

6550 N. High Street Worthington, Ohio 43085

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### **CITY COUNCIL MEMBERS**

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#### **CITY STAFF MEMBERS**

#### **Matthew Greeson**

City Manager

### D. Kay Thress

Clerk of Council

#### **Worthington City Council Agenda**

Louis J.R. Goorey Municipal Building John P. Coleman Council Chamber

Monday February 11, 2019 ~ 7:30 PM

- 1. Call To Order
- 2. Roll Call
- 3. Pledge of Allegiance
- 4. Visitor Comments
- 5. Special Presentation(s)
  - **5.A.** Ohio State University Airport

Executive Summary: Dr. John Horack, Senior Associate Dean of the College of Engineering, will be present to discuss activities associated with OSU's airport, including the Master Planning process.

**5.B.** Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

Executive Summary: The draft findings and recommendations for the Bike and Pedestrian Master Plan will be presented to obtain feedback. The presentation will also include an update and review of the draft Complete Streets Policy.

<u>Recommendation</u>: Provide Feedback for Consultants and Staff

### 6. Reports of City Officials

### **6.A**. Policy Item(s)

6.A.I. Financial Report - January 2019

*Executive Summary:* The Financial Report for the month of January is attached.

**Recommendation**: Motion to Accept as Presented

- 7. Reports of Council Members
- 8. Other
- 9. Executive Session
- 10. Adjournment

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### **STAFF MEMORANDUM**City Council Meeting – February 11, 2019

Date: February 7, 2019

To: Matthew H. Greeson, City Manager

From: Robyn Stewart, Assistant City Manager

Subject: **Ohio State University Airport** 

#### **EXECUTIVE SUMMARY**

Dr. John Horack, Senior Associate Dean of the College of Engineering, will be present to discuss activities associated with OSU's airport, including the master planning process.

#### **BACKGROUND/DESCRIPTION**

The Ohio State University Airport is located to the west of Worthington. It is operated by the College of Engineering and serves as a teaching and research laboratory for the Center for Aviation Studies as well as other departments throughout the university. It also serves as a general aviation airport and is a designated reliever to John Glenn International Airport. It is one the top five busiest airports in Ohio.

The University has been making investments in the airport to enhance and update its facilities, including the recent construction of a new terminal and education building. In addition, OSU is in the midst of a master planning process for the airport. The planning process started more than a year ago. A public meeting on the Master Plan will be held at the airport in March. The meeting is expected to involve the sharing of technical findings to date, solicitation of input on proposed recommendations and collection of input on investment priorities. More information about the Master Plan and the documents associated with it are available on the airport's website: www.osuairport.org.

Dr. John Horack, Senior Associate Dean of the College of Engineering, will discuss airportrelated activities and the master planning process. He will be accompanied by Doug Hammon, Airport Director.

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### **STAFF MEMORANDUM**City Council Meeting – February 11, 2019

Date: 2/6/2019

To: Matthew H. Greeson, City Manager

From: Darren Hurley, Parks & Recreation Director

Subject: Bike and Pedestrian Master Plan and Complete Streets Policy Presentation

of Drafted Recommendations

#### **EXECUTIVE SUMMARY**

The draft findings and recommendations for the Bike and Pedestrian Master Plan will be presented to obtain feedback. The presentation will also include an update and review of the draft Complete Streets Policy.

#### RECOMMENDATION

Provide Feedback for Consultants and Staff

#### **BACKGROUND/DESCRIPTION**

The Bike and Pedestrian Master Planning process has been underway since last summer. The city's consulting team, led by Blue Zones, LLC, has put together drafted findings and recommendations and are seeking to present those to City Council and the community to obtain feedback to help guide the final plans. Additional public open houses will be held for the community to also view the recommendations and provide feedback at the Worthington Community Center on February 11 and 12.

The City entered into an agreement with Blue Zones, LLC to complete a Bike and Pedestrian Master Plan for Worthington in the spring of 2018. The consultants have been working with a Steering Committee consisting of a City Council member, city staff, key community partners/stakeholders, and residents. Public input was obtained throughout the summer and early fall and regular touchpoints with the Steering Committee, Bike and Pedestrian Advisory Board and staff have helped guide the drafted recommendations as well as the original Bike and Pedestrian Steering Committee recommendations from 2014.

In addition, the City has been working closely with MORPC and their Complete Streets Technical Assistance program to draft a Complete Streets Policy for Worthington. MORPC has also partnered with our master plan consulting team to ensure coordination and

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5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

consistency between the two related efforts. The presentation to City Council and public open houses will also include an update and a review of the drafted Complete Streets Policy being worked on in partnership with the MORPC Technical Assistance Program. The MORPC team has been working closely with our master plan consultants to ensure the two documents complement each other.

### **ATTACHMENTS**

Bike & Pedestrian Master Plan Presentation Complete Streets Policy

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# **A Connected Worthington**

BICYCLE AND PEDESTRIAN MASTER PLAN 2019

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### **Acknowledgements**

To confirm during February engagement

To discuss whether to include an introductory message from the City





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5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations Chapter 1. Introduction Packet Page # 9 Item 5.B. Page 6 of 134

# **Chapter 1. Introduction**

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### Introduction

#### BIKE AND PEDESTRIAN MASTER PLAN

In May 2018, the City of Worthington selected the Consultant team of Blue Zones LLC and Planning NEXT to engage the community in creating a Bicycle and Pedestrian Master Plan to guide the development of bicycle and pedestrian routes, linking activity centers within the City, as well as the regional network.

The development of this Plan was accomplished through the following key activities:

- 1. Robust public input to develop a clear vision and goals for bicycling and walking, identifying gaps and barriers, both perceived and actual, in the existing network where high priority routes are disconnected;
- 2. Development of a methodology for prioritizing projects, including identifying non-disruptive routes in historic Worthington, family-friendly routes, and a tiered network that serves experienced riders and less experienced riders, and all ages and abilities of people on foot and bike;

- 3. A system that features a first and last mile approach that maximizes use of transit, Safe Routes to School, and use of main streets and parks where people walk or bike rather than drive to these destinations:
- 4. Design guidance into the City's road standards through best practices for operations and maintenance, that can be applied to a typology of streets; and
- 5. A focus on encouraging walking and biking, not just as a viable, but as preferred alternative modes of transportation, while maintaining safe, effective and efficient means of accommodating vehicular traffic within and through the community.

### **Vision**

#### A CONNECTED WORTHINGTON

We shape our world, and then our world shapes us. After thousands of years building cities in healthy, productive, traditional, practical, and sustainable ways -- around the human footprint -- we lost our bearing, producing towns and cities that induce isolation, sprawl, auto dependency, poor air and unhealthy habitat for people. On our current course, health professionals predict that 50% of Americans will be obese by the year 2050, and that today's children may not live as long as their parents.

With this Bicycle and Pedestrian Master Plan, the Worthington community is identifying the pathways to a better economy, healthier lifestyles and improved well-being. Worthington has much to protect, and while no single plan will get us to where we want to be, this document guides the development of bicycle and pedestrian infrastructure to support active transportation so that the healthy choice becomes the easy choice.

The Worthington Bicycle and Pedestrian Plan is intended to be used regularly to guide decisions regarding cycling, walkability, proposed development, capital improvements, and annual budgeting.

For the Plan to be implemented, strategic approaches in both the use of capital improvement dollars and in the acquisition of grant monies is required. This document prioritizes projects based as short, mid or long-range efforts to encourage collaboration between planners, policymakers, and private developers. Approval of development proposals should reference this Plan to ensure when public and private projects are taking place, they meet the criteria set forth herein.

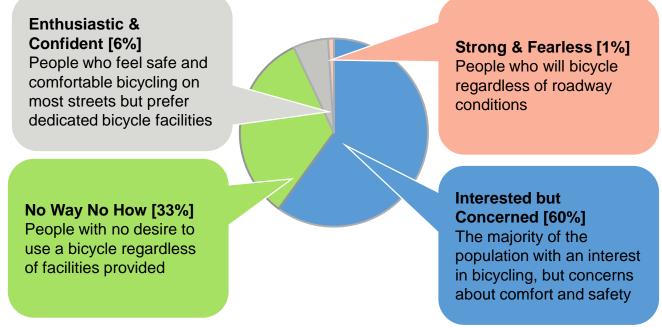
Strategic implementation of recommendations is necessary to achieve improved conditions for walking and cycling in Worthington.

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# **Goals & Objectives**

BIKE AND PEDESTRIAN MASTER PLAN

Add Goals and Objectives text once confirmed by the Client and Steering Committee during the February engagement



BLUE ZONES\* | 2018 | PAGE 8
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Add Source: Item 5.B. Page 10 of 134

5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

# **Discovery Phase**

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### **Literature Review**

#### PLAN DEVELOPMENT PROCESS

The following key documents were reviewed by the project team in order to identify plans, policies and practices that influence, overlap or inform the project study process. The summary includes documents identified by the project team and the City of Worthington that are relevant to the development of the strategic bicycling and walking implementation plan. This includes:

- Park Master Plan, City of Worthington Department of Parks and Recreation, 2017
- Old Worthington Bicycle Plan, City of Worthington, 2017
- Age-Friendly Columbus Strategic Plan, City of Columbus, 2017
- Central Ohio Greenways (COG) Strategic Plan, Mid-Ohio Regional Planning Commission, 2016
- City of Worthington Comprehensive Plan, City of Worthington, 2005
- 1997 Sidewalk Study Master Plan, City of Worthington, 1997
- Old Worthington Mobility Study: Phase 3 Pedestrian Access Route Plan Final Report, City of Worthington, 2017
- EEDS Alternative Transportation Recommendations in Old Worthington, OSU School of Environmental and Natural Resources, 2016

- Old Worthington Mobility Study: Phase 2 High Street Pedestrian Crossings Report, City of Worthington, 2015
- City of Worthington Wilson Bridge Road Corridor Enhancement Presentation, Municipal Planning Commission, 2015
- Bike and Pedestrian Steering Committee Recommendations to City Council, City of Worthington, 2014
- Columbus Trail Count Report, Mid-Ohio Regional Planning Commission (MORPC), 2012
- Projects Underway, City of Worthington, 2013 [map]
- Phase 2 High Street Pedestrian Crossings Appendix A: Traffic Count Data, City of Worthington (DLZ), 2015
- Walks and Paths, City of Worthington, 2013 [map]
- GIS data files from Mid-Ohio Regional Planning Commission (various dates of publication)
- EMH&T Ped-Bike Board Response, EMH&T, 2016 [memorandum]
- City of Worthington Signage and Wayfinding Program, City of Worthington, 2015 [presentation]
- Recommendations for bike parking in Worthington, Fred Yaeger and Lisa Staggenborg, 2010 [excerpt from document or communication]

BLUE ZONES" | 2018 | PAGE 10

### **Discovery Tour**

### PLAN DEVELOPMENT PROCESS

The Discovery Tour provided the opportunity to develop a shared perspective on existing conditions and discuss relevant best practices, while examining local conditions in Worthington. The Discovery Tour included two elements:

- 1. Active Transportation Toolbox Training for key staff;
- 2. A mobile bus tour of Worthington, focusing on key points of interest:
  - High Street-Wilson Bridge Road Intersection
  - Linworth Road Corridor
  - · Olentangy River Trailhead
  - SR 161 Corridor
  - Old Worthington
  - Worthington-Galena/Schrock Roads

The June 2018 Discovery Tour marked the beginning of the data collection stage by the Project Team.



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# **Community Engagement Process**

#### PLAN DEVELOPMENT PROCESS

Community engagement was fundamental to the development of this Plan and included the following:

- June 2018: Discovery Tour
  - > Stakeholder Meetings
- August 2018: Community Events
  - Community Walk Audits, Community Workshop, Stakeholder Meetings and Summer in the 614 Festival
- On-Line Engagement
  - > Webpage and Geowiki Map
- November 2018: Staff Presentation & On-Site Engagement
  - ➤ Bicycle and Pedestrian Steering Committee Presentation
  - ➤ Bicycle and Pedestrian Advisory Board Presentation
- February 2019: Draft Plan Presentation



Above: Worthington Walking Audit, August 2018

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### **Engagement with Key Stakeholders**

### PLAN DEVELOPMENT PROCESS

Stakeholder conversations provided insight about the numerous agencies and disciplines that impact and are impacted by Plan recommendations. The Project Team met with the following stakeholders during the Plan development process:

- Bicycle and Pedestrian Advisory Board
- Worthington Bicycle and Pedestrian Steering Committee
- Central Ohio Transit Authority (COTA)
- Franklin County Engineer
- Ohio Department of Transportation (ODOT) District 6
- Mid-Ohio Regional Planning Commission (MORPC)
- Old Worthington Business Association
- City Manager
- Planning & Building Department
- Service & Engineering Department
- Parks & Recreation Department
- Police Department
- Fire Department
- Westerville
- Columbus



Above: The Project Team met with Edie Parker, ODOT, District 6, June 2018. Below: Emma Lindholm, Bicycle and Pedestrian Advisory Board, sharing her views on what makes Worthington a great place to raise a family.



### **Engagement with Key Stakeholders**

### PLAN DEVELOPMENT PROCESS

The Worthington Bicycle and Pedestrian Steering Committee provides oversight and local expertise on core elements in both the methodology and calibration of tools, to meet local and regional active transportation needs. This Steering Committee was consulted throughout this planning process to ensure Plan elements are well-focused and coordinated across agencies, organizations and initiatives. This included on-site meetings in June, August and November 2018, as well as a review role throughout. Steering Committee members are as follows:

- · Randy Banks, Worthington Schools Representative
- Mike Bates, Bike & Pedestrian Advisory Board
- Lee Brown, City Planning Department
- Rachael Dorothy, City Council
- Ed Hoffman, City Planning Commission
- Darren Hurley, City Parks & Recreation Department
- · Gary Schmidt, Bike & Pedestrian Advisory Board
- Sgt. Tige St. John, Worthington Police Department
- · John Stephan, Bike & Pedestrian Advisory Board
- Scott Ulrich, Columbus Public Health
- Dan Whited, City Service & Engineering Department



Above: Steering Committee Meeting, August 2018.

### **Engagement with Key Stakeholders**

PLAN DEVELOPMENT PROCESS

In August 2018, community members met with the Project Team and the Mid-Ohio Regional Planning Commission (MORPC) staff about key design considerations.

The Project Team made a presentation to the community with the goal of advancing bicycling and walking in Worthington. The presentation included impressions of existing conditions in Worthington, and an overview of the bicycle and pedestrian principles and a toolbox, as well as best practices, to prepare participants to generate ideas for their town. Then, attendees were put to work, mapping out issues and ideas.

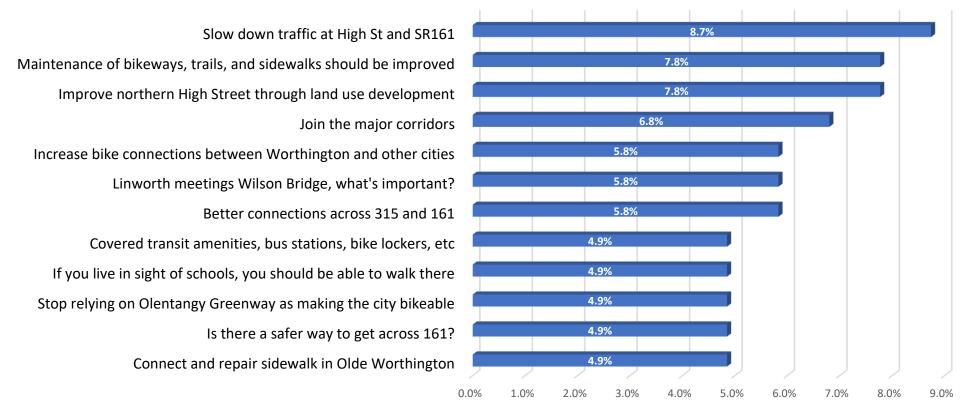
During the second half of the workshop, participants were asked to share their ideas for improving bicycling and walking in Worthington. Twenty ideas were generated and participants were asked to vote for the top five, prioritizing these ideas.



# **Community Priorities: August Workshop**

PLAN DEVELOPMENT PROCESS

The following community priorities emerged from the August Workshop:



# **Community Priorities: August Workshop**

PLAN DEVELOPMENT PROCESS

The Project Team set up a table at the popular Summer in the 614 Festival. Neighbors and visitors stopped by to talk about bicycling and walking in Worthington, mapping areas of concern and ideas for improving walking and cycling in Worthington. Thirty-four comments were captured and mapped including identification of nine routes that needed improvement, 13 issues of concerns and 12 ideas for connecting Worthington through bicycle and pedestrian infrastructure and programs.







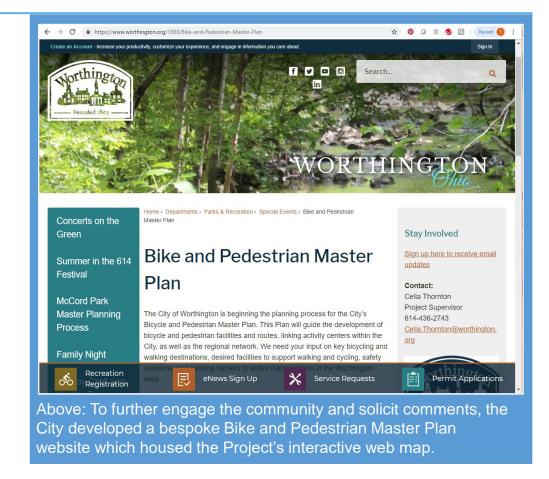
Above: The popular Summer in the 614 Festival provided additional visibility on the Plan development process and resulted in 34 additional comments from the community, which were entered onto the Project's interactive web-based map

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### **Interactive Web Page**

#### PLAN DEVELOPMENT PROCESS

- The City's website received XXX unique visits.
- XXX people signed up to receive Bike & Pedestrian Master Plan Updates.
- XXX visitors signed up to receive Bike & Pedestrian Advisory Board information and updates.
- The page also contributed to a number of suggestion emails, all of which were added to the GeoWiki Mapping page.

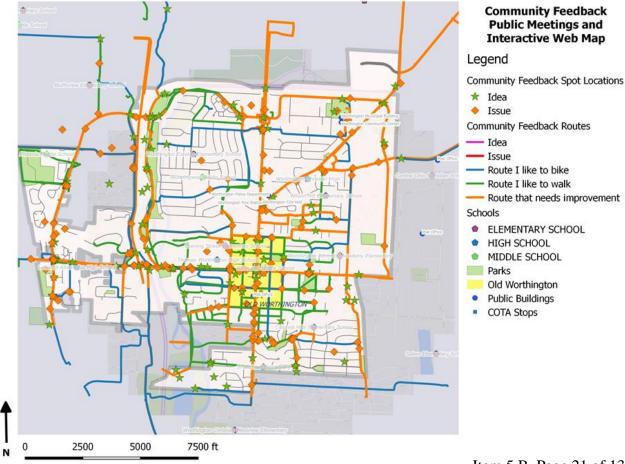


### **Interactive Web Map**

#### PLAN DEVELOPMENT PROCESS: MAP #1 - COMMUNITY FEEDBACK

The "Geowiki" interactive map for Worthington was launched after the August Workshop and open through September 24<sup>th</sup>. During this period, the website tracked:

- 350 logins
- 590 unique comments including:
  - 191 Issues
  - 120 Ideas
  - 57 routes people like to bike
  - 84 routes people like to walk
  - 138 routes that need improvement



### Chapter 2. **Existing Conditions**

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Right: Physical barriers across

# **Barriers Limit Opportunities**

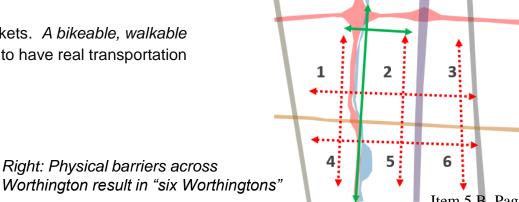
#### **EXISTING CONDITIONS**

While no part of Worthington is more than a few miles from downtown, depending on where residents live, the barriers may leave no choice but to drive. Yet, most trips within Worthington are of reasonable bicycling or walking distance. Key issues include:

- There is fairly good sidewalk coverage, but gaps on important roads;
- Older areas are in a grid pattern, while newer areas are less connected;
- Some access to regional bikeways;
- · Linear barriers (freeways, railroads, high-stress roadways) and key connecting streets are not desirable for bicycling and walking;
- There are many missed opportunities for links to tie neighborhoods together and to make walking and bicycling trips possible.

These barriers divide the City of Worthington into six pockets. A bikeable, walkable Worthington will need to be connected to allow residents to have real transportation choices.





### **Bicycle Facilities**

#### **EXISTING CONDITIONS**

Regional trails, such as the Olentangy River Trail provide convenient access to regional destinations from Worthington.





A lack of dedicated facilities on major streets (US 23, SR 161) leaves bicyclists with limited options for routes.

The recent arrival of the privately-funded bike share is more evidence that Worthington has an untapped demand for bicycling.





Opportunities exist for routes, such as the service road south of W. Dublin Granville Rd. Improvements have already made here and this route will be signed.

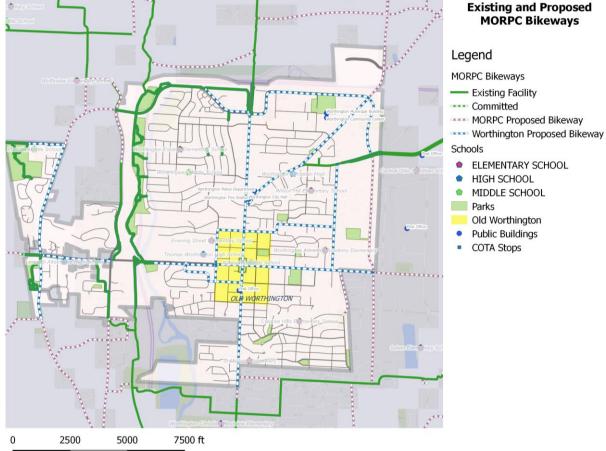
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# **Existing and Proposed Bikeways**

EXISTING CONDITIONS: MAP #2 - EXISTING AND PROPOSED MORPC BIKEWAYS

Worthington has great proximity to regional trails with the Olentangy River Trail running north-south through the City, and the Alum Creek Trail a few miles to the east. There is a need to create connections both on- and off-street to complete the network.





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### **Pedestrian Facilities**

#### **EXISTING CONDITIONS**

Close to downtown, the sidewalks and street crossings provide an environment that invites persons of all ages to walk. Walkability is the key to the sense of place that is Worthington.





There are a number of streets without sidewalks even in close proximity to downtown. Low speed and volume streets may not need them.

Outside of the downtown, many locations are dominated by automobiles and unfriendly for pedestrians, such as the intersection of High St. and Wilson Bridge Rd.





Many of the historic brick walkways in Old Worthington are in poor condition and pose barriers to accessibility.

