Caddisfly | Threatened         |            |
| none                     | Hydroptila Valhalla        | Caddisfly | Threatened         |            |
| Lake Chubsucker          | Erimyzon sucetta           | Fish      | Threatened         |            |
| Northern Long-eared Bat  | Myotis Sseptentrionalis    | Mammal    | Threatened         | Threatened |
| none                     | Radotanypus florens        | Midge     | Threatened         |            |
| Spotted Turtle           | Clemmys guttata            | Reptile   | Threatened         |            |
| Kirtland's Snake         | Clonophis kirtlandii       | Reptile   | Threatened         |            |
| Eastern Cricket Frog     | Acris crepitans            | Amphibian | Species of Concern |            |
| Grasshopper Sparrow      | Ammodramus savannarum      | Bird      | Species of Concern |            |
| Great Egret              | Ardea alba                 | Bird      | Species of Concern |            |
| Sedge Wren               | Cistothorus platensis      | Bird      | Species of Concern |            |
| Black-billed Cuckoo      | Coccyzus erythropthalmus   | Bird      | Species of Concern |            |
| Northern Bobwhite        | Colinus virginianus        | Bird      | Species of Concern |            |
| Bobolink                 | Dolichonyx oryzivorus      | Bird      | Species of Concern |            |
| Red-headed Woodpecker    | Melanerpes erythrocephalus | Bird      | Species of Concern |            |
| Vesper Sparrow           | Pooecetes gramineus        | Bird      | Species of Concern |            |
| Prothonotary Warbler     | Protonotaria citrea        | Bird      | Species of Concern |            |
| Cerulean Warbler         | Setophaga cerulea          | Bird      | Species of Concern |            |
| Western Creek Chubsucker | Erimyzon claviformis       | Fish      | Species of Concern |            |
| Least Darter             | Etheostoma microperca      | Fish      | Species of Concern |            |
| Big Brown Bat            | Eptesicus Fuscus           | Mammal    | Species of Concern |            |
| Red Bat                  | Lasiurus borealis          | Mammal    | Species of Concern |            |
| Hoary Bat                | Lasiurus cinereus          | Mammal    | Species of Concern |            |
| Little Brown Bat         | Myotis lucifugus           | Mammal    | Species of Concern |            |
| Badger                   | Taxidea Taxus              | Mammal    | Species of Concern |            |
| Veery                    | Catharus fuscescens        | Bird      | Special Interest   |            |

|                                      |                              |               | State  | Federal |
|--------------------------------------|------------------------------|---------------|--------|---------|
| Scientific Name                      | Common Name                  | Last Observed | Status | Status  |
| Arnoglossum plantagineum             | Fen Indian-plantain          | 7/18/2013     | Р      |         |
| Betula pumila                        | Swamp Birch                  | 5/23/2001     | Т      |         |
| Buxbaumia minakatae                  | Ethereal Elf Cap Moss        | 1986-10       | Х      |         |
| Calopogon tuberosus                  | Grass-pink                   | 1990-06       | Т      |         |
| Carex cryptolepis                    | Little Yellow Sedge          | 6/11/2013     | Р      |         |
| Carex diandra                        | Lesser Panicled Sedge        | 6/11/2013     | Т      |         |
| Carex flava                          | Yellow Sedge                 | 7/18/2013     | Р      |         |
| Carex lasiocarpa                     | Slender Sedge                | 7/18/2013     | Р      |         |
| Carex timida                         | Timid Sedge                  | 6/11/2013     | Т      |         |
| Deschampsia cespitosa                | Tufted Hair Grass            | 7/18/2013     | Р      |         |
| Eleocharis flavescens                | Green Spike-rush             | 7/15/1991     | Т      |         |
| Eleocharis quinqueflora              | Few-flowered Spike-rush      | 7/18/2013     | Т      |         |
| Eriophorum viridicarinatum           | Green Cotton-grass           | 6/5/2013      | Р      |         |
| Gentianopsis procera                 | Small Fringed Gentian        | 10/3/1995     | Р      |         |
| Juncus balticus                      | Baltic Rush                  | 6/5/2013      | Р      |         |
| Phragmites australis ssp. americanus | American Reed Grass          | 11/2/2006     | Р      |         |
| Plagiothecium latebricola            | Lurking Leskea               | 7/13/1986     | Т      |         |
| Platathera psycodes                  | Small Purple Fringed Orchid  | 6/27/1994     | Р      |         |
| Potamogeton zosterifromis            | Flat-stemmed Pondweed        | 8/3/1990      | Т      |         |
| Prenanthes racemosa                  | Prairie Rattlesnake-root     | 8/20/2013     | Р      |         |
| Rhynchospora alba                    | White Beak-rush              | 9/22/1990     | Р      |         |
| Salix Myricoides                     | Blue-leaved Willow           | 7/12/2007     | Р      |         |
| Silene regia                         | Royal Catchfly               | 7/8/1999      | Т      |         |
| Sporobolus heterolepis               | Praire Dropseed              | 7/3/1999      | Т      |         |
| Thuja occidentalis                   | Arbor Vitae                  | 6/5/2013      | Р      |         |
| Triantha glutinosa                   | False Asphodel               | 6/27/2013     | Р      |         |
| Triglochin maritimum                 | Seaside Arrow-grass          | 6/12/2004     | Т      |         |
| Triglochin palustris                 | Marsh Arrow-grass            | 6/5/2013      | Р      |         |
| Urtricularia cornuta                 | Horned Bladderwort           | 6/27/2013     | E      |         |
| Urtricularia intermedia              | Flat-leaved Bladderwort      | 6/5/2013      | Т      |         |
| Urtricularia minor                   | Lesser Bladderwort           | 1978-01       | Т      |         |
| Valeriana minor                      | Praire Valerian              | 6/5/2013      | E      |         |
| Viola nephrophylla                   | Northern Bog Violet          | 6/5/2013      | Т      |         |
| Zigadenus elegans                    | White Wand-lily              | 7/18/2013     | Р      |         |
|                                      |                              |               |        |         |
| X=Extirpated                         | Ohio Division of Wildlife    |               |        |         |
| E=Endangered                         | Ohio Natural Heritage Databa | ase           |        |         |
| T=Threatened                         | Date Accessed: March 6, 201  | .5            |        |         |
|                                      |                              | .5            |        | F       |

| Logan Co                 | ounty State Lis              | ted Aı    | nimal Spe          | cies           |
|--------------------------|------------------------------|-----------|--------------------|----------------|
| Common Name              | Scientific Name              | Group     | State Status       | Federal Status |
| Eastern Hellbender       | Cryptobranchus Alleganiensis | Amphibian | Endangered         |                |
| Cattle Egret             | Bubulcus ibis                | Bird      | Endangered         |                |
| Swamp Metalmark          | Calephelis muticum           | Butterfly | Endangered         |                |
| Lilypad Forktail         | Ischnura kellicotti          | Damselfly | Endangered         |                |
| Iowa Dater               | Etheostoma exile             | Fish      | Endangered         |                |
| Tonguetied Minnow        | Exoglossum laurae            | Fish      | Endangered         |                |
| Indiana Myotis           | Myotis sodalis               | Mammal    | Endangered         | Endangered     |
| Rayed Bean               | Villosa fabalis              | Mollusk   | Endangered         | Endangered     |
| Sandhill Crane           | Grus canadensis              | Bird      | Threatened         | -              |
| Lake Chubsucker          | Erimyzon sucetta             | Fish      | Threatened         |                |
| Northern Long-eared Bat  | Myotis Sseptentrionalis      | Mammal    | Threatened         | Threatened     |
| Pondhorn                 | Uniomerus tetralasmus        | Mollusk   | Threatened         |                |
| Spotted Turtle           | Clemmys guttata              | Reptile   | Threatened         |                |
| Eastern Cricket Frog     | Acris crepitans              | Amphibian |                    |                |
| Henslow's Sparrow        | Ammodramus henslowii         | Bird      | Species of Concern |                |
| Grasshopper Sparrow      | Ammodramus savannarum        | Bird      | Species of Concern |                |
| Great Egret              | Ardea alba                   | Bird      | Species of Concern |                |
| Common Nighthawk         | Chordeiles minor             | Bird      | Species of Concern |                |
| Marsh Wren               | Cistothorus platensis        | Bird      | Species of Concern |                |
| Sedge Wren               | Cistothorus platensis        | Bird      | Species of Concern |                |
| Northern Bobwhite        | Colinus virginianus          | Bird      | Species of Concern |                |
| Bobolink                 | Dolichonyx oryzivorus        | Bird      | Species of Concern |                |
| American Coot            | Fulica americana             | Bird      | Species of Concern |                |
| Common Gallinule         | Gallinula galeata            | Bird      | Species of Concern |                |
| Red-headed Woodpecker    | Melanerpes erythrocephalus   | Bird      | Species of Concern |                |
| Vesper Sparrow           | Pooecetes gramineus          | Bird      | Species of Concern |                |
| Sora Rail                | Porzana carolina             | Bird      | Species of Concern |                |
| Prothonotary Warbler     | Protonotaria citrea          | Bird      | Species of Concern |                |
| Cerulean Warbler         | Setophaga cerulea            | Bird      | Species of Concern |                |
| Two-spotted Skipper      | Euphyes bimacula             | Butterfly | Species of Concern |                |
| none                     | Hydroptila chattanooga       | Caddisfly | Species of Concern |                |
| Western Creek Chubsucker | Erimyzon claviformis         | Fish      | Species of Concern |                |
| Least Darter             | Etheostoma microperca        | Fish      | Species of Concern |                |
| Big Brown Bat            | Eptesicus Fuscus             | Mammal    | Species of Concern |                |
| Red Bat                  | Lasiurus borealis            | Mammal    | Species of Concern |                |
| Hoary Bat                | Lasiurus cinereus            | Mammal    | Species of Concern |                |
| Little Brown Bat         | Myotis lucifugus             | Mammal    | Species of Concern |                |
| Badger                   | Taxidea Taxus                | Mammal    | Species of Concern |                |
| Elktoe                   | Alasmidonta marginata        | Mammal    | Species of Concern |                |
| Purple Wartyback         | Cyclonaias turberculata      | Mammal    | Species of Concern |                |
| Wavy-rayed Lampmussel    | Lampsilis fasciola           | Mammal    | Species of Concern |                |
| Creek Heelsplitter       | Lasmigona compressa          | Mammal    | Species of Concern |                |
| Kidneyshell              | Ptychobranchus fasciolaris   | Mollusk   | Species of Concern |                |
| Least Flycatcher         | Empidonax minimus            | Bird      | Species of Concern |                |
| Golden-crowned Kinglet   | Regulus satrapa              | Bird      | Species of Concern |                |
| content crowned Kinglet  | Notropis heterolepis         | Fish      | Species of Concern |                |

| Logan County State listed Plant Species |                           |                                          |        |         |  |  |  |  |
|-----------------------------------------|---------------------------|------------------------------------------|--------|---------|--|--|--|--|
|                                         |                           |                                          | State  | Federal |  |  |  |  |
| Scientific Name                         | Common Name               | Last Observed                            | Status | Status  |  |  |  |  |
| Betula pumila                           | Swamp Birch               | 5/23/2001                                | Т      |         |  |  |  |  |
| Calopogon tuberosus                     | Grass-pink                | 7/5/1990                                 | Т      |         |  |  |  |  |
| Carex alata                             | Broad-winged Sedge        | 6/14/1990                                | Р      |         |  |  |  |  |
| Carex aquatilis                         | Leafy Tussock Sedge       | 7/18/2006                                | Т      |         |  |  |  |  |
| Carex atherodes                         | Wheat Sedge               | 9/1/1999                                 | Р      |         |  |  |  |  |
| Carex bebbii                            | Bebb's Sedge              | 6/14/1990                                | Р      |         |  |  |  |  |
| Carex diandra                           | Lesser Panicled Sedge     | 6/11/2013                                | Т      |         |  |  |  |  |
| Carex flava                             | Yellow Sedge              | 7/18/2013                                | Р      |         |  |  |  |  |
| Carex lasiocarpa                        | Slender Sedge             | 7/18/2013                                | Р      |         |  |  |  |  |
| Cuscuta glomerata                       | Glomerate Dodder          | 9/21/2011                                | E      |         |  |  |  |  |
| Delphinium exaltatum                    | Tall Larkspur             | 7/8/2013                                 | Р      | ļ       |  |  |  |  |
| Deschampsia cespitosa                   | Tufted Hair Grass         | 7/18/2013                                | Р      | ļ       |  |  |  |  |
| Eleocharis flavescens                   | Green Spike-rush          | 7/15/1991                                | Т      |         |  |  |  |  |
| Eriophorum aquaticum                    | White-buttons             | 7/18/1991                                | E      |         |  |  |  |  |
| Eriophorum viridicarinatum              | Green Cotton-grass        | 6/5/2013                                 | Р      |         |  |  |  |  |
| Gentianopsis procera                    | Small Fringed Gentian     | 10/3/1995                                | Р      |         |  |  |  |  |
| Juncus balticus                         | Baltic Rush               | 6/5/2013                                 | Р      |         |  |  |  |  |
| Menyanthes trifoliata                   | Buckbean                  | 7/11/1991                                | Т      |         |  |  |  |  |
| Myriophyllum heterophiles               | Two-leaved Water-milfoil  | 8/7/1991                                 | Х      |         |  |  |  |  |
| Myriophyllum sibiricum                  | American Water-milfoil    | 8/2/1990                                 | Е      |         |  |  |  |  |
| Poa saltuensis ssp. laguida             | Weak Spear Grass          | 6/20/2006                                | Р      |         |  |  |  |  |
| Potamogeton ophioglossoides             | Rose Pogonia              | 6/14/1990                                | Т      |         |  |  |  |  |
| Potamogeton natans                      | Floating Pondweed         | 8/6/1990                                 | Р      |         |  |  |  |  |
| Potamogeton zosterifromis               | Flat-stemmed Pondweed     | 8/3/1990                                 | Т      |         |  |  |  |  |
| Potentilla palustris                    | Marsh Five-finger         | 7/17/1985                                | Т      |         |  |  |  |  |
| Prenanthes racemosa                     | Prairie Rattlesnake-root  | 8/20/2013                                | Р      |         |  |  |  |  |
| Rhynchospora alba                       | White Beak-rush           | 9/22/1990                                | Р      |         |  |  |  |  |
| Salix candida                           | Hoary Willow              | 7/10/1991                                | Т      |         |  |  |  |  |
| Salix Myricoides                        | Blue-leaved Willow        | 7/12/2007                                | Р      |         |  |  |  |  |
| Schoenoplectiello smithiii              | Smith's Bulrush           | 8/26/2006                                | Т      |         |  |  |  |  |
| Sphenopholis obtusata var. obt          | Praire Wedge Grass        | 8/26/2006                                | Т      |         |  |  |  |  |
| Triantha glutinosa                      | False Asphodel            | 6/27/2013                                | Р      |         |  |  |  |  |
| Triglochin maritimum                    | Seaside Arrow-grass       | 6/12/2004                                | Т      |         |  |  |  |  |
| Triglochin palustris                    | Marsh Arrow-grass         | 6/5/2013                                 | Р      |         |  |  |  |  |
| Ulmus thomasil                          | Rock Elm                  | 6/18/2013                                | Р      |         |  |  |  |  |
| Urtricularia intermedia                 | Flat-leaved Bladderwort   | 9/24/1990                                | Т      |         |  |  |  |  |
| Valeriana ciliata                       | Praire Valerian           | 6/6/2013                                 | E      | 1       |  |  |  |  |
| Zigadenus elegans                       | White Wand-lily           | 7/18/2013                                | <br>P  | 1       |  |  |  |  |
|                                         |                           | , -, -, -, -, -, -, -, -, -, -, -, -, -, |        |         |  |  |  |  |
| X=Extirpated                            | Ohio Division of Wildlife |                                          |        |         |  |  |  |  |
| E=Endangered                            | Ohio Natural Heritage Dat | abase                                    |        | 1       |  |  |  |  |
| T=Threatened                            | Date Accessed: March 6, 2 |                                          |        |         |  |  |  |  |
| P=Potentially Threatened                | Status Based on 2014-15   |                                          |        | 1       |  |  |  |  |

