
CLAYTON ACTIVE TRANSPORTATION PLAN

FEBRUARY 2025



ACKNOWLEDGEMENTS

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CONTENTS

Introduction	6
What is active transportation and why is it important?	6
Project Timeline	7
Vision and Goals	8
Engagement Efforts	9
Existing Conditions	9
Proposed Projects and Programs	9
Community Engagement	11
Engagement Timeline	11
Strategies	11
Key Takeaways	14
Existing Conditions	16
Demographic Profile	16
Existing plans, policies, and supportive programs	20
Base Map (existing transportation system)	26
Analyses	29
Proposed Projects and Programs	36
Infrastructure Projects	36
Programs and Policies	52
Priority Projects	58
Prioritization Methodology	58
Prioritized Infrastructure Project List	65
Implementation	67
Roles and Responsibilities	67
Funding Strategies	68
Maintenance Strategies	70
On-going Monitoring and Evaluation	72
Appendices	75



Figure 1: Shared Use Path along National Road



EXECUTIVE SUMMARY





INTRODUCTION

This chapter describes the planning process, defines active transportation, provides an overview of proposed projects, and highlights priority projects.

WHAT IS ACTIVE TRANSPORTATION AND WHY IS IT IMPORTANT?

“Active Transportation” is an umbrella term for all the ways people can get around without using a motorized vehicle – walking or biking, using mobility assistance devices (such as wheelchairs and scooters), skating or skateboarding, and more. In short, active transportation is human-powered travel. Active Transportation represents fundamental transportation modes for many Ohioans to access transit, work, school, retail stores or any number of destinations in urban, suburban, and rural settings. Active transportation can provide many community benefits beyond personal mobility, such as improved public health, economic development, greater quality of life, and enhanced environmental quality.

Active transportation planning involves community engagement specific to the needs of people who walk and bicycle and outlines the vision, goals, and strategies needed to support safe, convenient, and accessible active transportation options. It is important and beneficial to meet the needs of people walking and biking by planning for and directing investments in infrastructure and programs that support active transportation options.

PROJECT TIMELINE

The Clayton Active Transportation Plan (ATP) was created under the leadership of a Steering Committee which ensured that it represented the variety of interests and stakeholders in Clayton. The process to develop the ATP began with an assessment of existing conditions and a review of other relevant plans and studies. Public input and a technical analysis provided a foundation for proposed projects and prioritization of those recommendations. The final chapter includes guidance for implementation (see Figure 2 for a project timeline). This document summarizes the findings of the planning process and is organized into the following sections:

- » Introduction
- » Community Engagement
- » Existing Conditions
- » Proposed Projects and Programs
- » Priority Projects
- » Implementation

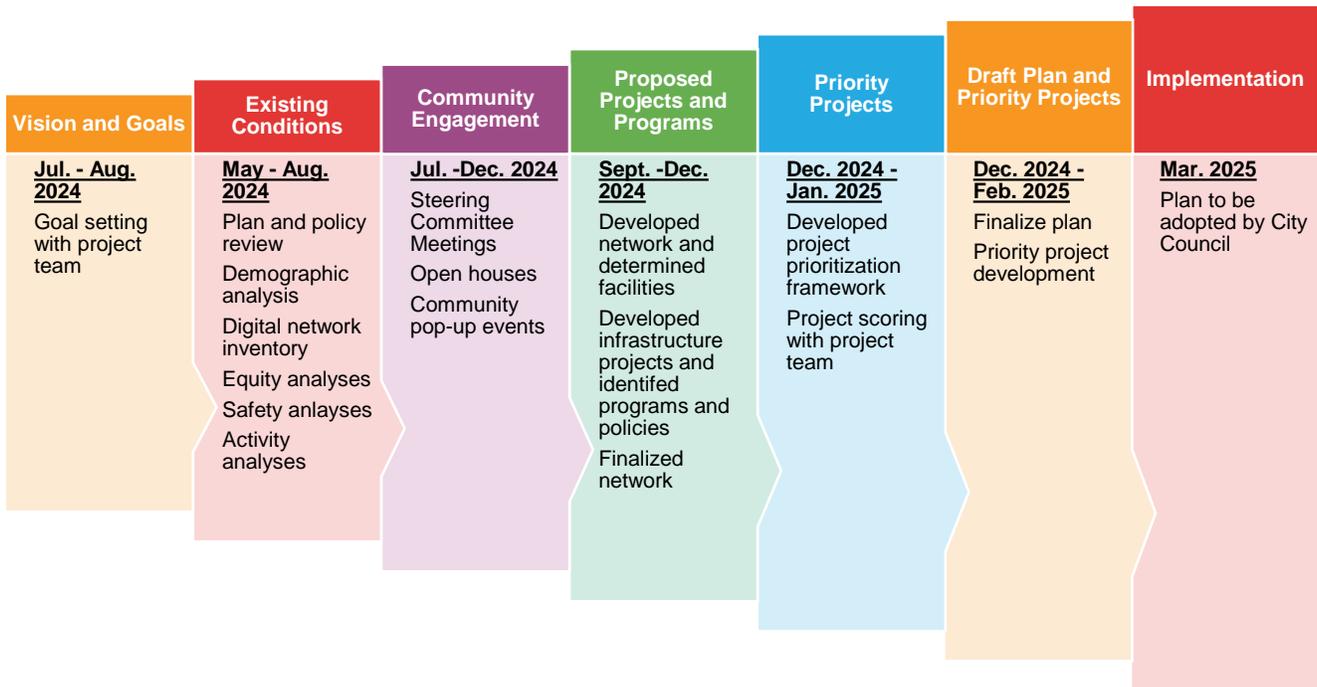


Figure 2. Project Timeline

VISION AND GOALS

VISION

People of all abilities have access to safe travel through the city of Clayton by biking, walking, and connected neighborhoods.

GOALS

01

INFRASTRUCTURE AND SERVICES

Our plan identifies specific improvements for active transportation infrastructure and amenities and develops processes and procedures to maintain improvements once implemented.

02

CONNECTIVITY

Our plan connects the three City of Clayton parks and new and existing neighborhoods. Our plan also utilizes existing plans when proposing and implementing bikeways to better connect Clayton and the surrounding communities.

03

ALIGNMENT AND COLLABORATION

Our Plan aligns with and leverages existing plans, community partners, funding opportunities, partner agencies, and maintenance approaches to increase our collective impact and effectiveness.

04

SAFETY

Our plan will reduce bicyclist and pedestrian injuries and fatalities. We will work actively and collaboratively with federal, state, regional, local and private partners to make Ohio safer for people who walk and bike.

05

CONVENIENCE

Our plan will make it convenient for residents and visitors to walk or bike by ensuring that sidewalks and multiuse paths connect people to their destinations.

Figure 3. Vision and Goals

ENGAGEMENT EFFORTS

KEY TAKEAWAYS

The project team collected community input through several strategies including Steering Committee meetings, open houses, in-person pop-up events, and an online survey. Early engagement identified key barriers to walking and biking, which defined areas of focus for the planning process. These focus areas included gaps in facilities for both pedestrians and bicyclists, changing driver behavior (e.g. speeding), and lighting. See the Community Engagement section for a summary of all engagement efforts.

EXISTING CONDITIONS

KEY TAKEAWAYS

The project team completed an existing conditions analysis to understand the current transportation system and where improvements could be made for people walking and biking. There are high concentrations of bicycle and pedestrian crashes along Main Street and Westbrook Road and at the following intersections:

- » Hoke Road and Salem Avenue
- » Salem Avenue at Westbrook Road
- » Old Salem Road at Union Road
- » Salem Avenue at Union Road

In addition, the project team reviewed volume and speed data as well as ODOT's Demand and Needs Analyses, which identified areas with strong potential for biking and walking. High demand and high need areas in Clayton include areas along Hoke Road, Main Street, and Old Salem Road. See the Existing Conditions section for a summary of all analyses.

PROPOSED PROJECTS AND PROGRAMS

The existing conditions analysis, public input and Steering Committee meetings led to the final active transportation network. Infrastructure recommendations include adding bikeways and shared use paths, sidewalks, neighborhood bikeways, and crosswalks:

- » 28 miles of bikeways/shared use paths,
- » 3 miles of sidewalks,
- » 6 miles of neighborhood bikeways; and
- » improvements to 10 intersections.

The plan also proposes establishing supportive programs such as educational campaigns, encouragement programs, policies, and school-related programs. See the Proposed Projects and Programs for details on the proposed bicycle and pedestrian projects and supportive programs.

PRIORITY PROJECTS

Two priority projects were identified, a Preliminary Opinion of Probable Construction Cost for National Road and a traffic calming toolkit for a portion of Old Salem Road. See the Priority Projects section for more information.



COMMUNITY ENGAGEMENT



COMMUNITY ENGAGEMENT

Community engagement was an essential tool in the plan development process. Involving the public builds trust in the Plan and improves the overall quality of the findings. The project team used several strategies to collect public input including: an in-person and online survey, an interactive online map, three Steering Committee meetings, one pop-up event, two open houses, and input gathered through emails (see Figure 4).

ENGAGEMENT TIMELINE

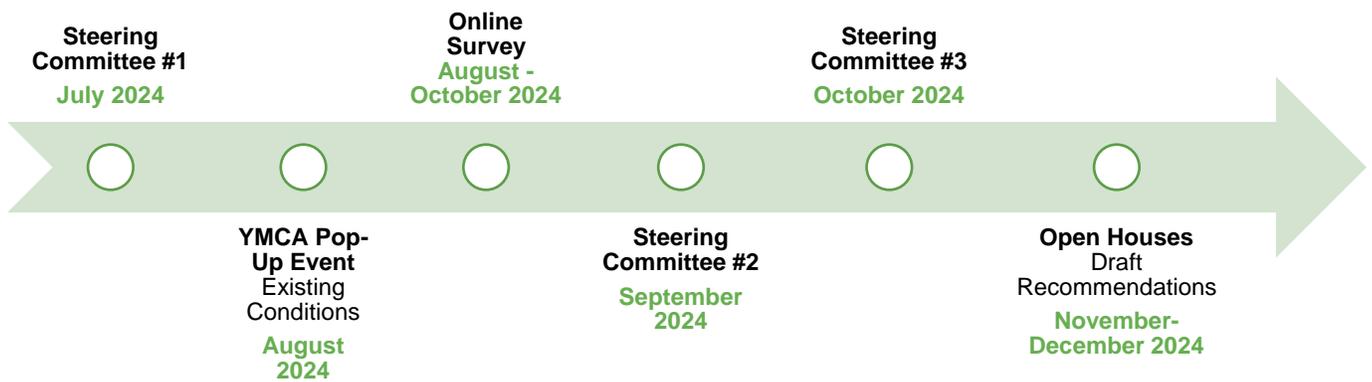


Figure 4. Project Timeline

STRATEGIES

Steering Committee Meetings

The Steering Committee comprised of city staff, local stakeholders, city council members, and Miami Valley Regional Planning Commission guided the development of the Clayton ATP. Steering Committee members are listed under Acknowledgments at the beginning of this document. The Steering Committee met three times over the course of the plan development.

The Steering Committee held their first meeting in July 2024. The meeting focused on a project overview, reviewing the vision and goals, demographics, public engagement brainstorming, and next steps. The Steering Committee felt that the vision aligned with the broader Plan Clayton initiative, emphasizing connecting parks and regional collaborations with neighboring communities such as Englewood and Union. The demographics review recognized shifts, such as increased homeownership. Current programs like Safety Town and Coffee with a Cop were discussed as well, alongside accessibility improvements in parks and curb cuts funded by the American Rescue Plan Act (ARPA). Key barriers identified by the Steering Committee included gaps in sidewalks, unsafe road crossings, and insufficient lighting, which limit access to destinations like parks, schools, and local businesses.

The second Steering Committee Meeting took place in September 2024 and focused on reviewing the existing conditions analyses and completing a mapping exercise. The mapping exercise included identifying existing and upcoming projects, highlighting gaps and barriers, where improvements need to be made, and key connections.

The third Steering Committee Meeting included reviewing public engagement results, draft program and policy recommendations, and draft infrastructure recommendations. This meeting also focused on planning the next engagement phase. Minor adjustments to the draft recommendations came out of this meeting.

Community Engagement Survey and Interactive Map

An interactive map and online survey were conducted from August to October 2024 to gather input on travel and safety concerns, focusing on active transportation. It revealed that most respondents use personal vehicles, with walking and biking being secondary. While participants generally felt safe driving or riding in a car, they expressed concerns about the safety of walking, biking, and using mobility devices, especially for children (see Figure 5). Interest in bicycling was evident, though barriers like safety and comfort limited participation. Respondents suggested improvements like more sidewalks, bike lanes, better lighting, and maintenance to encourage walking and biking.

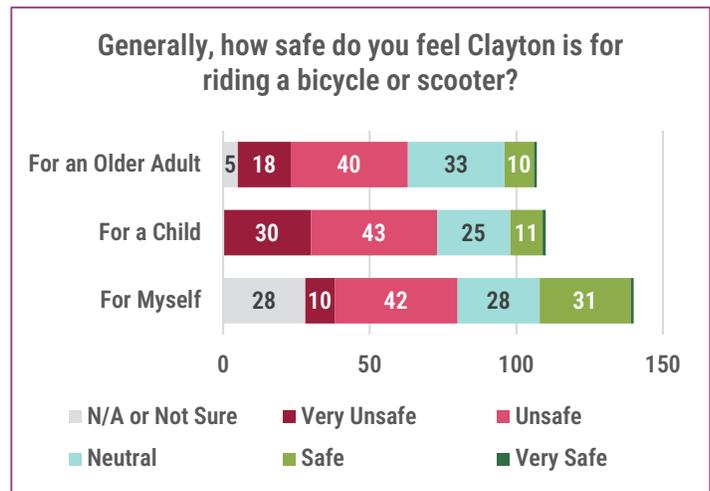


Figure 5: Survey Question

Desired network improvements included bicycle and walking routes on streets like Main Street and better connections for frequent destinations such as the Kleptz YMCA. Participants also noted that intersections feel dangerous due to speeding and distracted driving.