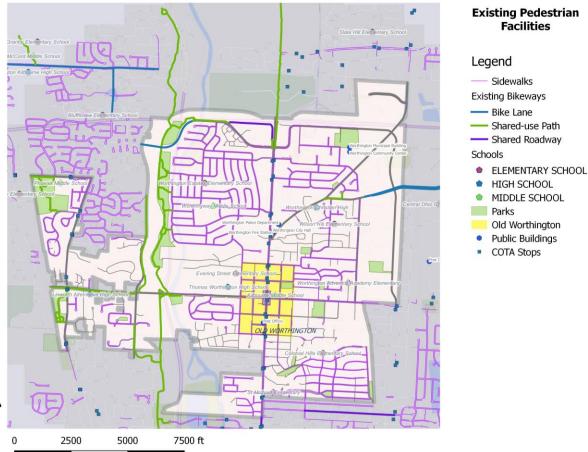
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# **Existing Pedestrian Network**

EXISTING CONDITIONS: MAP #3 - EXISTING PEDESTRIAN FACILITIES

Despite the barriers, Worthington has great assets traditional development patterns and sidewalks along many streets.

Improving the quality and consistency of the sidewalk network and providing better access to the regional bicycle network is the key to a more walkable/bikeable Worthington.



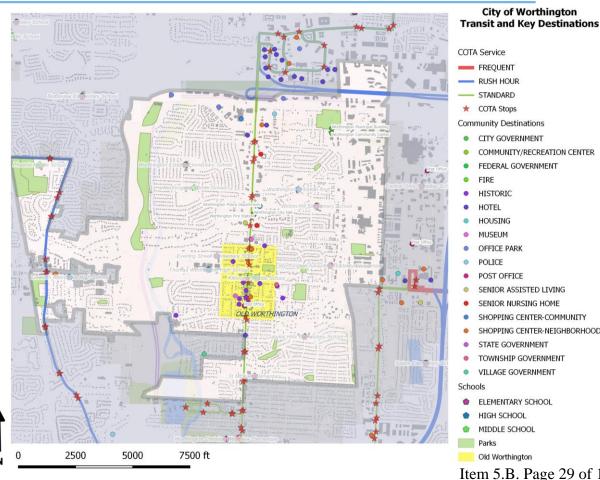
### **Transit and Key Destinations**

EXISTING CONDITIONS: MAP #4 - TRANSIT AND KEY DESTINATIONS

The #2 N. High Street/Polaris PKWY route connects all of High Street through Worthington and to downtown Columbus. East-west transit service is lacking, but COTA would like to extend Route 35 Dublin-Granville west of High street to a suitable turnaround, which needs to be identified.

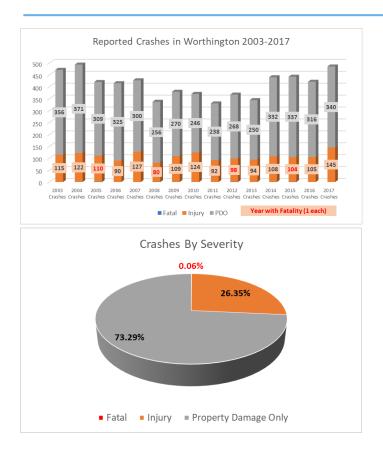


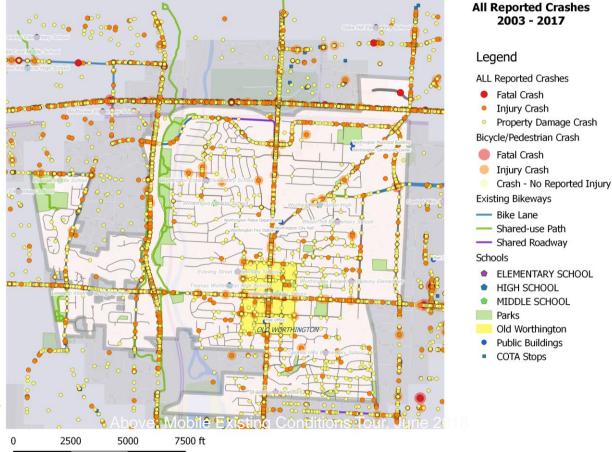




### **Crash Data**

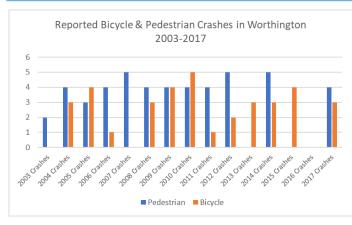
### EXISTING CONDITIONS: MAP#5 - ALL REPORTED CRASHES (2003-2017)

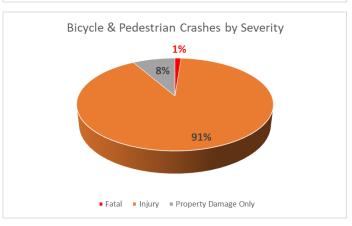


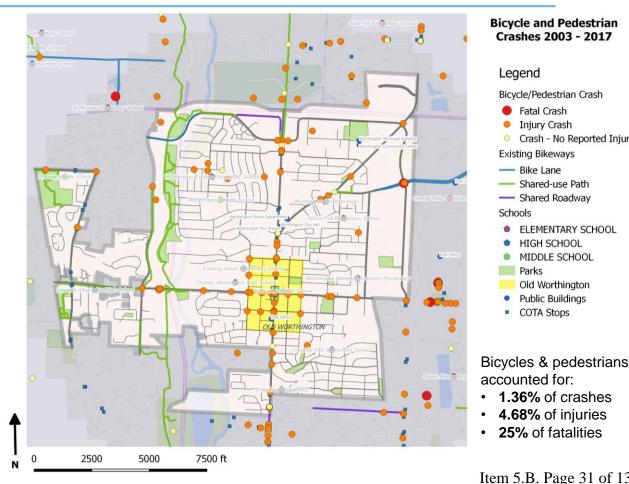


### **Crash Data**

### EXISTING CONDITIONS: MAP#6 - BICYCLE AND PEDESTRIAN CRASHES (2003-2017)







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4.68% of injuries

25% of fatalities

**Bicycle and Pedestrian** 

Crashes 2003 - 2017

Bicycle/Pedestrian Crash Fatal Crash Injury Crash

Existing Bikeways Bike Lane — Shared-use Path Shared Roadway

Crash - No Reported Injury

ELEMENTARY SCHOOL HIGH SCHOOL

MIDDLE SCHOOL

Legend

Schools

Parks Old Worthington Public Buildings COTA Stops

# **Key Corridors**

### **EXISTING CONDITIONS**

This section provides an overview of existing conditions and community feedback along nine key corridors in Worthington:

- W. Dublin Granville Rd. west of SR 315
- W. Dublin Granville Rd. from SR 315 to downtown
- E. Dublin Granville Rd. east of downtown
- High Street at Dublin Granville Rd. (downtown)
- N. High Street
- S. High Street
- · Worthington-Galena Rd.
- Wilson Bridge Rd.
- Linworth Rd.



### W. Dublin Granville Rd.

COMMUNITY INPUT: WHAT WE HEARD

"The biggest opportunity for us west Worthington residents is to be more connected to central Worthington. We'd like to eat, shop, mill around there more often, but we're actually more connected to Linworth and Dublin. The 315 overpass is a major hindrance!"

"Would be nice to safely bike to Linworth area"

"Lack of Linworth Road access to most anything (park paths, shopping, other neighborhoods)"

Above: Comments from the Community Workshop and the online interactive map





### Dublin Granville Rd. at Linworth Rd.

### **EXISTING CONDITIONS**

The current design is focused on the east-west movement of vehicles at the expense of adjacent destinations.

The side path is not integrated into the intersection.

Lack of crosswalk markings and pedestrian signals make crossing a challenge.



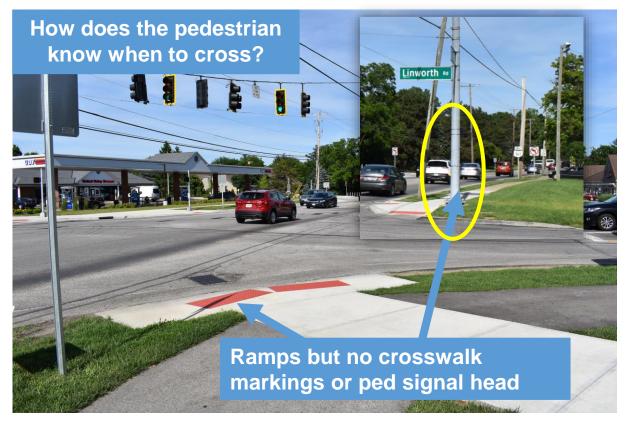
### Dublin Granville Rd. at Linworth Rd.

**EXISTING CONDITIONS** 

Lack of crosswalk markings and pedestrian signals create dangerous conditions for pedestrians.



Pedestrian crossing prohibited, but ramp indicates place to cross 161



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#### COMMUNITY INPUT: WHAT WE HEARD

"Wide road looks like a runway. Not the entrance to our community. We have to decide if we are a cut-thru or a place to live"

"Too fast - people don't follow 35 mph speed limit"

"Getting onto the bike path just East of 315 is very dangerous with kids"

"Need a trail or connection from Olentangy Trail to Village Green in Old Worthington"

"No sidewalks in front of high school"

Above: Comments from the Community Workshop and the online interactive map



AADT: 30,000 at SR 315 20,000 at High Street

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#### **EXISTING CONDITIONS**

### TRAFFIC



High traffic volumes and speed make conditions along Dublin Granville Road uncomfortable for bicycling and walking. The corridor provides an alternative east-west route when I-270 is backed up.

### **BICYCLE CONNECTIONS**



This previously informal connection has been recently formalized with signage, widening, repaying and sharrows.

# PEDESTRIAN CROSSINGS



Interim treatments have been installed to improve crossings at Evening Street, but residents would like to see more to connect them to the south and with schools and parks to the north.

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COMMUNITY INPUT: WHAT WE HEARD

"The current speed limit (35) should be lowered to 25 on this section. It is a busy thoroughfare for cars, but also for bikes and pedestrians."

"Definitely not bike friendly. Not really inviting for walkers except downtown. Many of sidewalks east of high street toward Huntley etc. are in poor repair."

"SR-161 & Morning St intersection has curb cut ramps but no crosswalks."

"Consider crosswalk beacon or signal (at Pingree St)"

Above: Comments from the Community Workshop and the online interactive map



AADT: 21,000 at Huntley 18,000 at High Street

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#### **EXISTING CONDITIONS**

### TRAFFIC



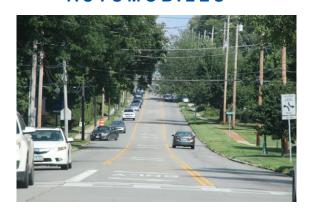
East of Worthington, the traffic volumes increase significantly and the land use context becomes automobile dominated. It is clear when you have left Worthington.

#### GATEWAYS



Traffic approaching from the east, benefits from reduced travel lanes and the natural traffic calming feature of the railroad bridge, but the approach could benefit from a strong gateway to notify the approach to a vibrant downtown.

# SPACE FOR AUTOMOBILES



Facing east from downtown, traffic is managed with minimum lanes, improving safety and slowing traffic, but more space could be allocated for bicycling along the corridor and there is a need for better pedestrian crossings.

# High St. at Dublin Granville Rd.

COMMUNITY INPUT: WHAT WE HEARD

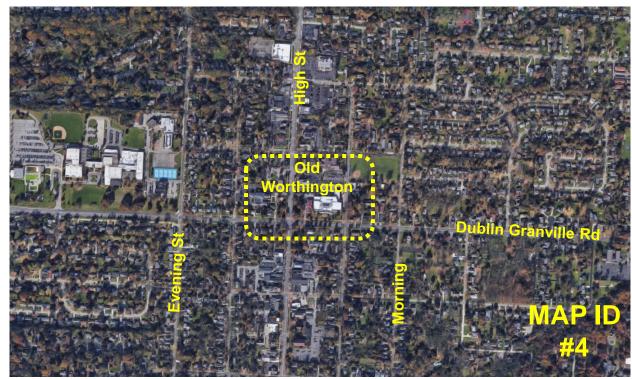
"High is the most direct N/S route to downtown Worthington."

"Could we ever consider reordering the priorities at this light?"

"Need better enforcement against drivers running red lights all along 161 and High St."

"Good luck riding your bike on High Street or 161 if you are an average person."

Above: Comments from the Community Workshop and the online interactive map



AADT: AADT:

N. High - 19,800 W. 161 - 20,400 S. High - 18,500 E. 161 - 16,500

# High St. at Dublin Granville Rd.

**EXISTING CONDITIONS** 

### HEART OF WORTHINGTON



The intersection of High Street and Dublin Granville Road serves as the focal point of downtown Worthington and as the community gathering place for events and celebrations.

### WALKABLE GREEN SPACE



The unique commons that surround the intersection provide a welcoming green space that conveys the sense of place that is Old Worthington. The intersection is well connected in each direction, but the quality of bicycling and walking diminishes as one gets further from the square.

# CHALLENGES WITH TRAFFIC



Despite being the focal point of Worthington, the intersection can be intimidating when traffic volumes are high. The recent installation of pedestrian actuated hybrid signals along High Street is a creative solution to address safety and improve connectivity.

# N. High St.

#### COMMUNITY INPUT: WHAT WE HEARD

"North High Street not Bike Friendly"

"This section feels like an extension of the highway. It needs some dedicated biking areas, better curb areas (furniture space and greenery to separate sidewalk from road), and vista terminations."

"Walking from Caren and High to downtown Worthington is not pleasant. Trees and benches would help make up for the noise and pollution from the traffic."

"Wider sidewalks up and down High street"

"High street and Wilson bridge is too wide, too fast, and has a 270 mentality."

Above: Comments from the Community Workshop and the online interactive map



# N. High St.

### **EXISTING CONDITIONS**

### TRANSIT CORRIDOR



High Street is not just a high volume roadway, it also serves as a critical transit linkage connecting residents to Columbus and the region. Many locations could benefit from better bicycle and pedestrian connections to the system.

### INCREASING SPEED



As High Street moves north, the speed and scale change quickly going from 25 to 35 and 45 mph before reaching I-270. As the context changes, the look and feel of the street change, dramatically becoming less inviting to bicycling and walking.

### AUTO-DOMINATED LANDSCAPE



To the north, High Street becomes an auto-dominated facility. The intersection at Wilson Bridge Road is a daunting obstacle for bicyclists and pedestrians alike. There is a strong desire to connect to the Olentangy Trail which is connected to the shopping center, but not easily accessed from the east.

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# S. High St.

#### COMMUNITY INPUT: WHAT WE HEARD

"Walking up High Street feels very dangerous with the sidewalk right at the road and with cars flying by."

"Expand feel/character of Old Worthington (and speed limit) south to at least Selby Blvd."

"Back of curb sidewalks (or only separated by a foot or so of grass) along High Street are dangerous. Traffic regularly goes 45 mph plus on High Street."

"Slow traffic through the historic district."

"Frequent biking route -- prefer High St. because it's faster, but often starts to feel unsafe once south of South St."



Above: Comments from the Community Workshop and the online interactive map

# S. High St.

### **EXISTING CONDITIONS**

### **OLD WORTHINGTON**



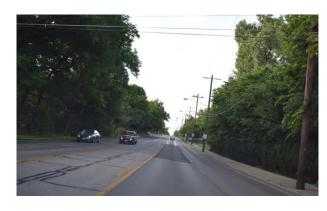
Old Worthington is a distinct destination for the region. The dense historic character and abundant walking facilities make it easy to get out of the car and take a stroll. Bicycling is less inviting as there is no room dedicated for the bicycle.

### LIVE | WORK | PLAY



South High Street is the "Main Street" of Worthington with a healthy mix of shops and businesses and a perfect mix of public space to allow for lingering and just being seen by others.

### TRANSITIONS



From the south as you leave Columbus, High Street offers little to suggest this is a place to be. Despite the tree canopy, the wide roadway with narrow back-ofcurb sidewalks say this is a place for driving.

# Worthington-Galena Rd.

COMMUNITY INPUT: WHAT WE HEARD

"Worthington-Galena Road is a major route for biking and walking but needs considerable improvement to make it accessible from Community Center to High Street."

"Sidewalks needed up and down street."

"The metal guard rails are ugly and the black top path in this area is poorly sloped and too narrow."

"Better intersection at Schrock and Worthington Galena."

Above: Comments from the Community Workshop and the online interactive map



# Worthington-Galena Rd.

**EXISTING CONDITIONS** 

### SPEED



Worthington-Galena has a posted speed of 25 mph, but there is evidence that speeds exceed or greatly exceed the posted limit.

### CONSTRAINTS



The paved surface is only 22' without curb-and-gutter, and guard rails along much of the corridor. The guard rails, while providing a buffer for the modest path along the road, reinforce the notion that this is a dangerous roadway.

### DANGEROUS INTERSECTIONS



The roadway travels diagonal for the most part, resulting in skewed intersections such as the above example at Schrock Road. These intersection have poor sightlines and are difficult to navigate whether by foot, by bike or automobile.

# Wilson Bridge Rd.

COMMUNITY INPUT: WHAT WE HEARD

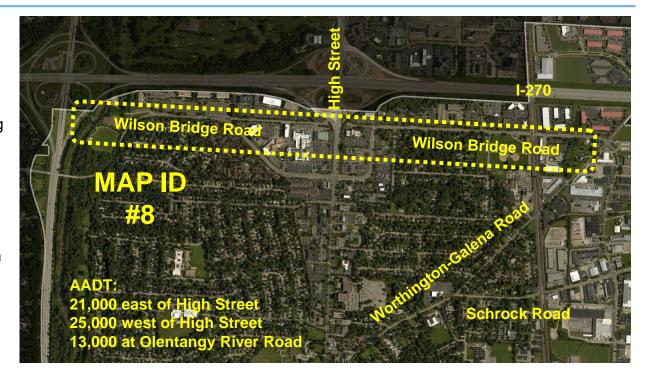
"High street and Wilson bridge are too wide, too fast, and have a 270 mentality"

"Wilson Bridge Road invites speeding cars and is not bicycle friendly."

"Can we work to provide bicycle access to the community center?"

"Need better bike-lane/multi-use path (East Wilson Bridge Rd)."

"Sidewalks needed!"



Above: Comments from the Community Workshop and the online interactive map

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# Wilson Bridge Rd.

**EXISTING CONDITIONS** 

### NOT BICYCLE FRIENDLY



Wilson Bridge Road provides a critical east-west connection in North Worthington. There are bicycle lanes along the western section, but there is no facility to get beyond High Street and connect to the east where the community recreation center is located.

# CAPACITY OF THE STREET



East of High Street, Wilson Bridge Road operates with three travel lanes (including a shared left-turn) and to the west, there are two lanes. As the street approaches High Street from each direction, the roadway expands to six lanes.

### CONNECTION TO OLENTANGY TRAIL



The Olentangy Trail is easily accessible via the connecting path from Wilson Bridge Road.

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### Linworth Rd.

#### COMMUNITY INPUT: WHAT WE HEARD

"PLEASE help connect neighborhoods west of SR315. We are Worthington residents who feel disconnected with our downtown and amenities."

"Lack of Linworth Road access to most anything (park paths, shopping, other neighborhoods)."

"Would be nice to have bike trail all along Linworth road."

"Cross walk needed - a connection between Olentangy Highlands neighborhood to Perry Park."

"People drive very fast down Linworth... makes crossing Linworth to go to Linworth park challenging."

Above: Comments from the Community Workshop and the online interactive map

### AADT:

7,400 north of SR 161 8,000 south of SR 161



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# Linworth Rd. EXISTING CONDITIONS

### RURAL CHARACTER



This section of Worthington is isolated and has a rural feel, but traffic and development have gradually increased, creating a need to provide more infrastructure.

# UNCONNECTED SIDEWALKS



Linworth north of SR 161 lacks bicycling and walking facilities with sidewalks intermittently provided along some of the residential developments to the west, but not connecting outside of the neighborhood.

### PEAK HOUR CONGESTIONS



The intersection at SR 161 frequently backs up at peak times. Despite some recent changes by ODOT, the intersection creates a barrier for those walking or bicycling. Note the cyclist crossing away from the intersection above.