# Environmental Justice History

#### Overview

The U.S. Environmental Protection Agency (EPA) Office of Environmental Justice (EJ) defines EJ as:

"The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies."

EJ applies to all programs and activities of Federal-aid recipients, whether specific programs and activities are federally funded or not. This means that any agency which receives federal funds must:

- make a meaningful effort to involve low income and minority populations in the processes established to make decisions regarding its programs and activities, and
- evaluate the nature, extent, and incidence of probable and adverse human health or environmental impacts of its programs and activities upon minority or low-income populations.

The principles of EJ are derived from Title VI of the Civil Rights Act of 1964 and previous civil rights legislation. EJ is simply a matter of increased awareness of the effects and impacts of transportation decisions on the human environment.

There are three fundamental EJ principles:

- To avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- to ensure the full and fair participation by all potentially affected communities in the transportation decision making process
- to prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations

The Ohio Department of Transportation (ODOT) and Ohio's Metropolitan Planning Organizations (MPOs) receive federal funding to support many of their programs and activities. Therefore, both ODOT and Ohio's MPOs must address the federal EJ requirements as a condition to receiving those funds. Local governments, serving as Local Public Agency (LPA) project coordinators must also comply.

On February 11, 1994, President Clinton signed Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations. However, the need to consider EJ was already embodied in many laws, regulations and policies such as Title VI of the Civil Rights Act of 1964 as previously mentioned, the National Environmental Policy Act of 1969 (NEPA), Title 23 of the United States Code (USC) Section 109 (h), and the Uniform Relocation and Real Property Acquisitions Policy Act of 1970, long before Executive Order 12898.

Title VI of the 1964 Civil Rights Act states that,

"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI prohibits intentional discrimination as well as disparate impact discrimination (i.e., a neutral policy or practice that has a disparate impact on low income and minority groups). The 1994 Environmental Justice (EJ) Executive Order amplifies Title VI by providing that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs policies and activities on minority and low-income populations."

While Title VI and EJ concerns have most often been raised during project development, it is important to recognize that the law also applies equally to the processes and products of planning and environmental analysis. The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) are to ensure compliance with Title VI in the planning process during their planning certification reviews conducted for Transportation Management Areas (TMAs) and through the statewide planning finding rendered at approval of the Statewide Transportation Improvement Program (STIP).

A variety of data sources and statistics are available relative to low income and minority populations. The Ohio Department of Transportation recommends the use of the U.S. Bureau of the Census as the primary source of data to identify low income and minority populations. Census data lists specific definitions of minority groups that can be useful to determine minority populations, especially in urban areas. The percentage of non-white population at the census block level is also available. Program, project and study sponsors should also consult reliable local data sources such as township assessors, social service agencies, local health organizations, local public agencies, and community action agencies. As an additional step, ask participants during the public involvement process if all known low income and minority populations have been identified and included.

#### Mitigation

As a department policy, ODOT through planning and environmental alternatives selection, attempts to avoid impacts to EJ neighborhoods. ODOT considers mitigation options through design refinements and community enhancements when avoidance is not possible.

Public involvement activities also play a role in keeping stakeholders informed of special needs and interests of the community and its citizens. Public involvement events are advertised and held in locations easily accessible for EJ populations. ODOT actively reaches out and engages EJ populations during the transportation decision making process. In addition, The Offices of Local Programs and Transit fund projects to improve the quality of life for Ohio's citizens.

# Financial Forecast Background and Analysis

Total available forecasted through the horizon year of the plan was formulated utilizing historical data provided by ODOT and by local jurisdictions in Champaign and Logan Counties. Methodology for the forecast is as follows:

| Champaign County Engineer's  | 2022 Revenue   | Logan County Engineer's 2022 Revenue |                |  |  |
|------------------------------|----------------|--------------------------------------|----------------|--|--|
| Revenue Type                 |                | Revenue Type                         |                |  |  |
| Miscellaneous                | \$1,740,739.68 | Gas Tax (2022)                       | \$3,700,000.00 |  |  |
| Gasoline Tax                 | \$3,723,600.97 | Vehicle License Fees                 | \$1,800,000.00 |  |  |
| Permissive Tax               | \$161,968.47   | STIP State and Federal               | \$600,000.00   |  |  |
| Permissive Tax 4504.15 & .16 | \$417,924.48   | Logan County Sales Tax               | \$1,735,612.00 |  |  |
| Auto License                 | \$1,358,352.32 | Other (OPWC, General Revenue)        | \$809,000.00   |  |  |
| Interest                     | \$27,208.09    |                                      |                |  |  |
| Total                        | \$7,429,794.01 | Total                                | \$8,644,612.00 |  |  |

# Champaign and Logan County's 2022 Revenue Sources

Figure 43: Existing Revenue Summary

## Transit Funding

Two rural demand responsive transit systems operate in Logan and Champaign Counties with combined annual passenger trips of 43,354; approximately 42 percent of the trips in Champaign County and 46 percent of the trips in Logan County serve elderly and disabled passengers. Based on 2019 data collected for the Status of Public Transit in Ohio November 2021, Figure 44 summarizes the currently available funding sources to maintain and operate the systems. Neither system collects revenue from a dedicated funding source such as a local sales tax.

| Revenue Sources (2019)          | Champaign Transit<br>System | Transportation for<br>Logan County | Total     |  |
|---------------------------------|-----------------------------|------------------------------------|-----------|--|
| Federal Assistance              | \$223,045                   | \$211,659                          | \$434,704 |  |
| State Assistance                | \$0                         | \$93,534                           | \$93,534  |  |
| State E&D Assistance            | 15,721                      | \$10,336                           | \$26,057  |  |
| Local Assistance                | \$18,775                    | \$3,430                            | \$22,205  |  |
| Passenger/Contract Fares /Other | \$225,179                   | \$123,299                          | \$348,478 |  |
| Capital Funds                   | \$0                         | \$30,596                           | \$30,596  |  |
| TOTAL                           | \$482,720                   | \$472,854                          | \$955,574 |  |

Figure 44: Transit Operating and Capital Revenue Summary

# Financial Forecast

Total available forecasted through the horizon year of the plan was formulated utilizing historical data provided by ODOT and by local jurisdictions in Champaign and Logan Counties. Methodology for the forecast is as follows:

#### Federal and State Funding Forecast

2011 -2023 historical transportation investments data (Federal, State and local) were captured by ODOT's Office of Statewide Planning and Research for the LUC planning area utilizing ODOT's Ellis project management database.

A baseline was then established for Federal and State funding levels based on the average annual expenditure levels calculated from the historical data. ARRA projects, emergency projects, and projects financed with bonds were removed from the yearly totals for this calculation as they are not representative of an average year.

FY2022-2050 funding level projections were then established. For Federal Funding, a 0% growth rate for 2022-2050 was applied. For State funding, a growth rate of 05% was applied to the years 2022-2025 then 0% growth rate for all the following years. Table 1 shows the historical Federal and State funding levels used to establish the average annual expenditures levels.

#### Local Funding Forecast

The majority of the local funding for transportation projects comes from five primary sources. The first four are Champaign and Logan County Engineer's Department's operation and maintenance annual budget as well as the Cities of Urbana and Bellefontaine's operation and maintenance annual budget. The FY2022 figures were used to project FY2022-2050 levels using a conservative 0% growth rate.

Ohio Public Works Commission (OPWC) or Issue 2 funds are state funds which are available through Both District 11 Integrating Committee for Champaign County and District 13 Integrating Committee for Logan County. The amount of Issue 2 funds awarded each year to the LUC area is roughly \$2,400,000 for transportation projects. This amount was projected to remain constant through FY2022-2050. Table 2 shows the Local Baseline Funding.

### Total Available Funding

Table 3 shows projections of Federal, State, and Local funding for Fiscal Years 2022-2050. Table 4 summarizes the total amount of funding projected throughout the life of the plan, which is \$406,839,145.

|       | LUC<br>Long Range Transportation Plan Funding Projections |                |                 |                |                       |                |                     |             |                  |                 |
|-------|-----------------------------------------------------------|----------------|-----------------|----------------|-----------------------|----------------|---------------------|-------------|------------------|-----------------|
|       |                                                           |                |                 |                |                       |                |                     |             |                  |                 |
| SFY   | Federal State                                             |                | Local           |                | Bonds                 |                | All Fund Types      |             |                  |                 |
|       | Encumbered                                                | Outstanding    | Encumbered      | Outstanding    | Encumbered            | Outstanding    | Encumbered          | Outstanding | Encumbered       | Outstanding     |
| 2011  | \$4,714,503.29                                            |                | \$2,051,904.05  |                | \$32,756.39           |                | \$5 <i>,</i> 037.06 |             | \$6,804,200.79   |                 |
| 2012  | \$7,486,335.11                                            |                | \$1,050,277.47  |                | \$170,775.19          |                | \$0.00              |             | \$8,707,387.77   |                 |
| 2013  | \$10,003,480.32                                           |                | \$2,928,887.28  |                | \$187 <i>,</i> 074.95 |                | \$0.00              |             | \$13,119,442.55  |                 |
| 2014  | \$6,480,471.31                                            |                | \$2,461,087.27  |                | \$454 <i>,</i> 890.60 |                | \$0.00              |             | \$9,396,449.18   |                 |
| 2015  | \$5,536,297.15                                            |                | \$2,316,420.18  |                | \$77,097.52           |                | \$0.00              |             | \$7,929,814.85   |                 |
| 2016  | \$8,705,281.46                                            |                | \$3,467,217.78  |                | \$107,704.00          |                | \$0.00              |             | \$12,280,203.24  |                 |
| 2017  | \$10,658,781.77                                           |                | \$2,688,789.09  |                | \$111,953.28          |                | \$0.00              |             | \$13,459,524.14  |                 |
| 2018  | \$8,559,882.58                                            |                | \$4,281,042.70  |                | \$71,135.05           |                | \$0.00              |             | \$12,912,060.33  |                 |
| 2019  | \$3,649,727.40                                            |                | \$12,250,803.29 |                | \$48,941.04           |                | \$1,174,623.29      |             | \$17,124,095.02  |                 |
| 2020  | \$6,247,331.37                                            |                | \$2,673,060.23  |                |                       |                | \$0.00              |             | \$8,920,391.60   |                 |
| 2021  | \$5,530,968.82                                            |                | \$5,543,168.03  |                | \$104,918.28          |                | \$0.00              |             | \$11,179,055.13  |                 |
| 2022  | \$8,140,365.36                                            |                | \$10,404,238.67 |                | \$132,898.65          |                | \$0.00              |             | \$18,677,502.68  |                 |
| 2023  | \$4,671,434.89                                            | \$9,799,129.52 | \$1,809,733.06  | \$7,397,789.32 | \$348,398.06          | \$2,681,965.41 | \$0.00              |             | \$6,829,566.01   | \$19,884,637.25 |
| Total | \$90,384,860.83                                           | \$9,799,129.52 | \$53,926,629.10 | \$7,397,789.32 | \$1,848,543.01        | \$2,681,965.41 | \$1,179,660.35      |             | \$147,339,693.29 | \$19,884,637.25 |

### Table 1 – Historical Federal and State Funding

#### History of Funds 2011-2023

|         | Federal         | State           | Local          |  |
|---------|-----------------|-----------------|----------------|--|
| Total   | \$90,384,860.83 | \$53,926,629.10 | \$1,848,543.01 |  |
| Average | \$6,952,681.60  | \$4,148,202.24  | \$142,195.62   |  |

# Average Federal & State Funding Levels Per Fiscal Year (2011-2023)

\$5,550,443.42

#### Table 2 - Local Funding Baseline

|                  | Logan       |             |               |             | Historical Local |                   |
|------------------|-------------|-------------|---------------|-------------|------------------|-------------------|
| Champaign County | County      | Urbana      | Bellefontaine |             | Match from       | Net Local Funding |
| O&M              | 0&M         | O&M         | O&M           | OPWC        | Table 1          | Available         |
| \$3,000,000      | \$4,700,000 | \$1,340,000 | \$920,000     | \$2,400,000 | \$142,195.62     | \$377,542.37      |