The optional demographic section showed that most respondents were Clayton residents, aged 25-64, and had nearly universal access to private vehicles. A majority identified as female and white, with some reporting physical limitations. The insights from the survey highlight the community's priorities for improving transportation safety and accessibility.

Pop-Up Events

Pop-up events have a broader reach than conventional public meetings. By leveraging existing events or popular destinations, the project team reached a wide cross-section of Clayton community members, especially those who might not want to or be able to participate in online or traditional forms of engagement.

The project team held one pop-up event at the Kleptz YMCA. The pop-up event included a table with display boards explaining the Plan's purpose and vision, handouts, and interactive mapping. The purpose of the pop-up event was to gather information about existing walking and bicycling conditions during the first half of the project. The project team interacted with approximately 35 people and had in depth

conversations with about ten people. Major concerns consisted of dangerous crossings and speeding. People noted that they wished there were pedestrian and/or bicycle facilities on Main Street, Union Road, Crestway Drive, and Hoke Road.

OPEN HOUSES

In addition to the pop-up event, two open houses were held to allow the public to review the draft recommendations. The public was encouraged to vote on infrastructure and programs and policies they would like to see implemented throughout Clayton as well as their top three bikeways and shared use path recommendations. The first open house was held in November 2024 at Janice Ward Community Center; twelve people attended. The second open house was held in December 2024 at Meadowbrook at Clayton; three people attended. The top three bikeways/shared use paths recommendations that were voted for included: Old Salem Road, Salem Avenue, and tied for third was the Future Roadway (from Talmadge Road to just south of the YMCA), Talmadge Road, and Haber Road. Top programs and policies that were voted for included: programming and events (open streets, bicycle friendly businesses, walk/bike/roll to work days), supporting infrastructure (lighting, street trees), demonstration projects, and committees. Overall, most people preferred shared use paths but were in favor of most bicycle facilities and safety improvements.

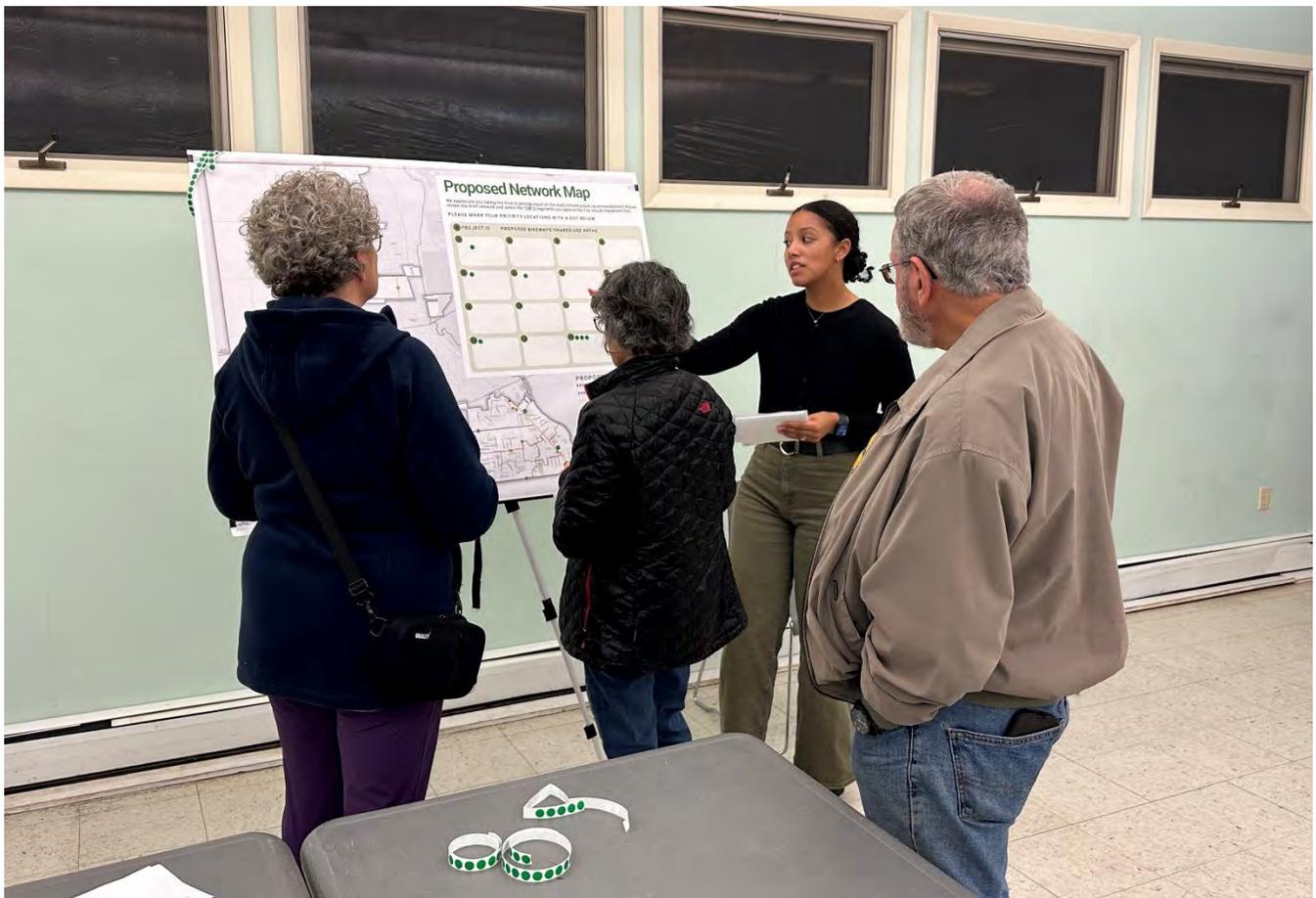


Figure 6: Open House at Janice Ward Community Center, November 2024

KEY TAKEAWAYS

The first public meeting and community stakeholder meetings helped determine popular destinations, barriers to walking and biking in Clayton, and key streets that people are currently using to bike or walk.

Destinations	Top barriers to walking and biking	Streets currently serving as key routes for bicycling/walking
<ul style="list-style-type: none"> » Schools » YMCA » Englewood Centennial Park » Northview Park » Meijer, Miami Valley Hospital North Campus » Randolph Plaza (Main Street) 	<ul style="list-style-type: none"> » Not enough infrastructure » Lack of lighting » Drivers speeding » Distracted driving 	<ul style="list-style-type: none"> » Main Street » Hoke Road » Crestway Drive » Old Salem Road » Salem Avenue

The draft proposed network was presented in the third steering committee meeting. Feedback led to the addition of several projects including:

- » Add sidewalks from new developments for Wenger and Westbrook
- » Incorporating Plan Clayton active transportation recommendations into the Active Transportation Plan

The open houses allowed residents to vote on which projects they would like to see implemented first. Top identified projects included:

Policies and Programs

- » Demonstration projects
- » Programming and events
- » Supporting infrastructure

Infrastructure

- » Old Salem Road
- » Salem Avenue
- » Future Clayton Roadway (between Talmadge Road and east of Hoke Road)
- » Haber Road

EXISTING CONDITIONS





EXISTING CONDITIONS

This chapter examines several elements of Clayton’s transportation system. It presents a demographic profile of Clayton, and a plan and policy review summarizing existing active transportation and related efforts to date, framing the current planning process as a logical next step in Clayton’s active transportation evolution. This chapter also summarizes existing programs that support active transportation. A set of analyses that examines the active transportation system from various perspectives (e.g. equity, safety, connectivity) is also included.

DEMOGRAPHIC PROFILE

The city of Clayton is a northwest suburb of Dayton, with 13,269 residents (2020 US Census data, estimated to 2023). The average yearly population has remained consistent at least dating back to the 2010 census. The City covers 18.5 square miles and the city boundaries are non-contiguous, dissected by the cities of Englewood and Union. See Table 1 and Figure 7, Figure 8, Figure 9, and Figure 10 below for a breakdown of demographics.

Table 1. City of Clayton Demographics

	Category	Percent
<i>Race</i>	White	62.90%
	Black	29.50%
	Multiracial	4.10%
	Hispanic	1.60%
	Asian	1.50%
	Native American	0.40%
<i>Age</i>	< 18	22.1%
	18 - 24	9.4%
	25 - 34	13.7%
	35 - 44	12.9%
	45 - 54	12.4%
	55 - 64	12.9%
	> 64	16.5%
<i>Car Ownership by Household</i>	0	0.3%
	1	15.7%
	2	45.8%
	3+	38.2%
<i>Commute Mode Share</i>	Drove alone	80.8%
	Carpooled	13.5%
	Work from Home	4.5%
	Walked	0.1%
	Bicycled	0.0%
	Transit	0.2%
	Other	0.9%