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"We may need to rethink how our streets are designed"

# **Existing Conditions**

### WALKING AUDIT: SUMMARY OF KEY MESSAGES



"Today's
Worthington is a
lot different from
the Worthington I
came to work for
32 years ago,"
Sgt. Jim Moran



"I was surprised how narrow the sidewalks feel when you walk together"

"Pedestrian Hybrid Beacons

make crossing High Street



"It is amazing how loud High Street is when you walk along traffic"



"Bricks are historic, but can be problematic when poorly maintained and dangerous in adverse weather"



"High Street (north of downtown) is so wide it seems slow to drive the 35 mph speed limit"



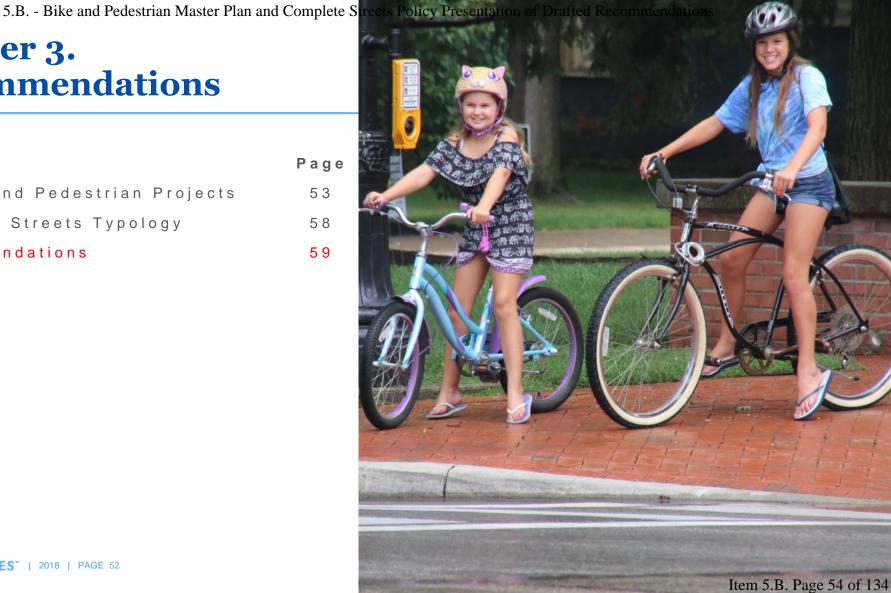
"By the time High Street reaches the Dairy Queen, it feels unsafe to walk beyond that point" Item 5.B. Page 52 of 134



5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations Chapter 3. Recommendations Packet Page # 56 Item 5.B. Page 53 of 134

### Chapter 3. Recommendations

| Topic                           | Page |
|---------------------------------|------|
| Bicycle and Pedestrian Projects | 5 3  |
| Complete Streets Typology       | 58   |
| Recommendations                 | 5 9  |



5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

# Bicycle and Pedestrian Projects

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# **Bicycle Projects**

### BIKE PROJECT KEY (1 of 3)

| ID     | Corridor                                  | Project Extent                                     |
|--------|---|--|
| BN1901 | Caren Ave                                 | Rieber St to High St                               |
| BN1902 | E Dublin-Granville Rd                     | High St to East City Limit                         |
| BN1903 | Farrington Dr/Sinsbury Dr/New England Ave | W Dublin Granvile Rd to High St                    |
| BN1904 | North St                                  | Evening St to Proprietors Rd                       |
| BN1905 | South St                                  | Evening St to Morning St                           |
| BN1906 | Southington Ave/Park Blvd                 | High St to Indianola Ave                           |
| BN1907 | E Wilson Bridge Rd                        | High St to Worthington Galena Rd                   |
| BN1908 | Evening St                                | Highgate Ave to South City Limit (street terminus) |
| BN1909 | Morning St/Granby St                      | E North St to Park Blvd                            |
| BN1910 | High St                                   | Worthington Galena Rd to South St                  |
| BN1911 | N High St                                 | North City Limit to Worthington Galena Rd          |
| BN1912 | N High St                                 | South St to South City Limit                       |
| BN1913 | Masefield St/Highgate Ave                 | North of Lambourne Ave (Terminus) to Evening St    |
| BN1914 | Highland Ave                              | High St to Worthington Galena Rd                   |
| BN1915 | Huntley Rd                                | Worthington Galena to E Dublin Granville Rd        |
| BN1916 | Indianola Ave                             | Park Overlook Dr to South City Limit               |
| BN1917 | Linworth Rd                               | Snouffer Rd to W Dublin Granville Rd               |
| BN1918 | Linworth Rd                               | W Dublin Granville Rd to South City Limit          |
| BN1919 | Proprietors Rd                            | Schrock Rd to E Dublin Granville Rd                |
| BN1920 | Rieber St                                 | W Wilson Bridge Rd to Whitney Ave                  |
| BN1921 | Schrock Rd                                | Worthington Galena Rd to East City Limit           |
| BN1922 | Snouffer Rd                               | West City Limit to Linworth Rd                     |

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# **Bicycle Projects**

BIKE PROJECT KEY (2 of 3)

| ID     | Corridor                           | Project Extent  |
|--------|------------------------------------|---|
| BN1923 | W Dublin-Granville Rd              | West City Limit to E ramp SR 315  |
| BN1924 | W Dublin-Granville Rd              | E ramp SR 315 to High St  |
| BN1925 | W Wilson Bridge Rd                 | West City Limit to High St  |
| BN1926 | Whitney Ave                        | West Terminus to Rieber St  |
| BN1927 | Worthington Galena Rd/Sancus Blvd  | High St to North City Limit   |
| BN1928 | West of RR Corridor                | Worthington Galena Rd to Intersection Schrock Rd/Proprietors Rd           |
| BN1929 | West of RR Corridor                | Dublin Granville Rd at East City Limit to North Terminus of Indianola Ave |
| BN1930 | Evening St                         | Longfellow Ave to Highgate Ave  |
| BN1931 | Hayhurst St                        | Caren Ave to Larrimer Ave   |
| BN1932 | Longfellow Ave                     | Evening St to Larrimer Ave  |
| BN1934 | W Dublin-Granville Rd (Service Dr) | Olentangy River Trail to Evening St                                       |

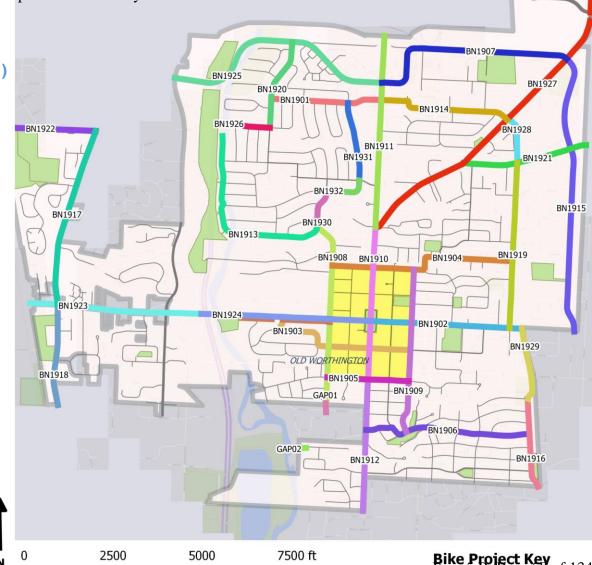
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5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

# **Bicycle Projects**

MAP#7: BIKE PROJECT KEY (3 of 3)

| ID     | Corridor                                  | Project Extent  |
|--------|---|---|
| BN1901 | Caren Ave                                 | Rieber St to High St  |
| BN1902 | E Dublin-Granville Rd                     | High St to East City Limit  |
| BN1903 | Farrington Dr/Sinsbury Dr/New England Ave | W Dublin Granvile Rd to High St   |
| BN1904 | North St                                  | Evening St to Proprietors Rd  |
| BN1905 | South St                                  | Evening St to Morning St  |
| BN1906 | Southington Ave/Park Blvd                 | High St to Indianola Ave  |
| BN1907 | E Wilson Bridge Rd                        | High St to Worthington Galena Rd  |
| BN1908 | Evening St                                | Highgate Ave to South City Limit (street terminus)                        |
| BN1909 | Morning St/Granby St                      | E North St to Park Blvd   |
| BN1910 | High St                                   | Worthington Galena Rd to South St   |
| BN1911 | N High St                                 | North City Limit to Worthington Galena Rd                                 |
| BN1912 | N High St                                 | South St to South City Limit  |
| BN1913 | Masefield St/Highgate Ave                 | North of Lambourne Ave (Terminus) to Evening St                           |
| BN1914 | Highland Ave                              | High St to Worthington Galena Rd  |
| BN1915 | Huntley Rd                                | Worthington Galena to E Dublin Granville Rd                               |
| BN1916 | Indianola Ave                             | Park Overlook Dr to South City Limit                                      |
| BN1917 | Linworth Rd                               | Snouffer Rd to W Dublin Granville Rd                                      |
| BN1918 | Linworth Rd                               | W Dublin Granville Rd to South City Limit                                 |
| BN1919 | Proprietors Rd                            | Schrock Rd to E Dublin Granville Rd                                       |
| BN1920 | Rieber St                                 | W Wilson Bridge Rd to Whitney Ave   |
| BN1921 | Schrock Rd                                | Worthington Galena Rd to East City Limit                                  |
|        |   | West City Limit to Linworth Rd  |
| BN1923 | W Dublin-Granville Rd                     | West City Limit to E ramp SR 315  |
| BN1924 | W Dublin-Granville Rd                     | E ramp SR 315 to High St  |
| BN1925 | W Wilson Bridge Rd                        | West City Limit to High St  |
| BN1926 | Whitney Ave                               | West Terminus to Rieber St  |
| BN1927 | Worthington Galena Rd/Sancus Blvd         | High St to North City Limit   |
| BN1928 | West of RR Corridor                       | Worthington Galena Rd to Intersection Schrock Rd/Proprietors Rd           |
| BN1929 | West of RR Corridor                       | Dublin Granville Rd at East City Limit to North Terminus of Indianola Ave |
| BN1930 | Evening St                                | Longfellow Ave to Highgate Ave  |
| BN1931 | Hayhurst St                               | Caren Ave to Larrimer Ave   |
|        |   | Evening St to Larrimer Ave  |
| BN1934 | W Dublin-Granville Rd (Service Dr)        | Olentangy River Trail to Evening St                                       |

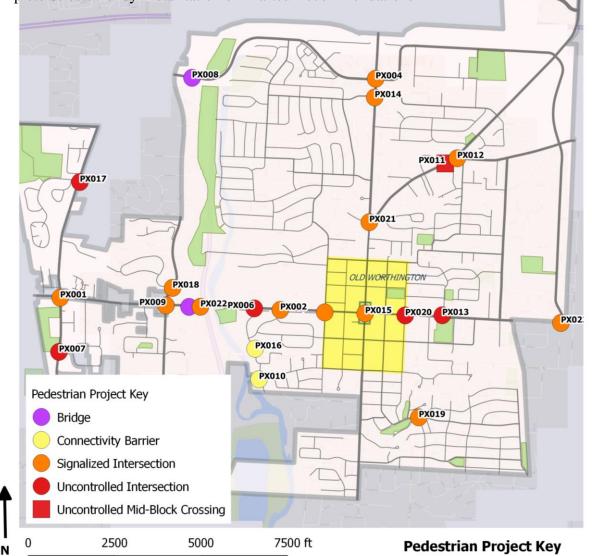


5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

# **Pedestrian Projects**

MAP#8: PEDESTRIAN PROJECT KEY

| Project ID | Location  |
|------------|---|
| PX001      | Dublin-Granville at Linworth                      |
| PX002      | Dublin-Granville at Farmington                    |
| PX003      | Dublin Granville at Evening                       |
| PX004      | High St at Wilson Bridge Rd                       |
| PX005      | Dublin Granville Rd at SR 315                     |
| PX006      | Dublin Granville at Seabury                       |
| PX007      | Linworth Rd at Linworth Park                      |
| PX008      | Wilson Bridge Rd over SR 315                      |
| PX009      | Dublin Granville Rd at Olentangy River Rd         |
| PX010      | South Street west termini                         |
| PX011      | Worthington-Galena Rd at Worthington Christian HS |
| PX012      | Worthington-Galena Rd at Schrock Rd               |
| PX013      | Dublin Granville at Pingree                       |
| PX014      | High St at Caren Ave                              |
| PX015      | High St at Dublin Granville                       |
| PX016      | Fox Ln to Blanford                                |
| PX017      | Linworth Rd at Collins Dr                         |
| PX018      | Olentangy River Rd at Pleasanton                  |
| PX019      | Park Blvd at Foste/Colonial Ave                   |
| PX020      | Dublin Granville at Morning                       |
| PX021      | High St at Worthington Galena                     |
| PX022      | Dublin Granville Rd at Exit SR-315 (East)         |
| PX023      | Dublin Granville Rd at Huntley/Sinclair Rd        |
|            |   |



# **Complete Streets Street Typology**

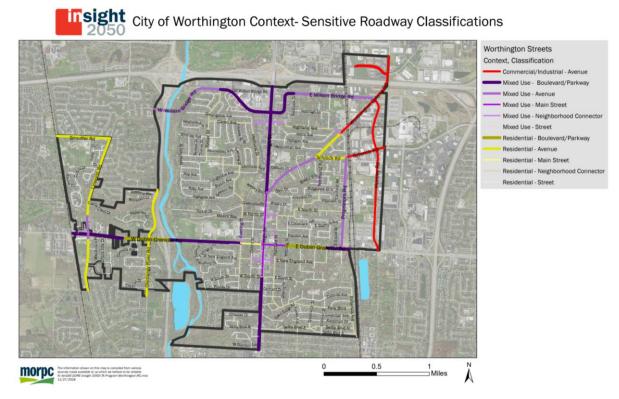
#### CONTEXT-SENSITIVE ROADWAY CLASSIFICATIONS

As part of the MORPC Complete Streets Policy and Toolkit development, the city of Worthington will adopt new street typologies that reflect land use context in addition to transportation function.

These typologies expand on the previous functional classification system, which focused on how streets handle and move traffic, and identifies how all users should be accommodated along various roadway types based on traffic and land use.

These new typologies have been used in selecting the type of projects included in this plan.

The following Section shows some typical sections that demonstrate how different streets might look under ideal implementation conditions.



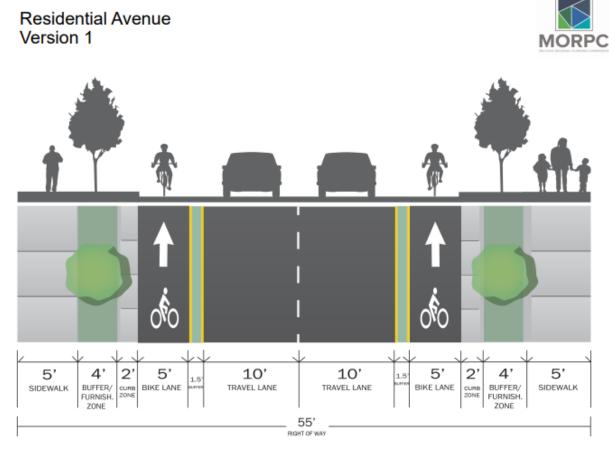
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STREET TYPOLOGY - Residential Avenue

Residential Avenues carry moderate traffic with two to four lanes of vehicle traffic and speeds posted 25 to 35 MPH.





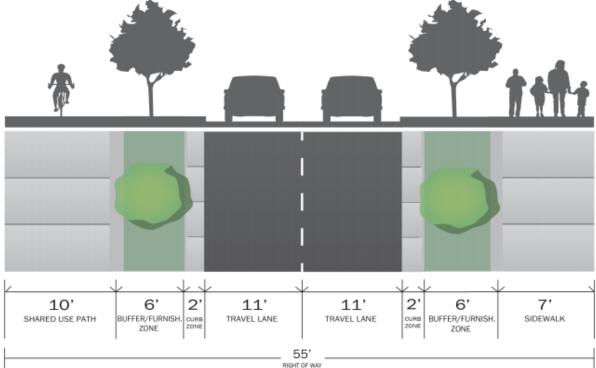
STREET TYPOLOGY - Residential Avenue

Residential Avenues carry moderate traffic with two to four lanes of vehicle traffic and speeds posted 25 to 35 MPH.

| Pedestrian Zone Design    |  |
|---------------------------|--|
| Curb Zone                 | 1.5' - 2.5'  |
| Buffer / Furnishings Zone | 4' - 6'<br>Grass / trees / landscaping / GSI<br>Street lights / signage<br>Bus stops             |
| Pedestrian Through Zone   | 5' - 8'  |
| Frontage Zone             |  |
| Pedestrian Crossing       | Marked crosswalks<br>Signalized crosswalks<br>Pedestrian refuge areas<br>Striped curb extensions |
| Bicycle Zone Design       |  |
| Bicycle Zone              | Buffered bike lane 5' - 8' Bike lane 5' - 6' Sharrows Super sharrows Bike boulevard SUP ≥ 8'     |

Residential Avenue Version 2

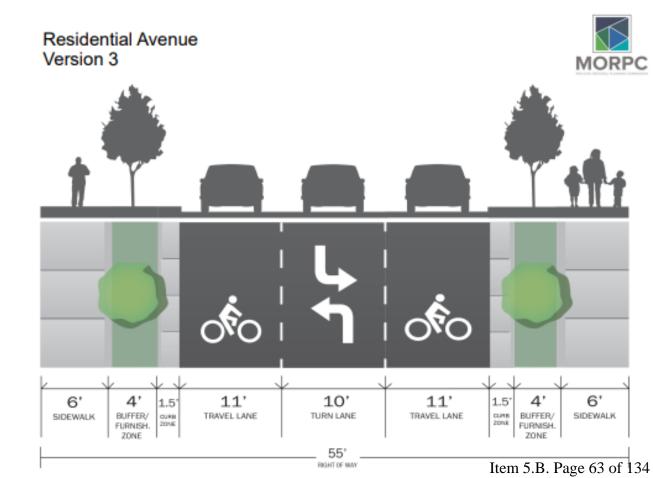




STREET TYPOLOGY - Residential Avenue

Residential Avenues carry moderate traffic with two to four lanes of vehicle traffic and speeds posted 25 to 35 MPH.

| Pedestrian Zone Design    |  |
|---------------------------|--|
| Curb Zone                 | 1.5' - 2.5'  |
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| Pedestrian Through Zone   | 5' - 8'  |
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| Bicycle Zone Design       |  |
| Bicycle Zone              | Buffered bike lane 5' - 8' Bike lane 5' - 6' Sharrows Super sharrows Bike boulevard SUP ≥ 8'     |



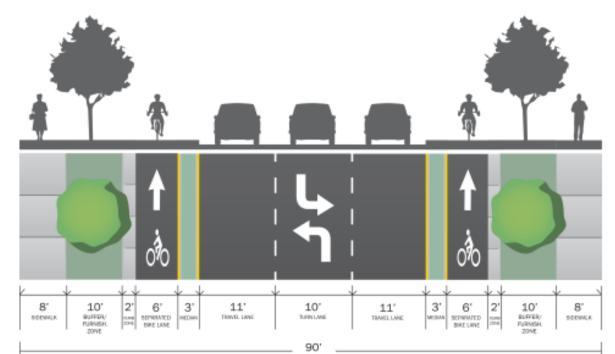
STREET TYPOLOGY - Mixed-Use Boulevard

Mixed-Use Boulevards run along business corridors and carry heavy traffic, including regional truck and generally have four to six lanes of vehicle traffic and speeds posted 30 to 35 MPH.

| Pedestrian Zone Design    |  |
|---------------------------|--|
| Curb Zone                 | 1.5' - 2.5'  |
| Buffer / Furnishings Zone | B' - 12' Grass / trees / landscaping / GSI Street lights / signage Bike racks Bus shelters / bus stops |
| Pedestrian Through Zone   | 6' - 12'   |
| Frontage Zone             | 0' - 6'<br>Planters / landscaping<br>Outdoor seating<br>Moveable signage                               |
| Pedestrian Crossing       | Marked crosswalks<br>Signalized crosswalks<br>Pedestrian refuge areas                                  |
| Bicycle Zone Design       |  |
| Bicycle Zone              | Barrier-separated bike lane 5' - 12' Buffered bike lane 5' - 8' SUP ≥ 8'                               |

Mixed-Use Boulevard Version 1





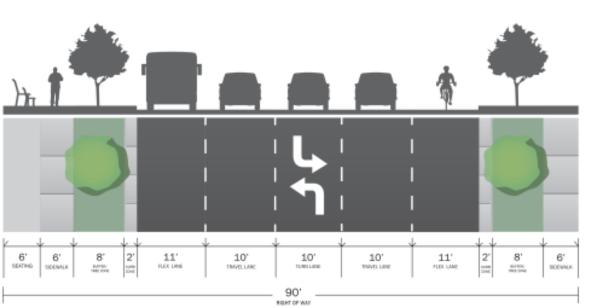
STREET TYPOLOGY - Mixed-Use Boulevard

Mixed-Use Boulevards run along business corridors and carry heavy traffic, including regional truck and generally have four to six lanes of vehicle traffic and speeds posted 30 to 35 MPH.

| Pedestrian Zone Design    |  |
|---------------------------|--|
| Curb Zone                 | 1.5' - 2.5'  |
| Buffer / Furnishings Zone | 8' - 12' Grass / trees / landscaping / GSI Street lights / signage Bike racks Bus shelters / bus stops |
| Pedestrian Through Zone   | 6' - 12'   |
| Frontage Zone             | 0' - 6'<br>Planters / landscaping<br>Outdoor seating<br>Moveable signage                               |
| Pedestrian Crossing       | Marked crosswalks<br>Signalized crosswalks<br>Pedestrian refuge areas                                  |
| Bicycle Zone Design       |  |
| Bicycle Zone              | Barrier-separated bike lane $5' - 12'$<br>Buffered bike lane $5' - 8'$<br>SUP $\geq 8'$                |

Mixed-Use Boulevard Version 2





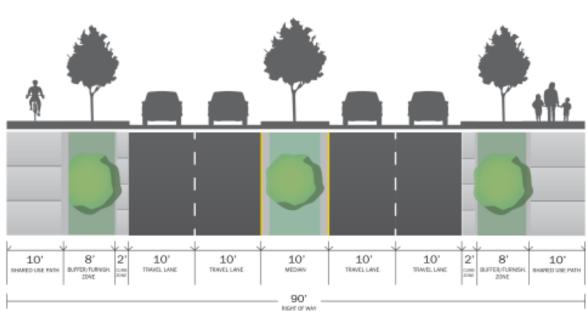
### STREET TYPOLOGY - Mixed-Use Boulevard

Mixed-Use Boulevards run along business corridors and carry heavy traffic, including regional truck and generally have four to six lanes of vehicle traffic and speeds posted 30 to 35 MPH.

| Pedestrian Zone Design    |  |
|---------------------------|--|
| Curb Zone                 | 1.5' - 2.5'  |
| Buffer / Furnishings Zone | 8' - 12'<br>Grass / trees / landscaping / GSI<br>Street lights / signage<br>Bike racks<br>Bus shelters / bus stops |
| Pedestrian Through Zone   | 6' - 12'   |
| Frontage Zone             | 0' - 6'<br>Planters / landscaping<br>Outdoor seating<br>Moveable signage   |
| Pedestrian Crossing       | Marked crosswalks<br>Signalized crosswalks<br>Pedestrian refuge areas  |
| Bicycle Zone Design       |  |
| Bicycle Zone              | Barrier-separated bike lane 5' - 12' Buffered bike lane 5' - 8' SUP ≥ 8'   |

Mixed-Use Boulevard Version 3



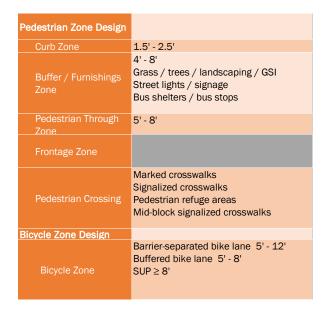


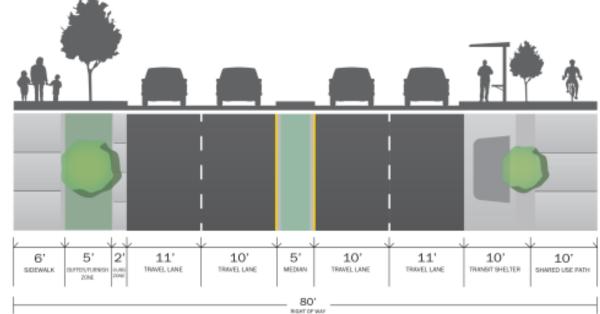
### STREET TYPOLOGY - Industrial Avenue

Commercial Avenues are located in commercial and industrial districts and carry moderate traffic, including local and regional trucks and generally have two to four lanes of vehicle traffic and speeds posted 25 to 35 MPH.

Industrial Avenue Version 1







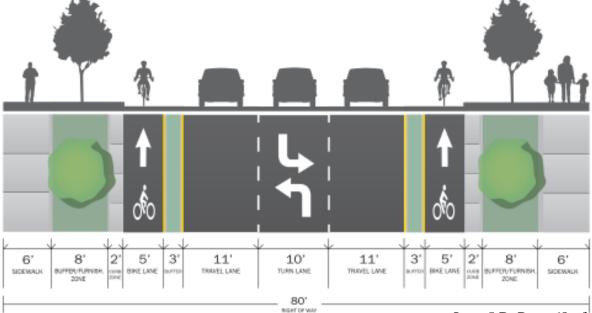
### STREET TYPOLOGY - Industrial Avenue

Commercial Avenues are located in commercial and industrial districts and carry moderate traffic, including local and regional trucks and generally have two to four lanes of vehicle traffic and speeds posted 25 to 35 MPH.