Baseline Local Funding Level Per Fiscal Year \$377,542.37

#### Table 3 - Federal, State, and Local Funding Level Projections 2022-2050

|                   |                  | Growth |                  | Growth |                 | Growth |
|-------------------|------------------|--------|------------------|--------|-----------------|--------|
|                   | Federal          | Rate   | State            | Rate   | Local           | Rate   |
| SFY22             | \$8,348,665.86   | 0%     | \$5,234,716.60   | 0.50%  | \$377,542.37    | 0%     |
| SFY23             | \$8,348,665.86   | 0%     | \$5,260,890.18   | 0.50%  | \$377,542.37    | 0%     |
| SFY24             | \$8,348,665.86   | 0%     | \$5,287,194.63   | 0.50%  | \$377,542.37    | 0%     |
| SFY25             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0.50%  | \$377,542.37    | 0%     |
| SFY26             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY27             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY28             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY29             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY30             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY 2022-         |                  |        | \$47,664,585.01  |        |                 |        |
| 2030              | \$75,137,992.74  |        |                  |        | \$3,397,881.33  |        |
| SFY31             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY32             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY33             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY34             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY35             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY36             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY37             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY38             | \$8,348,665.86   | 0%     | \$5,287,194.63   | 0%     | \$377,542.37    | 0%     |
| SFY39             | \$8,348,665.86   | 0%     | \$5,260,890.18   | 0%     | \$377,542.37    | 0%     |
| SFY40             | \$8,348,665.86   | 0%     | \$5,234,716.60   | 0%     | \$377,542.37    | 0%     |
| SFY 2031-<br>2040 | \$83,486,658.60  |        | \$52,978,215.61  |        | \$3,775,423.70  |        |
| SFY41             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY42             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY43             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY44             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY45             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY46             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY47             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY48             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY49             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY50             | \$8,348,665.86   | 0%     | \$5,313,630.60   | 0%     | \$377,542.37    | 0%     |
| SFY 2041-         |                  |        | ¢E2 126 206 00   |        |                 |        |
| 2050              | \$83,486,658.60  |        | \$53,136,306.00  |        | \$3,775,423.70  |        |
| SFY 2022-<br>2050 | \$242,111,309.94 |        | \$153,779,106.62 |        | \$10,948,728.73 |        |

Table 4 – Total Projected Funding

|                                     | Federal          | State            | Local           |
|-------------------------------------|------------------|------------------|-----------------|
| Baseline Funding FY2022             | \$8,348,665.86   | \$5,234,716.60   | \$337,542.37    |
|                                     |                  |                  |                 |
| Projected Funding FY2023-2024       | \$16,697,331.72  | \$10,548,084.81  | \$775,084.74    |
| Projected Funding FY2025-2030       | \$50,091,995.16  | \$31,881,783.60  | \$2,265,254.22  |
| Projected Funding FY2031-2040       | \$83,486,658.60  | \$52,978,215.61  | \$3,775,423.70  |
| Projected Funding FY2041-2050       | \$83,486,658.60  | \$53,136,306.00  | \$3,775,423.70  |
|                                     |                  |                  |                 |
| Total Projected Funding FY2022-2050 | \$242,111,309.94 | \$153,779,106.62 | \$10,928,728.73 |

### Financial Strategies

Projects listed in this plan will be financed using a variety of strategies and sources. The LUC receives an annual sub allocation of Federal transportation funding from ODOT in three fund types. Surface Transportation, Block Grant (STBG) funding can be used on reconstruction and resurfacing of roadways on the Federal-Aid system, repair and replacement of bridges, safety projects, and most operational and geometric improvements. Transportation Alternatives (TA) projects can be used to finance projects that are related to surface transportation and the construction of bicycle and pedestrian facilities.

Maintenance of the Federal and State roadway system outside of municipalities is coordinated with ODOT District staff. The District manages its own budget of Federal and State funding to meet these maintenance needs. In addition, there are Federal funding programs that are managed by ODOT and by the County Engineers Association of Ohio (CEAO) that can be used for local projects listed in this plan. This includes Highway Safety Improvement Program \*HSIP) and Bridge (BR) funding programs for municipalities and counties.

Federal funding is matched on local projects primarily through OPWC funding. Local funding from motor vehicle registration fees and a portion of the state gas tax is also used to match Federal funding in addition to local maintenance of the roadway system. The LUC Staff holds quarterly meetings with local project sponsors and ODOT District staffs to discuss the status of programmed projects to ensure that LUC sub allocated funds are being managed in accordance with ODOT policies and guidance.

It is important to note that agencies can find innovative ways to fund projects. One example is Logan County Engineer's office got funding from the Soybean Council for Innovative Bridge Design Techniques. While Champaign County had participated in an ORIL (Ohio's Research Initiative for Locals) Study on base stabilization and are planning a demonstration grant for the SS4A (Safe Streets and Roads for All) grants.

### System Performance Report

### Performance Measures & Targets

An important step in the transportation planning process is the analysis of the system's current condition and performance. This allows communities to identify potential geographic or categorical areas for improvement. Using that data, regions can then set performance targets so that improvements can be focused on specific national and state objectives. These targets also allow communities in the region to track their progress and make changes if the transportation system performance improves or regresses in specific areas.

The two most recent federal transportation bills, MAP-21 and the FAST Act, established a performance management process and requirements for states, MPOs and public transit agencies. Through the creation of this process, the FHWA established four main categories for performance measures: Highway Safety (PM 1), Pavement & Bridge Conditions (PM 2), System Performance/Reliability (PM 3), and Transit Asset Management (TAM) & Transit Safety.

The Fixing America's Surface Transportation (FAST) Act establishes seven (7) national goals to advance the interest of the United States and its transportation system. Each category has multiple performance measures that allows planners and engineers to track the region's progress through a variety of factors. These national goals are:

- Safety To achieve a significant reduction in traffic fatalities and serious injuries on all public roads;
- Infrastructure Condition To maintain the highway infrastructure asset system in a state of good repair;
- Congestion Reduction To achieve a significant reduction in congestion on the National Highway System;
- System Reliability To improve the efficiency of the surface transportation system;
- Freight Movement and Economic Vitality To improve the National Highway Freight Network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development;
- Environmental Sustainability To enhance the performance of the transportation system while protecting and enhancing the natural environment; and
- Reduced Project Delivery Delays To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Although LUC is an RTPO and does not have to meet the requirements stated above, LUC understands the importance of performance measures and targets. The information below will provide and reemphasize Transportation Performance information that was provided in earlier sections as well as solutions to achieving those performance goals.

### Safety Performance:

Vehicle Crash data for Champaign and Logan Counties was analyzed for 2019 through 2021 from ODOT GIS Crash Analysis Tool (GCAT). A total of 4770 crashes were reported in the two counties during the three years. Logan County has the majority of crashes between the two with 62% while Champaign County has 38%.

### Infrastructure Condition Performance:

Over 93% of the roadways in the region have a 'Fair' PCR rating or higher; approximately 78% of the region's roadways have a 'Good' PCR rating, which indicates that the pavement conditions for half of the region are in good condition. It should be noted that U.S. Route 68 in Champaign County has been repaved since this data was published.

Bridge sufficiently ratings for the area are as follows: Champaign County – Good 93.30%, Fair 6.10%, Poor .03%, Logan County – Good 81.37%, Fair 14.86%, Poor .85% The Region combined ratings are Good 86.39%, Fair 11.16%, Poor 1.15%. Overall the areas bridges have a rating of 97.55% good or better.

### System Reliability Performance:

LUC area doesn't have any Interstates that would fall into this category. The LOS rankings for the Champaign Logan road network; approximately 94.3% of the functional class roadways in the two county region have a LOS ranking of an A, 3.9% have a rating of B, 1.2% have a rating of C and 0.1% have a rating of D. This means that 99.5% of the roadways have an acceptable level of service while only 0.5% do not.

### Freight Movement and Economic Vitality:

There are approximately 100 miles of active rail that currently extends through both Champaign County and Logan County. The rail lines are operated by three different entities, CSX, the West Central Ohio Port Authority (WESTCO) and the Indiana Ohio Railway (IORY). The rail lines primarily transport agricultural products such as corn, soybeans, and fertilizer. Because of this, the amount of carloads per year varies depending on the harvest yield for each year. In addition, salt and plastic are also shipped. Manufacturers also ship their manufactured items on the railways.

### Achieving Measurement Goals

- To aid in meeting the targets, LUC adopted the '2020 Local Roadway Safety Program' for Champaign and Logan Counties. Adopted May 2020.
- LUC continues to plan, program, fund projects and studies that have a positive impact in achieving the targets set by ODOT and FHWA.

### Transportation Plan Formulation

### Latest Planning Assumptions

Project selection is based on the latest planning assumptions for the area. These consist of the needs to maintain our current transportation system while allowing for the growth of residential, commercial, and industrial land uses throughout the LUC district. There are several studies planned for the next ten years. The results of these studies will yield the desired course of action and a better ability to make decisions on the appropriate projects for the future. Possible outcomes have also been listed in the roster of projects to act as 'placeholders' for available funds. Project rosters have been broken into two categories. The first are projects that are expected to progress in the next ten years, which are considered short range projects. The second group, the long range projects, are expected to progress in the remainder of the plan. It is anticipated that flexibility will be necessary, and projects may move from one list to the other as needs arise.

Project planning for LUC consists of the following assumptions:

- Maintenance of the current system takes precedence over all new construction projects.
- Safety improvements are a priority throughout the system and will be incorporated into the planning for all projects.
- Accessibility to the transportation system includes all users: pedestrians, bicycles, cars, and trucks.

The lists containing the short and long range projects that have been selected for inclusion with this plan can be found on pages 63 and 64.

### **Glossary of Acronyms**

ADA – Americans with Disabilities Act ODOT – Ohio Department of Transportation OEPA – Ohio Environmental Protection Agency AADT- Annual Average Daily Traffic **BELL - City of Bellefontaine** OES – Office of Environmental Services CCEO - Champaign County Engineer's Office **ODJFS - Ohio Department of Job and Family Services** CFR – Code of Federal Regulations Ohio PID - ODOT - Project Information Data OMUTCD - Ohio Manual of Uniform Traffic Control CO - County Devices CTS - Champaign County Transit System **OPWC – Ohio Public Works Commission** DVMT - Daily Vehicle Miles Traveled **PCR-Pavement Conditions Rating** EJ – Environmental Justice PDP – Project Development Process EPA – Environmental Protection Agency RGL – Regulatory Guidance Letter ESR – Ecological Survey Report **RTPO - Regional Transportation Planning Organization** FAA – Federal Aviation Administration RUDAT - Regional/Urban Design Assistance Team FHWA – Federal Highway Administration SAFETEA-LU – Safe, Accountable, Flexible, Efficient FEMA - Federal Emergency Management Agency Transportation Equity Act: A Legacy for Users FTA – Federal Transit Administration SFHA - Special Flood Hazard Area FY – Fiscal Year SFY – State Fiscal Year GA - General Appraisal SHPO – State Historic Preservation Office GCAT - ODOT GIS Crash Analysis Tool **SKBT - Simon Kenton Pathfinders GIS - Geographic Information Systems** SR – State Route **GPS** - Global Positioning System STDM - Ohio's statewide travel demand model HABS – Historic American Buildings Survey STIP – Statewide Transportation Improvement Program HAER – Historic American Engineering Record TEA-21 – Transportation Equity Act for the 21st Century HUC – Hydrologic Unit Code **TEM - Traffic Engineering Manual IORY - Indiana Ohio Railway TIP** – Transportation Improvement Program IR – Interstate Route TLC - Transportation for Logan County LCEO - Logan County Engineer's Office TMA – Transportation Management Area LOS - Level of Service TMDL - Total Maximum Daily Load LPA – Local Public Agency

- LRAU Large River Assessment Units URBA - City of Urbana MPO – Metropolitan Planning Organization US – United States (Route) MVRPC – Miami Valley Regional Planning Commission USACE - United States Army Corp of Engineers NEPA – National Environmental Policy Act of 1969 USC – United States Code NOAA - National Oceanic & Atmospheric Administration USDOT – United States Department of Transportation NRHP – National Register of Historic Places USEPA – United States Environmental Protection Agency NLEW - Village of North Lewisburg USGS - United State Geological Survey O&M – Operations and Maintenance VOR - Very High Frequency Omni-Directional Range ODNR - Ohio Department Natural Resources VMT – Vehicle Miles of Travel ODOD - Ohio Department of Development WAU - Water Assessment Unit WESTCO – West Central Ohio Port Authority WLIB - Village of West Liberty
  - WQS Ohio Water Quality Standards

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### Addendum A

### Summary of Written Public Comment

One Comment was received during the Public Involvement Period May 8, 2023, through May 23, 2023, for the Open House conducted May 8, 2023, for the LUC RTPO Long Range Plan.

• Bike Trail – Thank you for hosting the Open House, it would be nice to see the proposed bike trail between Urbana and Piqua more prominently displayed on the maps. This multi-use trail will directly connect to the 350-mile greater Miami Trail System, and it would be a driver of economic and residential development in Saint Paris and western Champaign County.

Response sent back May 10, 2023 - Thank you very much for attending the LUC's Long Range Plan Open House on May 9, 2023, at the Champaign County Community Center. LUC appreciated the opportunity to discuss our Long Range Plan with you and the time you spent attending. I want to let you know that your comment was received and has been incorporated into the final document of LUC's Long Range Plan. As you are aware the bike trail is included in the List of Submitted Projects and shown on the Submitted RTPO Projects map as well as the St. Paris Feasibility Study is listed on page 60 under Studies Completed. Your comments are very beneficial to us during the planning process. Again, thank you for your comment.



### A RESOLUTION

### OF THE LOGAN-UNION-CHAMPAIGN-REGIONAL PLANNING COMMISSION ADOPTING THE LOGAN/CHAMPAIGN 2050 LONG RANGE PLAN IN ITS FINAL FORM

**WHEREAS,** the Logan-Union-Champaign Regional Planning Commission (LUC) is designated as the Regional Transportation Planning Organization (RTPO) for Logan and Champaign counties by the Governor of the State of Ohio, acting through the Ohio Department of Transportation (ODOT), and in cooperation with locally elected officials in the area pursuant to an Agreement between ODOT and LUC; and

**WHEREAS**, LUC has the authority and responsibility for the direction, coordination, and administration of the area-wide transportation planning process in accordance with federal laws.