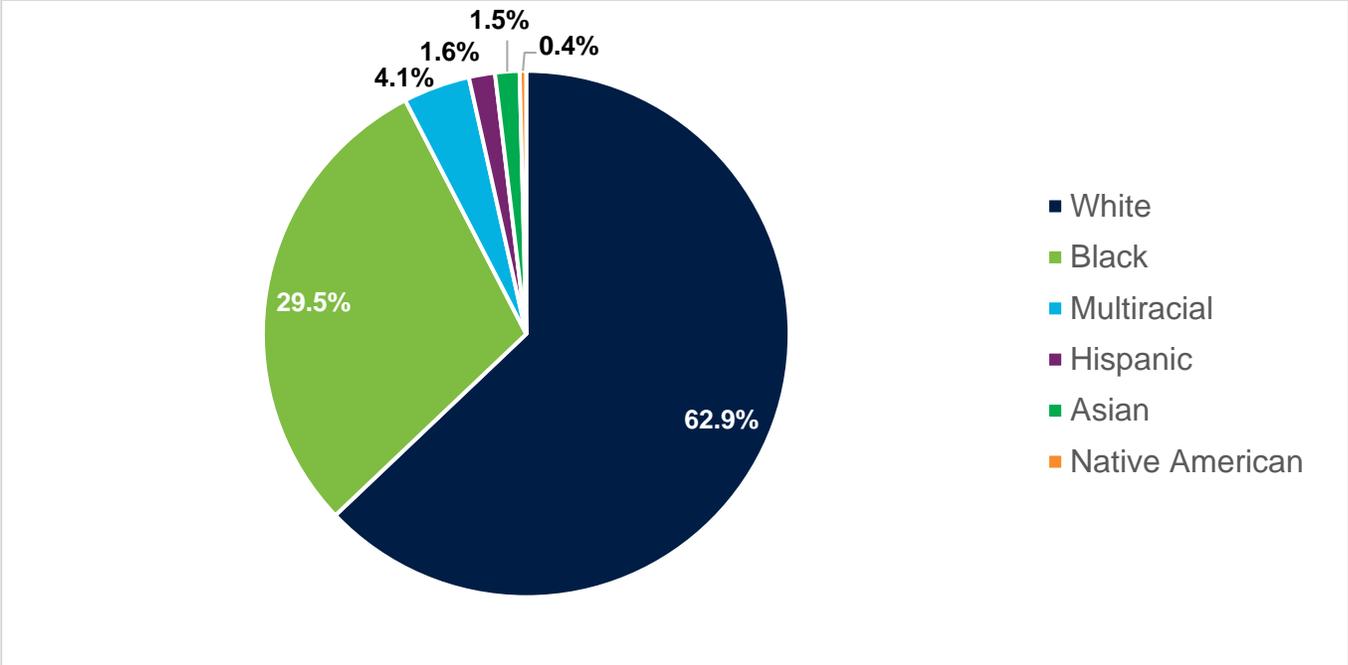


Figure 7. City of Clayton Race

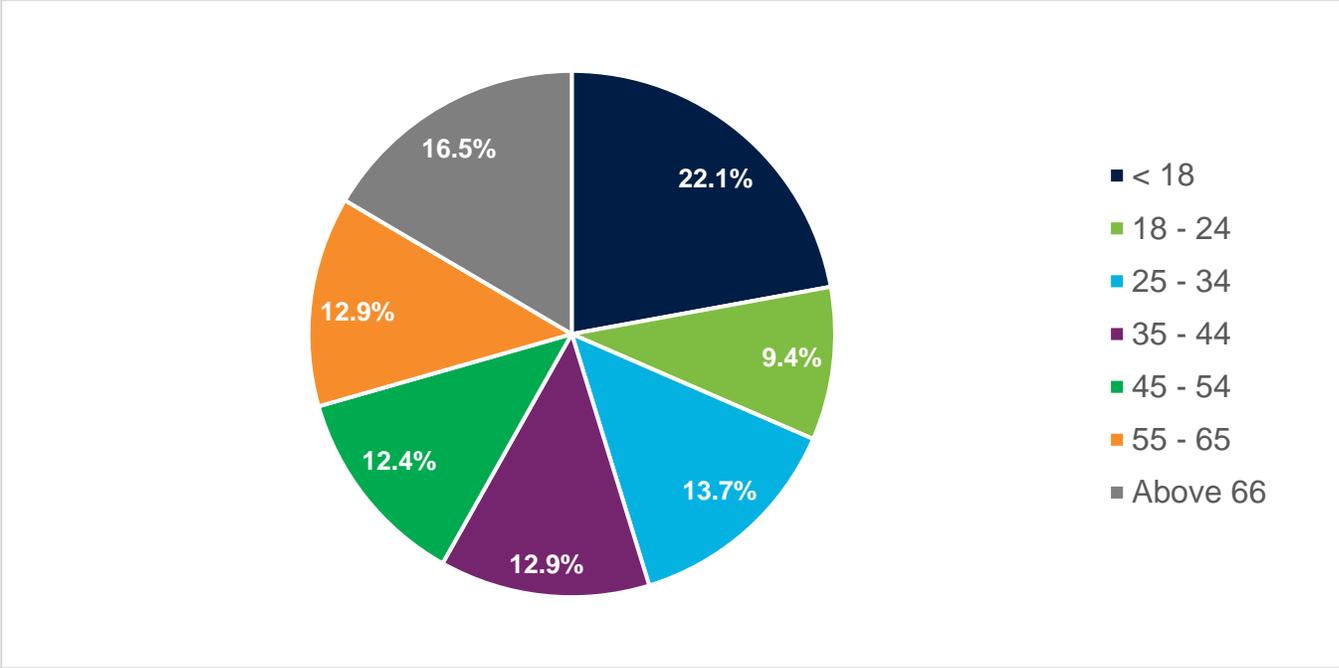


Figure 8. City of Clayton Age

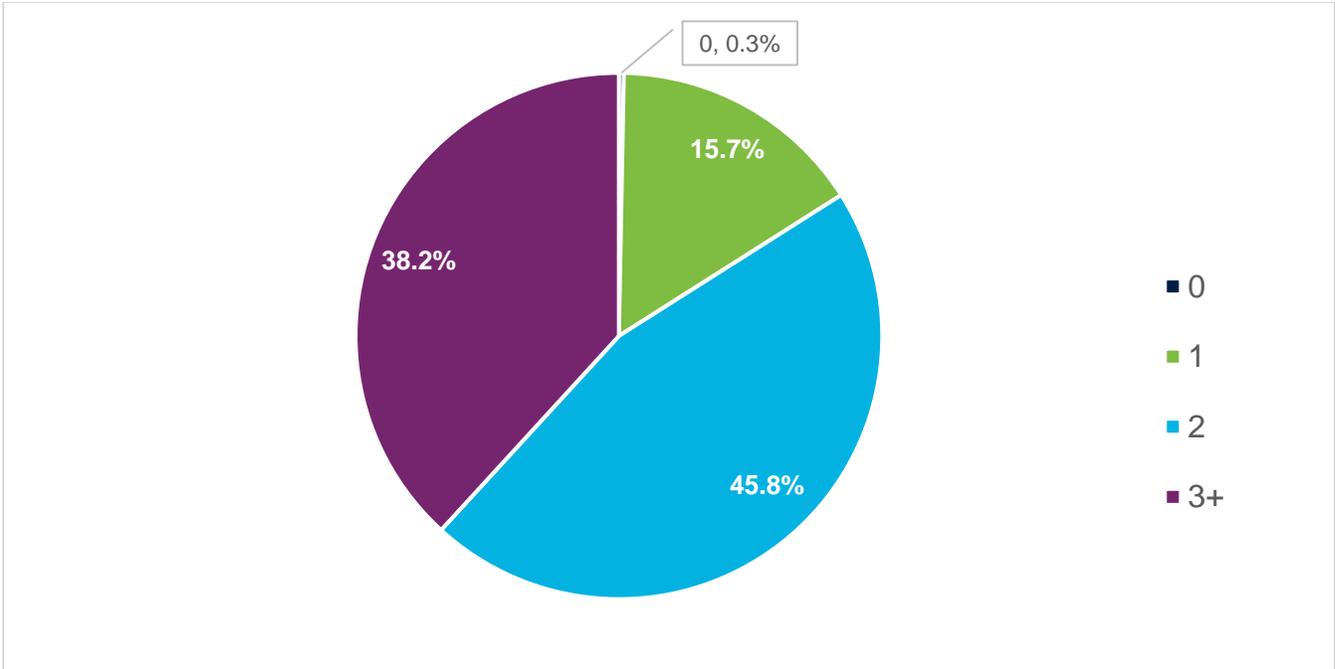


Figure 9. City of Clayton Car Ownership by Household

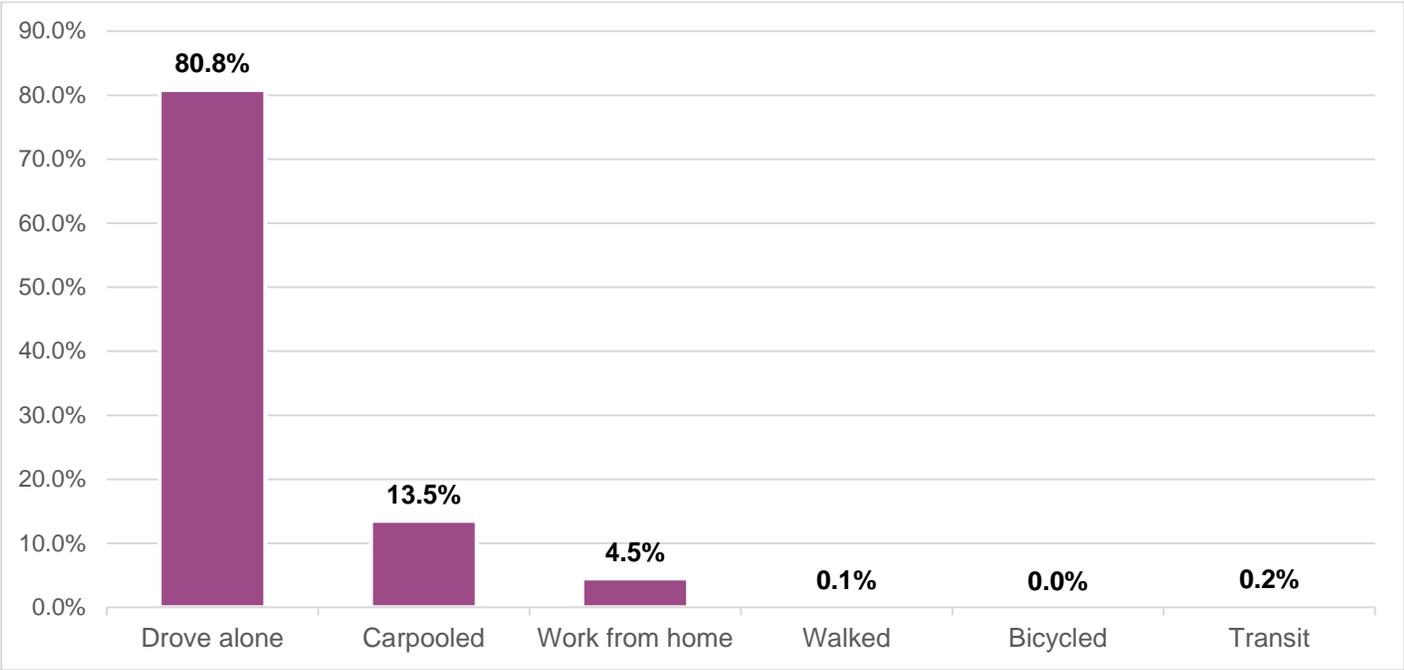


Figure 10. City of Clayton Commute Mode Share

EXISTING PLANS, POLICIES, AND SUPPORTIVE PROGRAMS

This plan builds on prior plans and initiatives developed by entities within Clayton. It looks into plans for existing conditions data, issue identification, and recommendation support. Table 2 summarizes the existing plans, policies, and supportive plans within the city of Clayton and Montgomery County region.

Table 2. Existing Plans and Policies

<i>Plan/ Policy</i>	<i>Lead Agency</i>	<i>Year Completed</i>	<i>Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)</i>
<i>Local Plans and Policies</i>			
<i>Thoroughfare Plan</i>	<i>City of Clayton</i>	<i>In-Progress</i>	<p>The Draft Thoroughfare Plan’s purpose is to plan for a functional network of roadways to accommodate traffic that will exist in 2050. The goals for this plan focus on reserving right-of-way for future development, provide guidance on roadway infrastructure, accommodate future vehicular trip demands, enhance connectivity, and improve the overall accessibility and mobility for residents. The Thoroughfare Plan and Active Transportation Plan go hand in hand, as the Thoroughfare Plan focuses mostly on vehicular trips, while the Active Transportation Plan focuses on pedestrians, individuals using mobility devices, bicyclists, and transit users.</p> <p>Additionally, the Thoroughfare Plan includes numerous maps illustrating key factors needed for the development of the Active Transportation Plan, such as existing and future crossings, sidewalks, bikeways, and traffic volume.</p>
<i>Clayton Roads Speed Reviews and Studies</i>	<i>City of Clayton</i>	<i>2024</i>	<p>The City of Clayton contracted a consultant team to perform speed studies and reviews for five streets: Garber Road, Haber Road, Westbrook Road, Main Street, and National Road. ODOT District 7 then reviewed the submitted speed studies and provided guidance on how the City should proceed. The following bullet points summarize the ODOT District 7 comments on how the city should proceed:</p> <ol style="list-style-type: none"> Garber Road: Request is to declare the 35mph speed limit. Study states that the ORC 4511.21 (B)(3) prima facie speed limit of 35mph is applicable to this section Garber Road, a new speed study is not required to make this change, however a withdrawal of the existing speed limit is required. The city would need to pass a resolution/ordinance, notify ODOT, and ODOT would need to process the withdrawal. Haber Road: Request is to increase speed limit to 45mph. Study states that the ORC 4511.21 (B)(3) prima facie speed limit of 35mph is applicable to this section of Haber Road and no withdrawal or ODOT approval or engagement is needed. Westbrook Road: Request is to declare speed limits between 35-45mph along Westbrook (see study for extents and speed limits). Study states that the ORC 4511.21

<i>Plan/ Policy</i>	<i>Lead Agency</i>	<i>Year Completed</i>	<i>Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)</i>
			<p>(B)(3) prima facie speed limit of 35mph is applicable, a new speed study is not required to make this change, however a withdrawal of the existing speed limit is required. The city would need to pass a resolution/ordinance, notify ODOT, and ODOT would need to process the withdrawal.</p> <p>4. Main Street: Request is to declare speed limits between 35-45mph along Main Street (see study for extents and speed limits). Study states that the ORC 4511.21 (B)(3) prima facie speed limit of 35mph is applicable to this section of Main Street, a new speed study is not required to make this change, however a withdrawal of the existing speed limit is required. The city would need to pass a resolution/ordinance, notify ODOT, and ODOT would need to process the withdrawal.</p> <p>5. National Road: For all sections of National Road, ODOT recommended that based on the results of the speed study as submitted, the speed limit should remain 50mph given the recommended calculated speed.</p>
<i>Garber Road, Haber Road, and Westbrook Road Traffic Memo</i>	<i>City of Clayton</i>	<i>2023</i>	<p>The City of Clayton contracted a consultant team to conduct speed reviews on Garber Road, Haber Road, and Westbrook Road, which resulted in the following recommendations:</p> <ol style="list-style-type: none"> 1. Garber Road: 35mph from Westbrook Road to Main Street. 2. Haber Road: 45mph speed limit from National Road (US 40) to Montgomery County Line Road. 3. Westbrook Road: 45mph from Diamond Mill Road to 0.37 miles west of Salem Avenue and 35mph from 0.37 miles west of Salem Avenue (State Route 49) to Main Street (State Route 48).
<i>Main Street Speed Study Submittal</i>	<i>City of Clayton</i>	<i>2023</i>	<p>The City of Clayton contracted a consultant team to conduct speed reviews Main Street which resulted in the following recommendations:</p> <ol style="list-style-type: none"> 1. 45mph speed limit from Westbrook Road to Greenview Drive. 2. 35mph from Greenview Drive to the end of Corporation Limit.
<i>National Road Speed Study Submittal</i>	<i>City of Clayton</i>	<i>2023</i>	<p>The City of Clayton contracted a consultant team to conduct speed reviews on National Road which resulted in the following recommendations:</p> <ol style="list-style-type: none"> 1. 50mph speed limit from Diamond Mill Road to Crestway Drive. 2. Decrease the speed limit from 50mph to 45mph from Crestway Drive to Hoke Road. With city limits falling near Hoke Road, the City of Englewood is encouraged to reduce their 50mph speed limit to 45mph as well.
<u>2021 Five-Year Economic Development Plan: Five Year</u>	<i>City of Clayton</i>	<i>2021</i>	<p>The City of Clayton's 2021 Five-Year Economic Development Plan: Five Year Goals, Summary, and Flow Sheet accompanies the City's 2021 Five-Year Economic Development Plan by providing a general overview of reasonable initiatives which Clayton staff believes can be implemented over five years, along with corresponding timeframes to achieve such goals.</p>

Plan/ Policy	Lead Agency	Year Completed	Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)
<u>Goals, Summary, and Flow Sheet</u>			There are five projects/programs that could impact the Active Transportation Plan. Two of the five goals focus on North Main Street: Implementing Façade Improvement Grants and the second phase of the Streetscape project. These two goals, improving store frontages and streetscapes, can encourage walking and biking. Creating a GIS Program with MVRPC was another goal. Maintaining these mapping components would make tracking and evaluation of projects easier, including tracking the recommendations that will come from the Clayton Active Transportation Plan. An additional relevant goal mentioned in the Plan was implementing wayfinding signage, which supports pedestrian and bicyclist activity. The last project that will impact the Active Transportation Plan is the Hoke Road Expansion, which was planned to start at the end of 2023. With any road expansion, it is important to plan for all users, including pedestrians and cyclists. The Hoke Road project included a walking path, sidewalks, and a roundabout.
<u>2021 Five-Year Economic Development Plan: Moving the Plan Forward</u>	<i>City of Clayton</i>	<i>2021</i>	<p>In 2016, the City of Clayton completed their Five-Year Economic Development Plan for future growth within the city. This plan was based around smart growth economic strategies for small cities focused on growing the city’s tax base, community appeal, and overall development. The 2021 Five-Year Economic Development Plan: Moving the Plan Forward provides updated guidance on future growth within Clayton relating to economic development. The plan selected three focus areas for commercial development: North Main Street Business Corridor, Salem Avenue/Hoke Road Business Corridor, and the Village of North Clayton (a mixed-use town center). This plan carried the focus areas forward with three tasks: create an overlay zoning district along North Main Street, update the comprehensive land use plan, and update the zoning code. The Economic Development Plan also focused on residential development as there has been a lack of new residential developments in recent years. This plan highlighted numerous areas as potential new residential communities and identified vacant land that could be residential. The plan carried the 2016 goals forward as well: increase population, support existing businesses, attract new commercial investment, and implement community amenity improvements. Additionally, assets and barriers were also identified and the plan outlined seven different tools that can be used to address those barriers.</p> <p>The Five-Year Economic Development Plan: Moving the Plan Forward and the Active Transportation Plan go hand in hand since active transportation has many economic benefits and is a major asset to a community. With the development of commercial areas, active transportation should be a key element to keep in mind during the planning process. As for existing commercial areas, they present an opportunity to implement pedestrian and bicyclist focused infrastructure to expand access.</p>
<u>Plan Clayton: Comprehensive Land Use Plan</u>	<i>City of Clayton</i>	<i>2018</i>	The City of Clayton’s Comprehensive Land Use Plan provides guidance on the future development of City by providing the groundwork for economic and community development. The Comprehensive Land Use Plan and the Clayton Active Transportation Plan will support