Industrial Avenue Version 2



| Pedestrian Zone Design       |  |
|------------------------------|--|
| Curb Zone                    | 1.5' - 2.5'  |
| Buffer / Furnishings<br>Zone | 4' - 8'<br>Grass / trees / landscaping / GSI<br>Street lights / signage<br>Bus shelters / bus stops      |
| Pedestrian Through<br>Zone   | 5' - 8'  |
| Frontage Zone                |  |
| Pedestrian Crossing          | Marked crosswalks<br>Signalized crosswalks<br>Pedestrian refuge areas<br>Mid-block signalized crosswalks |
| Bicycle Zone Design          |  |
| Bicycle Zone                 | Barrier-separated bike lane 5' - 12'<br>Buffered bike lane 5' - 8'<br>SUP ≥ 8'                           |



# **Chapter 4. Implementation Plan**

| Topic                           | Page |
|---------------------------------|------|
| Bicycle Projects                | 6 9  |
| Short-Range Projects            | 7 4  |
| Mid-Range Projects              | 78   |
| Long-Range Projects             | 8 1  |
| Pedestrian Projects             | 8 4  |
| Uncontrolled Crossings          | 8 7  |
| Signalized Crossings            | 8 9  |
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| Cost Opinions                   | 9 4  |
| Other Actions                   | 96   |



# **Bicycle Projects**

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BICYCLE PROJECTS BY IMPLEMENTATION PHASE

The projects in this section are presented by phase of implementation and in order of project scoring from the highest to lowest in each phase. The phases for implementation are defined as follows:

**Short-Range**: Projects that are in a high state of project readiness and either have lower costs or are currently identified with another project planning effort. *Target implementation for Short-Range Projects: TBD during February visit* 

**Mid-Range**: Projects that have greater degree of complexity and or costs that may need some feasibility study or have higher costs or be better candidates for larger capital projects such as street reconstruction. *Target implementation for Mid-Range Projects: TBD during February visit* 

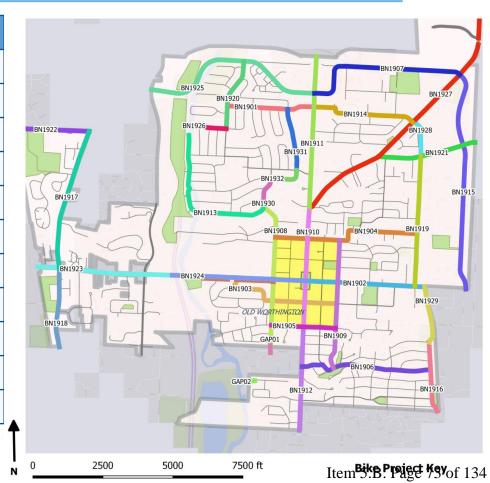
**Long-Range**: These projects present a number of challenges to implementation, included to, but not limited to high costs, multi-jurisdictional cooperation, further feasibility analysis, or overcoming significant existing barriers. *Target implementation for Long-Range Projects: TBD during February visit* 

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## **Bicycle Projects**

BIKE PROJECT KEY (1 of 3)

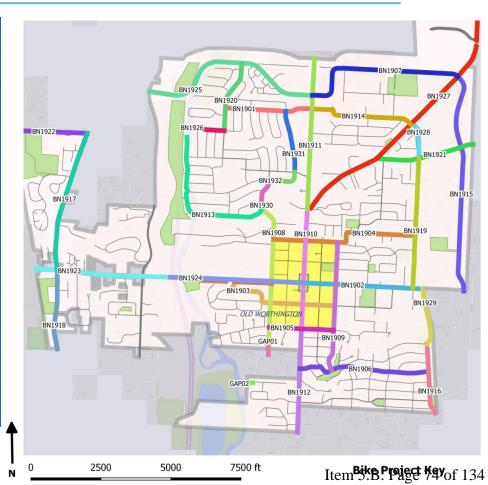
| ID     | Corridor                                     | Project Extent                                     |
|--------|--|--|
| BN1901 | Caren Ave                                    | Rieber St to High St                               |
| BN1902 | E Dublin-Granville Rd                        | High St to East City Limit                         |
| BN1903 | Farrington Dr/Sinsbury<br>Dr/New England Ave | W Dublin Granvile Rd to High St                    |
| BN1904 | North St                                     | Evening St to Proprietors Rd                       |
| BN1905 | South St                                     | Evening St to Morning St                           |
| BN1906 | Southington Ave/Park<br>Blvd                 | High St to Indianola Ave                           |
| BN1907 | E Wilson Bridge Rd                           | High St to Worthington Galena Rd                   |
| BN1908 | Evening St                                   | Highgate Ave to South City Limit (street terminus) |
| BN1909 | Morning St/Granby St                         | E North St to Park Blvd                            |
| BN1910 | High St                                      | Worthington Galena Rd to South St                  |
| BN1911 | N High St                                    | North City Limit to Worthington Galena Rd          |



## **Bicycle Projects**

BIKE PROJECT KEY (2 of 3)

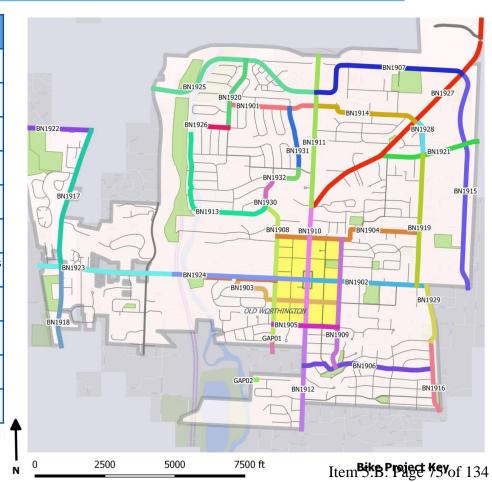
| ID     | Corridor   | Project Extent                                  |
|--------|--|---|
| BN1912 | N High St South St to South City Limit                     |   |
| BN1913 | Masefield St/Highgate Ave                                  | North of Lambourne Ave (Terminus) to Evening St |
| BN1914 | Highland Ave   | High St to Worthington Galena Rd                |
| BN1915 | Huntley Rd   | Worthington Galena to E Dublin Granville Rd     |
| BN1916 | N1916 Indianola Ave Park Overlook Dr to South City Limit   |   |
| BN1917 | 17 Linworth Rd Snouffer Rd to W Dublin Granville Rd        |   |
| BN1918 | 1918 Linworth Rd W Dublin Granville Rd to South City Limit |   |
| BN1919 | Proprietors Rd   | Schrock Rd to E Dublin Granville Rd             |
| BN1920 | Rieber St  | W Wilson Bridge Rd to Whitney Ave               |
| BN1921 | Schrock Rd   | Worthington Galena Rd to East City Limit        |
| BN1922 | Snouffer Rd  | West City Limit to Linworth Rd                  |



#### **Bicycle Projects**

BIKE PROJECT KEY (3 of 3)

| ID     | Corridor                              | Project Extent  |
|--------|---------------------------------------|---|
| BN1923 | W Dublin-Granville Rd                 | West City Limit to E ramp SR 315  |
| BN1924 | W Dublin-Granville Rd                 | E ramp SR 315 to High St  |
| BN1925 | W Wilson Bridge Rd                    | West City Limit to High St  |
| BN1926 | Whitney Ave                           | West Terminus to Rieber St  |
| BN1927 | Worthington Galena<br>Rd/Sancus Blvd  | High St to North City Limit   |
| BN1928 | West of RR Corridor                   | Worthington Galena Rd to Intersection Schrock<br>Rd/Proprietors Rd        |
| BN1929 | West of RR Corridor                   | Dublin Granville Rd at East City Limit to North Terminus of Indianola Ave |
| BN1930 | Evening St                            | Longfellow Ave to Highgate Ave  |
| BN1931 | Hayhurst St                           | Caren Ave to Larrimer Ave   |
| BN1932 | Longfellow Ave                        | Evening St to Larrimer Ave  |
| BN1934 | W Dublin-Granville Rd<br>(Service Dr) | Olentangy River Trail to Evening St                                       |



# **Short-Range Bicycle Projects**

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SHORT-RANGE BICYCLE PROJECTS - BY SCORING RANK (1 of 3)

| RANK | ID          | Corridor                                  | PROJECT EXTENT                              | LENGTH<br>(MI) | RECOMMENDATION  |
|------|-------------|---|---|----------------|---|
| 3    | BN1903      | Farrington Dr/Sinsbury Dr/New England Ave | W Dublin Granvile Rd to High St             | 0.22           | Bike boulevard  |
| 4    | BN1927-1B*  | Worthington Galena Rd/Sancus Blvd         | High St to North City Limit                 | 0.59           | Shoulder Bike Lanes   |
| 6    | BN1923-1A   | W Dublin-Granville Rd                     | West City Limit to E ramp SR 315            | 0.47           | MUP (south side)  |
| 9    | BN1922      | Snouffer Rd                               | West City Limit to Linworth Rd              | 0.51           | MUP (south side)  |
| 10   | BN1926      | Whitney Ave                               | West Terminus to Rieber St                  | 0.28           | Bike boulevard  |
| 11   | BN1925-1A** | W Wilson Bridge Rd                        | West City Limit to High St                  | 0.55           | Maintain existing facility  |
| 11   | BN1925-1B** | W Wilson Bridge Rd                        | West City Limit to High St                  | 0.73           | Optimize existing markings:<br>expand BL to 6' and get 2'<br>buffer (or 10" fog line) |
| 12   | BN1921-3B   | Schrock Rd                                | Worthington Galena Rd to East City<br>Limit | 0.38           | Buffered bike lane  |
| 16   | BN1920      | Rieber St                                 | W Wilson Bridge Rd to Whitney Ave           | 0.48           | Bike boulevard  |

\*Project also has a Mid-Range Component \*\*Project also has a Long Range Component

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SHORT-RANGE BICYCLE PROJECTS - BY SCORING RANK (2 of 3)

| RANK | ID      | Corridor                           | PROJECT EXTENT                                     | LENGTH (MI) | RECOMMENDATION  |
|------|---------|------------------------------------|--|-------------|---|
| 17   | BN1913  | Masefield St/Highgate Ave          | North of Lambourne Ave (Terminus) to Evening St    | 1.02        | Bike boulevard  |
| 18   | BN1908  | Evening St                         | Highgate Ave to South City Limit (street terminus) | 0.60        | Bike boulevard  |
| 19   | BN1904  | North St                           | Evening St to Proprietors Rd                       | 0.91        | Bike boulevard  |
| 20   | BN1909  | Morning St/Granby St               | E North St to Park Blvd                            | 0.87        | Bike boulevard  |
| 22   | BN1934  | W Dublin-Granville Rd (Service Dr) | Olentangy River Trail to Evening St                | 0.39        | Pilot neighborhood greenway (enhanced bike boulevard) |
| 23   | BN1905  | South St                           | Evening St to Morning St                           | 0.11        | Bike boulevard  |
| 24   | BN1907* | E Wilson Bridge Rd                 | High St to Worthington Galena Rd                   | 0.77        | Buffered bike lane                                    |
| 25   | BN1914  | Highland Ave                       | High St to Worthington Galena Rd                   | 0.22        | Bike boulevard  |
| 26   | BN1906  | Southington Ave/Park Blvd          | High St to Indianola Ave                           | 0.90        | Bike boulevard  |
| 28   | BN1916  | Indianola Ave                      | Park Overlook Dr to South City Limit               | 0.47        | Bike boulevard  |

\*Project also has a Mid-Range Component

\*\*Project also has a Long Range Component

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SHORT-RANGE BICYCLE PROJECTS - BY SCORING RANK (3 of 3)

| RANK | ID     | Corridor       | PROJECT EXTENT                 | LENGTH<br>(MI) | RECOMMENDATION |
|------|--------|----------------|--------------------------------|----------------|----------------|
| 29   | BN1901 | Caren Ave      | Rieber St to High St           | 0.41           | Bike boulevard |
| 30   | BN1931 | Hayhurst St    | Caren Ave to Larrimer Ave      | 0.41           | Bike boulevard |
| 33   | BN1932 | Longfellow Ave | Evening St to Larrimer Ave     | 0.22           | Bike boulevard |
| 35   | BN1930 | Evening St     | Longfellow Ave to Highgate Ave | 0.21           | Bike boulevard |

\*Project also has a Mid-Range Component
\*\*Project also has a Long Range Component

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## Mid-Range Bicycle Projects

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MID-RANGE BICYCLE PROJECTS - BY SCORING RANK (1 of 2)

| RANK | ID          | Corridor                             | PROJECT EXTENT                                 | LENGTH (MI) | RECOMMENDATION  |
|------|-------------|--------------------------------------|--|-------------|---|
| 4    | BN1927-1B*  | Worthington Galena Rd/Sancus<br>Blvd | High St to North City Limit                    | 0.591       | Buffered bike lanes   |
| 4    | BN1927-2B** | Worthington Galena Rd/Sancus<br>Blvd | High St to North City Limit                    | 0.324       | Improve/formalize MUP (north side) 8' min                                     |
| 4    | BN1927-3B** | Worthington Galena Rd/Sancus<br>Blvd | High St to North City Limit                    | 0.859       | MUP (north side) Highland to<br>WBR; bike lanes north of<br>WBR to city limit |
| 5    | BN1918      | Linworth Rd                          | W Dublin Granville Rd to South City Limit      | 0.056       | MUP (west side)   |
| 8    | BN1917      | Linworth Rd                          | Snouffer Rd to W Dublin Granville Rd           | 0.170       | MUP (west side)   |
| 12   | BN1921-2B   | Schrock Rd                           | Worthington Galena Rd to East City Limit       | 0.287       | Buffered Bike Lane or MUP   |
| 13   | BN1919      | Proprietors Rd                       | Schrock Rd to E Dublin Granville Rd            | 0.870       | Bike lane   |
| 15   | BN1915      | Huntley Rd                           | Worthington Galena to E Dublin<br>Granville Rd | 1.470       | Barrier-separated bike lane   |
| 24   | BN1907*     | E Wilson Bridge Rd                   | High St to Worthington Galena Rd               | 0.770       | MUP   |

\*Project also has a Short-Range Component



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<sup>\*\*</sup>Project also has a Long Range Component

MID-RANGE BICYCLE PROJECTS - BY SCORING RANK (2 of 2)

| RANK | ID     | Corridor                                       | PROJECT EXTENT | LENGTH<br>(MI) | RECOMMENDATION                                  |
|------|--------|--|----------------|----------------|---|
| 27   | GAPOS  | Chaucer Ct Connection to Beverly PI (Riverlea) |                | n ma           | Planning study to determine feasibility & costs |
| 32   | (JAPI) | Evening St Connection to Pioneer Ct (Riverlea) |                | (1 (1/1 /      | Planning study to determine feasibility & costs |

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# **Long-Range Bicycle Projects**

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LONG-RANGE BICYCLE PROJECTS - BY SCORING RANK (1 of 2)

| RANK | ID          | Corridor                          | PROJECT EXTENT                               | LENGTH (MI) | RECOMMENDATION  |
|------|-------------|-----------------------------------|--|-------------|---|
| 1    | BN1924-2C   | W Dublin-Granville Rd             | E ramp SR 315 to High St                     | 0.19        | MUP (north side)  |
| 2    | BN1902      | E Dublin-Granville Rd             | High St to East City Limit                   | 0.22        | MUP One Side  |
| 4    | BN1927-3B** | Worthington Galena Rd/Sancus Blvd | High St to North City Limit                  | 0.86        | Buffered Bike lanes (street reconstruction)                               |
| 4    | BN1927-2B** | Worthington Galena Rd/Sancus Blvd | High St to North City Limit                  | 0.32        | Buffered bike lanes and sidewalks (street reconstruction)                 |
| 7    | BN1910      | High St                           | Worthington Galena Rd to South St            | 0.80        | MUP or buffered lanes   |
| 11   | BN1925-1B*  | W Wilson Bridge Rd                | West City Limit to High St                   | 0.73        | Buffered bike lanes with expanded shoulders; barrier protection on bridge |
| 11   | BN1925-1A*  | W Wilson Bridge Rd                | West City Limit to High St                   | () 55       | Continuous MUP from ORT to High/WBR along existing route                  |
| 14   | BN1911      | IN HIAD ST                        | North City Limit to Worthington<br>Galena Rd | 1.01        | MUP   |
| 21   | BN1912      | N High St                         | South St to South City Limit                 | 0.69        | MUP   |

\*Project also has a Short-Range Component

\*\*Project also has a Mid-Range Component

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LONG-RANGE BICYCLE PROJECTS - BY SCORING RANK (2 of 2)

| RANK | ID     | Corridor            | PROJECT EXTENT  | LENGTH (MI) | RECOMMENDATION |
|------|--------|---------------------|---|-------------|----------------|
| 31   | BN1928 |                     | Worthington Galena Rd to<br>Intersection Schrock Rd/Proprietors<br>Rd           | 0.26        | Trail          |
| 34   | BN1929 | West of RR Corridor | Dublin Granville Rd at East City<br>Limit to North Terminus of Indianola<br>Ave | 0.38        | Trail          |

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## **Pedestrian Projects**

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#### PEDESTRIAN PROJECTS BY TYPE

This Plan does not propose specific sidewalk infill projects as part of the bicycle and pedestrian program. The magnitude of cost associated with sidewalk infill, as well as other bike and pedestrian accommodations, far exceed available resources. If additional funding can be secured, that funding can be combined with City's annual CIP Street and Sidewalk Improvement Program, so that those projects could be completed in conjunction with routine maintenance and reconstruction of City streets.

The pedestrian projects identified in this Plan reflect connectivity challenges as identified during the engagement process and data analysis. These projects are categorized by the type of location and its features, and in order by project scoring from the highest to lowest in each. The categories include:

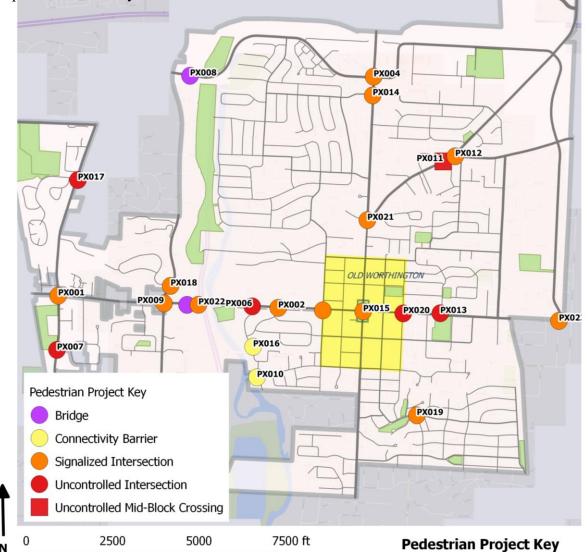
- Uncontrolled Crossings: This includes intersections or mid-block locations where crosswalks exist (marked and unmarked), or are needed to improve safe crossing for pedestrians;
- Signalized Crossings: This includes intersections and locations currently controlled by signals, where there may be opportunities to improve safety and convenience for pedestrian crossings;
- Bridges: Walkways across bridges are especially important from a connectivity standpoint as alternatives often involve significant distances to overcome;
- Connectivity Barriers (or Network Gaps): This section deals with locations where a gap in connectivity exists without an obvious solution or even alignment for a route.