**WHEREAS,** the Clark County- Springfield TCC provides transportation planning services so that the LUC RTPO can conduct a continuing, cooperative, and comprehensive regional transportation planning process consistent with Federal and State Laws and Processes; and

**WHEREAS,** the 2050 Long Range Transportation Plan was prepared in cooperation with local governments, transportation providers, ODOT, and the public through multiple public involvement opportunities throughout the planning process; and

**WHEREAS**, the 2050 Long Range Transportation Plan is an update of the Plan that was last completed in 2015; and

**WHEREAS**, the 2050 Long Range Plan Steering Committee and ODOT have reviewed the Plan in its final form and find the Plan to be satisfactorily complete.

### **BE IT THEREFORE RESOLVED:**

That the members of the LUC Executive Committee hereby adopt the 2050 Long Range Transportation Plan in its final form.

### BY ACTION OF THE LUC EXECUTIVE COMMITTEE

Wes Dodds President, LUC Executive Committee Bradley Bodenmiller Secretary, LUC Executive Committee

Date

### Simon Kenton Trail **BURGESS & NIPLE** Technical Memorandum 330 Rush Alley, Suite 700 | Columbus, Ohio 43215 | 614.459.2050 To: Louis Agresta May 31, 2023 Section 1.0: Introduction Clark County Springfield Transportation Coordinating Committee (CCSTCC) From: Danny Soroka, PE Amy Rosepiler, PE Burgess & Niple, Inc. Subject: Simon Kenton Trail Alignment Analysis

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The purpose of this feasibility study is to review and evaluate alternatives for a multi-use trail along East Lawn Avenue and Childrens Home Road in northeastern Urbana for the Clark County-Springfield Transportation Coordinating Committee (CCSTCC) in cooperation with the Simon Kenton Pathfinders, Urbana Township, LUC Regional Planning Commission and the City of Urbana. The corridor study limits extended from the existing Simon Kenton Trail in Melvin Miller Park on Childrens Home Road to the existing Simon Kenton Trail on East Lawn Avenue north of the Childrens Home Road and East Lawn Avenue intersection in the City of Urbana and Urbana Township.

The existing Simon Kenton Trail follows the existing railroad alignment from the southern limits of the Urbana city limits to the intersection of East Lawn Avenue, just east of the Dugan Run crossing. At this location, the trail transitions to a 2,200-foot long on-street alignment following East Lawn Avenue southerly to the intersection of Childrens Home Road, where the on-street trail turns easterly and travels along Childrens Home Road to an off-road trail connection in the Melvin Miller Park. The trail continues to the east, turning south, providing a connection to the Boyce Street Athletic Complex and the Champaign Family YMCA located to the southeast of the study area. Exhibits 1.1 and 1.2 illustrate an overview of the corridor limits and key locations and connections.

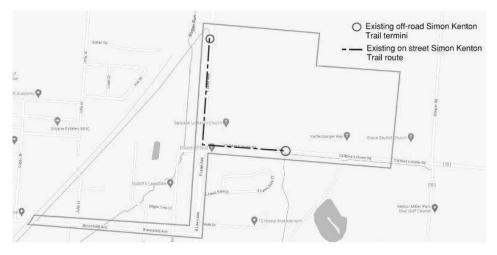


Exhibit 1.1 – Study Limits (photo credit: Google Maps)



### **BURGESS & NIPLE**

### Simon Kenton Trail Technical Memorandum



Exhibit 1.2 – Key Locations and Connections (photo credit: Google Maps)

The study area includes the proposed Dugan Place development behind the Walmart shopping plaza to the southeast of Melvin Miller Park that is anticipated to increase traffic volumes along East Lawn Avenue and Childrens Home Road. Additionally, the vertical profile of Childrens Home Road limits sight lines within the on-street trail corridor. This study is to evaluate off-road alignments for trail users within this corridor. The stakeholders previously identified potential off-road alignments, which this study considered along with other alternatives developed through analysis and stakeholder coordination meetings. This report summarizes these alternatives, key issues used to compare the alternatives, and additional data collected for the study area.

### Section 2.0: Stakeholder Coordination and Alternative Development Process

B&N met with the stakeholders for an initial brainstorm and project kick off session (Stakeholder Meeting 1) on February 3, 2023 to discuss the goals of the project, a preliminary trail connector exhibit (*Exhibit 2.1*) developed by Simon Kenton Pathfinder members, and the opportunities and challenges within the project study area.

Key discussion items included:

- This section of the Simon Kenton Trail is a busy section of trail that connects users to Melvin Miller Park.
- The stakeholders noted concerns about the traffic volume and lack of berm along Childrens Home Road and East Lawn Avenue along the on-street portion of the Simon Kenton Trail.

- Based on prior discussions, the Simon Kenton Pathfinders have identified an opportunity to utilize the Messiah Evangelical Lutheran Church property along the northern and eastern boundaries of the parcel for a trail alternative with a connection to the church parking lot as a potential alternative.
- Multiple road-front parcels were subdivided from the Troy T. Thomas parcel along the northern side of Childrens Home Road across from the Melvin Miller Park and are under development. This subdivision and development will influence the potential alternative alignments provided by the Simon Kenton Pathfinders.
- The proposed Dugan Place development just north of the Walmart Shopping Center parcel and to the southeast of Melvin Miller Park includes up to 513 units of housing. A potential trail connection to the existing terminus at the YMCA has been discussed with the developer. No formal plan is in place at this time. Should the connection be built, this possible connection would provide access to the Simon Kenton trail system.
- The YMCA is partnering with the Simon Kenton Pathfinders to develop a trail head on the northwestern corner of the YMCA property where the existing trail enters the YMCA property. This development will provide a shelter house and picnic area and connect to the existing trail.
- There is an existing fire egress to the Sarah Court Condominium complex along the southern side of Childrens Home Road approximately 650'east of the East Lawn Avenue intersection.
- There is an existing trail counter at the intersection of the trail and US 68. An additional trail counter will be installed to further inform trail user data for the trail sections that this proposed trail connects.

B&N facilitated a second stakeholder meeting (Stakeholder Meeting 2) on March 7, 2023, where B&N shared exhibits of the potential alignments and opportunities and challenges with each alignment. The goal of the second meeting was to capture feedback from the Stakeholder team to further refine the alignments and finalize the schedule and funding pursuit efforts.



### Section 3.0: Existing Conditions

B&N performed a site visit on February 14, 2023, to observe the existing conditions and discover any constraints within the project area that were not previously brought up or apparent from Google Earth. Aerial footage of the project area and key locations were captured using drone footage. The corridor was also driven utilizing a Garmin GPS camera to capture ground level imagery.

*Exhibit 3.1* illustrates the trail terminus on East Lawn Avenue just east of Dugan Run, approximately 1,250 feet north of the East Lawn Ave and Children's Home Road intersection. The existing shared use path is about 10 feet wide at this location.



Exhibit 3.1 – Trail terminus on East Lawn Avenue looking north (photo on left) and aerial looking northwest (photo on right). Notice the bicyclists in the aerial photo riding to the trail terminus, utilizing the opposing traffic lane.

*Table 3.1* summarizes the existing roadway information for East Lawn Avenue (TR 126) and Childrens Home Road between the two existing off-road trail termini.

On Children's Home Road, the terminus of the existing off-road Simon Kenton Trail is located on the south side of the roadway at the western edge of Melvin Miller Park, approximately 950 feet east of the intersection. There is a short segment of existing sidewalk in front of a residential property at the western end of the trail. *Exhibit 3.2* illustrates the trail terminus on Childrens Home Road.



Exhibit 3.2 – Trail terminus on Childrens Home Road looking west (photo on left) and aerial looking southeast (photo on right)

Between these two trail termini, trail users must use portions of East Lawn Ave and Children's Home Road. The roadway width is narrow and has geometric features that create uncomfortable conditions for pedestrians and bicyclists. *Table 3.1* summarizes the existing features of these roadway segments.

Table 3.1 - Existing Roadway Information

| Criteria                | East Lawn Avenue                                                                                       | Childrens Home Road                                                                                                    |  |
|-------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--|
| Functional Class        | Urban Major Collector                                                                                  | Urban Major Collector                                                                                                  |  |
| Lane width              | 11', 2 lanes                                                                                           | 11', 2 lanes                                                                                                           |  |
| Shoulder width          | 1' graded                                                                                              | 1' graded                                                                                                              |  |
| Posted Speed Limit      | 25 mph                                                                                                 | 35 mph                                                                                                                 |  |
| AADT (ODOT TIMS, 2021)  | 1,721 vehicles                                                                                         | 3,120 vehicles                                                                                                         |  |
| Utilities               | Eastern / Western – utility poles w/<br>power, telephone, fiber<br>Eastern - City of Urbana water main | Northern / Southern – utility poles<br>w/ power, telephone, fiber<br>Southern – City of Urbana water<br>main, gas main |  |
| Drainage                | Open ditch                                                                                             | Open ditch                                                                                                             |  |
| Right-of-way (RW) Width | 60'                                                                                                    | 60'                                                                                                                    |  |

Between the East Lawn Avenue intersection and Melvin Miller Park, the profile of Childrens Home Road has a short vertical crest curve. The top of the curve is near the western property line of Melvin Miller Park and the first adjacent residential property. The vertical curvature limits sight distance for drivers traveling east on the roadway approaching the existing off-road trail terminus, and for drivers traveling west towards the intersection. *Exhibits 3.4* and *3.5* illustrate the limited sight distance for drivers and the typical section of Childrens Home Road.



Exhibit 3.4 – Childrens Home Road heading east looking towards vertical curvature limiting sight distance





Exhibit 3.5 – Childrens Home Road heading west looking towards vertical curvature limiting sight distance

There are several residential properties, an agricultural property, and an institutional property (the Messiah Lutheran Church) on the eastern side and multiple residential properties on the western side of East Lawn Avenue.

Residential properties exist along the southern and northern side of Childrens Home Road, along with two institutional properties (the Messiah Lutheran Church and the Grace Baptist Church) on the northern side of the road. Melvin Miller Park is located at the eastern project limits on the southern side of the roadway. The study area also encompasses the border of the City of Urbana corporation limits, with the land outside city limits falling within Urbana Township jurisdiction. Exhibit 3.6 shows the corporation limits.



Exhibit 3.6 – City of Urbana Corporation Limits

### Section 4.0: Alternatives Considered

Alternatives were identified utilizing the stakeholder feedback from Stakeholder Meeting 1 and the observations from the site visit. The alternatives were presented to the stakeholders at Stakeholder Meeting 2 and refined based on feedback at that meeting. Once refined, the alternatives were evaluated based on key issues developed by the study team and stakeholder group. The evaluation is provided in Section 6.0.

### **Trail Geometry and Features**

### **Typical Section**

The ODOT *Multimodal Design Guide Chapter 5 – Shared Use Paths* was used as the basis for developing the geometry and specific features of each alternative. When located adjacent to the roadway, also known as a sidepath, Section 5.3.2 of the *Multimodal Design Guide* recommends a 5-foot minimum offset from the edge of traveled way to the path for uncurbed roadways. The trail width of 10-feet with 2-foot graded shoulder on either side of the trail was assumed, however the Multimodal Design Guide now recommends an 11-foot wide minimum path width, allowing a reduction to 8-feet wide in constrained areas. A proposed ditch section is anticipated to be constructed between the path and the existing roadway, or behind the proposed path, to capture roadway and path runoff and propagate the existing drainage patterns. *Exhibit 4.1* illustrates the trail typical section when adjacent to a roadway. *Exhibit 4.2* illustrates the typical trail pavement build up that was assumed.

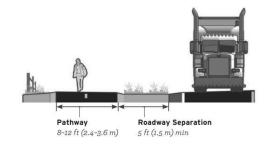
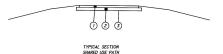


Exhibit 4.1 – Trail Typical Section adjacent to roadway (image credit: Small Town and Rural Multimodal Networks, FHWA)



LEBEND () ITEM 448 - 2 1/2" ASPHALT CONCRETE SURFACE COURSE (LIGHT TRAFFIC), PO84-22 (2) ITEM 304 - 6" AGGREGATE BASE

(3) ITEM 204 - SUBGRADE COMPACTION

### Exhibit 4.2 - Trail Typical Pavement Buildup



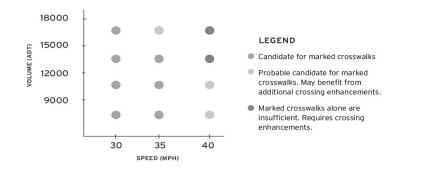




### **Roadway Crossing Applications**

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To address trail user safety at the various roadway crossings throughout the study corridor, crossing markings and enhancement applications were identified to provide various levels of visibility. The *Small Town and Rural Multimodal Networks* guide, published by the Federal Highway Administration (FHWA), provides guidance for facility design in small town and rural applications. The guide provides recommendations for crossing applications based on traffic volume and speed, illustrated in *Exhibit 4.3*.



### Exhibit 4.3 – Crossing Enhancement Recommendations based on Volume and Speed (image credit: Small Town and Rural Multimodal Networks, FHWA)

For the study corridor, the roadway crossings do not exceed 4,000 AADT and have posted speed limits of 25 mph and 35 mph. Per *Exhibit 4.3*, the recommended enhancement is marked crosswalks. Additional assessment of the context of each crossing, including visibility, anticipated growth that will influence traffic volumes, and observed traffic patterns associated with speed, further refined the potential crossing applications for the study area.

Option 1, shown in *Exhibit 4.4*, applied high visibility markings across the roadway with bicycle / pedestrian crossing signs, "Yield Here" signage and stop bars, advanced signage alerting motorists to the trail crossing, and a rapid rectangular flashing beacons (RRFB) to further enhance the crossing. This crossing application would be applicable where there is adequate sight distance.

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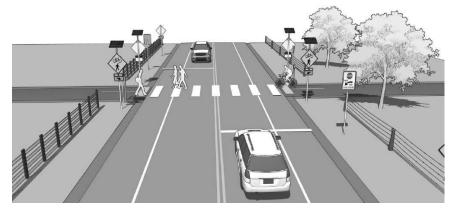


Exhibit 4.4 – Option 1 Crossing Application (image credit: Small Town and Rural Multimodal Networks, FHWA)

A second option, shown in *Exhibit 4.5*, was considered that applied the elements from Option 1 and included an overhead RRFB. This application would be proposed where sight distance is limited to ensure the RRFBs are visible above any obstructions.