Plan/ Policy	Lead Agency	Year Completed	Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)
			each other. The Comprehensive Land Use Plan outlined four goals for their planning vision, all related to active transportation: Walkable Neighborhoods, Central Cores, Connected Parks, and Great Streets & Infrastructure. The vision was to create walkable neighborhoods with connected parks around central cores linked by great streets and infrastructure. This plan identified key themes which were either connected to or supported by active transportation, such as enhancing multi-modal opportunities, considering environmental impacts, and improving the quality of life.
<u>Plan Clayton: Comprehensive Land Use Plan - Implementation Plan</u>	<i>City of Clayton</i>	<i>2018</i>	The Implementation Plan is a part of the 2018 Plan Clayton: Comprehensive Land Use Plan. The Implementation Plan lays out the goals, tasks, and timeline for the Comprehensive Land Use Plan.
<u>Parks and Recreation Master Plan</u>	<i>City of Clayton</i>	<i>2011</i>	The 2011 Parks and Recreation Master Plan provides guidance on recreational goals and objectives for the next several years. The plan includes a community description addressing the social and physical aspects of the city relevant to its recreation needs, a recreation inventory, and an evaluation of facilities & parks, which are all relevant to the Active Transportation Plan in terms of trails and park facilities connectivity. In this plan, it stated that the city was committed to developing a trail system that makes the most of opportunities within all park lands, along major road corridors, and with connections to neighboring systems.
School District Plans and Policies			
<u>Northmont Elementary School Handbook</u>	<i>Northmont City School District</i>	<i>2024</i>	The Northmont Elementary School Handbook enforces the overall district policy. It is important to note that it seems like there are specific sidewalks students must take if they have practice at the stadium. The Handbook also states they do not hold responsibility for bikes and all students must secure their bike on the bike rack.
<u>Northmont Middle School Handbook</u>	<i>Northmont City School District</i>	<i>2024</i>	The Northmont Middle School Handbook enforces the overall district policy. It is important to note that it seems like there are specific sidewalks students must take if they have practice at the stadium. The Handbook also states they do not hold responsibility for bikes and all students must secure their bike on the bike rack.
<u>Northmont High School Handbook</u>	<i>Northmont City School District</i>	<i>2024</i>	The Northmont High School Handbook enforces the overall district policy. It is important to note that it seems like there are specific sidewalks students must take if they have practice at the stadium. Bikes are not mentioned in the NHS Handbook.
<u>Northmont City School District Policies</u>	<i>Northmont City School District</i>	<i>2024</i>	The Northmont City School District has policies regarding students bicycling and getting to school by bus, which are below and important to keep in mind when creating the Active Transportation Plan. <ul style="list-style-type: none"> • Bicycles: The Board of Education regards the use of bicycles for travel to and from school by students as an assumption of responsibility on the part of those students -- a

<i>Plan/ Policy</i>	<i>Lead Agency</i>	<i>Year Completed</i>	<i>Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)</i>
			<p>responsibility in the care of property, in the observation of safety rules, and in the display of courtesy and consideration toward others.</p> <ul style="list-style-type: none"> • Transportation: The Board will provide transportation free to all grade K - 8 resident students of the district residing more than one (1) mile from the building they attend. Transportation may be provided for pupils living less than one (1) from school if they live in an area where conditions make walking too hazardous, as determined by the Superintendent. The boundary is to be determined by the nearest street, intersection, or natural land break beyond the one (1) mile limit. The Board has opted to transport grade 9 - 12 resident students.
Regional Plans and Policies			
<u>2023-2025 Community Health Improvement Plan</u>	<i>Public Health – Dayton & Montgomery County</i>	<i>2023</i>	<p>The 2023-2025 Community Health Improvement Plan (CHIP) identifies goals, objectives, and strategies to improve the health of Montgomery County residents. The guiding principles developed for the 2023-2025 Community Health Improvement Plan were based on the impact of the Social Determinants of Health (SDOH) and influenced the development of the CHIP. The SDOH are grouped into five domains, one of which is neighborhood & built environment which includes access to transportation.</p> <p>In addition to the guiding principles, the plan identifies three priorities of the 2023-2025 CHIP, one of which is chronic disease prevention. This priority includes goals related to active transportation such as having safe, accessible, and affordable access to food and physical activity.</p>
<u>2023 Annual Report</u>	<i>Public Health – Dayton & Montgomery County</i>	<i>2023</i>	<p>The 2023 Annual Report provides an overview of the collective efforts and accomplishments that Dayton and Montgomery County Public Health has achieved during 2023. Efforts summarized in the Annual Report included community outreach efforts, health equity initiatives, environmental health and safety efforts, and future initiatives. Efforts related to active transportation included in the report were: a summary of Community Conversations relating to Healthy Eating and Active Living (HEAL) and a summary of the Community Health Improvement Plan.</p>
<u>Miami Valley Regional Active Transportation Plan</u>	<i>Miami Valley Regional Planning Commission</i>	<i>2022</i>	<p>The Miami Valley Regional Planning Commission (MVRPC) published the Miami Valley Regional Active Transportation Plan in 2022 with a vision statement of, “The Miami Valley’s Active Transportation network provides safe and equitable walking, biking, and transit connections which enhance access to opportunity, well-being, environmental benefits, and quality of life for all.” The plan identified four key concepts, which included:</p> <ul style="list-style-type: none"> » Serving residents, employees & visitors of all ages & abilities » Provides environmental & quality of life benefits » Increases opportunity & addresses disparities in racial equity

Plan/ Policy	Lead Agency	Year Completed	Key Takeaways (what proposed projects/policies will impact the Active Transportation Plan?)
			<p>» Supports healthy lifestyles/improves individual health</p> <p>The plan included a project list of 170+ potential bike, pedestrian, or transit access projects across all counties in the MVRPC planning area. Two projects are within Clayton. One includes creating sidepaths along Westbrook Road and Dog Leg Road from the Wolf Creek Trail to the Stillwater River Trail. The second project is the completion of sidewalks along State Route 48, North Main Street from Shiloh Springs to Sweet Potato Ridge.</p>
<u>2021 Trail User Survey Summary Report</u>	<i>Miami Valley Regional Planning Commission</i>	2022	The 2021 Trail User Survey Summary Report summarizes the 2021 data for trail and bicycle counts within the Miami Valley area. Data is collected through automated counters, tube counters, and surveys. This report concluded that trail users continue to show great satisfaction and love for the Miami Valley Trails across the region. Most users are frequent users, and bicycling is the most popular activity along the trails.
<u>2021-2024 Strategic Plan</u>	<i>Public Health – Dayton & Montgomery County</i>	2021	The 2021-2024 Strategic Plan focuses on improving the quality of life in Montgomery County by achieving the goals of public health which are: prevention, promotion, and protection. Most of the guiding principles specified in the plan support the development of an Active Transportation Plan due to the health benefits that active transportation provides.
<u>Long Range Transportation Plan 2050</u>	<i>Miami Valley Regional Planning Commission</i>	2021	<p>The Long Range Transportation Plan 2050 focuses on all transportation modes and requirements within the Miami Valley region. There were three Congestion Management Projects identified in the 2050 Transportation Plan relevant to Clayton: one project along US 40 and two along Hoke Road. All three projects are planned for 2026-2030. The US 40 project includes widening to three lanes from Haber Road to the main entrance of the Northmont School Campus (0.30 miles long) and adding a traffic signal and right turn lane on Haber Road. The first Hoke Road project also includes widening to three lanes from Wenger Road to Smith Drive (0.38 miles long), as well as intersection improvements and traffic signals at Wenger Road. The second Hoke Road project is widening to three lanes from Wenger Road to US 40 (0.9 miles long).</p> <p>Chapter 7 of this plan is dedicated to alternate modes of transportation, like active transportation. Bikeway and pedestrian projects are included as part of the plan. Three of those are relevant to Clayton due to its proximity to the Old National Road Trail. These three were identified as long-range projects and included constructing a bikeway paralleling US 40 for approximately 10.9 miles.</p>
<u>Regional Complete Streets Policy</u>	<i>Miami Valley Regional Planning Commission</i>	2011	The Board of the Miami Valley Regional Planning Commission (MVRPC) adopted a Complete Streets Policy in 2011. The vision for policy was, “Miami Valley will become measurably better connected, safer, and more accessible for all users of the public right of way, regardless of their mode of transportation, age, or abilities, as transportation projects throughout the Region are designed and constructed using complete streets principles.” This policy encourages local entities to adopt their own Complete Streets Policy.

BASE MAP (EXISTING TRANSPORTATION SYSTEM)

Pedestrian Facilities

Sidewalks are sporadic throughout the city, with notable lack of sidewalk on parts of Main Street (in general, south of Woolery Lane and north of Old Salem Road) and Crestway Drive, which has access to the high school and middle school campus. There is a lack of pedestrian facilities around the Miami Valley Career Technology Center as well.

Bicycle Facilities

There are no dedicated on-road bike lanes within the city. A shared use path exists on National Road from Centennial Park to the Northmont High School/Middle School. The city was awarded funding to continue the National Road shared use path south along Hoke Road to the city boundary.

Parks

Clayton has three main parks, Westbrook Road Park, Northview Park, and Clayton (Hardscrabble) Park. Westbrook Road Park is located in the southeastern portion of the city. The park contains several pedestrian trails to access the park, however, the trails all end on roads without pedestrian facilities including Flower Avenue, Westbrook Road, and Jean Drive.

Northview Park is located in the southeastern portion of the city, west of Westbrook Road Park, and is accessible by path on Honeybrook Avenue and at the end of the cul-de-sac on Lavon Court. Lavon Court does not have sidewalk access leading up to the park, sidewalks begin at the park entrance. Honeybrook Avenue does have sidewalk access leading up to the park and continues into the park.

Clayton (Hardscrabble) Park is on the western edge of the city and is accessible via Mill Street and Salem Street however there are no dedicated pedestrian facilities along Mill Street or Salem Street leading up to the park. A bike rack is present at the park near the main parking lot.

Schools

A shared use path exists on the south side of National Road from the Northmont High School/Middle School facility in Clayton to the Dayton Metro Library – Northmont Branch in Englewood. The path connects several pedestrian generators including Northmont High School, Middle School, YMCA, Early Learning Center, library, Centennial Park in Englewood, and several residential neighborhoods.

Sidewalks exist around Northwood Elementary School.

Points of Interest

Major pedestrian generators within the city include the Northmont High School/Middle School and the three major parks. Other generators include the commercial areas on Main Street and Hoke Road within the City of Clayton and Meadowbrook at Clayton. Adjacent to the city, but within the City of Englewood, the YMCA and the Northmont Library Branch along National Road are also major pedestrian generators. Englewood MetroPark and Aullwood Garden are part of the nearby Five Rivers MetroParks which is accessible via Main Street and National Road within Englewood.

Public Transit

The Greater Dayton RTA operates two fixed bus routes (#7 and #16) within Clayton (see Figure 11). Route 7 connects Downtown Dayton (and points south) via Main Street to the Meijer's shopping center just south of I-70. The route runs through Clayton approximately 6AM to 12AM with 35-minute headways during the majority of the day and 80-minute headways after 7PM.

Route 16 connects Downtown Dayton (and points south) via Garber Road and Main Street to Hoke Road through Englewood. This route also accesses the Northwest Hub Transit Center in Trotwood. This route runs through Clayton approximately 5:45AM to 12:15AM with daytime headways between 50 and 60 minutes and nighttime headways between 90 and 110 minutes.

Figure 11 visualizes the existing active transportation network.



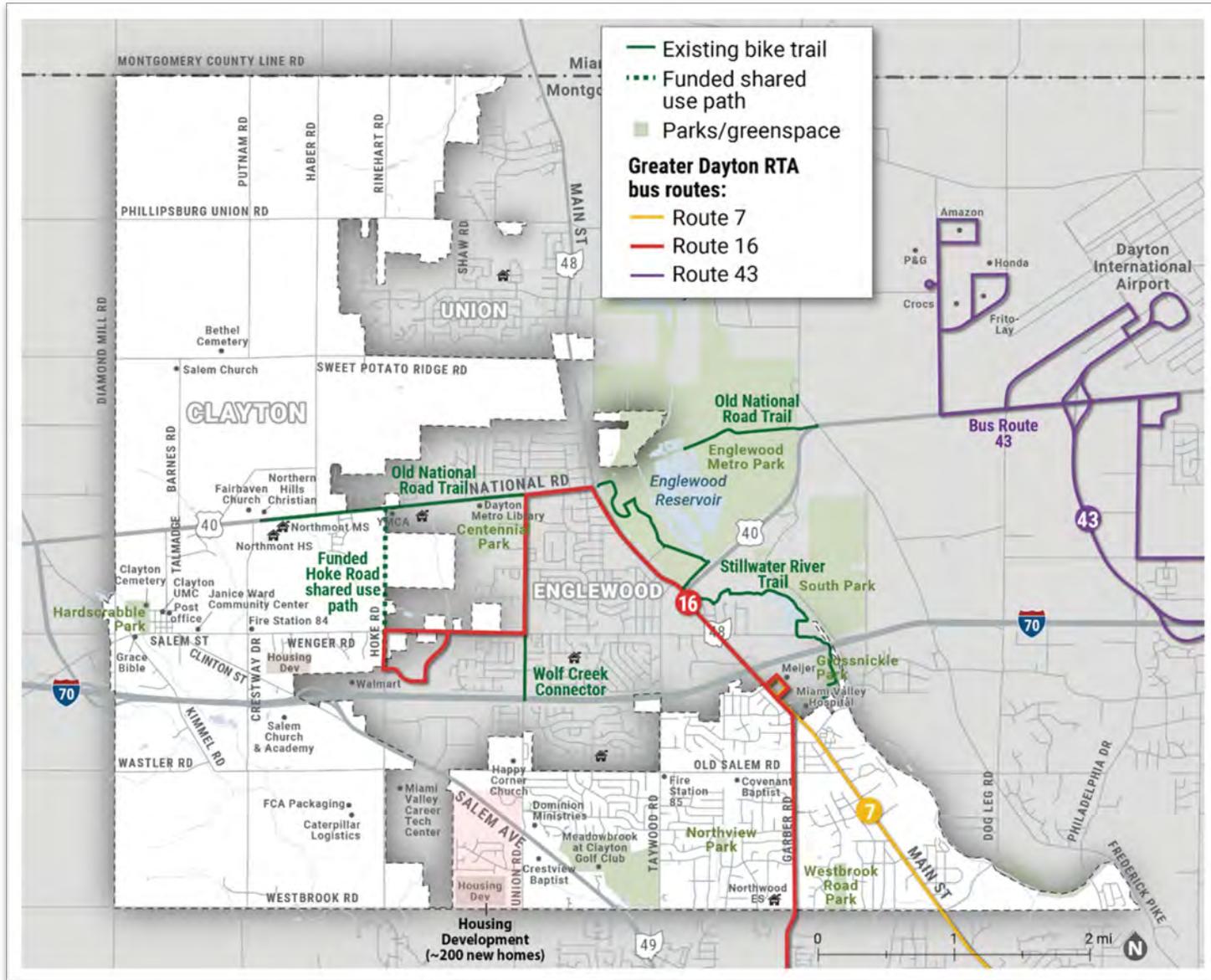


Figure 11: Existing Network

ANALYSES

After mapping the existing transportation system, the project team performed several analyses to better understand the equity of the network, its connectivity, use of walking and bicycling facilities, safety, and infrastructure conditions. The following section provides a summary of each existing conditions analysis. Full summaries of all analyses can be found in Appendix A.