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## **Pedestrian Projects**

MAP#8: PEDESTRIAN PROJECT KEY

| Droject ID | Location  |
|------------|---|
| Project ID | Location  |
| PX001      | Dublin-Granville at Linworth                      |
| PX002      | Dublin-Granville at Farmington                    |
| PX003      | Dublin Granville at Evening                       |
| PX004      | High St at Wilson Bridge Rd                       |
| PX005      | Dublin Granville Rd at SR 315                     |
| PX006      | Dublin Granville at Seabury                       |
| PX007      | Linworth Rd at Linworth Park                      |
| PX008      | Wilson Bridge Rd over SR 315                      |
| PX009      | Dublin Granville Rd at Olentangy River Rd         |
| PX010      | South Street west termini                         |
| PX011      | Worthington-Galena Rd at Worthington Christian HS |
| PX012      | Worthington-Galena Rd at Schrock Rd               |
| PX013      | Dublin Granville at Pingree                       |
| PX014      | High St at Caren Ave                              |
| PX015      | High St at Dublin Granville                       |
| PX016      | Fox Ln to Blanford                                |
| PX017      | Linworth Rd at Collins Dr                         |
| PX018      | Olentangy River Rd at Pleasanton                  |
| PX019      | Park Blvd at Foste/Colonial Ave                   |
| PX020      | Dublin Granville at Morning                       |
| PX021      | High St at Worthington Galena                     |
| PX022      | Dublin Granville Rd at Exit SR-315 (East)         |
| PX023      | Dublin Granville Rd at Huntley/Sinclair Rd        |



# **Uncontrolled Crossings**

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PEDESTRIAN BARRIER PROJECTS - Uncontrolled Crossings

| RANK | ID        | LOCATION                         | Түре                       | ISSUES                    | RECOMMENDATION          |
|------|-----------|----------------------------------|----------------------------|---------------------------|-------------------------|
| 5    | PX013     | Dublin Granville at Pingree      | Uncontrolled Intersection  | I )itticult to cross      | Evaluate for additional |
|      | 1 7010    | Bubiiii Granvine at i ingree     | Oncontrolled intersection  | Difficult to 01000        | countermeasures*        |
| 7    | PX020     | Dublin Granville at Morning      | Uncontrolled Intersection  | No crosswalk markings     | Evaluate for additional |
| ,    | FAUZU     | Dubiiii Granville at Morning     | Uncontrolled intersection  | INO CIOSSWAIK IIIAIKIIIYS | countermeasures*        |
| 11   | PX006     | Dublin Granville at Seabury      | Uncontrolled Intersection  | Difficult to cross        | Evaluate for additional |
| ''   | F X 0 0 0 | Dubilit Granville at Seabury Onc | Jilcontrolled intersection | Difficult to Cross        | countermeasures*        |
| 15   | 15 PX017  | Linworth Rd at Collins Dr        | Uncontrolled Intersection  | Need crosswalk            | Evaluate for additional |
| 15   | PAUIT     | Linworth Rd at Collins Di        | Uncontrolled intersection  | Need Closswalk            | countermeasures*        |
| 10   | 18 PX007  | Linworth Rd at Linworth Park     | Uncontrolled Intersection  | Improve access to the     | Evaluate for additional |
| 10   |           |                                  |                            | park                      | countermeasures*        |
| 16   |           | Worthington-Galena Rd at         | Mid blook                  | Existing crosswalk        | Evaluate for additional |
|      |           | Worthington Christian HS         | Mid-block                  | _                         | countermeasures*        |

\*Crossing countermeasures should be identified based on the 2018 FHWA-EDC Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations

# **Signalized Crossings**

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PEDESTRIAN BARRIER PROJECTS - Signalized Crossings (1 of 2)

| RANK | ID    | LOCATION                                      | Түре                    | Issues                                    | RECOMMENDATION  |
|------|-------|---|-------------------------|---|---|
| 1    | PX015 | High St at Dublin Granville                   | Signalized Intersection | difficult crossing<br>(Traffic)           | Monitor and evaluate signal - consider additional operational and/or geometric treatments                                 |
| 2    | PX003 | Dublin Granville at Evening                   | Signalized Intersection | Key intersection challenging to cross 161 | Monitor and evaluate signal - consider additional operational and/or geometric treatments                                 |
| 3    | PX021 | High St at Worthington Galena                 | Signalized Intersection | Difficult for pedestrians                 | Monitor and evaluate signal - consider additional operational and/or geometric treatments                                 |
| 4    | PX004 | High St at Wilson Bridge Rd                   | Signalized Intersection | Complex Intersection                      | Monitor and evaluate signal - consider additional operational and/or geometric treatments                                 |
| 6    | PXU23 | Dublin Granville Rd at<br>Huntley/Sinclair Rd | Signalized Intersection | Difficult Crossing                        | Monitor and evaluate signal - consider additional operational and/or geometric treatments                                 |
| 8    | DXMT  | Worthington-Galena Rd at<br>Schrock Rd        | Signalized Intersection | safety - skew-<br>sightlines              | Monitor and evaluate signal - consider additional operational and/or geometric treatments [Possible roundabout candidate] |
| 9    | PX014 | High St at Caren Ave                          | Signalized Intersection | Long delay for crossing                   | Monitor and evaluate signal - consider additional operational and/or geometric treatments                                 |

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PEDESTRIAN BARRIER PROJECTS - Signalized Crossings (2 of 2)

| RANK | ID    | LOCATION                                      | Түре                    | ISSUES                                 | RECOMMENDATION  |
|------|-------|---|-------------------------|--|---|
| 10   | PX001 | Dublin-Granville at Linworth                  | Signalized Intersection | Sataty for bicyclae and                | Monitor and evaluate signal - consider additional operational and/or geometric treatments |
| 12   | PX022 | Dublin Granville Rd at Exit SR-<br>315 (East) | Signalized Intersection | Difficult Crossing                     | Monitor and evaluate signal - consider additional operational and/or geometric treatments |
| 13   | PX002 | Dublin-Granville at Farmington                | Signalized Intersection | Safe Crossing                          | Monitor and evaluate signal - consider additional operational and/or geometric treatments |
| 14   | PX019 | Park Blvd at Foste/Colonial<br>Ave            | Signalized Intersection | Difficult crossing                     | Monitor and evaluate signal - consider additional operational and/or geometric treatments |
| 19   | PXNNG | Dublin Granville Rd at<br>Olentangy River Rd  | Signalized Intersection | Complex Intersection                   | Monitor and evaluate signal - consider additional operational and/or geometric treatments |
| 21   | PXUIX | Olentangy River Rd at<br>Pleasanton           | Signalized Intersection | Blind curve hard to cross/access trail | Monitor and evaluate signal - consider additional operational and/or geometric treatments |

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# Bridges & Connectivity Barriers

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#### PEDESTRIAN BARRIER PROJECTS - BRIDGES AND CONNECTIVITY BARRIERS

| RANK | ID    | LOCATION                      | Түре   | ISSUES                             | RECOMMENDATION   |
|------|-------|-------------------------------|--------|------------------------------------|--|
| 17   | PX005 | Dublin Granville Rd at SR 315 | Bridge |                                    | Consider opportunities to improve pedestrian accommodation on bridge |
| 22   | PX008 | Wilson Bridge Rd over SR 315  | Bridge | Narrow lacks space for pedestrians | Consider opportunities to improve pedestrian accommodation on bridge |

| RANK | ID    | LOCATION                  | Түре                 | ISSUES                | RECOMMENDATION  |
|------|-------|---------------------------|----------------------|-----------------------|---|
| 20   | PX016 | Fox Ln to Blanford        | L ANNACHWIIV BAITIAL | echool kide           | Feasibility Study - May require ROW acquisition; Gaps or missing links score lower than other existing network segments |
| 23   | PX010 | South Street west termini | Connectivity Barrier | Olontangy Pivor Trail | Feasibility Study - May require ROW acquisition; Gaps or missing links score lower than other existing network segments |

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# **Cost Opinions**

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## **Cost Opinions**

**ENTER SUB TITLE** 

To discuss during February engagement

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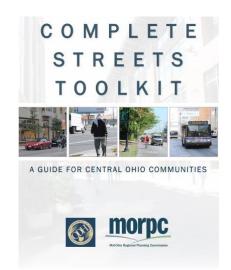
# Other Actions

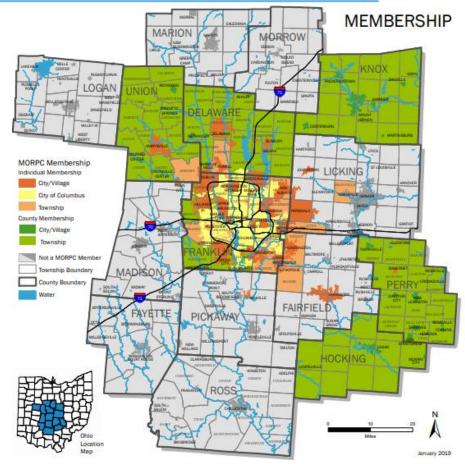
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#### 1. Adopt MORPC Complete Streets Guidelines

ADVANCE COMPLETE STREETS IN WORTHINGTON

To discuss during the process during the February engagement





Learn more at: <a href="http://www.morpc.org/">http://www.morpc.org/</a>



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#### 2. Prioritize Safe Routes to School

#### IMPLEMENT BIKE AND PEDESTRIAN PROJECTS AROUND SCHOOLS

A Safe Routes to School (SRTS) strategy advances three core objectives:

- To enable and encourage children, including those with disabilities, to walk and bicycle to school;
- To make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and
- To facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.

Worthington's SRTS program can enhance children's health and well-being and ease traffic congestion near schools. Actions include:

- Organize a SRTS Task Force: This includes parents, children, teachers, principals, city and school staff members, elected officials, major employers and business leaders, community groups, law enforcement and emergency responders.
- Commit to Education, Encouragement and Enforcement
   Efforts: Teaching children basic pedestrian and bicycle
   skills is vital to the success of a SRTS program. Cycling
   rodeos and obstacle courses are fun activities that improve
   students' skills and confidence.
- Ensure Quick Wins: Choose the Short-Range Bike and Pedestrian projects identified within this Plan which are within two miles of schools to implement.. Engage Worthington School District to modify school transportation policies to promote walk and bikeability for students
- Apply for Funding: There are low-cost engineering solutions that can be put into place in a relatively short amount of time by working with city and county officials.

#### 3. Partner with Age-Friendly Columbus

#### LEVERAGE COMPLEMENTARY EFFORTS

As part of this connection, Age-Friendly Columbus can assist in developing an Age-Friendly Plan specific to Worthington that would then be adopted. Several actions that are currently in the Age-Friendly Columbus Strategic Plan that would be directly relevant to the Worthington Bicycle and Pedestrian Plan include:

- Research and design "Safe Routes for All" program to assess, report upon and map safe routes in neighborhoods with a dense population of vulnerable older adults;
- Pilot increased crossing times at crosswalks near major activity hubs;
- Ensure safe connections to public transportation by analyzing last-mile connections in vulnerable population neighborhoods;

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- Create an Age-Friendly Event Planning guide to help reduce barriers to attendance for older adults and individuals with disabilities. Thus encouraging public and private events to accommodate guests of all ages;
- Adopt inclusive and accessible practices and standards across City departments, buildings and spaces. In doing so, work should be done in evaluating outdoor and indoor spaces for Age-friendliness according to the adopted standards:





#### **RESOURCES:**

HONOLULU AGE-FRIENDLY CITY **ACTION PLAN** 



## 4. Seek Funding for Projects

FUNDING OPPORTUNITIES (1 OF 2)

The Worthington Bicycle and Pedestrian Plan provides a long-term vision for the development of a community-wide cycling and walking network usable by all residents for all trip purposes. The following funding opportunities should be utilized, as possible, leveraging local resources including the City budget to obtain grants at regional, state and federal levels. Collaborating with both public and private entities, in combination with the publicly available dollars, can be critical for larger scale projects. Outlined below is a list of potential funding resources for bike and pedestrian projects and programs:

 Transportation Alternatives, includes Safe Routes to School (SRTS) Program, issued by the Ohio Department of Transportation (ODOT) / Metropolitan Planning Organization (MPO): SRTS grants can be used to identify and reduce barriers and hazards to children walking or bicycling to school (70 to 90 percent of funds) or for non-infrastructure encouragement and education programs (10 to 30 percent). Eligible projects must be within two miles of a school and are fully funded with no local match requirement. One infrastructure and/or non-infrastructure application will be accepted, with three projects maximum that can be funded per school district. There is a \$400,000 funding limit for the total infrastructure project application and \$60,000 maximum for non-infrastructure projects. See:

http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/Pages/TransportationAlternatives.aspx
www.dot.state.oh.us/saferoutes

- Safety Program, issued by ODOT: See
   http://www.dot.state.oh.us/Divisions/Planning/ProgramManage
   ment/HighwaySafety/HSIP/Pages/default.aspx
- Surface Transportation Program, issued by ODOT / MPO / County Engineers Association: <a href="https://www.fhwa.dot.gov/specialfunding/stp/160307.cfm">https://www.fhwa.dot.gov/specialfunding/stp/160307.cfm</a>
- Congestion Mitigation Air Quality, issued by MPO within Environmental Protection Agency (EPA) designated air quality areas: <a href="http://www.fhwa.dot.gov/environment/air\_quality/cmaq/">http://www.fhwa.dot.gov/environment/air\_quality/cmaq/</a>

## 4. Seek Funding for Projects

FUNDING OPPORTUNITIES (2 OF 2)

- State Capital Improvement Program, issued by Ohio Public Works Commission (OPWC):
  - http://www.pwc.state.oh.us/Infrastructure.html
- Recreational Trails Program, issued by Ohio Department of Natural Resources (ODNR): <a href="http://ohiodnr.com/tabid/21369/default.aspx">http://ohiodnr.com/tabid/21369/default.aspx</a>
- Clean Ohio Trails Fund, issued by ODNR: http://clean.ohio.gov/RecreationalTrails/Default.htm
- County and municipal bridge program, issued by County Engineer's Association / ODOT: http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/Page
- Section 402 Federal, State and Community Highway Safety Funds, issued by Ohio Department of Public Safety (ODPS): <a href="https://ohiohighwaysafetyoffice.ohio.gov/index.aspx">https://ohiohighwaysafetyoffice.ohio.gov/index.aspx</a>

- Federal Transit Administration (FTA), issued by FTA / ODOT: https://www.transit.dot.gov/grants/12305.html
- Community Development Block Grant, issued by Housing and Urban Development (HUD): <a href="https://www.hud.gov/states/ohio/community/cdbg">https://www.hud.gov/states/ohio/community/cdbg</a>
- Rivers, Trails, and Conservation Assistance Program, issued by the National Park Service: <a href="https://www.nps.gov/orgs/rtca/apply.htm">https://www.nps.gov/orgs/rtca/apply.htm</a>
  - Land and Water Conservation Fund: https://www.lwcfcoalition.com/
  - Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities, issued by MORPC: <a href="http://www.morpc.org/program-service/enhanced-mobility/">http://www.morpc.org/program-service/enhanced-mobility/</a>
    - Local Injury Prevention Grant, issued by the Centers for Disease Control and Prevention:

BLUE ZONES" | 2018 | PAGE 101

s/LocalFundingOpportunities.aspx

https://www.cdc.gov/phhsblockgrant/index.htm Item 5.B. Page 103 of 134

#### 5. Conduct Targeted Enforcement

#### RAISE AWARENESS TO IMPROVE BEHAVIORS

Officers are talented observers. They can often cite what motorists, pedestrians and bicyclists are doing wrong that will lead to a crash. They also understand what is fair and effective. If they warn or cite pedestrians or bicyclists, they know that their work must also identify those actions of motorists leading to the greatest harm.

In general, children are prone to make the primary crash-inducing error, but in adult pedestrian/bike motor vehicle crashes, motorists most often make the primary error.

Officers are more likely to respond to a specific problem than a general concern. Numbers showing the frequency and severity of crashes are compelling figures to help gain law enforcement support. Furthermore, being able to pinpoint dangerous behaviors and locations where

crashes are more prevalent can help law enforcement officers better target their enforcement efforts. Speeding and drunken driving are the two most significant causes of crashes with pedestrians and bicyclists, and focusing on both provides effective means of reducing crashes.

A pedestrian crosswalk sting program is among the most effective to teach motorist compliance with the law. Officers issue warnings the first week, with major media coverage, then citations the second week. Some cities using this practice state that they nearly eliminate unsafe motorist behaviors.

 Review the crash data hotspots identified on Map # 5 (All Crashes) and Map #6 (Pedestrian and Bicycle Crashes) to identify opportunities for targeted enforcement and media engagement.







#### 6. Invest in Education & Training

RAISE AWARENESS TO IMPROVE BEHAVIORS

#### What

One of the wisest and most beneficial investments is staff and advocate training. These training events can be coordinated with MORPC and others in the region to share costs and maximize networking and building/retaining an informed staff.

#### How

Funding for training should be part of the Worthington annual operating budget. The City can partner with MORPC, ODOT and others to secure funds to host regional training events. In other cases, select individuals (staff and advocates) can attend national training events.

#### **Training Elements/Events**

- Complete Streets
- Vision Zero
- Bicycle and Pedestrian Law Enforcement
- Safe Routes to School
- Bicycle Training Courses
- Traffic Safety-Ed Programs (4<sup>th</sup> grade)







## 7. Trial Demonstration Projects

BUILD CAPACITY FOR CHANGE



# 8. Seek Bicycle Friendly Community Designation

BUILD CAPACITY FOR CHANGE

More than 450 communities have achieved bicycle friendly recognition. The program provides a roadmap to building a Bicycle Friendly Community for communities of all shapes and sizes. The rigorous application process is an educational tool in itself and includes an opportunity for local bicyclists and the City to provide input on their experiences and perceptions of bicycling in their community.

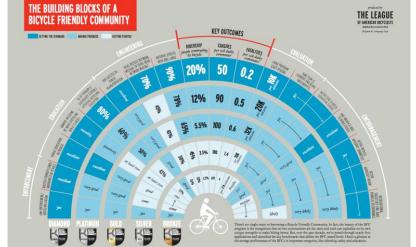
Ohio is ranked 18<sup>th</sup> for bicycle-friendly status, with 17 communities and 5 bicycle friendly universities. Westerville and Athens, Ohio have achieved Bronze status. Worthington should strive for designation as a bicycle-friendly community. Applications are accepted in the fall and spring, which gives applicants months to complete the application process.

The application asks questions about the community's engineering, education, encouragement, enforcement and evaluation efforts. This comprehensive questionnaire is designed to yield a holistic picture of an applicant community's work to develop, support and promote bicycling.

### RESOURCE:

HTTPS://BIKELEAGUE.ORG/CON TENT/ABOUT-BFC-APPLICATION-PROCESS "It built recognition of what we have done, which helps getting funding for the very long list of what we still have to do. Having the honor actually made it easier for us to give a frank assessment of where we lag and help build political support for future phases."

—WAYNE FEIDEN
Director of Planning and Development,
Northampton, MA



## 9. Seek Walk Friendly Community Designation

BUILD CAPACITY FOR CHANGE

More than 70 distinct communities have achieved Walk Friendly recognition. The program provides a roadmap to building a Walk Friendly Community for communities of all shapes and sizes. To be truly Walk Friendly, a community must address and prioritize pedestrian needs in all program areas, from developing plans and building sidewalks to establishing and monitoring performance measures and evaluating projects.





RESOURCE:

WALKFRIENDLY.ORG

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## 10. Ensure Snow and Ice Removal

#### BUILD CAPACITY FOR CHANGE

Snow and ice removal programs for sidewalks, trails and lanes significantly encourages residents to be active year round. This is especially important for elders, who find that if their sidewalks feel slippery or unsafe, they tend to avoid the area.

Programs are numerous, and might include:

- · Annual funding for first priority trails snow clearing;
- · Cooperative sidewalk snow removal, especially for downtown;
- Neighborhood sidewalk snow removal programs using pooled or city funds (as low as \$5/household/year);
- Volunteer coordination for snow removal to those unable to perform their own clearing.
- Add maintenance information and possibly move to the Toolbox section



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5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations Chapter 5. Toolbox Packet Page # 113 Item 5.B. Page 110 of 134

## Chapter 5. **Toolbox**

| Topic                          | Page |
|--------------------------------|------|
| Educational Resources (Sample) | 108  |
| Treatment Toolbox (Sample)     | 111  |



5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

# **Educational Resources**

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## **Educational Resources**

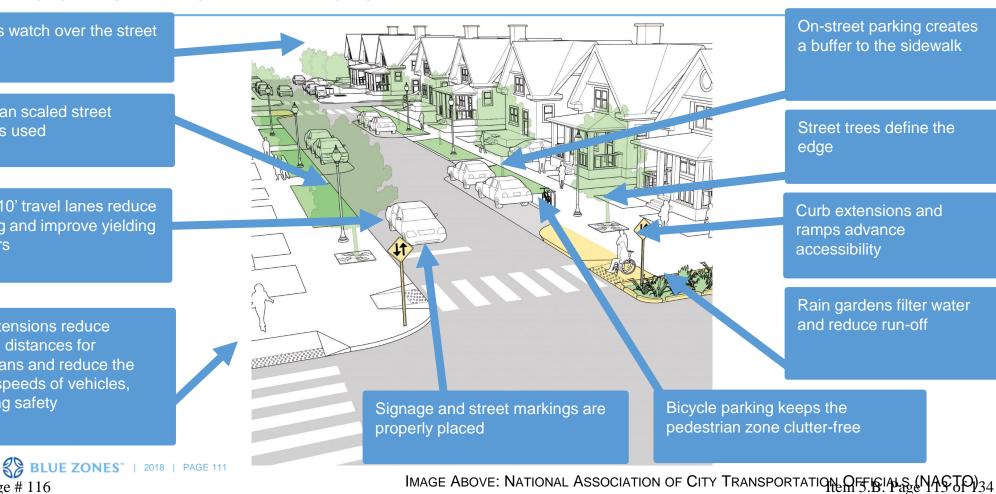
DESIGN FOR TARGET BEHAVIORS

Buildings watch over the street

Pedestrian scaled street lighting is used

Narrow 10' travel lanes reduce speeding and improve yielding behaviors

Curb extensions reduce crossing distances for pedestrians and reduce the turning speeds of vehicles, improving safety



5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

# **Treatment Toolbox**

## **Treatment Toolbox**

RAISED INTERSECTION



- Creates a safe, slow-speed crossing 24-hours per day
- Slows traffic to 15-20 mph
- Yield rates by motorists to pedestrians is improved
- Improves sight lines for pedestrians, who also have less exposure
- Utilizes colorful, attractive materials that honor local character

- · Reduces illegal parking
- Promotes better understanding for all users
- Has the least impact on the park tree-scape
- May increase noise levels
- Drainage may need to be reset

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## **Treatment Toolbox**

RAISED INTERSECTION

To discuss what level of detail is required during February engagement

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5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations Appendices Packet Page # 120 Item 5.B. Page 117 of 134

## **Appendices**

| Topic          |             | Page |
|----------------|-------------|------|
| Prioritization | Methodology | XXX  |
| List of Maps   |             | XXX  |





### CONTACT US

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612.596.3600

323 N Washington Ave, 2nd FL Minneapolis, MN 55401

City of Worthington Complete Streets Policy DRAFT

#### Background:

Complete Streets are roadways that are designed to consider all transportation user types. Incorporating Complete Streets principles into project design, construction and maintenance such as resurfacing and reconstruction can improve transportation system safety, accessibility, efficiency, and capacity.

In terms of safety, a study of reconfigured streets in New York City showed a 35 percent decrease in injuries to all street users after protected bike lanes, pedestrian islands and other Complete Streets components were added. Those same components can increase accessibility by clearly welcoming bicyclists, pedestrians and other users—including children. The safe use of this public space by a greater variety of users makes the street more efficient, with more people able to comfortably use different parts of the right-of-way.

It may seem counterintuitive in a car-focused culture, but a complete street with fewer automobile lanes can increase capacity. That's because a typical car (6 feet by 15 feet) can take up 90 square feet on the roadway – not including the full lane width or safe distance between vehicles. Thus, increasing capacity for automobiles most likely would require a costly widening of the right of way – which would both reduce adjacent non-roadway space and significantly affect the existing built environment and open space. Carving out space on limited right of way for higher volume passenger vehicles (i.e. buses) and smaller/slow speed modes (pedestrians, cyclists, scooters, etc.) may move fewer cars but more people.

As a result, Complete Streets can provide many benefits to residents, business owners, developers, and communities as a whole. Complete Streets can increase property values, economic growth, and economic stability. Roadways designed for Complete Streets can reduce crashes, improve public health, reduce harmful emissions, and reduce the overall demand on a community's roadways by providing safe, convenient, reliable and affordable transportation options.

#### Goals:

The purpose of this policy is to promote development and redevelopment of public right-of-way within the City of Worthington to accommodate all users including pedestrians, cyclists, transit, and motorized vehicles. The goals include:

- Create a safe and equitable transportation network for all City of Worthington residents
  regardless of age, gender, ability, or status. The City recognizes that a safe and
  equitable transportation network is one that accommodates pedestrians, cyclists, transit
  users, school bus riders, automobile drivers, commercial vehicles, emergency
  responders, and others with appropriate infrastructure, and equitable access to work,
  school, worship, and play.
- Create a transportation network that contributes to neighborhoods' sustainability and all residents' quality of life. The City recognizes that Complete Streets roadways are context-sensitive and well-integrated with adjacent land uses. The City recognizes that Complete Streets roadways can improve roadway safety, enhance the livability of the built environment, reduce municipal and household costs, maximize roadway capacity, and support economic development.