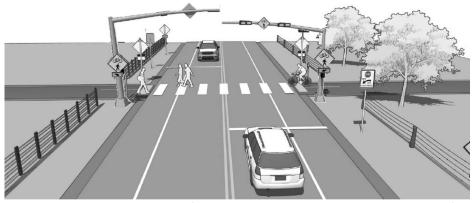


Exhibit 4.5 – Option 2 Crossing Application (image credit: Small Town and Rural Multimodal Networks, FHWA)



### Path Alignment Alternatives

The alternatives considered included the initial alternatives provided by the Simon Kenton Pathfinders, variations to those alternatives, and new alternatives developed throughout the study and stakeholder meetings. Alternative exhibits are provided in *Appendix A* of this report. *Exhibit 4.6* show the initial options developed by the Pathfinders, referred to in this report by their colors of yellow, cyan, green, and magenta.

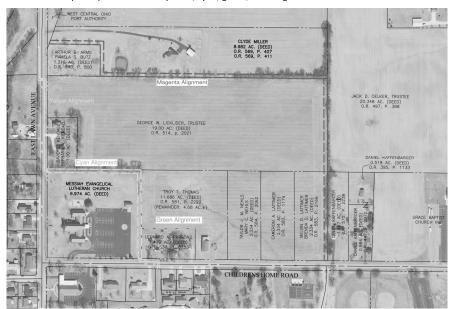


Exhibit 4.6 – Alternatives Developed by the Simon Kenton Pathfinders

### Alternative 1 – Off-Road Alignment

Alternative 1 provides a connection that is completely separated from the roadway except where it crosses at two locations. This alternative is a variation of the magenta alignment identified by the Simon Kenton Pathfinders, with an adjustment required to avoid impacting properties that are currently being developed. Alternative 1 begins at the existing trail termini on East Lawn Avenue and immediately crosses to the east side of the roadway, continuing east through the residential property, around the back of the Arthur B Arms/Pamela S Butz parcel. Depending on right of way discussions, the path can then travel along the north or south side of the property line between the Clyde Miller and George W Licklider properties before turning south and continuing along the Licklider parcel. The proposed adjustment from the initial magenta concept continues the path on the Jack D. Oelker property to the Grace Baptist Church property to avoid recently constructed residential structures on the Melvin D. Lattimer parcels. The path connects to the existing path at Melvin Miller Park. The proposed crossing of Children's Home Road is on a flat, straight portion of the roadway, approximately 1,300 feet from the vertical curve that limits sight

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distance. There is also a section option for where the path crosses East Lawn Ave, which will mainly be based on right of way discussions and impacts. At both crossings, crossing treatment option 1 would be provided for trail users. The total length of the trail is about 3,150-feet. *Exhibit 4.7* shows the proposed Alternative 1 alignment.



Exhibit 4.7 – Alternative 1 – Off-Road Alignment

### Alternative 2A – Behind Church Property

The Simon Kenton Pathfinders identified a potential alignment, shown in yellow and cyan in *Exhibit 4.6*, that follows East Lawn Avenue from the existing trail terminus to the northern edge of the Messiah Evangelical Lutheran Church property. At the church property, the trail turns east to follow the northern property line, then turns south to follow the eastern church property line. At Childrens Home Road, the trail crosses to the south and continues east in front of residential properties where it ties into the existing trail at Melvin Miller Park. This study analyzed the crossing location at Children's Home Road to determine an ideal location that maximizes sight distance for vehicles so they can see pedestrians, which places it further west from what is shown in *Exhibit 4.6*. There were also variations to the alternative for where the path crosses East Lawn Avenue. *Exhibit 4.9* illustrates the potential crossing locations along East Lawn Avenue.



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### Simon Kenton Trail Technical Memorandum



Exhibit 4.8 – Alternative 2A – Behind Church Property

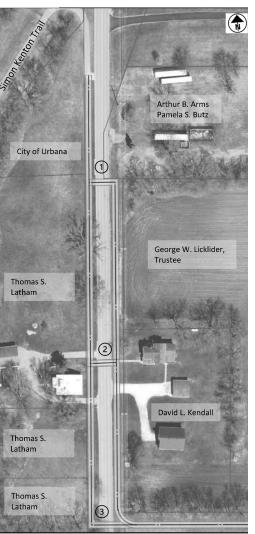


Exhibit 4.9 - Crossing Alternatives on E Lawn Avenue

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This study generally followed the alignment identified by the Simon Kenton Pathfinders. Three variations in trail crossing locations on East Lawn Avenue were considered and illustrated in *Exhibit 4.9*. The crossing locations are along level, straight segments of East Lawn Avenue, and the selected option will mainly depend on right of way discussions. The Option 1 Crossing Application is applicable at these locations.

**Crossing 1** is located approximately 180 feet south of the terminus of the Simon Kenton Trail. This crossing emulates the Simon Kenton Pathfinder study and provides a crossing that aligns with the George W. Licklider, Trustee, property. This crossing creates an alignment that is primarily located on the eastern side of East Lawn Avenue. The alignment crosses one residential drive prior to turning onto the Messiah Evangelical Lutheran Church property.

**Crossing 2** is located approximately 450 feet south of the northern terminus of the Simon Kenton Trail. This crossing maintains an alignment on the western side of East Lawn Avenue and crosses two residential drives.

**Crossing 3** is located approximately 715 feet south of the northern terminus of the Simon Kenton Trail. This crossing places trail users directly across from the continuation of the path on the Messiah Evangelical Lutheran Church property. This crossing places the entire path along the western side of the roadway.





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Simon Kenton Trail Technical Memorandum

In the initial layout, two potential crossings were studied to reach the southern trail terminus and are illustrated in *Exhibit 4.10*. Both crossings are near the vertical curve that impedes sight distance. Based on the geometric assessment of the crossings with respect to the vertical sight distance and stakeholder feedback, crossing option number 5 was eliminated from consideration. Crossing option number 4 is feasible and passes the sight distance check using a 40 MPH design speed and ODOT L&D Volume 1 Figure 203-3. As the crossing location moves further west, stopping sight distance for vehicles is maximized. A crossing window shown in yellow was identified as an optimal location that maximizes sight distance. To improve crossing visibility, the Option 2 Crossing Application with an overhead RRFB is proposed at this location so it can be seen over the crest curve.

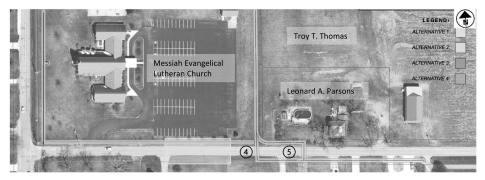


Exhibit 4.10 - Crossing Alternatives at Southern Terminus

### Alternative 2B - In Front of Church Property

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Alternative 2B generally follows the same alignment as Alternative 2A, except for how it travels through the Messiah Evangelical Lutheran Church property. Rather than following the northern and eastern property lines, the path continues south along the western property line to the intersection of East Lawn Avenue and Children's Home Road, where it turns east and travels along the north side of Children's Home Road. The path then crosses at the same location discussed in Alternative 2A. This option, shown in *Exhibit 4.11*, follows a more conventional side path that is placed a minimum of 5-feet from the existing edge of roadway pavement.

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Exhibit 4.11 – Alternative 2B – In Front of Church Property

### Alternative 3 – On-Road Facility

Alternative 3 is an on-road option that maintains the existing trail route but creates separate lanes for trail users by widening the existing roadway. This requires widening East Lawn Avenue and Childrens Home Road approximately 10-feet plus a 5-foot sidewalk to create separate bike and pedestrian lanes, as shown in *Exhibit 4.12*.

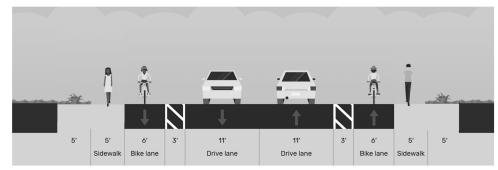


Exhibit 4.12 - On-Street Trail Alternative



The on-street alternative provides a 6-foot-wide bike lane with a 3-foot buffer to the travel lanes, and a 5-foot wide pedestrian path or sidewalk. The overall width of the alternative is 50 feet, providing a 5-foot buffer to the existing RW on either side to be graded into a roadside ditch. At the two existing off-road trail termini, the bike lane and pedestrian path opposite the off-road trail will cross the roadway using Crossing Option 1 with ground mounted RRFBs. These crossings are proposed directly at the termini of the off-road trail. An additional crossing would be placed at the intersection of East Lawn Avenue and Childrens Home Road, providing an enhanced crossing for trail users on the southern side of the intersection.

This alternative would require the on-street trail to cross multiple residential drives as well as the Messiah Evangelical Lutheran Church drive. Along the south side of Childrens Home Road, this alternative would require regrading of a short section of embankment approximately 500 feet from the intersection where the back slope of the existing ditch is steep.

### Alternatives Evaluated and Dismissed

Several alignments were studied and dismissed. The Simon Kenton Pathfinders had identified two potential alignments outlined in red in *Exhibit 4.13*. These alignments originally fell within the Troy T. Thomas parcel. In 2022, the property owner subdivided their parcel to create three parcels that were sold and are currently under development with single family residential homes. The placement of the new structures on these properties prohibits the path from connecting through that area. For this reason, that portion of the original magenta alignment was dismissed. The green alignment was also dismissed because of this development, and because it requires a crossing of Children's Home Road outside of the recommended area for adequate sight distance.

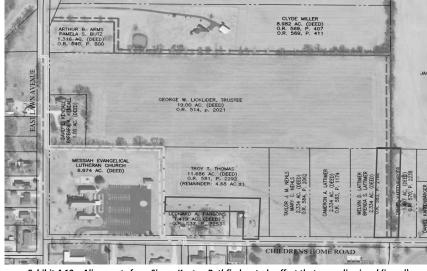


Exhibit 4.13 – Alignments from Simon Kenton Pathfinder study effort that were dismissed (in red)

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Another alternative that was studied and dismissed investigated a side path adjacent to Bloomfield Avenue. This option began at the intersection of the existing Simon Kenton Trail and Bloomfield Avenue and travelled along Bloomfield Avenue, East Lawn Avenue, and Children's Home Road to Melvin Miller Park as shown in *Exhibit 4.13*. The alternative was dismissed due to the number of historic properties that were identified along Bloomfield Avenue, potential flood plain and floodway impacts to lengthen an existing culvert at Dugan Run on Bloomfield Avenue, and impacts to parking, utilities, and right of way. This option would also not achieve the goal of the project by leaving a gap between the existing terminus at East Lawn Ave and the rest of the Simon Kenton Trail.



Exhibit 4.13 – Alignment along Bloomfield

A final option, shown in red in *Exhibit 4.14*, was considered that tied into the existing path along the railroad tracks on the west side of the study area about 1,050-feet south of the existing termini at East Lawn Avenue. The path would head east to East Lawn Avenue near the northern property line of the Messiah Evangelical Lutheran Church, where it would follow either Alternative 2A or 2B to Melvin Miller Park. This option was dismissed because it would require a bridge to cross Dugan Run, creating significant additional costs for the project compared to other feasible alternatives.



Exhibit 4.14 - Dugan Run Crossing







### **BURGESS & NIPLE**

### Section 5.0: Environmental Considerations

Environmental screening for the Simon Kenton Trail Study was evaluated by B&N on February 17, 2023, and updated June 26, 2023. The desktop reconnaissance evaluated the following resources:

- Aerial imagery
- USGS Topographic map
- USFWS National Wetland Inventory (NWI) map
- Federal Emergency Management Agency Flood Insurance Map (FIRM)
- Cultural Resources identified by the State Historic Preservation Office (SHPO)
- Regulated Materials Review (RMR) using ODOT Ohio Regulated Properties Search (ORPS)
- Underserved Populations using ODOT Transportation Information Mapping System (TIMS).

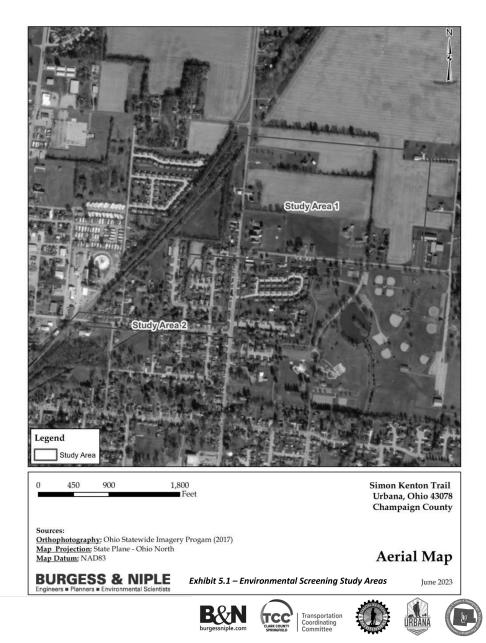
Mapping and data from these various agencies are included in *Appendix B*. The study areas were established as shown in *Exhibit 5.1*. Resources found during desktop reconnaissance are discussed briefly below.

**Streams and Wetlands:** One NWI mapped wetland is located within Study Area 1 in the southwest quadrant (PEM1C). This wetland is located between residential homes and south of the open field on the west side of the study area. Two NWI riverine features are located within the study area. The first is listed as a R5UBH stream that runs from the southwest end of the Study Area 2 to east of the wetland and continuing straight north through the top of the Study Area 1. This stream is Dugan Run and has an estimated drainage of 15.5 square miles. Another stream is within study area 2 in the section running north to south. It is listed as a R4SBC stream and is just south of East Lawn Sara Court running east to west before meeting with Dugan Run outside the study area. One pond is within study area 1 in the northern portion (PUBGx). An Ecological Survey Report is recommended to determine the exact location and boundaries of all listed resources as well as to locate any potential features not listed. The southwest end and north-south portion of Study Area 2 is within a flood hazard zone along with the western portion of Study Area 1.