Incorporating Equity in Active Transportation Planning

Active transportation options contribute to a more equitable transportation system by reducing barriers for people who do not use a motor vehicle. Many people do not drive because of ability, income, age, or a combination of these factors. The cost of owning and maintaining a vehicle can be a major burden, especially on low-income families. People without a vehicle need to access employment, school, grocery shopping, and a variety of other activities to fully participate in society. Transit, walking, and bicycling play a vital role in the overall transportation system by offering increased mobility, independence, and access to opportunity for people without vehicles.

National statistics point towards the need for equity in active transportation planning and design. Across the country and in Ohio, a disproportionate share of walking and bicycling fatalities occur among communities of color, older adults, and low-income populations.¹ Connected and accessible active transportation infrastructure for these groups results in better access to daily physical activity and improved quality of life.

1. Ohio Department of Transportation. (2020), *Walk.Bike.Ohio Safety Analysis Reports*. <https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/walkbikeohio/existing-future-conditions-analysis/safety-analysis-reports>

EQUITY

Equity Analysis

As part of its statewide bicycle and pedestrian plan, Walk Bike Ohio, the Ohio Department of Transportation (ODOT) performed an Active Transportation need analysis for the entire state. Areas of high need and high demand should be prioritized for bicycle and pedestrian improvements, because residents in these areas likely rely more heavily on active transportation options for getting around. High demand areas in Clayton include Main Street and neighborhoods and Hoke Road. Areas of high need in Clayton include Main Street and neighborhoods around Northview Park. Areas with overlapping high demand and high need are key areas to invest in pedestrian and bicycle infrastructure and include Main Street and Hoke Road.

Additionally, the equity analysis looked at the US Climate and Economic Justice Screening Tool (CEJST) and ODOT's Highway Safety Improvement Program (HSIP) Location Equity Measure. When using the US CEJST, none of the census tracts in Clayton were categorized as disadvantaged, however several tracts bordering

Clayton, south of Westbrook Road, were categorized as disadvantaged. When using the HSIP Location Equity Measure tool, Census Tract 1201.03, Block Group 2 was identified as having a percent of population in the block group with poverty of 25 percent. This block group is bounded by Main Street to the west and the City limits to the east.

NETWORK UTILIZATION

Level of walking and bicycling activity in Clayton

Network utilization describes who is walking and bicycling, where, and how often. Several factors impact network usage, including land use and development patterns, the presence or absence of active transportation facilities, proximity of destinations, safety concerns, and socioeconomic need. Understanding the level of walking and bicycling activity in Clayton provides an understanding of where people are already walking and bicycling and where there may be a lack of infrastructure, because there are low levels of walking and bicycling activity.

Walking and Bicycling Activity

The project team used StreetLight to analyze levels of walking and bicycling and better understand where and when walking and bicycling activity is currently occurring within Clayton. StreetLight uses crowdsourcing data to understand where people are currently walking and biking. While this data may not be an exact analysis due to the limitations of crowdsourcing data (e.g. StreetLight uses smartphone data, which not all people have access to), the data does provide a better understanding of where a greater volume of people are likely walking and biking. Based on the analysis the following areas have high levels of walking and biking:

Walking Activity	Bicycling Activity
<ul style="list-style-type: none"> » Northmont Middle School and High School Campus » Shared use path on the south side of National Road from School Campus to City limits near Hoke Road and Windpointe Way » Main Street from Old Salem Road to I-70 	<ul style="list-style-type: none"> » Garber Road » Honeybrook Avenue » Taywood Road

LEVEL OF TRAFFIC STRESS ANALYSIS

In active transportation planning, a Level of Traffic Street (LTS) analysis uses broadly available road characteristics to classify the experience of riding a bicycle on different streets. An LTS analysis typically groups roads into one of the four following categories:

- » LTS 1 – A low-stress facility suitable for all ages and abilities. These facilities have strong separation from motor vehicle traffic or are well-established on low-speed and low-volume roads.
- » LTS 2 – A facility suitable for people who are “interested but concerned” about riding a bicycle, which includes most adults and families. These facilities are separated from moderate-speed and multilane roads or are shared lanes on lower-speed and lower-volume roads.
- » LTS 3 – A facility suitable for people who are “enthused and confident” about riding a bicycle. These facilities are shared lanes on moderate-speed roads or separated from multilane, medium-to-high-volume, and higher speed roads.
- » LTS 4 – A high-stress facility is uncomfortable for most adults. These facilities are mixed flow on moderate-speed or higher volume roads or near high-speed, high-volume, or multilane roads.

There are several low-stress corridors in Clayton, particularly on low volume, low speed residential roadways. Additionally, National Road between Northmont High School/Middle School and the Library in Englewood is categorized as an LTS 1 due to the shared use path on the south side of the road. Low-stress roads are often divided or separated by higher-stress roads with an LTS score of 3 or 4, indicating opportunities for better low-stress connections throughout the city. The high-stress roads (LTS 4) include the following:

- » Main Street
- » National Road
- » Westbrook Road
- » Diamond Mill Road
- » Phillipsburg Union Road
- » Salem Avenue
- » Garber Road

NETWORK CONNECTIVITY

Completeness of active transportation system

Active transportation facilities that connect people to jobs, schools, parks, and other destinations form a complete network. Filling in missing connections expands access and mobility for people walking and bicycling and providing multiple route options accommodates people of all ages and abilities. Evaluating network connectivity provides an understanding of where gaps in the network exist and whether low comfort or high comfort walking and bicycling facilities exist.

Gaps and Barriers Mapping

A gaps and barriers group exercise was completed by stakeholders. In addition, an interactive map was created to allow the public to identify major destinations along with gaps and barriers to these destinations. These exercises helped the project team understand the completeness and connectedness of Clayton's active transportation system.

There were four major areas where gaps were identified by both stakeholders and during public input opportunities. These areas, and specific gaps and barriers associated with each, are as follows:

- » **Main Street Corridor**
 - Lack of connections along Main Street (i.e. incomplete sidewalk network)
 - Crossing Main Street (limited crossing locations, perceived safety at crossing locations)
- » **Western portion of city near Hardscrabble Park**
 - Lack of pedestrian and bike facilities from National Road along Talmadge Road
 - Lack of pedestrian and bike facilities along Wenger Road
- » **Northmont High School and Middle School Campus**
 - Extending connections to shared use path along National Road
 - The intersection of National Road and Haber Road
- » **Southern Residential Area**
 - Intersections such as Salem Avenue and Union Road and Taywood Road at Westbrook Road
 - Lack of pedestrian and bike facilities along Salem Avenue and Union Road
 - In general, lack of safe and convenient connections from residential neighborhoods to other neighborhoods and major destinations (parks, schools, etc.)

In general, participants feel there is a lack of safe and convenient connections from residential neighborhoods to other neighborhoods and major destinations (parks, schools, etc.). There is a need for more sidewalks, better crossings, and improved perceived safety.

SAFETY

Evaluating crash trends and patterns

Evaluating crash trends and patterns identifies where crashes are currently occurring and provides a better understanding of what factors may be contributing to crashes. Understanding these crashes can lead to projects that have the greatest likelihood of improving safety for pedestrians and bicyclists. These analyses are especially important because Ohio is not trending in the right direction for bicyclist and pedestrian safety.

Crash Analysis

Five years of all vehicle crash data (2019-2023) and ten years of bicycle and pedestrian crash data (2014-2023) were reviewed and mapped using ODOT's GIS Crash Analysis Tool; this exercise identified problem locations for people walking and bicycling. During the 10-year time period reviewed, there were 27 crashes involving pedestrians and three crashes involving bicyclists (aka pedacycles) in Clayton. Of these crashes, five were fatal, nine resulted in serious injuries, and 15 resulted in non-serious injuries. 60 percent of crashes cited pedestrians for improper crossing.

Main Street had the most pedestrian crashes. The second highest concentration of pedestrian crashes was along Westbrook Road. The three bicycle crashes were spread out but all within the southeast portion of Clayton. Concentrations of bicycle and pedestrian crashes are located along Main Street, Garber Road, National Road, Salem Avenue, and Westbrook Road.

Systemic Safety Analysis

A systemic approach to safety involves widely implemented improvements based on high-risk roadway features correlated with specific severe crash types. This systemic analysis will focus specifically on pedestrian and bicycle collisions. The goal of this analysis is to help implement a proactive, risk-based approach to safety and identify roadways for systemic treatments to prevent bicycle and pedestrian crashes from occurring. The final result of the systemic safety analysis was a high risk network which was used as part of the prioritization process.

Corridors that rank as the highest risk are:

- » Main Street
- » Garber Road
- » National Road
- » Salem Avenue
- » Westbrook Road

LIVABILITY

Understanding Clayton's quality of life

Livability is the sum of the factors that add up to a community's quality of life. Factors include the natural and built environments, social conditions, economic conditions, and public health. Ohio is one of the least healthy states in the country, falling behind on physical activity. This is due in part to the lack of adequate options for walking and bicycling for both transportation and physical activity. In addition, auto-oriented lifestyles increase emissions and harm air quality. Finally, transportation costs can be a burden to Ohioans; replacing automobile trips with walking and bicycling trips creates more economic stability for families. Active transportation networks provide greater choices and positively impact quality of life.

Community Health Assessment (CHA)

Public Health – Dayton & Montgomery County completed its most recent Community Health Assessment in 2022. The CHA evaluated health status and issues impacting Clayton. The Community Health Assessment led to the following goals in their Community Health Improvement Plan that address health priorities and are related to active transportation. One of the priorities of their Community Health Improvement Plan was chronic disease prevention, which included goals directly related to active transportation:

- » Goal 1: All Montgomery County residents will have improved physical, social, and affordable access to sufficient, safe, and nutritious foods that meet their food preferences and dietary needs for an active and healthy life.
- » Goal 2: All Montgomery County families will have access to safe, accessible, and affordable locations to participate in activities to increase physical activity.

PROPOSED PROJECTS AND PROGRAMS





PROPOSED PROJECTS AND PROGRAMS

The Clayton ATP makes recommendations that will promote and support active transportation through a combination of infrastructure projects, policies, and programs. Infrastructure recommendations refer to physical, built projects that will change how roadways are configured to provide space for all users. Policy and program recommendations aim to re-prioritize walking and bicycling and to change the culture around active transportation and help increase its use through engagement, education, encouragement, and evaluation.

INFRASTRUCTURE PROJECTS

The final network is based on the existing conditions analysis, Steering Committee meetings, and public input. The network includes critical connections to parks, schools, and major destinations such as the YMCA through key streets like, National Road, Main Street, Crestway Drive, Hoke Avenue, and Westbrook Road. The network also identifies multiple intersections that should be improved to make walking and bicycling safer along major roads, such as National Road and Haber Road, Main Street and Meijer (South Entrance/Exit), and Westbrook Road at Garber Road and Main Street, however efforts to improve crossings should be made whenever bicycle or pedestrian infrastructure is constructed. See Figure 12, Figure 13, Figure 14, and Figure 15 for all network recommendations and Table 4, Table 5, Table 6, and Table 7 for a complete list of all proposed projects with descriptions.