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City of Worthington Complete Streets Policy DRAFT

#### **Objectives:**

In accordance with nationally adopted Complete Streets principles, and the City's goals to connect and expand the many miles of multi-use trails, dedicated bike paths, and shared roadways, the City will:

- Identify opportunities and funding sources to improve non-motorized facility <u>connections</u> from residential neighborhoods to local parks, schools, civic spaces, commercial centers, regional trails, and other residential neighborhoods.
- Solicit funding sources for street improvements which will enhance the <u>safety</u> of the City's multimodal network.
- Integrate <u>sustainable design</u> treatments including incorporation of Green Stormwater Infrastructure and Low Impact Development wherever financially and logistically feasible in order to improve water and air quality, reduce flooding risks, and enhance community livability
- Partner with private, public, and nonprofit entities to leverage new and emerging transportation <u>technologies</u> in a way that maximizes safety, equity, sustainability, and affordability for the City and its residents.
- Collaborate with state, regional, and neighboring jurisdictions to <u>promote</u> the City's multimodal network connectivity to the surrounding region.
- Enhance <u>coordination</u> among relevant City Departments and agencies in order to maximize fiscal resources
- Ensure that safe sidewalks, crosswalks, waiting areas and other features provide the first-/last-mile "connective tissue" between transit stops and the homes of transit users.

## **Policy Requirements:**

Feasibility consideration for Complete Streets elements and facilities will be made at each phase of every infrastructure or transportation project including planning, design, construction, and reconstruction. Consideration for Complete Streets principles – including equity, sustainability, and accessibility – will be incorporated into the maintenance phase of every infrastructure or transportation project. The City will assess projects' impacts on pedestrians, bicyclists, and transit users of all ages and abilities, as well as motorists, emergency services, commercial vehicles. Exceptions from feasibility consideration will be made for infrastructure and transportation projects only in the following cases:

- Specific users are legally prohibited on the roadway (such as expressways or pedestrian malls)
- The costs of providing Complete Streets facilities will be excessive when compared to the determined existing and future need or expected use of the facilities
- Based on projections involving population, employment, and/or traffic volumes, there is an absence of current and future need

If the City makes exceptions from feasibility consideration, it will provide a detailed explanation of the reason(s) for the exceptions.

The City will establish and monitor performance metrics that assess the transportation network's impact on accessibility, safety, multimodal mobility, sense of place, equity, economic development, and the natural environment.

The City will consult national and regional best practices in design when developing or

5.B. - Bike and Pedestrian Master Plan and Complete Streets Policy Presentation of Drafted Recommendations

City of Worthington Complete Streets Policy DRAFT

redeveloping roadways. Design standards will be based on roadways' safety performance, land use characteristics, functional classification, context-sensitive classification, and requirements set forth by City Codified Ordinance and the Manual of Uniform Traffic Safety Devices.

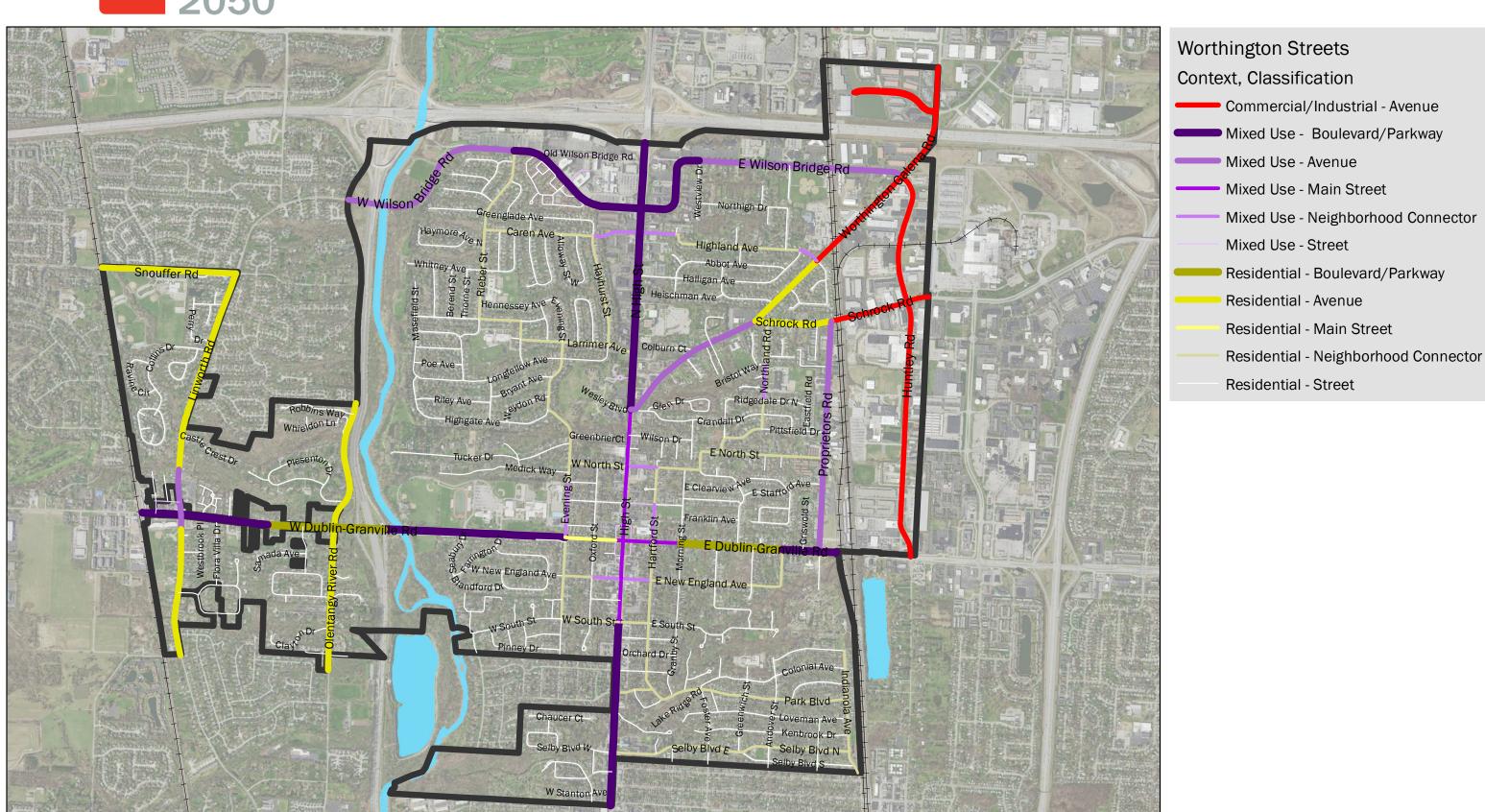
The City will work to incorporate Complete Streets principles into all future plans, manuals, policies, and programs that are relevant to transportation, infrastructure, or development to the maximum extent practicable.

The City will follow the context-sensitive street design and implementation guidance detailed in the 2019 Bicycle and Pedestrian Master Plan and 2018-2019 insight2050 Technical Assistance Program Toolkit.

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# City of Worthington Context- Sensitive Roadway Classifications



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\Insight 2050\TA Program\Worthington\RC.mx 11/27/2018

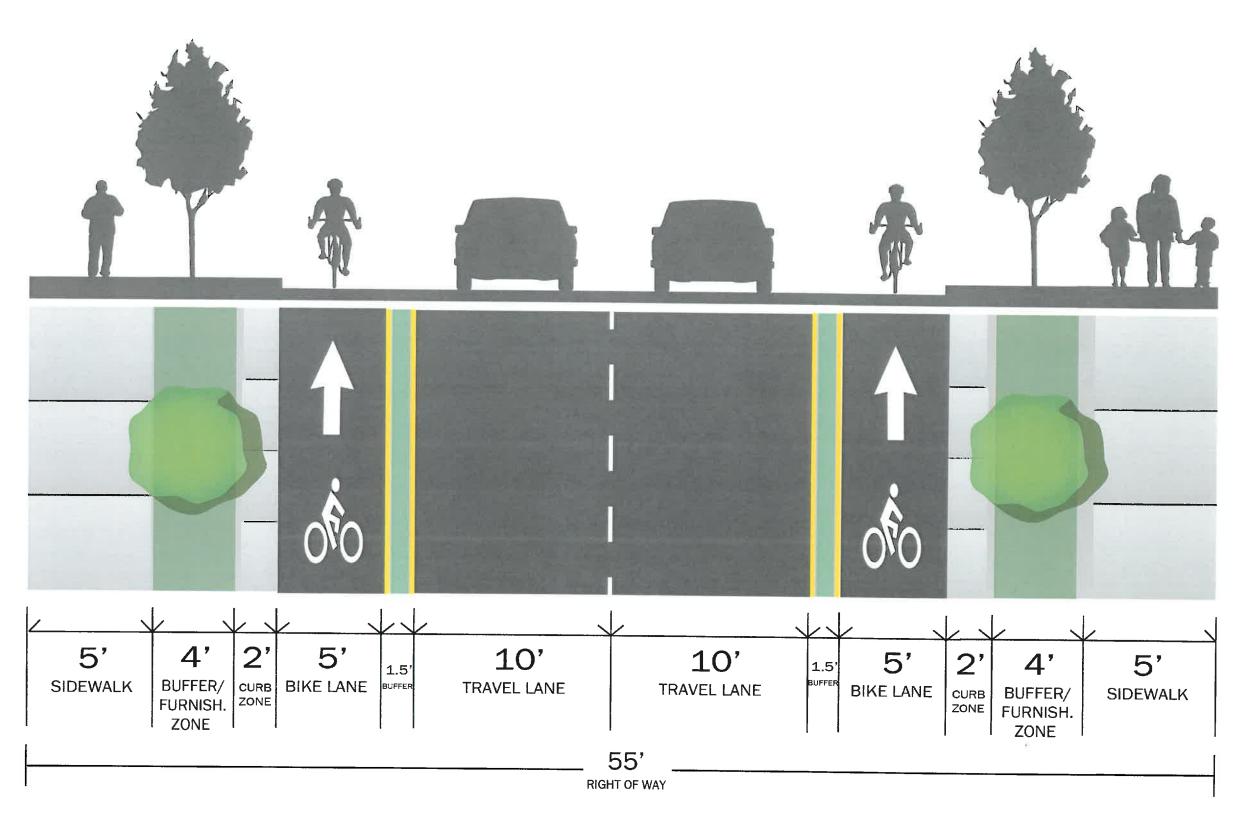
0 0.5 1 Miles

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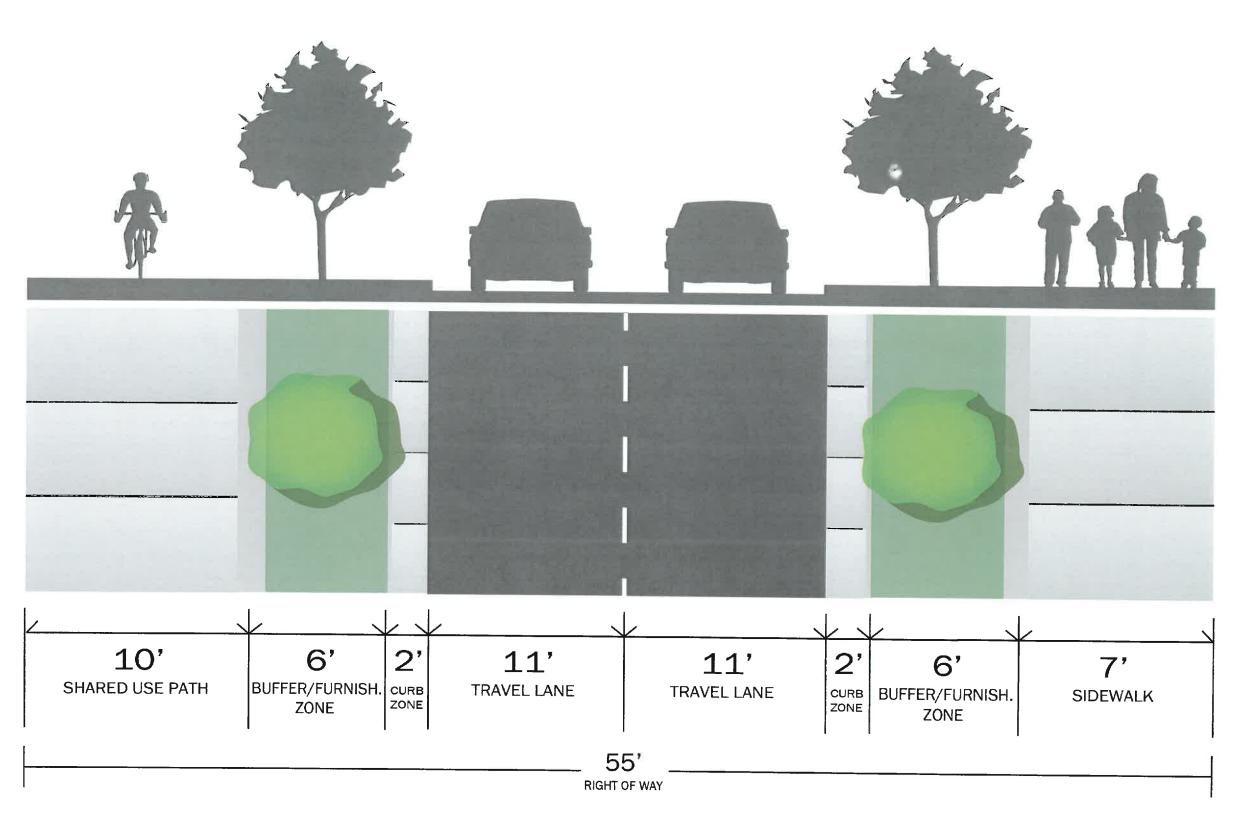
# Residential Avenue Version 1