**Floodplain:** The southeast end and the whole western portion of the Study Area is within a flood hazard zone for Dugan Run. If the project is funded with federal funds, compliance with Executive Order 11988 must be documented for all build alternatives. The project must be designed to comply with the National Flood Insurance Program, including documenting no net rise in the base flood elevation within the floodways. Because all the build alternatives will be partially within the floodplain and require coordination during design, this was not used as an evaluation criteria. It is assumed that each alternative would rank the same in this category.

Threatened and Endangered Species: The No Build Alternative is expected to be exempt from ecological survey requirements, as this alternative will not include instream work, tree removal or more than minor earth-disturbing activities. The build alternatives will include tree removals and earth-disturbing activities. An ecological survey report will be required for these alternatives. Champaign County is within the known habitat ranges of the Indiana and northern long-eared bats, the bald eagle, and the eastern massasauga rattlesnake.

**Cultural Resources:** Multiple cultural resources were identified by SHPO mapping within the study area. Two different locations within the study area have previous archaeological investigations. In study area 1 on the south end there was a Phase I/II Archaeological investigation for the addition of the Urbana City Park. An archaeological survey was done at the southwest end of study area 2 for the sewer lines. An Archaeological Phase 1 investigation



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may be needed to confirm that no cultural resources are present in any other section of the study area where construction would be in undisturbed lands (i.e. farm fields). No other observed environmental concerns were identified within the study area.

*Air Quality:* As a bike/ped facility, all build alternatives are expected to be exempt from analysis for mobile source air toxics. The project is not located in an area that is currently in non-attainment for criteria air pollutants under the National Ambient Air Quality Standards.

**Noise Levels:** The project is not a Type I project for noise. That is, it does not add motor vehicle capacity, is not a new highway on new location, does not significantly change the horizontal or vertical alignment of a roadway, or add an auxiliary lane. Therefore, a noise analysis is not required under any build alternative.

*Farmland:* If right-of-way will be required, consideration under the Farmland Protection Policy Act will be required if federal funds are utilized. If the project is funded with federal transportation funds, the project will likely meet the Farmland Memorandum of Understanding. Additionally, acquisition under this project is unlikely to exceed the coordination thresholds of ORC 929.05 (10 acres from an individual property).

**Regulated Materials:** Six features are mapped within the study area on the ORPS database. One Underground Storage Tank (UST) is located in study area 1. It is in the southern portion and located on Children's Home Road. This UST is listed as inactive. This same UST is also listed as a Leaking Underground Storage Tank (LUST) and is listed as closed and a No Further Action letter is noted for this site. Four USTs are listed at one address on Bloomfield Ave in study area 2. No data is available about inspections or if they are active.

**Underserved Populations:** The Underserved Population based on the Transportation Information Mapping System (TIMS) is broken into two census tracts as seen in the attachment. For the east census tract, TIMS identified that 34% of the population is minority and 63% of the population is low income. For the west census tract, TIMS identified that 25% of the population is minority and 55% of the population is low income.

The above information was obtained for public agency records and reflects the information contained in their data bases. A detailed environmental review including field investigations will be required during preliminary and detailed design to determine if any undocumented environmental attributes are present in the project area.

The project will not require relocations. Under all build alternatives, right-of-way acquisition will be required and will vary based on the alternative. Under all build alternatives, the project will improve bicycle access for local residents and visitors. The alternatives provide a multi-use trail facility, which will also improve pedestrian access. Under the build alternatives, the project is not expected to result in disproportionate adverse impacts to underserved populations. Consideration for ensuring existing pedestrian access is maintained will be necessary for work in areas with existing pedestrian facilities and/or known pedestrian use.

**Public Involvement:** If the project is funded with federal transportation funds, public involvement will be undertaken and public input will be considered, prior to advancing a build alternative to detailed design, consistent with ODOT's public involvement guidance.

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### Section 6.0: Evaluation of Alternatives

### **Evaluation Criteria**

The various build alternatives discussed in Section 4 and the no-build were evaluated based on the following criteria.

- Safety at Roadway Crossings
- Directness of Route
- Right-of-Way Impacts
- Comfort for Trail Users
- Utility Impacts
- Construction Cost

### Safety at roadway crossings

For each proposed crossing, roadway crossing applications were identified to optimize safety for the trail users. Within each alternative, there were additional factors that influence safety.

*Alternative* 1- This alternative provides two roadway crossings, one on East Lawn Avenue and one on Childrens Home Road. The crossings are located at locations were the horizontal and vertical geometry of the roadway is straight and flat. Adequate sight distance provides a clear line of sight to the crossings. Limited vegetation is present to block approach trail users from the view of motorists. This alternative performs best out of the three alternatives.

*Alternative* 2 – The three crossing options on East Lawn Avenue are all located along flat, straight sections of East Lawn Avenue, providing drivers with optimal sight distance to the crossings. Crossings 1 and 2 have no vertical obstructions adjacent to the roadway that impact the driver's ability to see a bicyclist or pedestrian waiting to cross the roadway. Crossing 3 is adjacent to several large trees and established tree lines. Clearing of trees or pruning would be necessary to provide an unobstructed line of sight to the path approaches on either side of the roadway. Crossing 3 performs worse than Crossings 1 and 2.

On Childrens Home Road, a crossing window was identified that identified an area where optimal visibility near the vertical curve could be achieved. The installation of an overhead RRFB that can be activated by the trail users will provide additional indication and visibility to drivers when it is in use. This crossing location is acceptable for this alternative. Overall, Alternative 2 performs adequately.

*Alternative* 3 – With trail users on the roadway moving with traffic, users would be visible to drivers when approaching crossing locations. The crossings would be located where the horizontal and vertical geometry is straight and flat. The additional crossing at the intersection of East Lawn Avenue and Childrens Home Road does provide some complexity for trail users since drivers will be concentrating on trail user movements as well as vehicular movements at the intersection. With a stop control condition, the introduction of an RRFB at this location could create confusion to the overall function and movement of the intersection. Due to this, Alternative 3 performs poorly for safety at roadway crossings.



### **Directness of Route**

Directness of route considers the length a bicyclist or pedestrian may travel, or the time it may take, to get from one end of the study area to the other. It also considers the ability of the alternative to connect users to surrounding destinations.

*Alternative 1* – This is the longest route of the alternatives considered, at approximately 3,150-feet between the existing trail termini. This may cause some trail users to use the existing on-road trail route due to the additional length required. For this reason, this alternative ranks the lowest in this category.

*Alternative 2* – Alternative 2 is about the same length as the existing on-road route, and therefore ranks the best in this category. Additionally, it is closer to many of the residential properties along the route, including south of the East Lawn Avenue and Children's Home Road intersection, creating easier access to the trail for more users.

*Alternative* 3 – Alternative 3 is about the same length as Alternative 2, and therefore ranks the same in this category.

### **Right-of-way**

This criterion evaluated the temporary and permanent impacts to the privately owned parcels within the project limits. It identified potential acquisition needs, impacts, and potential challenges for areas outside of the public RW.

*Alternative* 1 – Most of Alternative 1 is located outside of the public RW and will require permanent RW acquisition from multiple property owners. This alternative ranks worst of the three alternatives.

*Alternative 2* – Overall Alternative 2 is primarily in the public RW with the exception of the path length within the Messiah Evangelical Lutheran Church. The Church leadership has expressed interest in supporting the path development on the property with the anticipation that a connection can be made between the church parking lot and the path.

Along East Lawn Avenue, it is likely that temporary easements will be necessary along the corridor to accommodate grading behind the path to tie into existing ground. The crossing location for Crossing 1 was located based on the existing RW information to avoid potential RW impacts to the Arthur B. Arms / Pamela S. Butz parcel. Crossing 2 will impact several trees along the Thomas S. Latham property that are located within the corridor. While the trees are within the public RW, coordination with the property owner on the tree removal may be necessary. If it is desired to avoid the trees, permanent RW will be necessary to bend the path behind the trees to avoid impacts. Crossing 3 will require tree removal and pruning from trees located within the public RW and potentially from trees with branches that overhang the public RW from private property. Coordination with the property owners and potential temporary easements to facilitate the pruning may be necessary. Of the three crossing 1 performs the best, Crossing 2 as shown with impacts to existing trees performs well, and Crossing 3 performs worst.

On Childrens Home Road, temporary easements will be necessary to accommodate grading behind the path to tie into existing ground. Crossing Option 4 may perform lower than Option 5 due to the steep side slope on the south side of the roadway. The path in this area may require a permanent easement to accommodate more significant grading.

Overall, Alternative 2 ranks as adequate for RW impacts.

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Alternative 3 – It is anticipated that the on-road facilities will fit within the existing RW of East Lawn Avenue and most of Childrens Home Road. Temporary easements may be needed for grading to reestablish open cut ditches along both roadways. A short section of Childrens Home Road on the south side at the vertical curve may require a small RW acquisition to accommodate more significant grading where an existing embankment is present. Just east of the Leonard Parsons parcel, the northern RW limit appears to jog to the center of the roadway, creating a 30-foot RW width. It is possible that additional permanent RW may be needed here to reestablish the road RW. Due to these small impacts, Alternative 3 ranks as poor for RW impacts.

### **Comfort for trail users**

The comfort of trail users considers the surrounding context of the trail location. This could include proximity to high-speed roadways, amount of tree cover, grade of the trail, and overall sense of security.

Alternative 1 – This alignment is predominantly separated from roadways. Some portions of the trail are near tree lines and may be shaded; other portions are located within open farm fields and may not be as comfortable during warm temperatures. Based on the field visit, the grade of the trail will be level, creating an easy path for all users. The separation of the trail from adjacent developed properties could create a lower sense of security, although many parts of the Simon Kenton trail are rural in nature. Overall, Alternative 1 performs well in this category.

Alternative 2 – Much of the alignment for Alternative 2 is adjacent to a roadway. Separation is provided to increase comfort for trail users, however, this level of comfort is lower than Alternative 1. The trail has a few locations with tree cover; much of the trail is open and may not be as comfortable in warmer temperatures. Trail users will need to climb the short vertical curvature on Childrens Home Road. The trail is adjacent to developed properties which may create a higher sense of security. Overall, Alternative 2 performs second best in this category.

Alternative 3- As an on-road facility, even with a buffer, Alternative 3 has the least comfort for trail users, especially pedestrians. The trail has a few locations with tree cover; much of the trail is open and may not be as comfortable in warmer temperatures. Trail users will need to climb the short vertical curvature on Childrens Home Road. This trail is adjacent to developed properties which may create a higher sense of security. Overall, Alternative 3 performs worst in this category.

### **Utility Impacts**

Utility impacts were evaluated based on impacted overhead utilities or pole lines, surface appurtenances or underground infrastructure based on a reduction of cover. The project corridor has overhead poles lines with power, telephone and fiber along the eastern side of East Lawn Avenue and the northern side of Childrens Home Road. Service pole lines are located along the west side of East Lawn Avenue and southern side of Childrens Home Road. The City of Urbana recently installed a new water main along the eastern side of East Lawn Avenue and along Childrens Home Road and gas is present in the corridor.

*Alternative* 1 – The alignment of Alternative 1 is not near any of the existing utilities within the project corridor. It is anticipated that there are no utility impacts. Alternative 1 performs best in this category.

*Alternative 2* – Along East Lawn Avenue, Crossing 1 should avoid the existing utility pole alignment through this portion of the corridor. It performs the best of the three crossing options along East Lawn Avenue. Crossing 2 and Crossing 3 both impact several utility poles with service lines along the western side of East Lawn Avenue. These Crossings perform worse than Crossing 1.



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### **BURGESS & NIPLE**

Simon Kenton Trail Technical Memorandum

Along Childrens Home Road, the proposed trail will require cut into the existing embankment along the southern side of the roadway, over the existing water main and gas main along the corridor. It is anticipated that the location of the two utilities is outside of any cover reduction area for this alternative and no impacts will occur to those utilities. The trail may impact several utility poles along the southern side of Childrens Home Road.

Overall Alternative 2 performs the worst in this category.

*Alternative 3* – Widening the existing roadway to provide an on-road alignment is not anticipated to impact any existing utility poles in the project corridor. The widening would place the new on-street path over the newly installed water main on the east side of East Lawn Avenue. During stakeholder coordination, concerns were expressed about the installation of asphalt over the water main and potential maintenance issues that could occur that require repair to the path. Alternative 3 performs better than Alternative 2 and worse than Alternative 1.

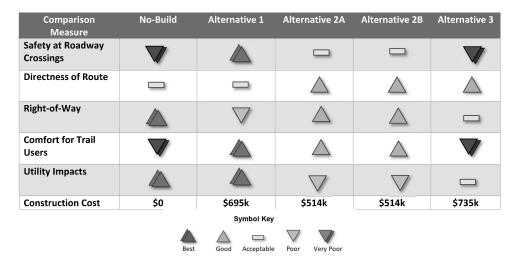
**Construction Costs** – Construction costs are summarized in **Table 7.1** below for Segment 1 and the various alternatives. These costs are construction costs only and do not include right of way acquisition, utility relocations, or design.

Table 7.1 –Construction Costs

|                                                | Alternative 1 | Alternative 2A/2B | Alternative 3 |
|------------------------------------------------|---------------|-------------------|---------------|
| Roadway (pavement, rail /<br>fence, earthwork) | \$275k        | \$180k            | \$310k        |
| Drainage                                       | \$70k         | \$50k             | \$60k         |
| Traffic Control / Signalization                | \$75k         | \$75k             | \$75k         |
| Mobilization                                   | \$20k         | \$20k             | \$20k         |
| 35% Contingency                                | \$154k        | \$114k            | \$163k        |
| 2023 Total Costs                               | \$594k        | \$439k            | \$628k        |
| 2025 Costs (17% Inflation)                     | \$695k        | \$514k            | \$735k        |

The evaluation criteria listed above was used to assess the three alternatives. *Figure 7.1* shows the evaluation matrix for the alternatives. The No-Build is included for comparison, however it is not recommended since it does not meet the goals or purpose of the project.

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### Figure 7.1: Alternatives Evaluation Matrix

### **Rankings Summary**

Based on these evaluation criteria, Alternative 3 ranks the lowest and has the highest estimated construction cost. Although feasible, it is recommended that this alternative be eliminated from consideration for these reasons. Alternative 1 performs the best overall. Alternatives 2A and 2B rank closely to Alternative 1 and have the lowest estimated construction costs, mainly due to the additional length of Alternative 1. It is recommended that Alternatives 1, 2A, and 2B be carried forward for consideration. Additional public involvement is needed to determine a preferred alternative. Additionally, right of way may be a critical factor in which alternative is the best solution.