Table 3: Proposed Infrastructure Recommendations

Crossing Improvements	10
Sidewalks	3 miles
Neighborhood Bikeways	6 miles
Bikeways/Shared Use Paths	28 miles

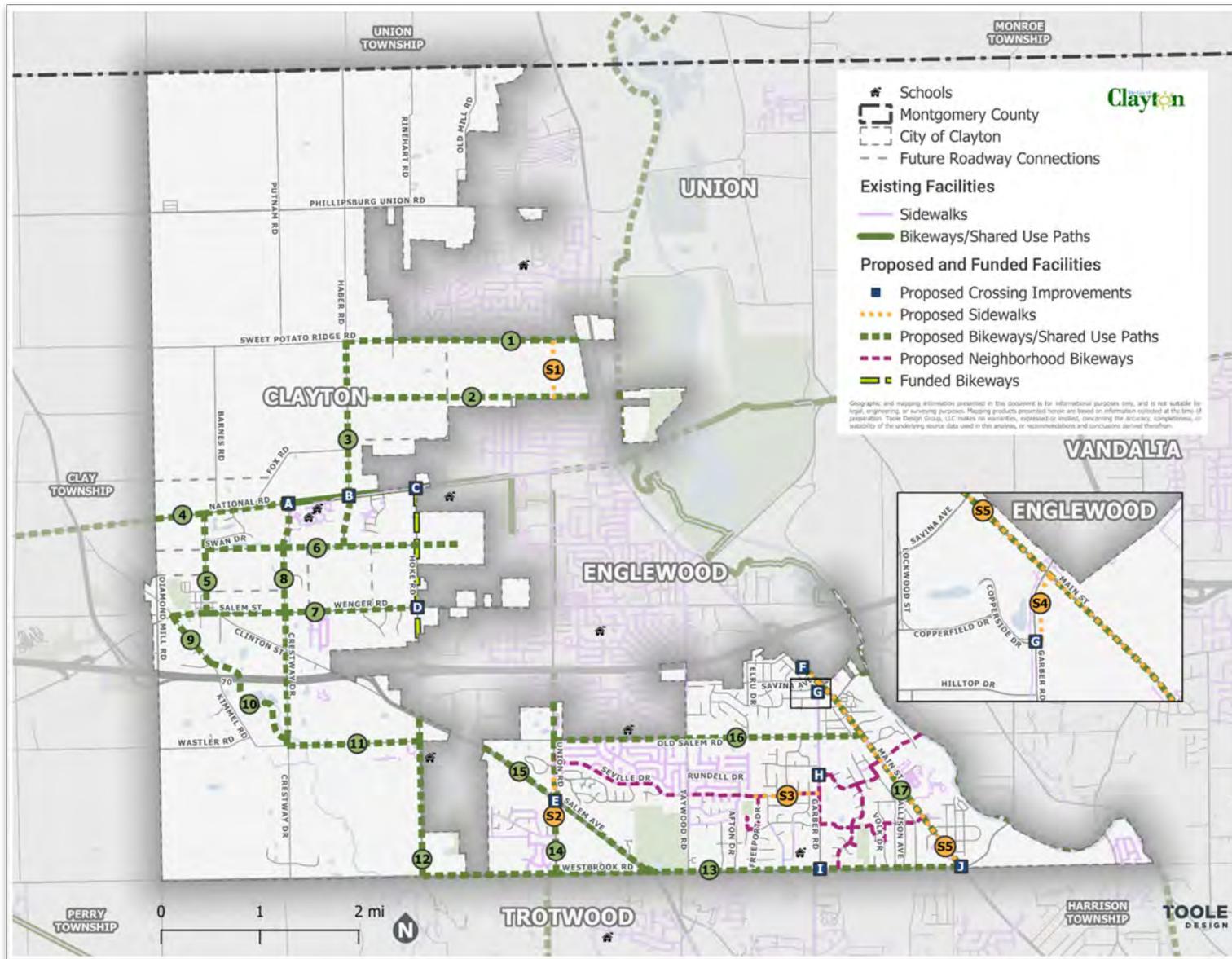


Figure 12. Proposed Recommendations



Figure 13. Proposed Bikeways/Shared Use Paths

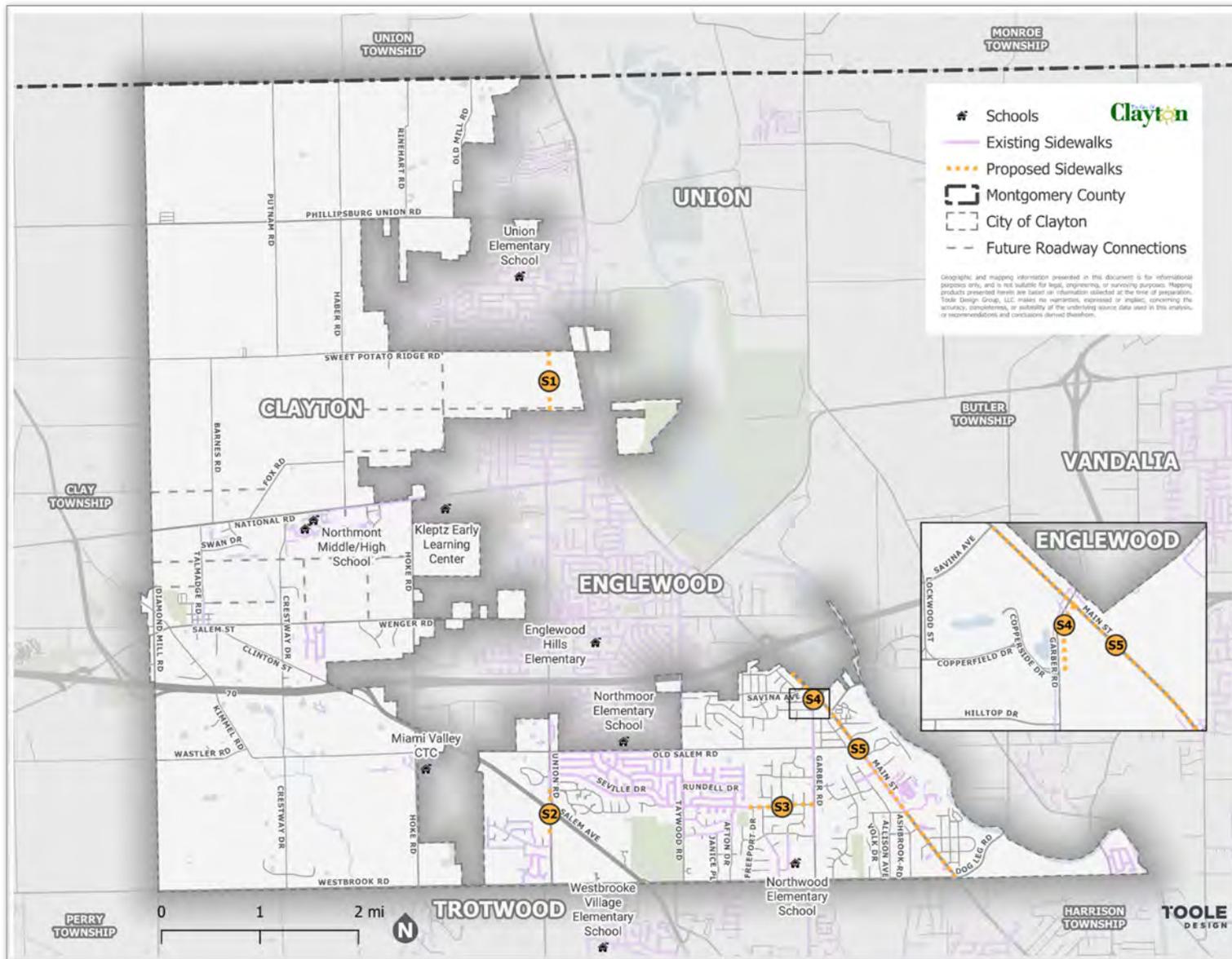


Figure 14. Proposed Sidewalks

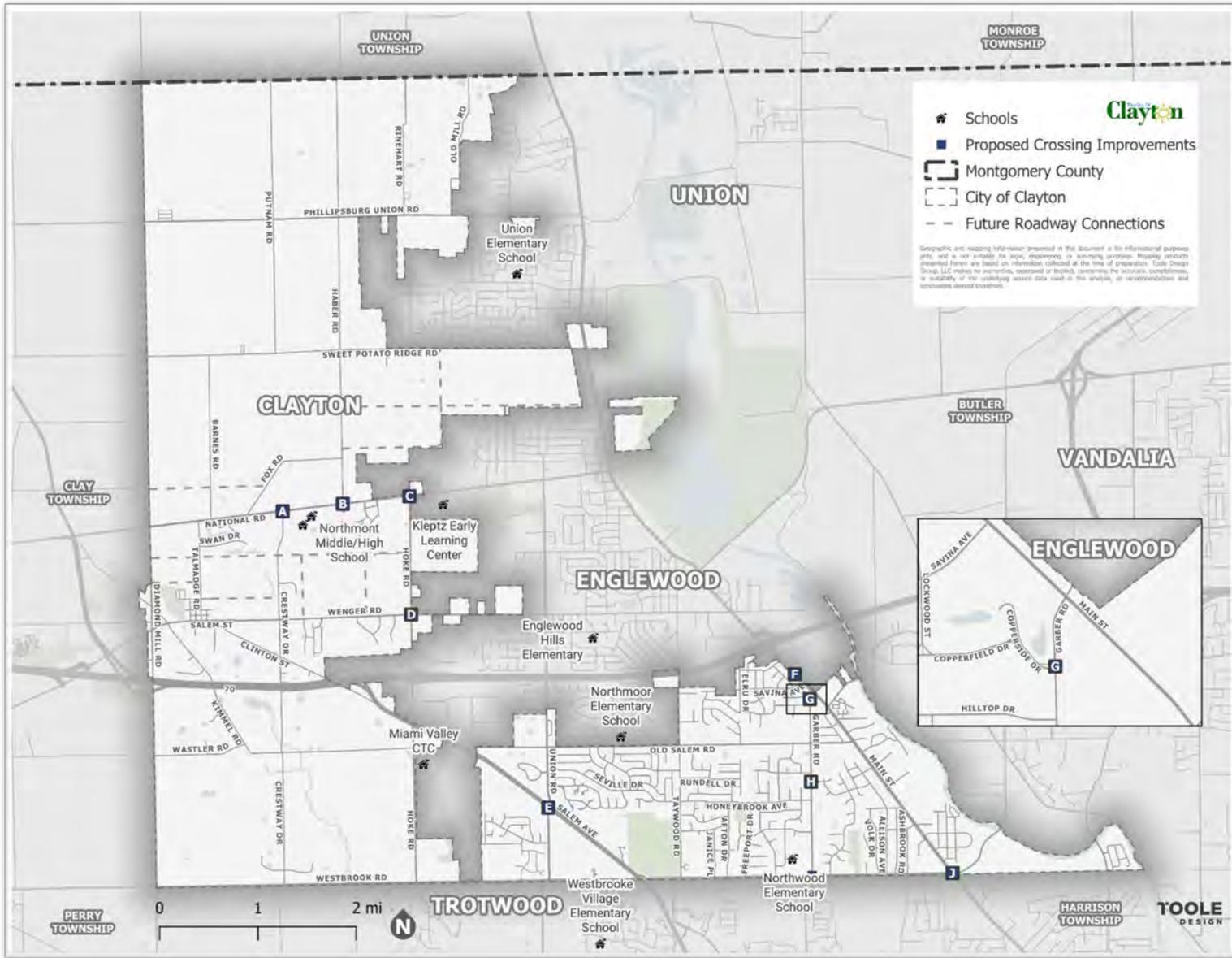


Figure 15. Proposed Crossing Improvements

Table 4: Bikeways/Shared Use Path Recommendations

Project ID	Road Name	Extents	Prioritization Ranking
1	Sweet Potato Ridge Road	Haber Road to Clayton Boundary	10
2	Future Roadway	Haber Road to Clayton Boundary	14
3	Haber Road	Sweet Potato Ridge Road to Future Clayton Road	7
4	National Road	Clayton Boundary to Shared Use Path on National Road	6
5	Talmadge Road	National Road to Salem Street	16
6	Future Roadway	Talmadge Road to Future Roadway No Outlet	11
7	Salem Street/Wenger Road	Kimmel Road to Hoke Road	8
8	Crestway Drive	National Road to Kimmel Road	9
9	Kimmel Road	Salem Street to Rosser Avenue	12
10	N/A (Trail)	Rosser Avenue to Crestway Drive	14
11	Kimmel Road	Crestway Drive to Hoke Road	13
12	Hoke Road	Salem Avenue to Westbrook Road	2
13	Westbrook Road	Hoke Road to Main Street	1
14	Union Road	Clayton Boundary to Westbrook Road	5
15	Salem Avenue	Clayton Boundary to Westbrook Road	3
16	Old Salem Road	Union Road to Main Street	4
17*	Main Street	Meijer Southern Entrance to Westbrook Road	

*The Main Street project was added after the data driven prioritization analysis was performed.

Table 5: Neighborhood Bikeways Recommendations

Project ID	Road Name	Extents	Prioritization Ranking
1*	Greenview Drive	Main Street to Clayton Boundary	High
2**	Garber Road	Gold Key Boulevard to Willow Creek Drive	High
3	Scothills Drive, Seville Dive, Honeybrook Avenue/Freeport Drive, Willow Creek Drive, Lavon Court	Union Road to Garber Road/Honeybrook to Northview Park	Medium
4	Gold Key Boulevard, Thelma Avenue, Inwood Avenue, Greenview Drive	Garber Road to Main Street	Medium
5	Jean Drive, Cheri Lynne Drive	Thelma Avenue to Westbrook	Low
6	Barrington Drive, Flower Avenue, Trails, Debbie Court, Northland Court, Volk Drive	Garber Road to Main Street	Low

*The prioritization for this project was run on Woolery Lane, which is south of Greenview Drive. After discussions with the city, it was decided that the project should be moved to Greenview Drive since the intersection is signalized and crossing would be safer. The assumption is that the prioritization results would remain the same since Greenview Drive is within close proximity of Woolery Lane.

**Garber Road is likely better suited as a "Signed Bike Route" with current roadway characteristics (further analysis required), unless roadway characteristics changed (lower speeds/traffic volumes).

Table 6: Sidewalk Recommendations

Project ID	Road Name	Extents	Prioritization Ranking
S1	Future Clayton Roadway	Sweet Potato Ridge Road to Chris Drive/Englewood	5
S2	Union Road	Sidewalk north of Salem Avenue to Sidewalk south of Salem Avenue	2
S3	Honeybrook Avenue	Railroad Tracks to Garber Road	3
S4	Garber Road	Copperside Drive to Main Street	4
S5	Main Street	Meijer Southern Entrance to Westbrook Road	1

Table 7: Crossing Improvements Recommendations

Project ID	Intersection 1	Intersection 2	Prioritization Ranking
A	National Road	Crestway Drive	9
B	National Road	Haber Road	5
C	National Road	Hoke Road	3
D	Hoke Road	Wenger Road	9
E	Union Road	Salem Avenue	7
F	Main Street	South Meijer Entrance	4
G*	Copperside Drive	Garber Road	6
H**	Gold Key Boulevard	Garber Road	7
I	Garber Road	Westbrook Road	1
J	Main Street	Westbrook Road	2

* Crossing improvements at Copperside Drive and Garber Road would improve safety for those using the RTA bus stop on the east side of Garber Road.