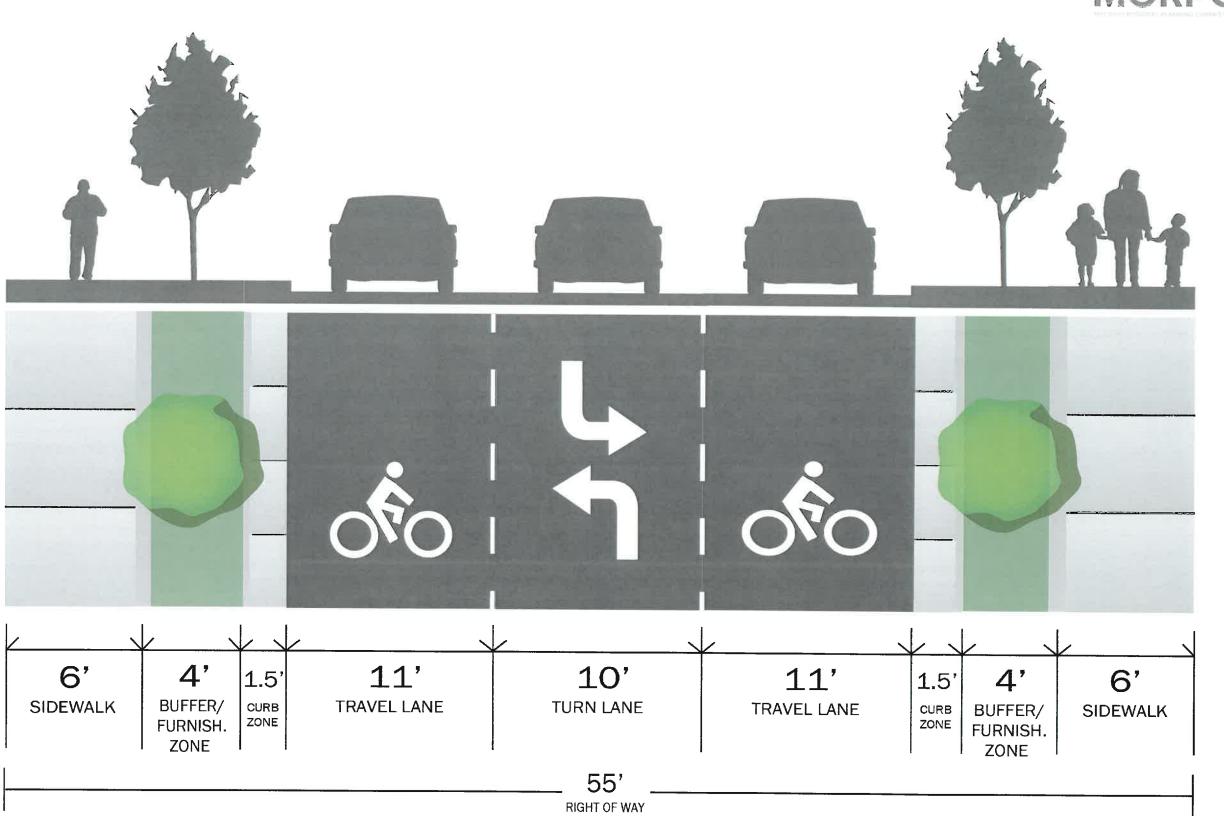
# Residential Avenue Version 2





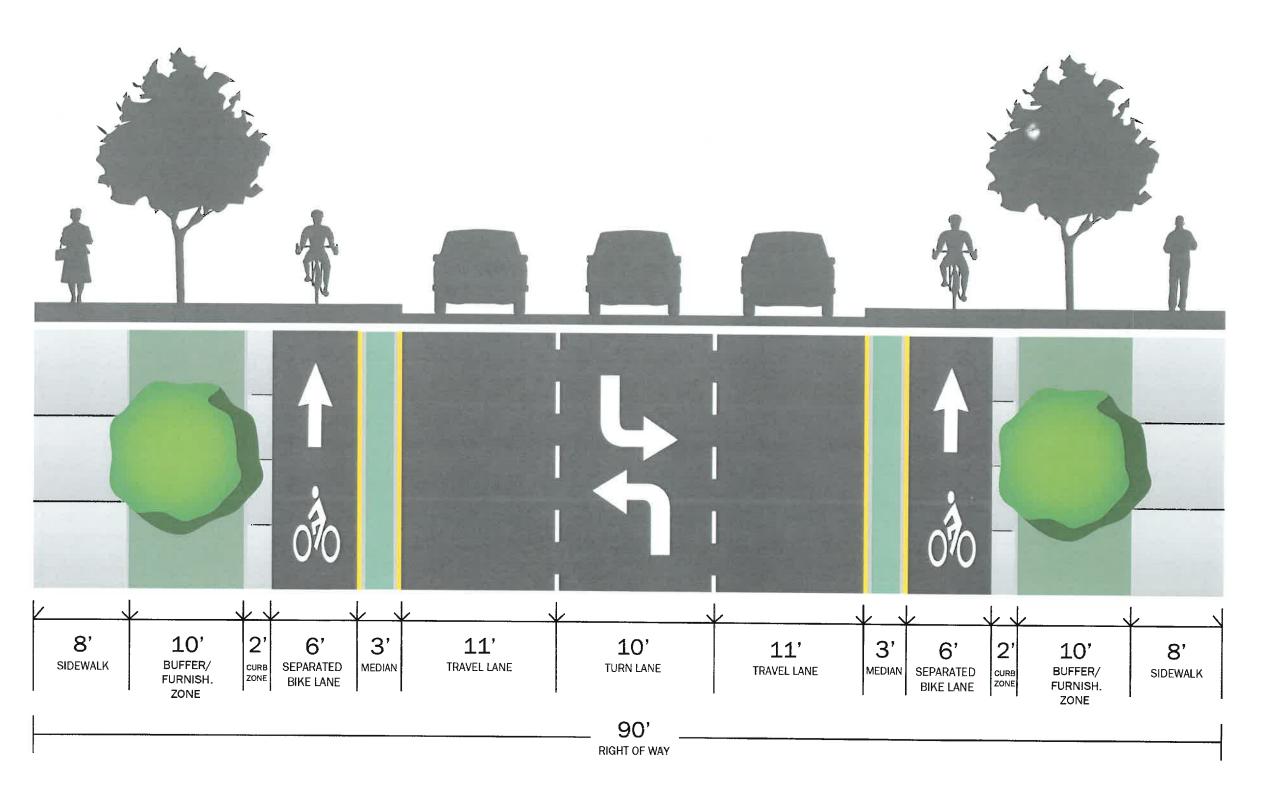
# Residential Avenue Version 3





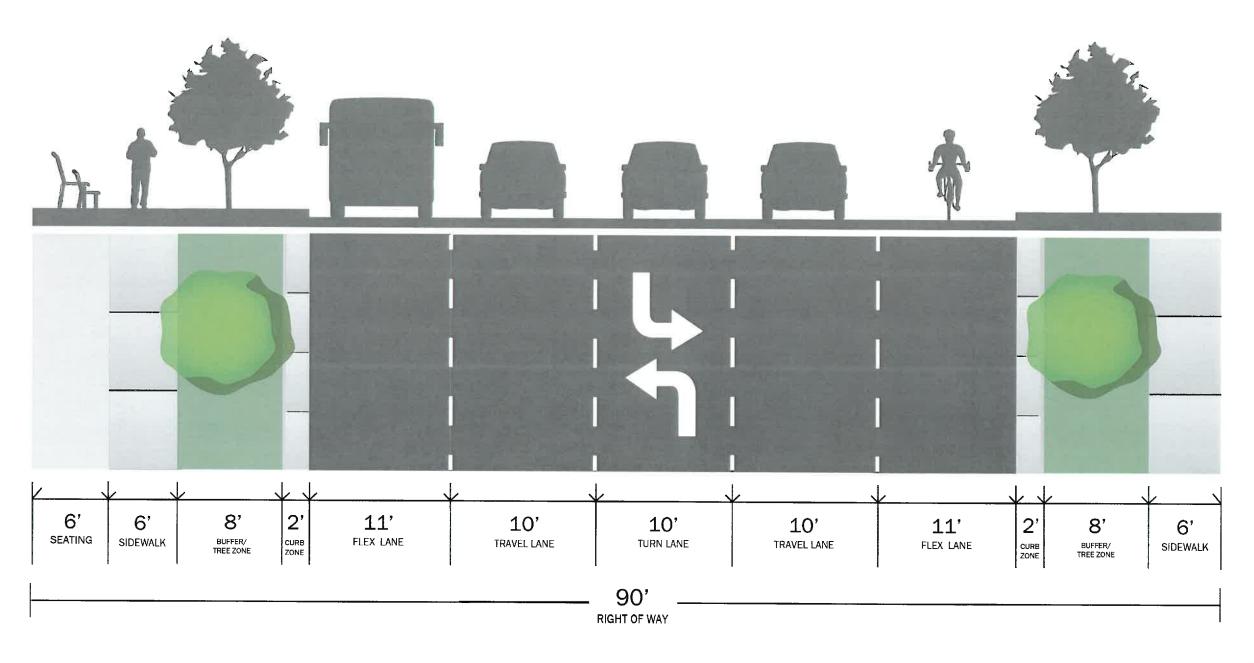
# Mixed-Use Boulevard Version 1





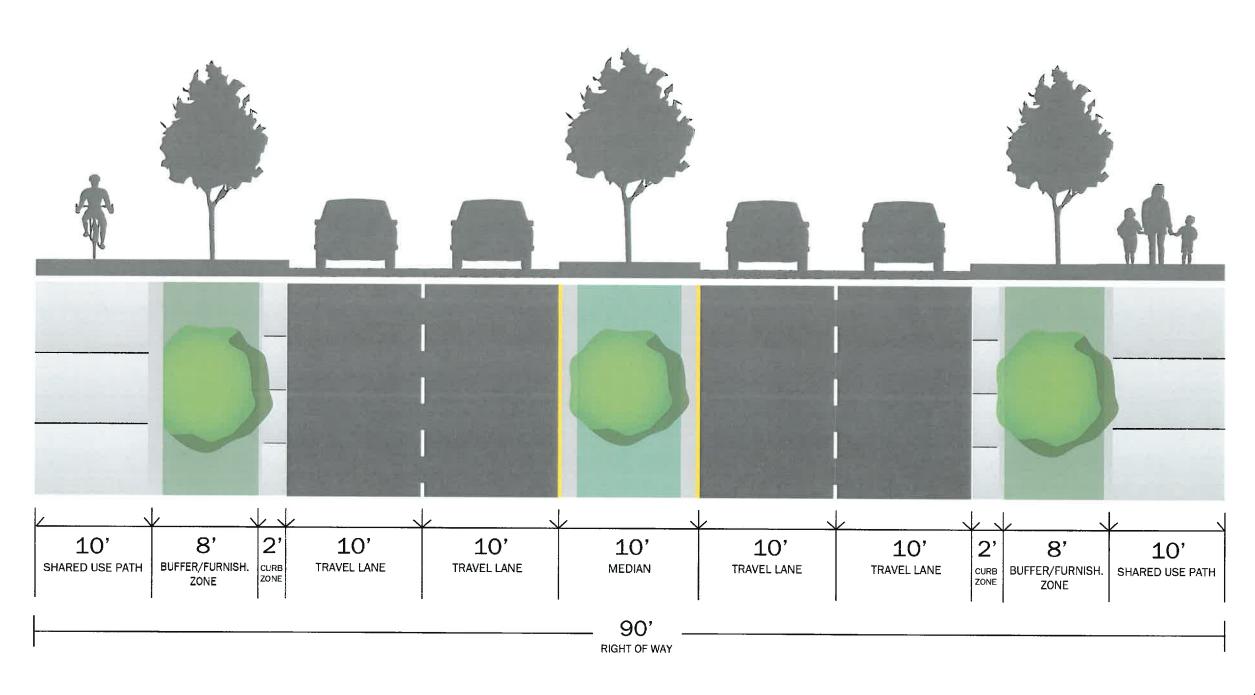
# Mixed-Use Boulevard Version 2





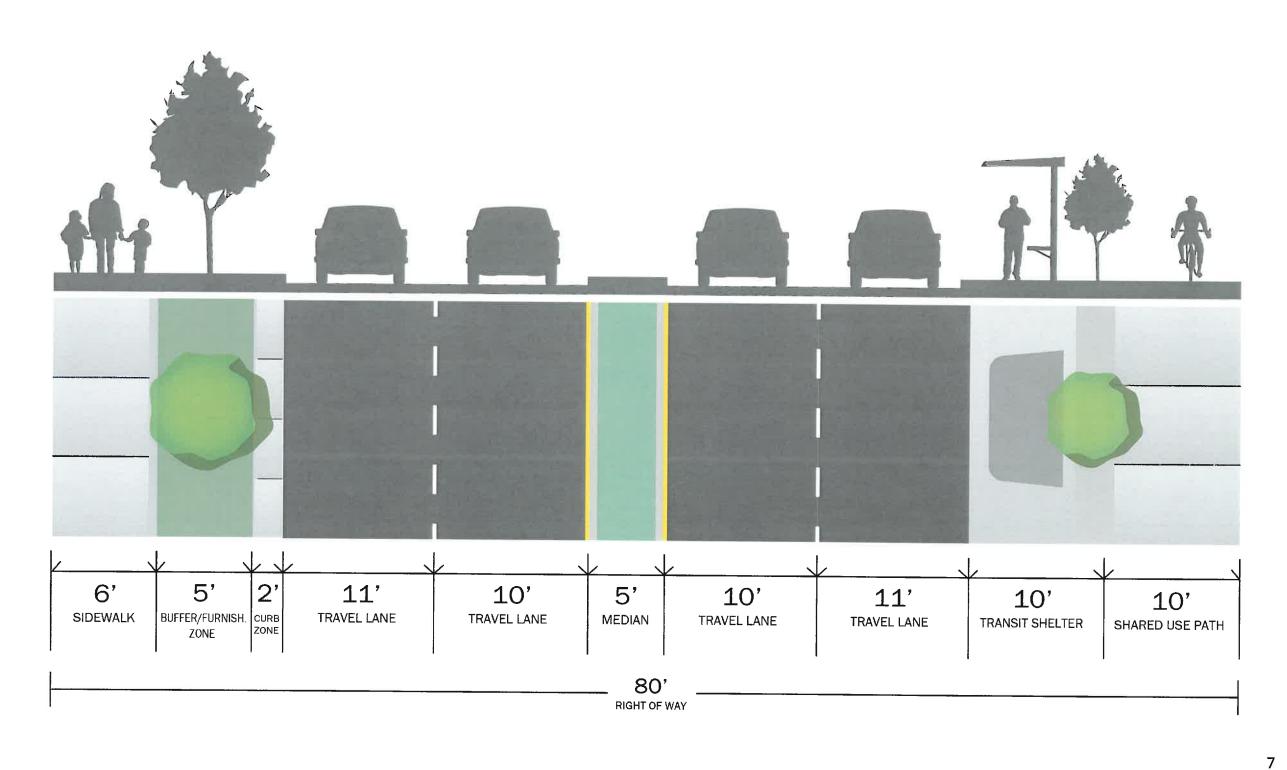
# Mixed-Use Boulevard Version 3





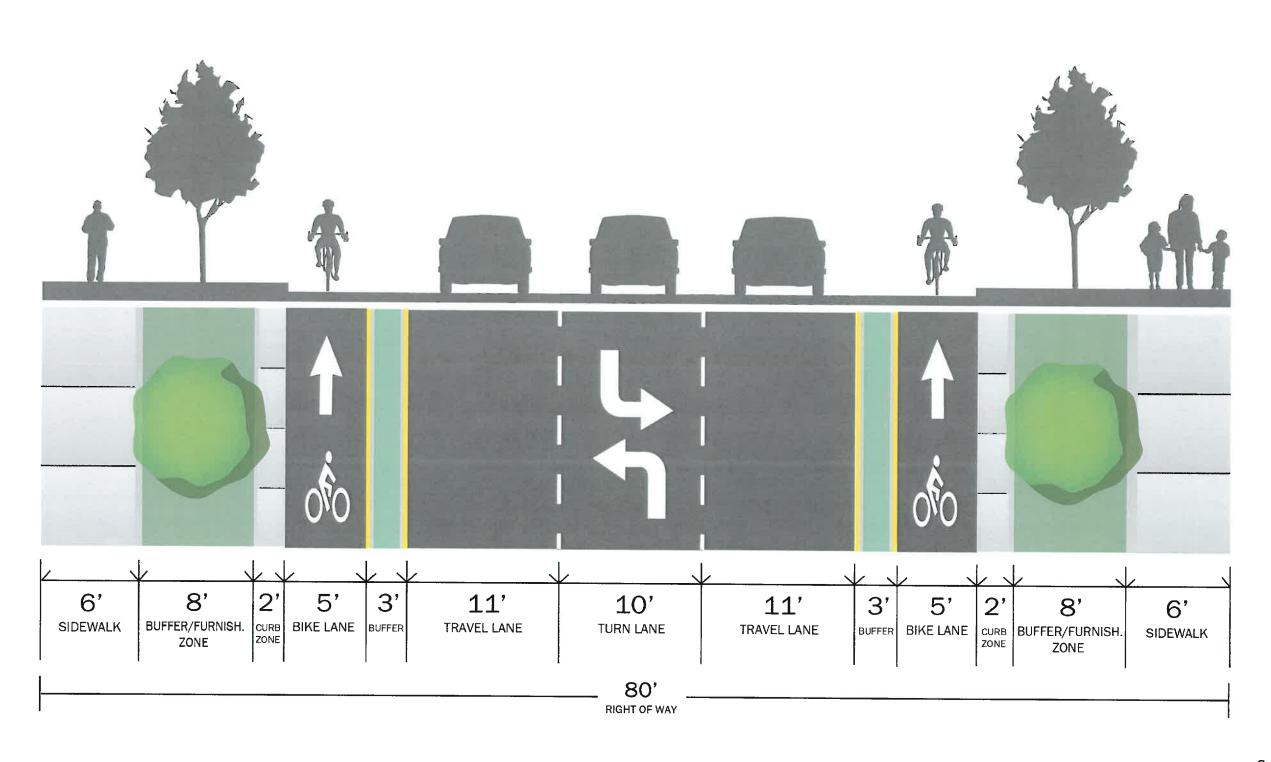
## **Commercial Avenue** Version 1





# Commercial Avenue Version 2





## Mixed Use Street Design Guidelines

|  | Parkway   | Boulevard   | Avenue  | Main Street  | Neighborhood Connector  | Street   |  |  |
|--|---|---|---|--|---|--|--|--|
| hicle Zone Design  |   |   |   |  |   |  |  |  |
| Number of Lanes  | 4 - 6   | 1-6   | 2-1   | 2-3  | 2-3   | 2  |  |  |
|  | 11'   |   |   |  |   | 9 - 10'  |  |  |
| Width of Lanes   |   |   |   |  |   |  |  |  |
| Design Speed (mph)   | 30–35   |   |   |  |   | 15–25  |  |  |
|  | Raised / landscaped / striped medians   |   |   |  |   |  |  |  |
|  | Bus bulbs   |   |   |  | Traffic circles   |  |  |  |
| Tueffic coloring   | Striped chokers   | Striped chokers   | Striped chokers   | Traffic circles  |   | Striped chokers  |  |  |
| Traffic calming  |   | Bus bulbs   | Textured pavement (low impact)  |  |   |  |  |  |
|  |   | Textured pavement (low impact)  |   |  |   |  |  |  |
|  |   |   |   |  |   |  |  |  |
| Transit Canaidarations   | Express   | Roundabouts Striped chokers Bus butius Textured pavement (low impact)  Express and Local Regional truck route  Local truck route  Local truck route  Local deliveries only  Local deli |   | Local and nana   |   |  |  |  |
| Transit Considerations   |   | -   |   |  |   | Speed bumps Mini-traffic circle Striped chokers  Local and none Local deliveries only  1.5' - 2.5' 4' - 6' Grass / trees / landscaping / GSI Street lights / signage  6' - 8' 2' - 6' Planters / landscaping Outdoor seating Moveable signage  Signalized crosswalks Striped curb extensions |  |  |
| Freight Movement   | Regional truck route  | Regional truck route  | Local truck route   | Local deliveries only  | Local deliveries only   | Local deliveries only  |  |  |
| lestrian Zone Design   |   |   |   |  |   |  |  |  |
| Curb Zone  | 0.5' - 1'   | 1.5' - 2.5'   | 1.5' - 2.5'   | 1.5' - 2.5'  | 1.5' - 2.5'   | 1.5' - 2.5'  |  |  |
| 8' - 12'   |   | 8' - 12'  | 4' - 8'   | 4' - 6'  | 4' - 6'   | 4' - 6'  |  |  |
|  | Grass / trees / landscaping / GSI   |   |   |  |   |  |  |  |
|  | Street lights / signage   |   |   |  |   |  |  |  |
| Buffer / Furnishings Zone  |   |   |   |  |   | Street lights / signage  |  |  |
|  | Bike racks  |   |   |  | Duo Stops   |  |  |  |
|  | Bus shelters / bus stops  | bus sneiters / bus stops  | bus Stops   | bus sneiters / bus stops   |   |  |  |  |
|  | 6' - 12'  | 6' - 12'  | 6' - 12'  | 6' - 12'   | 6' - 8'   | 6' - 8'  |  |  |
| Pedestrian Through Zone  | 0 - 12  | 0 - 12  | 0 - 12  | 0 - 12   | 0 - 0   | 0 - 0  |  |  |
|  | 0' - 2'   | 0' 6'   | 4' 12'  | 4' 12'   | 2' 6'   | 2' 6'  |  |  |
|  |   |   |   |  |   |  |  |  |
|  | Planters / landscaping  |   |   |  |   |  |  |  |
| Frontage Zone  | Outdoor seating   | _   | 3   | _  |   |  |  |  |
|  | Moveable signage  | Moveable signage  | Café seating  | Café seating   | Moveable signage  | Moveable signage   |  |  |
|  |   |   | Moveable signage  | Moveable signage   |   |  |  |  |
|  | Signalized crosswalks   | Signalized crosswalks   | Signalized crosswalks   | Signalized crosswalks  | Signalized crosswalks   | Signalized crosswalks  |  |  |
|  | Pedestrian refuge areas   | _   |   | _  |   |  |  |  |
|  | r cuestian reruge areas   | r cuestilair reruge areas   |   |  | Striped carb exterisions  | Striped curb exterisions   |  |  |
| Pedestrian Crossing  |   |   | _   | Striped curb extensions  |   |  |  |  |
|  |   |   | Striped curb extensions   |  |   |  |  |  |
|  |   |   |   |  |   |  |  |  |
| ycle Zone Design   |   |   |   |  |   |  |  |  |
| yole Zolle Design  | Barrier-separated bike lane 5' - 12'  | Parrior congrated hike lane 5' 12'  | Buffored bike lane 5' 8'  | Buffored hike lane 5' 8'   | Buffored hike lane 5' 8'  | Bike lane 5' - 6'  |  |  |
|  |   | ·   |   |  |   |  |  |  |
|  | MUP ≥ 8'  |   |   |  |   | Bike boulevard   |  |  |
| Bicycle Zone   |   | MUP ≥ 8'  | MUP ≥ 8'  |  | Bike boulevard  | Sharrows   |  |  |
| Biogole Zorie  |   |   |   | Super sharrows   | Sharrows  |  |  |  |
|  |   |   |   | MUP ≥ 8'   | Super Sharrows  |  |  |  |
|  |   |   |   |  | MUP ≥ 8'  |  |  |  |
|  |   |   |   | Pike heves   | Dile haves  | 1.1 12 1.1 1.1 1.1   |  |  |
|  | Bike boxes  | Bike boxes  | Bike boxes  | BIKE DUXES   | bike boxes  | Intersection crossing markings   |  |  |
| Bicycle Intersection   | Bike boxes<br>Bicycle refuge areas  | Bike boxes<br>Bicycle refuge areas  | Bike boxes  | Intersection crossing markings   | Intersection crossing markings  | Intersection crossing markings   |  |  |
| Bicycle Intersection<br>Design   |   |   | Bike boxes  |  |   | Intersection crossing markings   |  |  |
|  | Bicycle refuge areas  | Bicycle refuge areas  |   | Intersection crossing markings   | Intersection crossing markings  |  |  |  |
|  | Bicycle refuge areas On-street parking  | Bicycle refuge areas  On-street parking   | On-street parking   | Intersection crossing markings On-street parking   | Intersection crossing markings On-street parking  | On-street parking  |  |  |
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| Design  rking Design  x Zone Design  Early Morning   | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  | On-street parking<br>Screening<br>Rear / alley-access surface lots<br>Shared surface lots<br>Minimal curb cuts  | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  | On-street parking<br>Screening   |  |  |
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| Design  rking Design  ex Zone Design  Early Morning  | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane  | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off General purpose travel lane   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off General purpose travel lane   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off General purpose travel lane  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities:  | On-street parking<br>Screening   |  |  |
| Design  rking Design  x Zone Design  Early Morning   | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane  | Bicycle refuge areas  On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane  | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off General purpose travel lane Low-speed motorized/non-motorized lane  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets)   | On-street parking<br>Screening   |  |  |
| Design  king Design  x Zone Design  Early Morning (12 a.m 6 a.m.)  Morning   | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane  | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off General purpose travel lane   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed   | On-street parking<br>Screening   |  |  |
| Design  rking Design  x Zone Design  Early Morning (12 a.m 6 a.m.)   | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane  | Bicycle refuge areas  On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane  | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off General purpose travel lane Low-speed motorized/non-motorized lane  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets)   | On-street parking<br>Screening   |  |  |
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| Design  king Design  Early Morning (12 a.m 6 a.m.)  Morning (6 a.m 11 a.m.)  | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane  | Bicycle refuge areas  On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane Bus only lane   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed streets)  Priorities:   | On-street parking<br>Screening   |  |  |
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| Design  rking Design  x Zone Design  Early Morning (12 a.m 6 a.m.)  Morning (6 a.m 11 a.m.)                                  | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane General purpose travel lane Bus only lane                                   | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane General purpose travel lane Bus only lane   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed streets)  Priorities: Activation / greening Access for people Mobility (specifically multimodal)  Priorities: Mobility  | On-street parking<br>Screening   |  |  |
| Design  rking Design  x Zone Design  Early Morning (12 a.m 6 a.m.)  Morning (6 a.m 11 a.m.)  Mid-Day (11 a.m 4 p.m.)         | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane   | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed streets)  Priorities: Activation / greening Access for people Mobility (specifically multimodal)  Priorities:   | On-street parking<br>Screening   |  |  |
| Design  x Zone Design  Early Morning (12 a.m 6 a.m.)  Morning (6 a.m 11 a.m.)  Mid-Day (11 a.m 4 p.m.)                       | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane General purpose travel lane Bus only lane                                   | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane General purpose travel lane Bus only lane   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed streets)  Priorities: Activation / greening Access for people Mobility (specifically multimodal)  Priorities: Mobility  | On-street parking<br>Screening   |  |  |
| Design  rking Design  Ex Zone Design  Early Morning (12 a.m 6 a.m.)  Morning (6 a.m 11 a.m.)  Mid-Day (11 a.m 4 p.m.)        | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Short-term parking  | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane Short-term parking  | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking   | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed streets)  Priorities: Activation / greening Access for people Mobility (specifically multimodal)  Priorities: Mobility Access for people                                  | On-street parking<br>Screening   |  |  |
| Design  x Zone Design  Early Morning (12 a.m 6 a.m.)  Morning (6 a.m 11 a.m.)  Mid-Day (11 a.m 4 p.m.)                       | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Short-term parking Commercial vehicle loading / drop-off                    | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Compercial vehicle loading / drop-off   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed streets)  Priorities: Activation / greening Access for people Mobility (specifically multimodal)  Priorities: Mobility Access for people Priorities:                      | On-street parking<br>Screening   |  |  |
| Design  king Design  Early Morning (12 a.m 6 a.m.)  Morning (6 a.m 11 a.m.)  Mid-Day (11 a.m 4 p.m.)  Evening (4 p.m 9 p.m.) | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Short-term parking Commercial vehicle loading / drop-off Short-term parking | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane General purpose travel lane Bus only lane Commercial vehicle loading / drop-off Short-term parking   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  Commercial vehicle loading / drop-off Short-term parking                               | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Ceneral purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  Commercial vehicle loading / drop-off Short-term parking | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed streets)  Priorities: Activation / greening Access for people Mobility (specifically multimodal)  Priorities: Mobility Access for people  Priorities: Access for commerce | On-street parking<br>Screening   |  |  |
| Design  king Design  Early Morning (12 a.m 6 a.m.)  Morning (6 a.m 11 a.m.)  Mid-Day (11 a.m 4 p.m.)                         | Bicycle refuge areas  On-street parking Structured parking Screening Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Short-term parking Commercial vehicle loading / drop-off                    | On-street parking Structred parking Screening Rear / alley-access surface lots Shared surface lots  Commercial vehicle loading / drop-off  General purpose travel lane Bus only lane Low-speed motorized/non-motorized lane  Bus only lane Food trucks Short-term parking Low-speed motorized/non-motorized lane  General purpose travel lane Bus only lane Compercial vehicle loading / drop-off   | On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots Minimal curb cuts  Commercial vehicle loading / drop-off  General purpose travel lane Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  Low-speed motorized/non-motorized lane Food trucks / parklet / public art Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  General purpose travel lane Low-speed motorized/non-motorized lane Short-term parking  | Intersection crossing markings  On-street parking Screening Rear / alley-access surface lots Shared surface lots  Priorities: Access for commerce  Priorities: Mobility (on higher-speed streets) Activation / greening (on lower-speed streets)  Priorities: Activation / greening Access for people Mobility (specifically multimodal)  Priorities: Mobility Access for people Priorities:                      | On-street parking<br>Screening   |  |  |

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## Residential Street Design Guidelines

|                                |  |   | dai Street Design (   | J. J. 1 J  |   |   |  |
|--------------------------------|--|---|---|--|---|---|--|
|                                | Parkway  | Boulevard   | Avenue  | Main Street  | Neighborhood Connector  | Street  |  |
| Vehicle Zone Design            |  |   |   |  |   |   |  |
| Number of Lanes                | 4 - 6  | 4- 6  | 2 - 4   | 2 - 3  | 2 - 3   | 1-2   |  |
| Width of Lanes                 | 11'  | 10' - 11'   | 10 - 11'  | 10'  | 10'   | 9 - 10'   |  |
| Design Speed (mph)             | 30–35  | 30–35   | 25–35   | 20–25  | 25  | 15–25   |  |
| Traffic calming                | Raised / landscaped / striped medians<br>Striped chokers   | Raised / landscaped / striped medians<br>Roundabouts<br>Striped chokers | Raised / landscaped / striped medians<br>Roundabouts<br>Striped chokers     | Striped chokers<br>Traffic circles   | Striped chokers<br>Traffic circles<br>Speed bumps                             | Speed bumps Mini-traffic circle   |  |
| Transit Considerations         | Local and none   | Local and none  | Local and none  | Local and none   | Local and none  | None  |  |
| Freight Movement               | Local deliveries only  Local deliveries only  Local deliveries only  |   | Local deliveries only   | Local deliveries only  | Local deliveries only   | Local deliveries only   |  |
| Pedestrian Zone Design         |  |   |   |  |   |   |  |
| Curb Zone                      | 0.5' - 1'  | 1.5' - 2.5'   | 1.5' - 2.5'   | 1.5' - 2.5'  | 1.5' - 2.5'   | 1.5' - 2.5'   |  |
| Buffer / Furnishings Zone      | 4' - 12' Grass / trees / landscaping / GSI |   | 4' - 6' Grass / trees / landscaping / GSI Street lights / signage Bus stops | 2' - 6'<br>Grass / trees / landscaping / GSI<br>Street lights / signage<br>Bus stops | 2' - 4' Grass / trees / landscaping / GSI Street lights / signage Bus stops   | 2' - 4'<br>Grass / trees / landscaping / GSI<br>Street lights / signage |  |
| Pedestrian Through Zone        | 5' - 8'  | 5' - 8'   | 5' - 8'   | 5' - 8'  | 5' - 6'   | 5' - 6'   |  |
| Frontage Zone                  |  |   |   |  |   |   |  |
| Pedestrian Crossing            | Signalized crosswalks<br>Pedestrian refuge areas   | Signalized crosswalks Pedestrian refuge areas                           | Signalized crosswalks Pedestrian refuge areas Striped curb extensions       | Signalized crosswalks<br>Striped curb extensions                                     | Signalized crosswalks<br>Striped curb extensions                              | Signalized crosswalks<br>Striped curb extensions                        |  |
| Bicycle Zone Design            |  |   |   |  |   |   |  |
| Bicycle Zone                   | Barrier-separated bike lane 5' - 12'<br>MUP ≥ 8'   | Barrier-separated bike lane 5' - 12' MUP ≥ 8'                           | Buffered bike lane 5' - 8' Bike lane 5' - 6' Bike boulevard MUP ≥ 8'        | Buffered bike lane 5' - 8' Bike lane 5' - 6' Sharrows Super sharrows MUP ≥ 8'        | Bike lane 5' - 6'<br>Bike boulevard<br>Sharrows<br>Super sharrows<br>MUP ≥ 8' | Bike lane 5' - 6'<br>Bike boulevard<br>Sharrows                         |  |
| Bicycle Intersection<br>Design | Bike boxes<br>Bicycle refuge areas<br>Intersection crossing markings   | Bike boxes<br>Intersection crossing markings                            | Bike boxes<br>Intersection crossing markings                                | Bike boxes<br>Intersection crossing markings   | Intersection crossing markings  | Intersection crossing markings  |  |
| Parking Design                 | On-street parking<br>Screening (multifamily housing)   | On-street parking<br>Screening (multifamily housing)                    | On-street parking<br>Screening (multifamily housing)                        | On-street parking<br>Screening (multifamily housing)                                 | On-street parking   | On-street parking   |  |