### Section 7.0: Recommended Next Steps

Funding opportunities are being considered to move into the next stages of the project development process. The recommended next step is to initiate a detailed preliminary engineering study to further analyze alternatives. Specific items that are recommended during the next phases of the project include the following.

- Identify a preferred alternative based on this technical memo, additional stakeholder coordination, and public involvement
- Field verify the environmental resources and mitigation strategies; complete ecological survey report (ESR)
- Further refine conceptual layouts of the chosen alternative for better construction, utility, and right of way cost estimates
- Investigate conceptual best management practices (BMP's) that will be required for the project
- Depending on funding source, engage public and other stakeholders
- Obtain detailed field survey to be used in detailed design once final alignment is established



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APPENDIX A – PROPOSED ALTERNATIVE EXHIBITS









### **BURGESS & NIPLE**

Simon Kenton Trail Technical Memorandum

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APPENDIX B – ENVIRONMENTAL REVIEW SUMMARY





## Aerial Map



**Orthophotography:** Ohio Statewide Imagery Progam (2017) <u>Map Projection</u>: State Plane - Ohio North <u>Map Datum</u>: NAD83

Sources:



Urbana, Ohio 43078 Champaign County Simon Kenton Trail

1,800 Feet 900 450

0



June 2023

# **USGS Topographic Map**

Urbana East, OH 7.5-Minute Quadrangle

Urbana, OH 43078 Simon Kenton Trail Champaign County

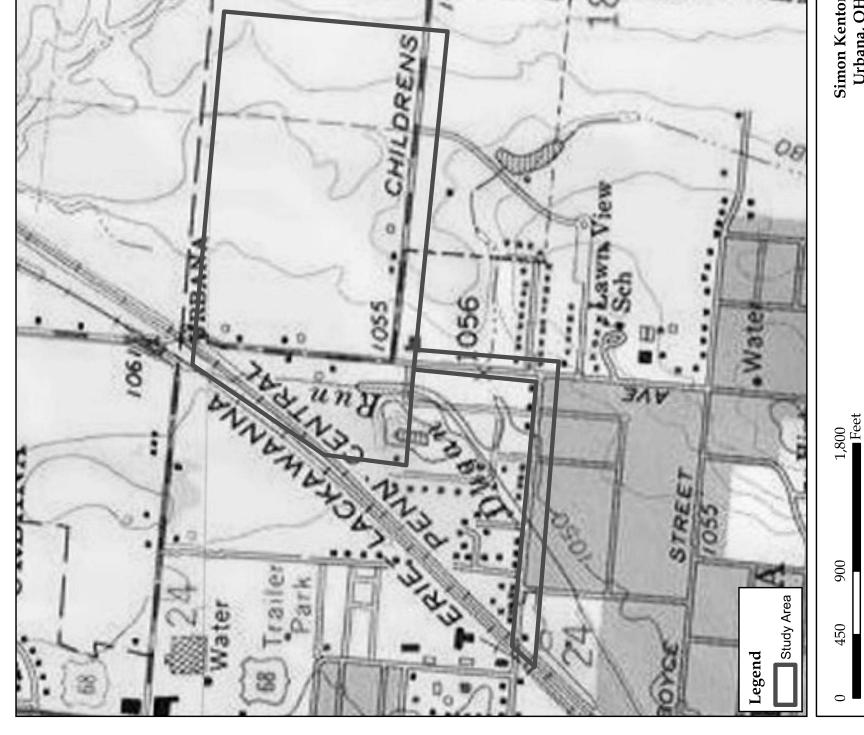
BURGESS & NIPLE Engineers - Planners - Environmental Scientists

Orthophotography: USGS Topographic Data <u>Map Projection</u>: State Plane - Ohio North <u>Map Datum</u>: NAD83 Sources:









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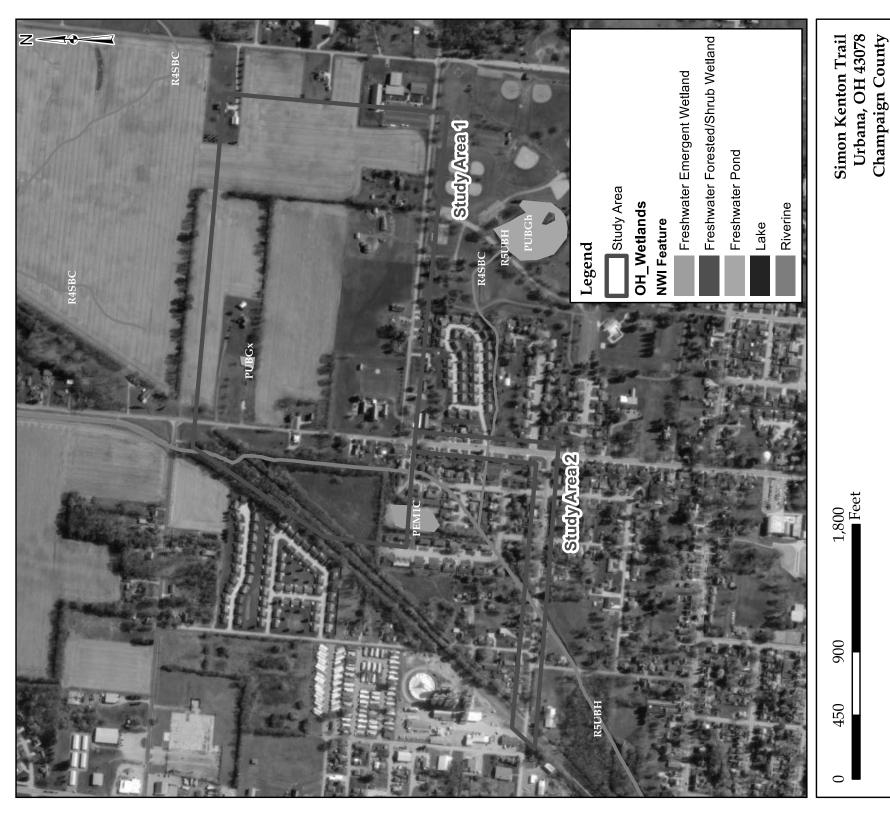
EDINGER



## BURGESS & NIPLE Engineers - Planners - Environmental Scientists

## NWI Map

<u>Non Orthophotography Data</u>: National Wetlands Inventory Layer <u>Orthophotography</u>: Ohio Statewide Imagery Program (2017) <u>Map Projection</u>: State Plane - Ohio North <u>Map Datum</u>: NAD83 Sources:





## BURGESS & NIPLE Engineers - Planners - Environmental Scientists

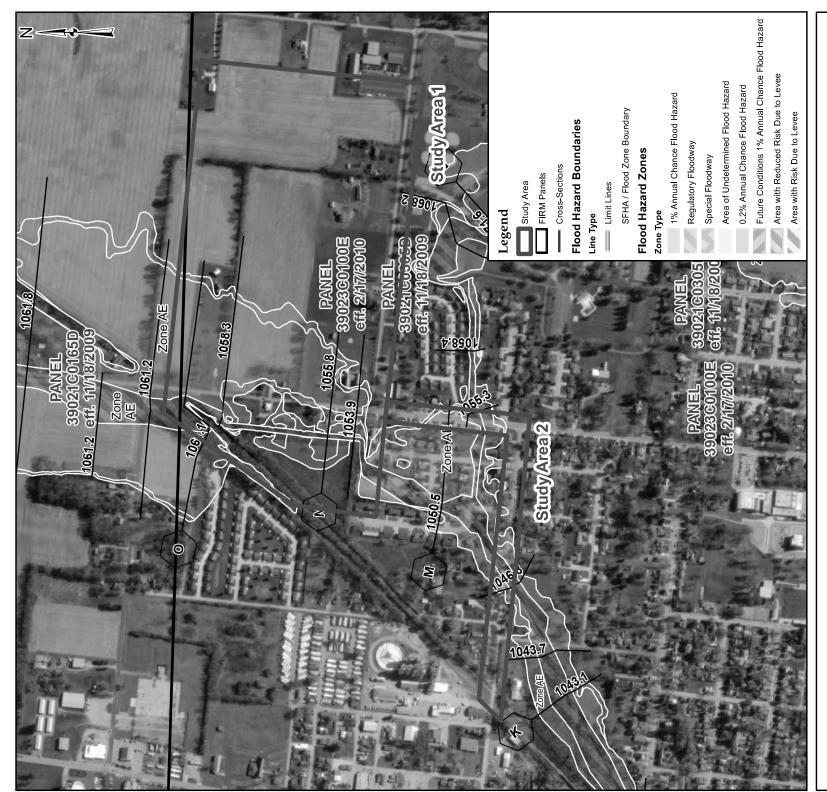
# FEMA Flood Hazard Map

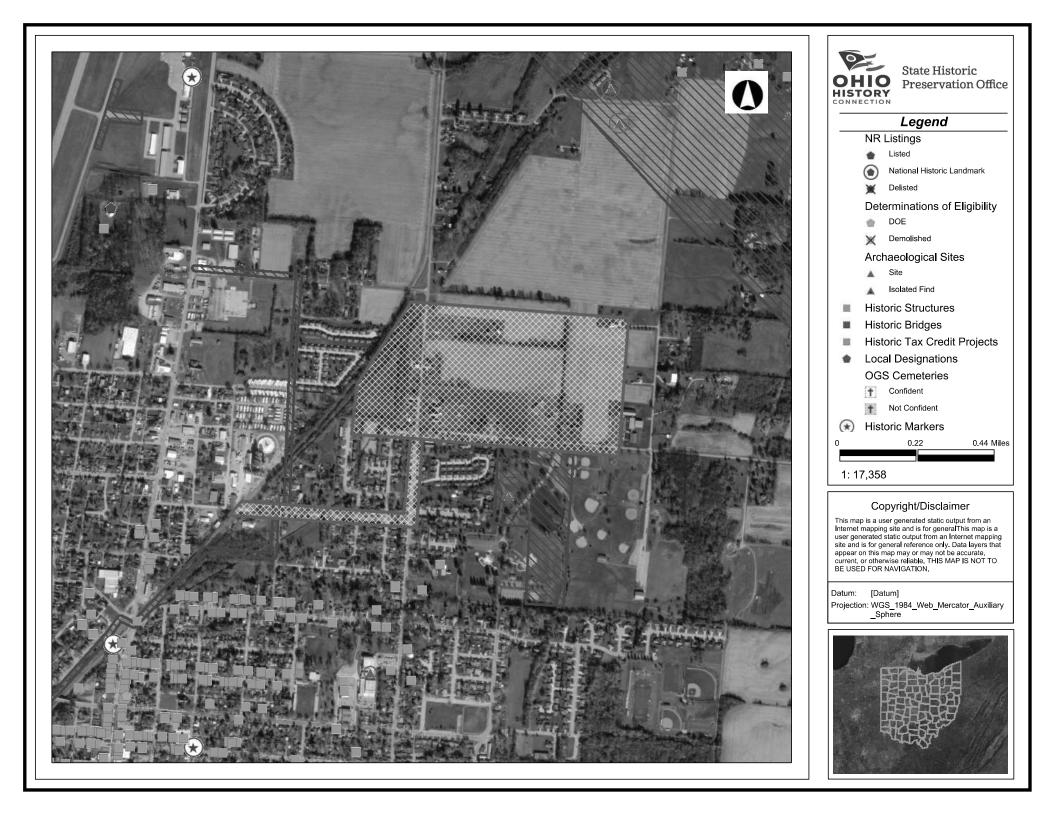
<u>Non Orthophotography</u>: FEMA Flood Hazard Layer <u>Orthophotography</u>: Ohio Statewide Imagery Program (2017) <u>Map Projection</u>: State Plane - Ohio North <u>Map Datum</u>: NAD83

Sources:

### Simon Kenton Trail Urbana, Ohio 43078 Champaign County

| 1,800 | Feet |
|-------|------|
| 006   |      |
| 450   |      |
| 0     |      |





### ABSTRACT

A Phase I/II archaeological survey of a semi-developed addition the City of Urbana, Parks and Recreation Department. No significant be affected by future development. One site was identified (33Ch37) to the Urbana City Park, Champaign County, Ohio was conducted for cultural remains were found within the new park tract which will which is minimal in content and restricted to disturbed context. No further work is recommended at the proposed additions to the Urbana Municipal Park. Summary and Recommendations

• however resource. of archaeological literature, dimensions 20 areas slopin this findexcavation isolated Office, newly chert cultural the proposed moderately ಹ 2 and no horizontal In keeping with developed policy of the Ohio Historic Preservation incidence of sides of relatively slated to be removed during pond one affected а survey of Units excavated at 50-foot intervals on 3 zone on thisan records and indicated by aboriginal items, to encountered the plow resource. field assigned intensive available which occured in to this been has site (33CH37) is development, site number has an is ou deposit ascribed search of with surface which produced combined cultural flakes, þe This park spot A can в

i asnaise the present investigation, ŝ the occur these material ¢ ā recommended at to and considered in content Additional assessment of to the Urbana municipal park is National Register eligibility is clearly minimal survey work cultural remains encountered by additional are 33CH37, contexts. additions and no site disturbed relative to unnecessary including The proposed in

-36-

## Introduction

some sections of undisturbed land along the southern and southeastern The northern route will be situated underneath or directly alongside existing for reasons of clarity we refer to them as the northern and southern routes consultation with the City of Urbana. Figure 1 shows these two routes, and The plans for these lines have been developed by the consulting engineering constructed. The firm of Grant, Brundage, Baker and Stauffer, Limited of Columbus, Ohio in undertaken in order to fulfill the needs of the City of Urbana, Ohio, in southern route, which occupied most of our attention during the survey. The archaeological survey which was the basis for this report was or residential properties. connection with two interceptor sewer lines which will soon be roads, railroad yard areas, or commercial sections of the city. traverses

Following Our task was to determine where construction of these lines might disturb archaeological sites; therefore in previously undisturbed, habitable areas we like to thank Mr. Claude L. Nickerson, City Engineer of Urbana, for providing the section entitled Project Area and Archaeological Background, the results We would found. survey are presented under Project Methodology and Results. had to walk those pieces of land where signs of sites might be detailed set of project plans to us during our fieldwork. of the

\_

artifacts were seen, although the conditions for visibility were excellent.