**Crossings improvements along Garber Road will provide safe connections for those using the proposed neighborhood bikeways.

ACTIVE TRANSPORTATION NETWORK RATIONALE

A primary goal of this plan is to increase the safety and convenience of walking and biking and to that end, recommendations include a variety of route options and facility types to accommodate the majority of community members. The recommendations outlined in Figure 12, Figure 13, Figure 14, and Figure 15 and Table 4, Table 5, Table 6, and Table 7 add over three miles of sidewalks, 28 miles of bikeways/shared use paths, six miles of neighborhood bikeways and 10 improved crossings to the transportation system. The following section goes into more detail on how and why facilities in the network were selected. See Figure 12 for all recommendations for Clayton.

Pedestrian Facilities

Pedestrian infrastructure is primarily provided in the form of sidewalks. The presence of sidewalks along a roadway corresponds to a 65 to 89 percent reduction in walking along road pedestrian crashes.¹ Pedestrians are also among the most vulnerable road users and 72 percent of pedestrian fatalities occur at non-intersection locations.² Additional treatments implemented along roadways and crossing improvements would improve the bicycling and walking experience, encourage more walking, and decrease the number of crashes that occur. The appropriate crossing enhancements for each location will be decided upon further analysis, but could generally include high-visibility crosswalks, signage, curb extensions, pedestrian refuge islands, rectangular rapid-flashing beacons (RRFB), and pedestrian hybrid beacons (PHB). See Figure 14 for sidewalk recommendations and Figure 15 for crosswalk recommendations.

Bicycle Facilities

The bicycle facility recommendations in this plan were developed through public engagement, City and Steering Committee knowledge, and a comprehensive and data-driven approach, ensuring they address the community's needs while promoting accessibility and equity. A needs and demand analysis identified areas with the highest potential for active transportation use. An equity analysis was also conducted to prioritize improvements in underserved areas, ensuring that communities facing historical barriers to mobility were included in the planning process. A StreetLight data analysis provided detailed insights into existing bicycle activity, revealing trends and hotspots that informed the placement of new infrastructure and enhancements. See Figure 13 for bikeway facility recommendations.

Robust community and stakeholder engagement efforts, including surveys, meetings, pop-up events, and open houses, identified critical gaps and barriers in the active transportation network, mapping disconnected routes, physical obstacles, and areas with safety concerns. This outreach allowed residents, advocates, and local leaders to share their perspectives and validate the data-driven insights. Together, these analyses and community inputs shaped actionable, inclusive recommendations designed to improve safety, connectivity, and accessibility for all users.

¹ FHWA (2017). Desktop Reference for Crash Reduction Factors, FHWA-SA-08-011, Table 11. Referenced in <https://safety.fhwa.dot.gov/provencountermeasures/walkways/>

² FHWA (2018). Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations, Page 1. https://safety.fhwa.dot.gov/ped_bike/step/docs/STEP_Guide_for_Improving_Ped_Safety_at_Unsig_Loc_3-2018_07_17-508compliant.pdf

Design Users

Local infrastructure and routes will help riders of varying abilities access their daily destinations such as schools, grocery stores, parks, and work. There are several important factors to consider during bicycle facility selection, such as design users and roadway conditions. This section describes the different types of bicyclists, highly confident, somewhat confident, and interested but concerned, who make up the majority of the population. It also provides an introduction to the FHWA bicycle facility selection matrix that identifies what type of facility is appropriate for majority of bicyclists based on speed, volume, and context.

Understanding which types of bicyclists feel comfortable using a given facility is key to building a safe, convenient, and well-used network.

Design User Profiles

Highly Confident Bicyclist (~4-7%)

- » Smallest group.
- » Prefer direct routes and will operate in mixed traffic, even on roadways with higher motor vehicle operating speeds and volumes.
- » Many also enjoy separated bikeways.
- » May avoid bikeways perceived to be less safe, too crowded with slower moving users, or requiring deviation from their preferred route.

Somewhat Confident Bicyclist (~5-9%)

- » Comfortable on most types of facilities.
- » Lower tolerance for traffic stress, prefer striped or separated bike lanes on major streets and low-volume residential streets.
- » Willing to tolerate higher levels of traffic stress for short distances.

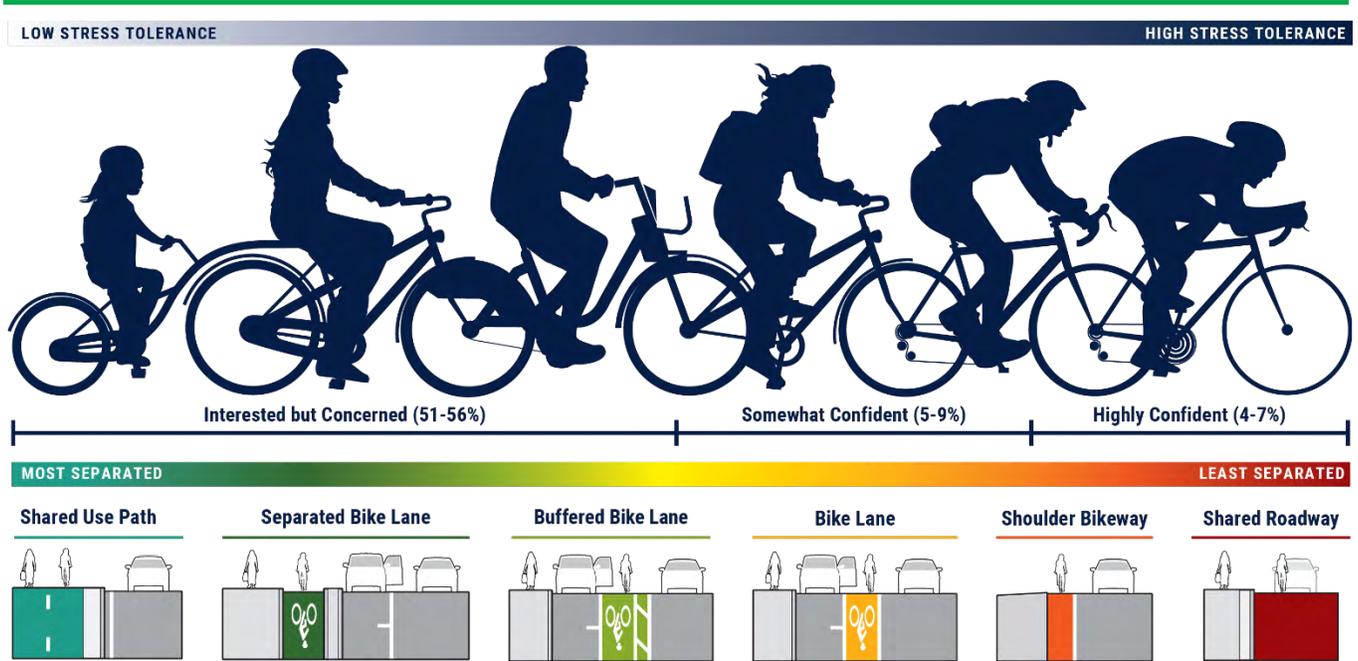
Interested but Concerned Bicyclist (~51-56%)

- » Largest group.
- » Lowest tolerance for traffic stress.
- » Avoid bicycling except with access to networks of separated bikeways or very low-volume streets with safe roadway crossings.
- » Tend to bicycle for recreation but not transportation.
- » Generally, the recommended design user profile to maximize potential for bicycling.

Bicyclists are most commonly classified according to their comfort level, bicycling skill and experience, age, and trip purpose. These characteristics can be used to develop generalized profiles of various bicycle users and trips, also known as “design users,” which inform bicycle facility design. Comfort, skill, and age may affect bicyclist behavior and preference for different types of bicycle facilities. Selecting a design user profile is often the first step in assessing a street’s compatibility for bicycling. The design user profile should be used to select a preferred type of bikeway treatment for different contexts, urban, suburban, rural town or rural roadways (see Figure 16, Figure 17, and Figure 18). People who bicycle are influenced

by their relative comfort operating with or near motor vehicle traffic. To accommodate the majority of the population, the “Interested but Concerned” rider should be the primary user type that facilities are designed for. In some contexts, such as rural roadways where less people may be expected to be traveling by bike, the Somewhat Confident or Highly Confident rider is the most relevant design user.

Figure 16: Types of Bicyclists (Source: Toole Design)

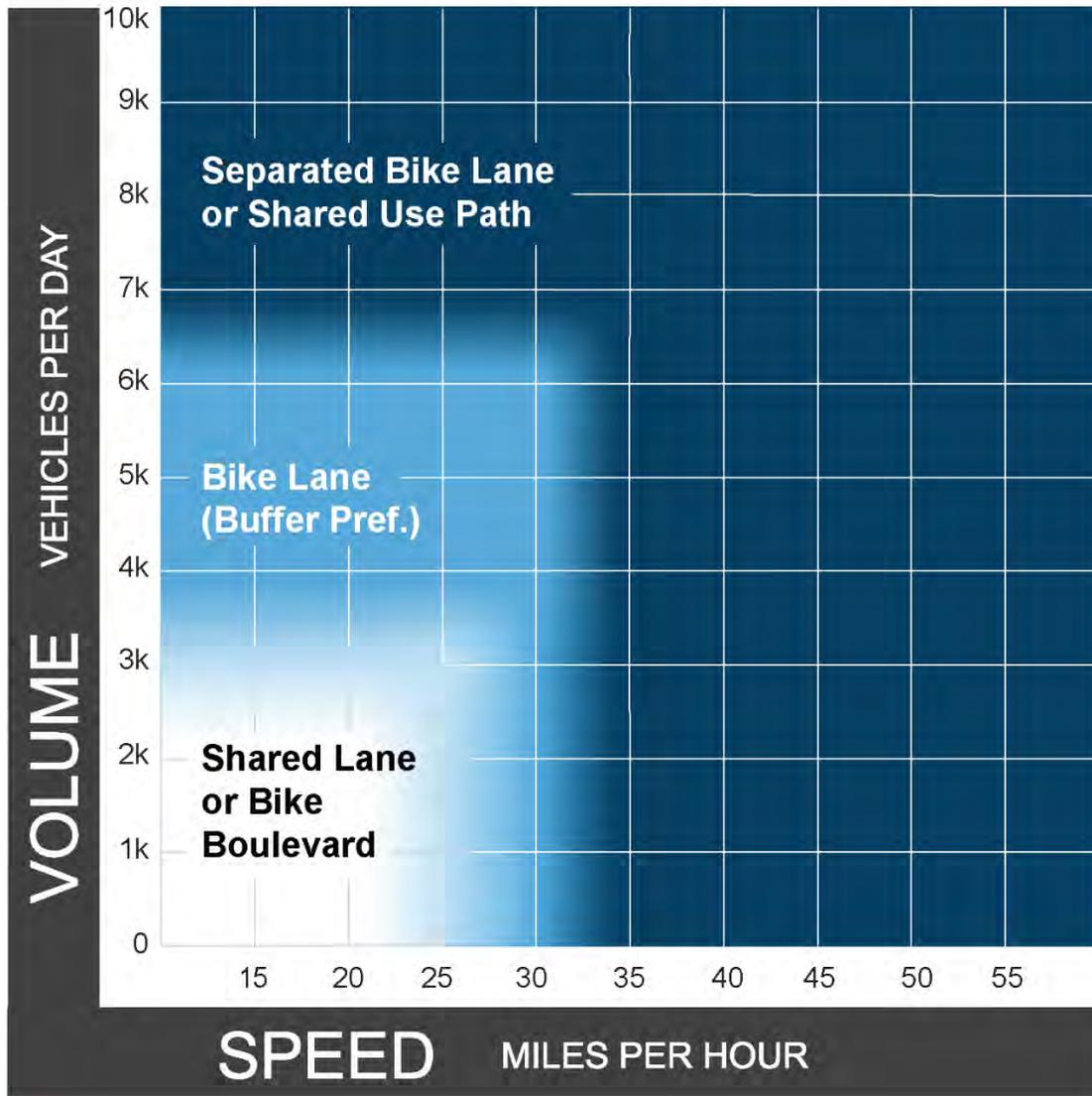


Facility Selection Methodology

Bicycle networks should be continuous, connect seamlessly across jurisdictional boundaries, and provide access to destinations. Anywhere a person would want to drive to for utilitarian purposes, such as commuting or running errands, is a potential destination for bicycling. As such, planning connected low-stress bicycle networks is not achieved by simply avoiding motor vehicle traffic. Rather, planners should identify solutions for lowering stress along higher traffic corridors so that bicycling can be a viable transportation option for the majority of the population.

Before projects can be implemented the type of on-street bicycle facility will need to be defined. The [Federal Highway Administration \(FHWA\)’s Bikeway Selection Guide](#)’s facility selection matrices (Figure 17 and Figure 18) can be used to help determine the best facility for the roadway based on context, speed, and volume as well as the relevant design user type. See the full guide for further detail on facility selection.