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## Commercial Vehicle/Industrial Street Design Guidelines

|                                |  |  | ic/ maastrar Stree   |             |                        |        |
|--------------------------------|--|--|--|-------------|------------------------|--------|
|                                | Parkway  | Boulevard  | Avenue   | Main Street | Neighborhood Connector | Street |
| ehicle Zone Design             |  |  |  |             |                        |        |
| Number of Lanes                | 4 - 6  | 5 - 6  | 2 - 4  |             |                        |        |
| Width of Lanes                 | 11'  | 10' - 11'  | 10 - 11'   |             |                        |        |
| Design Speed (mph)             | 30–35  | 30–35  | 25–35  |             |                        |        |
| Traffic calming                | Raised / landscaped / striped median<br>Striped chokers                                    | Raised / landscaped / striped medians<br>Striped chokers                                   | Raised / landscaped / striped medians<br>Striped chokers                                   |             |                        |        |
| Transit Considerations         | Express and Local  | Express and Local  | Express and Local  |             |                        |        |
| Freight Movement               | Regional truck route   | Regional truck route   | Regional & local truck route   |             |                        |        |
| destrian Zone Design           |  |  |  |             |                        |        |
| Curb Zone                      | 0.5' - 1'  | 1.5' - 2.5'  | 1.5' - 2.5'  |             |                        |        |
| Buffer / Furnishings Zone      | 4' - 8' Grass / trees / landscaping / GSI Street lights / signage Bus shelters / bus stops | 4' - 8' Grass / trees / landscaping / GSI Street lights / signage Bus shelters / bus stops | 4' - 8' Grass / trees / landscaping / GSI Street lights / signage Bus shelters / bus stops |             |                        |        |
| Pedestrian Through Zone        | 5' - 8'  | 5' - 8'  | 5' - 8'  |             |                        |        |
| Frontage Zone                  | Signalized crosswalks  | Signalized crosswalks  | Signalized crosswalks  |             |                        |        |
| Pedestrian Crossing            | Pedestrian refuge areas<br>Mid-block signalized crosswalks                                 | Pedestrian refuge areas<br>Mid-block signalized crosswalks                                 | Pedestrian refuge areas<br>Mid-block signalized crosswalks                                 |             |                        |        |
| cycle Zone Design              |  |  |  |             |                        |        |
| Bicycle Zone                   | Barrier-separated bike lane 5' - 12'<br>Buffered bike lane 5' - 8'<br>MUP ≥ 8'             | Barrier-separated bike lane $5' - 12'$<br>Buffered bike lane $5' - 8'$<br>MUP $\geq 8'$    | Barrier-separated bike lane 5' - 12' Buffered bike lane 5' - 8' MUP ≥ 8'                   |             |                        |        |
| Bicycle Intersection<br>Design | Bike boxes<br>Bicycle refuge areas   | Bike boxes<br>Bicycle refuge areas   | Bike boxes<br>Bicycle refuge areas   |             |                        |        |
| arking Design                  | Screening<br>Shared surface lots   | Screening<br>Shared surface lots   | Screening<br>Shared surface lots   |             |                        |        |

## **Department of Finance**

## **January 2019 Financial Report**



## **Quick Facts**

## All Funds

01/31/2019

Cash Balances

\$30,283,231

(January 1, 2019 balance:

\$30,338,812

01/31/2019

Unencumbered

Balance

\$19,366,505

## **General Fund**

01/31/2019

Cash Balance

\$14,390,748

(January 1, 2019 balance: \$14,667,073)

01/31/2019

Unencumbered

Balance

\$10,960,925

(40% of prior year expenditures)

### Highlights & Trends for January 2019

### **Income Tax Collections**

- Year to Date (YTD) income tax collections are below 2018 YTD income tax collections \$-248,372 or -10.48%.
- YTD Income tax collections are above estimates by \$16,159 (0.77%).
- Refunds issued in January totaled \$15,813 with year to date refunds totaling \$15,813.

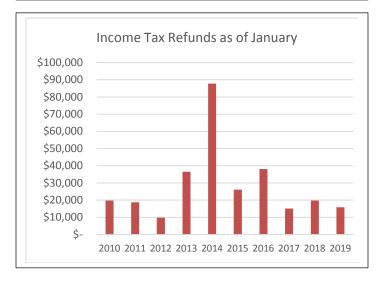
### **Income Tax Revenue by Account Type**

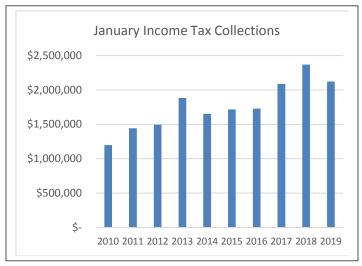
For January of 2019:

Withholding Accounts – 80.02% of collections Individual Accounts – 7.65% of collections Net Profit Accounts – 12.33% of collections

For January of 2018:

Withholding Accounts –73.98% of collections Individual Accounts – 11.41% of collections Net Profit Accounts – 14.61% of collections

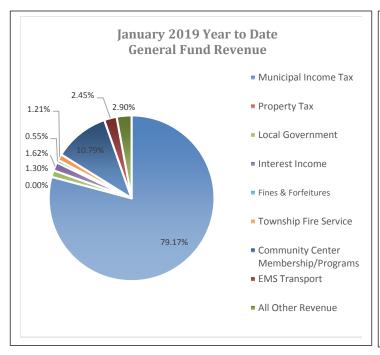


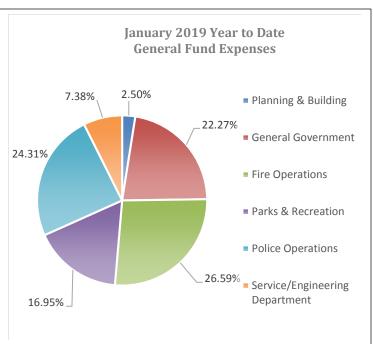




### **Department of Finance**

## Highlights & Trends for January 2019 (continued)



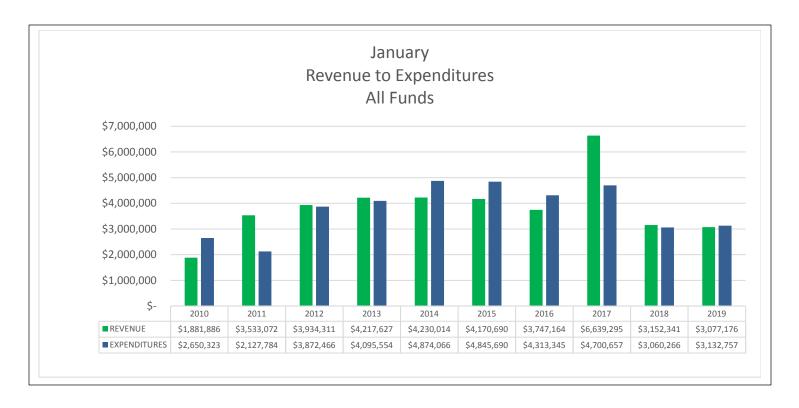


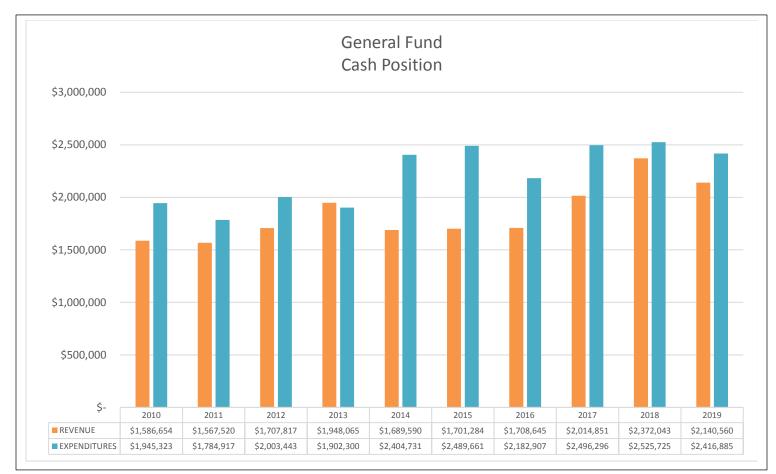
### **Notable Initiatives & Activities**

- Fund balances for all funds decreased from \$30,338,812 on January 1, 2019 to \$30,283,231 as of January 31, 2019, with year to date expenditures exceeding revenues for all funds by \$55,581.
- For the month of January, fund balances for all funds decreased from \$30,338,812 as of January 1, 2019 to \$30,283,231 as of January 31, 2019, with expenditures exceeding revenues by \$55,581.
- The General Fund balance decreased from \$14,667,073 as of January 1, 2019 to \$14,390,748 as of January 31, 2019, with expenditures exceeding revenues by \$276,325.
- For the month of January, the General Fund balance decreased from \$14,667,073 on January 1, 2019 to \$14,390,748 as of January 31, 2019, with expenditures exceeding revenues by \$276,325.

.

## **Financial Tracking**





## January 2019 Cash Reconciliation

Total Fund Balances: \$30,283,230.58

Depository Balances:

General Account: \$ 8,218,292.02

Total Bank Balances: \$8,218,292.02

**Investment Accounts:** 

Certificates of Deposits: \$ 7,125,000.00 Certificates of Deposits (EMS) 2,094,000.00 Star Ohio/Star Plus 5,300,325.69 Fifth Third MMKT/CDs 7,544,022.87

Total Investment Accounts: \$22,063,348.56

Petty Cash/Change Fund: 1,590.00

Total Treasury Balance as of January 31, 2019 \$30,283,230.58

Total Interest Earnings as of January 31, 2019 \$34,729.97

Average Interest Earnings 2.21%

#### **Debt Statement**

| <u>Issuance</u> | <u>Purpose</u>               | <u>Maturity</u> | <u>Rate</u> | Principal Balance |
|-----------------|------------------------------|-----------------|-------------|-------------------|
| 2015            | 2015 Refunding Bonds         | December 2021   | 1.62%       | \$2,300,000.00    |
| 2017            | 2017 Various Purpose Bonds   | December 2032   | 2.21%       | \$3,525,000.00    |
| 2008            | OPWC 0% Loan – ADA Ramps     | December 2028   | 0%          | \$ 70,290.45      |
| 2015            | OPWC 0% Loan – Kenyonbrook   | December 2045   | 0%          | \$ 541,320.76     |
| 2018            | 2018 Bond Anticipation Notes | September 2019  | 2.11%       | \$ 4,460,000.00   |
|                 | Total Principal Debt Balance |                 |             | \$10,896,611.21   |

## City of Worthington Fund Summary Report as of January 31, 2019

|     | FIND                           | <u>1/1</u> | /2019 Beginning      | Year to Date           | Year to Date           | 01/31/2019              |                                  | <u>Ur</u>       | nencumbered_           |
|-----|--------------------------------|------------|----------------------|------------------------|------------------------|-------------------------|----------------------------------|-----------------|------------------------|
| 101 | <u>FUND</u><br>General Fund    | ď          | Balance              | Actual Revenue         | Actual Expenses        |                         | <b>Encumbrances</b> \$ 3.429.823 | ф               | Balance                |
| 202 | Street M&R                     | \$         | 14,667,073<br>56,646 | \$ 2,140,560<br>52,981 | \$ 2,416,885<br>76,018 | \$ 14,390,748<br>33,609 | \$ 3,429,823<br>107,602          | \$<br>\$        | 10,960,925<br>(73,993) |
| 202 |                                |            | 49,792               | 4,296                  | 9,373                  | 44,715                  | 2,285                            | \$              | (73,993)<br>42,430     |
| 203 | State Highway<br>Water         |            | 20,778               | 4,290                  | 5,098                  | 20,672                  | 23,520                           | \$              | (2,848)                |
| 204 | Sewer                          |            | 31,539               | 4,992                  | 10,547                 | 25,638                  | 23,520<br>4,695                  | \$              | (2,646)<br>20,943      |
| 210 | Convention & Visitor's Bureau  | F          | 31,039               | 568                    | 10,547                 | 25,636                  | 4,095                            | \$              | 20,943<br>568          |
| 212 | Police Pension                 |            | 499,195              | 300                    | 97,299                 | 401,896                 | _                                | \$              | 401,896                |
| 214 | Law Enforcement Trust          |            | 64,438               | _                      | 31,233                 | 64,438                  | _                                | φ               | 64,438                 |
| 215 | Municipal MV License Tax       |            | 140,740              | 10,220                 | _                      | 150,959                 | _                                | \$              | 150,959                |
| 216 | Enforcement/Education          |            | 50,181               | 25                     | _                      | 50,206                  | _                                | \$              | 50,206                 |
| 217 | Community Technology           |            | 13,029               | -                      | _                      | 13,029                  | 13,029                           | \$              | -                      |
| 218 | Court Clerk Computer           |            | 232,905              | 942                    | 1,935                  | 231,912                 | 9,979                            | \$              | 221,933                |
| 219 | Economic Development           |            | 563,285              | 1,262                  | 3,495                  | 561,052                 | 105,722                          | \$              | 455,330                |
| 220 | FEMA Grant                     |            | -                    | -,202                  | -                      | -                       | -                                | \$              | -                      |
| 221 | Law Enf CED                    |            | 20,360               | -                      | -                      | 20,360                  | -                                | \$              | 20,360                 |
| 224 | Parks & Rec Revolving          |            | 406,090              | _                      | 19,029                 | 387,061                 | 11,558                           | \$              | 375,502                |
| 229 | Special Parks                  |            | 40,023               | 1,000                  | -                      | 41,023                  | 25,000                           | \$              | 16,023                 |
| 253 | 2003 Bicentennial              |            | 72,566               | -                      | -                      | 72,566                  | -                                | \$              | 72,566                 |
| 306 | Trunk Sewer                    |            | 375,149              | -                      | -                      | 375,149                 | -                                | \$              | 375,149                |
| 308 | Capital Improvements           |            | 10,850,531           | 855,551                | 492,778                | 11,213,304              | 6,851,966                        | \$              | 4,361,338              |
| 313 | County Permissive Tax          |            | -                    | -                      | -                      | -                       | -                                | \$              | -                      |
| 409 | General Bond Retirement        |            | 1,191,328            | -                      | -                      | 1,191,328               | 325,000                          | \$              | 866,328                |
| 410 | Special Assessment Bond        |            | 278,448              | -                      | -                      | 278,448                 | -                                | \$              | 278,448                |
| 825 | Accrued Acreage Benefit        |            | 11,108               | -                      | -                      | 11,108                  | 5,019                            | \$              | 6,089                  |
| 830 | OBBS                           |            | 2,009                | 132                    | 299                    | 1,842                   | 1,527                            | \$              | 315                    |
| 838 | Petty Cash                     |            | 1,590                | -                      | -                      | 1,590                   | -                                | \$              | 1,590                  |
| 910 | Worthington Sta TIF            |            | 37,541               | -                      | -                      | 37,541                  | -                                | \$              | 37,541                 |
| 920 | Worthington Place (The Height  | ts         | 432,863              | -                      | -                      | 432,863                 | -                                | \$              | 432,863                |
| 930 | 933 High St. MPI TIF Fund      |            | 96,589               | -                      | -                      | 96,589                  | -                                | \$              | 96,589                 |
| 935 | Downtown Worthington MPI TI    | F          | 131,369              | -                      | -                      | 131,369                 | -                                | \$              | 131,369                |
| 940 | Worthington Square TIF         |            | 558                  | -                      | -                      | 558                     | -                                | \$              | 558                    |
| 945 | W Dublin Granville Rd. MPI TII | =          | 1,091                | -                      | -                      | 1,091                   | -                                | \$              | 1,091                  |
| 999 | PACE Fund                      |            | -                    | -                      | -                      | -                       | -                                | \$              | -                      |
|     | Total All Funds                | \$         | 30,338,812           | \$ 3,077,176           | \$ 3,132,757           | \$ 30,283,231           | \$ 10,916,725                    | \$<br><b>\$</b> | 19,366,505             |

## January 2019

### City of Worthington, Ohio General Fund Overview as of January 31, 2019

|  |      | 2018          | 2019             | 2019             |    | 2019       | 2019          |    | 2019               | Variance                |                |              |
|--|------|---------------|------------------|------------------|----|------------|---------------|----|--------------------|-------------------------|----------------|--------------|
|  |      | Year End      | Original         | Revised          |    | Y-T-D      | January       | 1  | Variance           | as % of                 |                |              |
| Revenues                                     |      | Actual        | Budget           | Budget           |    | Estimates  | Y-T-D Actual  | Ov | /er/(Under)        | Budget                  |                |              |
| Municipal Income Tax                         | 1    | \$ 20,854,635 | \$<br>20,800,000 | \$<br>20,800,000 | \$ | 1,684,188  | \$ 1,694,588  | \$ | 10,400             | 0.62%                   |                |              |
| Property Tax                                 | 2    | 2,939,140     | 3,004,150        | \$<br>2,930,879  |    | -          | -             | \$ | -                  |                         |                |              |
| Local Government                             | *    | 358,938       | 350,000          | \$<br>350,000    |    | 29,167     | 27,922        | \$ | (1,245)            | -4.27%                  |                |              |
| Inheritance Tax                              | 2    | -             | -                | \$<br>-          |    | -          | -             | \$ | -                  | 0.00%                   |                |              |
| Interest Income                              | *    | 402,431       | 350,000          | \$<br>350,000    |    | 29,167     | 34,730        | \$ | 5,563              | 19.07%                  |                |              |
| Fines & Forfeitures                          | *    | 150,200       | 170,000          | \$<br>170,000    |    | 14,167     | 11,880        | \$ | (2,287)            | -16.14%                 |                |              |
| Township Fire Service                        | 2    | 469,460       | 486,875          | \$<br>486,875    |    | -          | 25,900        | \$ | 25,900             |                         |                |              |
| Community Center Membership/Progr            | *    | 1,435,227     | 2,459,200        | \$<br>2,459,200  |    | 204,933    | 230,967       | \$ | 26,034             | 12.70%                  |                |              |
| EMS Transport                                | *    | 621.898       | 691,875          | \$<br>691,875    |    | 57.656     | 52,392        | \$ | (5,265)            | -9.13%                  |                |              |
| All Other Revenue                            | *    | 1,469,183     | 1,316,933        | \$<br>1,316,933  |    | 57,519     | 62,182        | \$ | 4,662              | 8.11%                   |                |              |
|  |      |               |                  |                  |    |            |               |    |                    |                         |                |              |
| Total Revenues                               |      | \$ 28,701,110 | \$<br>29,629,033 | \$<br>29,555,762 | \$ | 2,076,797  | \$ 2,140,560  | \$ | 63,764             | 3.07%                   |                |              |
| Expenditures                                 | -    |               |                  |                  | +  |            |               |    |                    |                         |                |              |
| Planning & Building                          |      | \$ 675,224    | \$<br>812,191    | \$<br>812,191    | \$ | 67,683     | \$ 52,262     | \$ | (15,421)           | 77.22%                  |                |              |
| General Government                           |      | 6,639,309     | 7,243,124        | \$<br>7,243,124  | \$ | 490,998    | 466,187       | \$ | (24,811)           | 94.95%                  |                |              |
| Fire Operations                              |      | 6,101,062     | 6,965,743        | \$<br>6,965,743  | \$ | 580,479    | 556,619       | \$ | (23,860)           | 95.89%                  |                |              |
| Parks & Recreation                           |      | 4,566,131     | 5,872,638        | \$<br>5,872,638  | \$ | 489,387    | 354,828       | \$ | (134,558)          | 72.50%                  |                |              |
| Police Operations                            |      | 5,856,535     | 6,408,351        | \$<br>6,408,351  | \$ | 534,029    | 508,937       | \$ | (25,092)           | 95.30%                  |                |              |
| Service/Engineering Department               |      | 2,310,552     | 2,828,529        | \$<br>2,828,529  | \$ | 235,711    | 154,490       | \$ | (81,221)           | 65.54%                  |                |              |
| Total Expenditures                           | -    | \$ 26,148,813 | \$<br>30,130,576 | \$<br>30,130,573 | \$ | 2,398,286  | \$ 2,093,322  | \$ | (304,963)          | 87.28%                  |                |              |
| - (D 0 (III )                                |      |               | (504.540)        | (574.044)        |    | (004, 400) | 47.000        |    |                    |                         |                |              |
| Excess of Revenues Over (Under) Expenditures |      | \$ 2,552,297  | \$<br>(501,543)  | \$<br>(574,811)  | \$ | (321,489)  | \$ 47,238     |    |                    |                         |                |              |
| Fund Balance at Beginning of Year            |      | \$ 13,491,664 | \$<br>14,667,073 | \$<br>14,667,073 | \$ | 14,667,073 | \$ 14,667,073 |    |                    |                         |                |              |
| Unexpended Appropriations (98.0%)            | 7    |               | 602,612          | 602,611          | 1  | 50,218     |               | -  | 1 - Income Tax     | budget based on indivi  | dual monthly   | orojections. |
| Expenditures versus Prior Year Enc           |      | 1,376,887     | 323,563          | 323,563          |    | 323,563    | 323,563       | 2  | 2 - These reveni   | ue budgets are based of | on semi-annua  | al payments. |
|  |      |               |                  |                  |    |            |               | ,  | * - All other reve | enue budgets are sprea  | d equally over | each month.  |
| General Fund Balance                         | - 13 | \$ 14,667,073 | \$<br>14,444,578 | \$<br>14,371,310 | \$ | 14,072,239 | \$ 14,390,748 |    |                    |                         |                |              |