- Conditions at the time of our survey ranged from open. vegetation. S Wa the low it t In this area the route runs for a brief interval along the north fence-line in low-lying and swampy. No indications of cultural materials or too of area had been previously disturbed, while much visible ground surfaces to surfaces that were obscured by area was the the side of Powell Avenue, then runs north along archaeological sites were found, and most of have been habitable. Fairgrounds. the Part of 5 ÷ Area
- land, The landowner his a sewer line crossing The route here crosses land owned by Mr Eldon Wardell. land. denied us permission to survey on his unenthusiastic about the prospect of was and Area I:

not The route followed across the Wardell property is on low land ę We that is partially swampy, and that for topographic reasons offers much potential for site location. believe

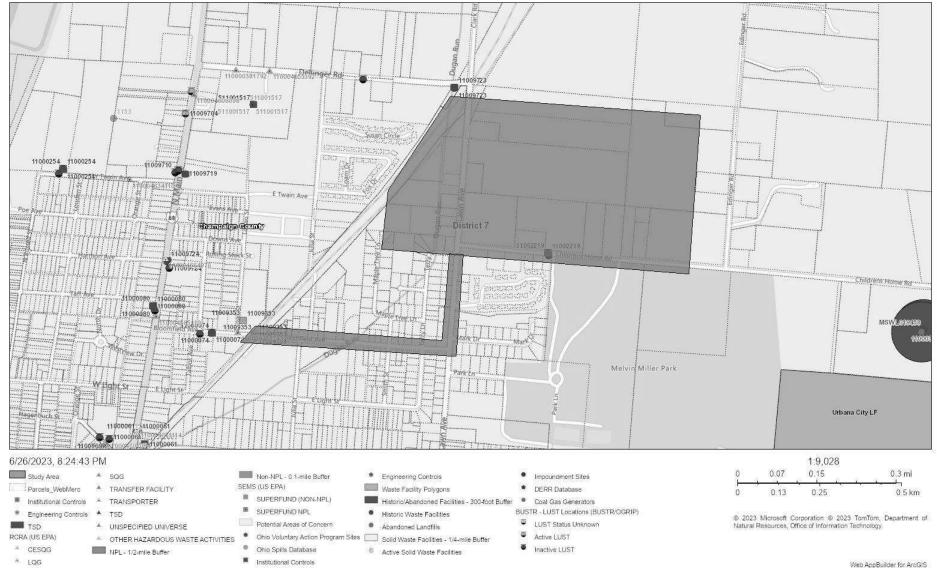
and thereafter It continues to an office area North of the Wardell property the route crosses a small creek, then eliminates the possibility of locating undisturbed archaeological of this complex, and which is east of an equipment storage area. field immediately west of a large parking lot attached residential property, under an existing driveway, disturbance Previous terminates under existing streets. into a ð ÷ Area ¢

CONCLUSIONS

materials.

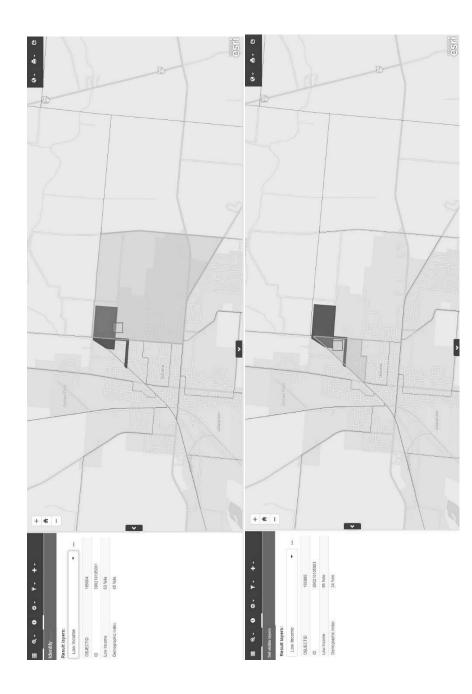
conclusion, we have not found any evidence to indicate that the Urbana <mark>о</mark> Facility Plan as presently planned will adversely affect any archaeological survey, the wheat field F on Figure 1) be examined. ß We recommend that when conditions permit Shambaugh property (area Ч sites. the

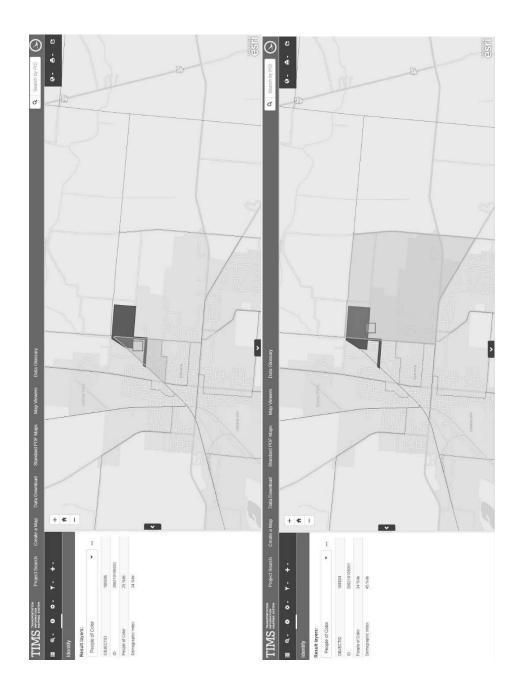
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**ORPS** Analysis Map

© 2023 Microsoft Corporation, © 2023 TomTom | State of Ohio GISSC | OGRIP OSIP Imagery Program | USGS The National Map: 3D Elevation Program. Data Refreshed April, 2023. | Department of Natural Resources, Office of Information Technology. | ODOT Office of Technical Services and Office of Program







### A RESOLUTION

### OF THE LOGAN-UNION-CHAMPAIGN-REGIONAL PLANNING COMMISSION ACCEPTING THE SIMON KENTON TRAIL EAST LAWN AVENUE EXTENSION STUDY IN ITS FINAL FORM

**WHEREAS**, the Logan-Union-Champaign Regional Planning Commission (LUC) is designated as the Regional Transportation Planning Organization (RTPO) for Logan and Champaign counties by the Governor of the State of Ohio, acting through the Ohio Department of Transportation (ODOT), and in cooperation with locally elected officials in the area pursuant to an Agreement between ODOT and LUC; and

**WHEREAS**, LUC has the authority and responsibility for the direction, coordination, and administration of the area-wide transportation planning process in accordance with federal laws.

**WHEREAS,** the Clark County- Springfield TCC provides transportation planning services so that the LUC RTPO can conduct a continuing, cooperative, and comprehensive regional transportation planning process consistent with Federal and State Laws and Processes; and

**WHEREAS,** LUC deemed the Simon Kenton Trail East Lawn Extension Feasibility Study as an important transportation planning initiative to identify trail extension alternatives for the Simon Kenton Trail from its current termini at East Lawn Avenue to Melvin Miller Park; and

**WHEREAS,** LUC has reviewed the Final report dated May 31, 2023 and finds the completed study to be satisfactorily complete.

### **BE IT THEREFORE RESOLVED:**

That the members of the LUC Executive Committee hereby accept the Simon Kenton Trail East Lawn Avenue Extension Study.

### BY ACTION OF THE LUC EXECUTIVE COMMITTEE

Wes Dodds President, LUC Executive Committee Bradley Bodenmiller Secretary, LUC Executive Committee

Date



### Logan-Union-Champaign regional planning commission

Director: Bradley J. Bodenmiller

### Executive Committee Meeting Minutes Thursday, July 13, 2023

President Wes Dodds called the meeting to order at 1:23 pm.

**Roll Call** – Brad Bodenmiller

**Members present**: Brad Bodenmiller, Ken Rosebrook for John Brose, Tyler Bumbalough, Doug Crabill for Preston Carter, Tim Cassady, Matt Chamberlain, Scott Coleman, Eric Petee for Brian Davidson, Wes Dodds, Todd Freyhof, Todd Garrett, Jeff Beard for Ashley Gaver, Kyle Hoyng, Dennis Kauffman, Spencer Mitchell, Steve McCall, Beau Michael, Tammy Noble, Jeff Rea, Steve Robinson, Scott Schmid, Ryan Smith, Luke Sutton for Jeff Stauch, Ben Vollrath and Mike Yoder.

Members absent: Jim Bischoff, Ryan Shoffstall, and George Showalter.

**Guests present:** Greg Iiams, Village of Russells Point; Michael Goettemoeller, Choice One; Adele Evans, ODOT District 7 & 8; Scott Mincks, Kimley-Horn; Brendan Sexton, Race Trac; Patricia Brown, EMH&T; Laura Comek; Dan Hoying, LJB, Inc; Aaron Smith, Gram Dick, and Heather Martin of LUC Regional Planning Commission.

**Minutes** – Scott Coleman moved a motion to approve the minutes from June 8, 2023, meeting as written, and Kyle Hoyng seconded. All in favor.

**Financial Report** – Todd Freyhof presented the Financial Report for June. Scott Coleman moved a motion to accept the Financial Report and Todd Garrett seconded. All in favor.

### **ODOT Reports:**

ODOT Reports are available on LUC's website. Eric Petee reported for District 6. Village of Richwood received funding for a sidewalk project, \$200,000 from TAP. Scott Schmid reported for District 7.

### **RTPO Report**

- 1. Tyler Bumbalough reported on the RTPO program.
- 2. 2050 Long-Range Transportation Plan
  - Scott Coleman moved a motion to adopt the 2050 Long-Range Transportation Plan and Ben Vollrath seconded. All in favor.
- 3. Simon Kenton Trail East Lawn Avenue Feasibility Study
  - Todd Freyhof moved a motion to adopt the Simon Kenton Trail East Lawn Avenue Feasibility Study and Spencer Mitchell seconded. All in favor.

### **New Business:**

- 1. Review of Farm at Indian Run Final Plat (Union County) Staff Report by Brad Bodenmiller
  - Jeff Rea moved a motion to accept the recommendation of conditional approval of the Farm at Indian Run Final Plat and Tim Cassady seconded. All in favor.



### Logan-Union-Champaign regional planning commission

### Director: Bradley J. Bodenmiller

- 2. Review of Homestead at Scotts Farm Phase 1B Final Plat (Union County) Staff Report by Brad Bodenmiller
  - $\circ~$  Scott Coleman moved a motion to accept the recommendation of conditional approval of the Homestead at Scotts Farm Phase 1B Final Plat and Kyle Hoyng seconded. All in favor.
- 3. Review of Industrial Parkway Data Center Campus Final Plat (Union County) Staff Report by Brad Bodenmiller
  - Ryan Smith moved a motion to accept the recommendation of accepting the developer's request to table of the Industrial Parkway Data Center Campus Final Plat and Tim Cassady seconded. All in favor.
- 4. Review of Jerome Park Amended Preliminary Plat (Union County) Staff Report by Brad Bodenmiller
  - Scott Coleman moved a motion to accept the recommendation of conditional approval of the Jerome Park Amended Preliminary Plat and Jeff Rea seconded. All in favor.
- 5. Review of The Courtyards of Hyland Meadows (VN-13) Preliminary Plat (Union County) Staff Report by Brad Bodenmiller
  - Tim Cassady moved a motion to accept the recommendation of conditional approval of The Courtyards of Hyland Meadows (VN-13) Preliminary Plat and Tyler Bumbalough seconded. All in favor.
- 6. Review of Allen Township Zoning Parcel Amendment (Union County) Staff Report by Gram Dick
  - Todd Freyhof moved a motion to accept the recommendation of approval of the Allen Township Zoning Parcel Amendment and Scott Coleman seconded. All in favor.
- 7. Review of Bloomfield Township Zoning Plan (Logan County) Staff Report by Aaron Smith

   Mike Yoder moved a motion to accept the recommendation of approval of the
   Bloomfield Township Zoning Plan and Tim Cassady seconded. All in favor.
- 8. Review of Jerome Township Zoning Parcel Amendment (RU to LDR) (Union County) Staff Report by Gram Dick
  - Jeff Rea moved a motion to accept the recommendation of approval of the Jerome Township Zoning Parcel Amendment (RU to LDR) and Scott Coleman seconded. All in favor.
- 9. Review of Jerome Township Zoning Parcel Amendment (RU to PD) (Union County) Staff Report by Aaron Smith
  - Steve McCall moved a motion to accept the recommendation of denial of the Jerome Township Zoning Parcel Amendment (RU to PD) with staff comments and zoning and subdivision comments and Scott Coleman seconded. All in favor except Ben Vollrath who voted no.



### Logan-Union-Champaign regional planning commission

### Director: Bradley J. Bodenmiller

- 10. Review of Jerome Township Zoning Text Amendment (Union County) Staff Report by Aaron Smith
  - Tim Cassady moved a motion to accept the recommendation of approval with modifications of the Jerome Township Zoning Text Amendment and Matt Chamberlain seconded. All in favor.
- 11. Review of Liberty Township Zoning Text Amendment (Union County) Staff Report by Gram Dick
  - Jeff Rea moved a motion to accept the recommendation of approval with modifications of the Liberty Township Zoning Text Amendment and Scott Coleman seconded. All in favor.
- 12. Review of York Township Zoning Text Amendment (Union County) Staff Report by Gram Dick
  - Todd Freyhof moved a motion to accept the recommendation of approval with modifications of the York Township Zoning Text Amendment and Steve Robinson seconded. All in favor.

### **Director's Report**

### **Comments from Individuals:**

- 1. Mike Yoder announced that on July 20 at 1:30 pm Carmen Scott will be honored for his service in the military and to the community with the flag program at the Logan County Commissioners.
- 2. Wes Dodds thanked the Committee members for their service to LUC and to the staff for their work for the organization.

**Adjourn** – Steve McCall moved a motion to adjourn the LUC Executive Committee Meeting at 2:30 pm and Todd Freyhof seconded. All in favor.

**Next Scheduled Meeting**: Thursday, August 10, 2023, 1:15 pm at 10820 St Rt 347, James A. Rhodes Conference Center, East Liberty OH 43319.

President

Secretary