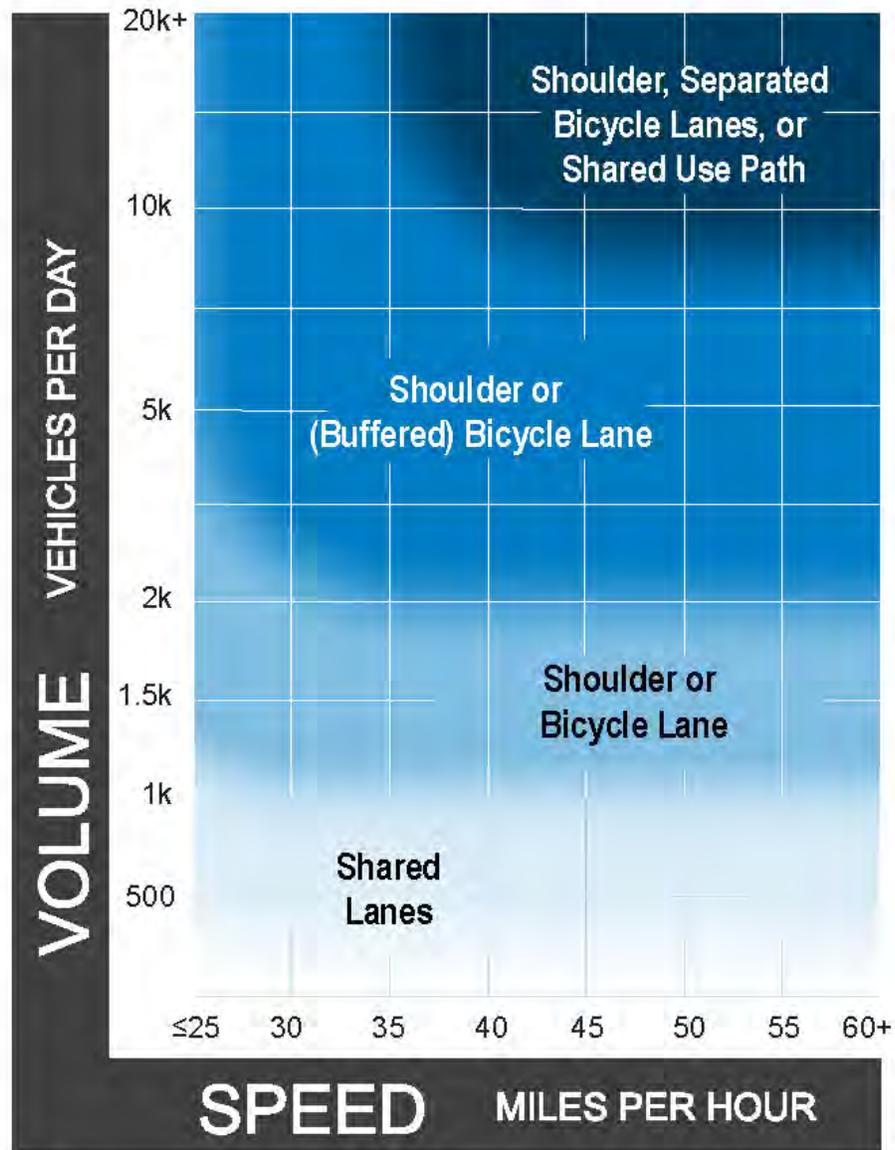
Figure 17: FHWA Bikeway Facility Matrix: Preferred Bikeway Type for Urban, Urban Core, Suburban and Rural Town Contexts (Design User: Interested but Concerned)



Notes

- 1 Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
- 2 Advisory bike lanes may be an option where traffic volume is <3K ADT.
- 3 See page 32 for a discussion of alternatives if the preferred bikeway type is not feasible.

Figure 18: Preferred Bikeway for Highly Confident Bicyclists in Rural Contexts (Modified FHWA Bikeway Facility Matrix)



Notes

- 1 Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
- 2 If the percentage of heavy vehicles is greater than 10%, consider providing a wider shoulder or a separated pathway.

FACILITY TOOLKIT

This toolkit was created as part of ODOT’s Active Transportation Plan Development Guide, created in 2021. There are numerous facility types which accommodate people of varying abilities and in different environments. Research shows that the provision of low-stress, connected bicycle networks improves bicyclist safety and encourages bicycling for a broader range of user types.³ Pedestrian infrastructure is primarily provided in the form of sidewalks. The following section includes descriptions of pedestrian and bicycle facilities and links to further references.

Sidewalks

Sidewalks are intended to be used by people walking. They are adjacent to but separated from the roadway by a curb and/or buffer, such as a tree lawn. As roadway speeds and volumes increase, more separation is needed to maintain a safe and comfortable walking environment for pedestrians. Common in urban areas, they may also be necessary in rural areas with pedestrian generators, such as schools and businesses. For further guidance on pedestrian design, refer to [ODOT’s Multimodal Design Guide, Chapter 4 -Pedestrian Facilities](#).

Crossing Improvements

A variety of solutions can be employed to make intersections and mid-block crossings safer and more convenient for people walking. These treatments range from painted facilities, such as high-visibility crosswalks, to signs, lights, and signals. Painted crosswalks delineate the safest pathway for pedestrians, and rectangular rapid flashing beacons (RRFBs) enhance user safety and convenience at crossing points when full signalization is not warranted. For further guidance on pedestrian design, refer to [ODOT’s Multimodal Design Guide \(MDG\) Chapter 4 -Pedestrian Facilities, MDG Chapter 8 – Signals, Beacons, and Signs, and FHWA’s Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#).

Bicycle Facilities

As part of the existing conditions assessment, the project team conducted a Level of Traffic Stress (LTS) analysis, which uses broadly available road characteristics to classify the experience of riding a bicycle on different streets. The LTS analysis grouped roads into one of four categories:

- » **LTS 1** – A low stress street suitable for all ages and abilities. Streets tend to have posted speeds of 30mph or lower, with low volume and few travel lanes.
- » **LTS 2** – Streets suitable for those who are “interested but concerned” about riding a bicycle, which includes most adults and families. These streets tend to have posted speeds of 35mph or slower with low to moderate volume.



Figure 19: Sidewalk (Source: Toole Design)



Figure 20: Crosswalk (Source: Toole Design)

³ AASHTO (2021). Guide to Bicycle Facilities, 4th Edition, 2.2. Why Planning for Bicycling is Important.

- » **LTS 3** – Streets suitable for those who are “enthused and confident” about riding a bicycle. These streets tend to have lower speeds (35mph) with higher volumes or higher speeds (40mph or higher) but with low volumes.
- » **LTS 4** – A high stress street is uncomfortable for most adults. These streets tend to have high speeds with high volumes.

Streets with a higher level of stress require greater separation between bicyclists and vehicles in order to reduce stress and create a facility that is appropriate for all ages and abilities. Table 8, defines the appropriate bicycle facility or facilities based on the roadway’s LTS score. (Note that separated bike lanes and shared use paths could be appropriate for all LTS categories if space is available). For further guidance on bicycle infrastructure design, refer the following ODOT Multimodal Design Guide chapters:

- » [Chapter 5 – Shared Use Paths](#)
- » [Chapter 6 – On-Road Bicycle Facilities](#)
- » [Chapter 7 – Motor Vehicle Facilities Supporting Multimodal Accommodation](#)
- » [Chapter 9 – Multimodal Accommodations at Interchanges & Alternative Intersections](#)

Table 8: Appropriate Bicycle Facilities Based on the Street Level of Traffic Stress (LTS)

Existing Condition of Street ⁴	Appropriate Bicycle Facility Types	Description
<p>If the street has an LTS 1, then consider adding a neighborhood bikeway/bicycle boulevard.</p>	<p>Neighborhood Bikeway/ Bicycle Boulevard</p> 	<p>Where traffic volumes and speeds are low, bicyclists can comfortably share lanes with motor vehicles. Shared lane markings and signs are added to inform people driving that bicyclists may operate in the lane and where to expect bicyclists. Wayfinding signage, traffic calming, and intersection treatments need to be incorporated into bicycle boulevards to increase user comfort and prioritize bicycle travel.</p>
<p>If the street has an LTS 2, then consider adding a bike lane/buffered bike lane.</p>	<p>Bike Lane / Buffered Bike Lane</p> 	<p>Bike lanes and buffered bike lanes are one-way facilities within the roadway demarcated with painted lane lines. Standard bike lanes provide some improvements to bicyclist safety, and can be enhanced with painted buffers, bike lane extensions through intersections, green colored pavement, and regulatory signs.</p>
<p>If the street has an LTS 3 or LTS 4, then consider adding a separated bike lane.</p>	<p>Separated Bike Lane</p> 	<p>A separated bike lane is a one- or two-way facility within the roadway and physically separated from adjacent travel lanes with vertical elements such as a curb, flex posts or on-street parking. Such facilities reduce the risk of injury and can increase bicycle ridership due to increased safety and comfort.</p>
<p>If the street has an LTS 4, then consider adding a shared use path and separated bike lanes.</p>	<p>Shared Use Path</p> 	<p>Typically designed as two-way facilities physically separated from motor vehicle traffic and used by bicyclists, pedestrians, and other non-motorized users, shared use paths provide a low-stress and comfortable travel environment for users of all confidence levels. They are used for recreational opportunities in addition to transportation and can be located along roadways or completely separated from the road network, sometimes along rivers or old railroad corridors.</p>

⁴ Each street should be evaluated for feasibility of a bike facility.

PROGRAMS AND POLICIES

Establishing safe and convenient active transportation infrastructure is critical to improving walking and bicycling conditions. But without programs and policies in place to support active transportation, infrastructure projects can only go so far. A variety of non-infrastructure tools can increase pedestrians' and bicyclists' safety by establishing a culture of walking and biking and creating a friendly regulatory and political environment for active transportation.

Programs and policies can typically be implemented relatively quickly and inexpensively. Programs can be easily scaled to a wide audience, such as elementary school students, transit riders, or business owners or they can target specific groups for programming, like speeding motorists in school zones. Individual programs can increase walking and bicycling in specific circumstances and locations but should be coordinated with policy development to ensure lasting change. See Table 9 for a list of proposed programs and policies. These proposed programs and policies aim to accomplish the following goals:

The timeframes outlined in Table 9 are defined as follows:

- » **Short-term:** One year
- » **Medium-term:** Two to three years
- » **Long-term:** Three years or more

The status of programs and policies should be assessed and updated each time the overall plan is updated. Status is defined as:

- » **New:** A program or policy that is proposed in this Plan.
- » **Ongoing:** An existing program or policy that will be continued.
- » **On-hold:** A program or policy that has been stalled or deferred.
- » **Completed:** When regularly updating the plan, update the program or policy status to complete when applicable to help track progress.

Table 9. Program and Policy Recommendations

Program/Policy	Description	Responsible Party	Key Partners	Timeframe	Status
Goal 1: Connectivity					
Wayfinding System/ Signed Routes	Create and build off existing wayfinding systems and signed routes.	City of Clayton		Medium-term	New and Ongoing
Walking Routes	Implement safe walking routes (i.e., Winter Maintenance Priority Routes, Safe Routes to School). Local schools could distribute maps to students and promote routes on their website. This will help guardians select walking routes based on where other children may also be walking and biking.	City of Clayton	Northmont City Schools; Trotwood-Madison City Schools	Medium-term	New
Goal 2: Safety					
Comprehensive Safety Action Plan and Vision Zero Policy	Be actively involved in the MVRPC Comprehensive Safety Action Plan to promote safe roadway practices for all. Commit to a Vision Zero policy to work towards zero traffic-related deaths and serious injuries.	City of Clayton	Miami Valley Regional Planning Commission (MVRPC)	Medium-term	New
Coffee with a Cop	Allows the public to meet and chat with area law enforcement to discuss community concerns.	City of Clayton Police Department		Short-term	Ongoing
Goal 3: Infrastructure & Services					
Demonstration Projects*	Look for opportunities to build temporary demonstration projects to support permanent infrastructure changes and educate residents on potential infrastructure.	City of Clayton	Public Health – Dayton & Montgomery County	Short-term	New
Street Tree Program*	Establish a citywide street tree program.	City of Clayton		Long-term	New
Enhance Lighting*	Identify areas with poor, broken, or missing street lighting to create safer walking and bicycling conditions.	City of Clayton		Long-term	New

Program/Policy	Description	Responsible Party	Key Partners	Timeframe	Status
Goal 4: Alignment & Collaboration					
Indoor Walking Club	Establish an Indoor Walking Club for seniors.	Clayton residents, YMCA		Long-term	New
Cycling Club Group Rides	Establish a cycling club group and host group rides.	Clayton residents		Long-term	New
Programming and Events*	Host programming and events that promote walking and bicycling where the goal is to bring residents and visitors to parks or specific community areas to walk around and enjoy local businesses, music, and more. Community members could lead events/programs as community ambassadors for active transportation.	City of Clayton	Local businesses	Long-term	New
Bike Route Map, Bike Parking Map	Create educational materials and maps that educate, promote, and support walking and bicycling within Clayton.	City of Clayton		Short-term	New
Bicycle Friendly Businesses*	Encourage businesses to become “bicycle friendly” by providing incentives to customers who arrive by bicycle like bicycle parking, repair stations, or bicycle events. Clayton's program could include a sign for businesses to display.	Northmont Area Chamber of Commerce	Local businesses	Short-term	New
Active Transportation Funding	Coordinate funding for pedestrian and bicycle facilities across departments as appropriate. Pursue federal, state, and regional grants and funding.	City of Clayton	Miami Valley Regional Planning Commission	Short-term	Ongoing
City Maintenance Practices*	Review and update city maintenance practices for walking and bicycling facilities, such as routine maintenance and snow removal. Coordinate with regional partners for regional trails.	City of Clayton	Miami Valley Regional Planning Commission	Medium-term	New
Active Transportation Committee Meetings*	Continue the Active Transportation Plan Steering Committee meetings. Committee should meet regularly and advise the city on Complete Streets and Active Transportation and oversee implementation of the Active Transportation Plan.	City of Clayton; Residents; Partner Organizations		Short-term	New
Miami Valley's Regional Active	Actively support and collaborate with neighboring jurisdictions on the implementation of MVRPC's Regional Active Transportation Plan by joining	City of Clayton	Miami Valley Regional Planning Commission	Short-term	New

Program/Policy	Description	Responsible Party	Key Partners	Timeframe	Status
Transportation Committee*	MVRPC's Regional Active Transportation Committee.				
Update policies and guidelines	Update existing policies and guidelines to reflect the current best practices for traffic safety and active transportation such as Bike Parking Guidelines, Rules and Regulations of Electric Transportation Devices, design standards, land use, development review, and 85th percentile speed-setting, etc.	City of Clayton		Medium-term	New
Trainings and Curricula	Train teachers or volunteers on safe walking and bicycling practices (e.g., bicycle safety education, helmet fitting techniques) so that they can educate students of all ages and abilities. Training for students could be part of classroom curriculum or physical education courses. The program could include hosting a bicycle rodeo (i.e., trainings on bicycle handling skills, on-street bicycling experience) or fix-it events at schools (i.e., students can bring their bike to school and have it checked for safety and for minor repairs with a local bike co-op or non-profit).	Northmont City Schools; Trotwood-Madison City Schools; Miami Valley CTC	City of Clayton	Medium-term	New
Goal 5: Convenience					
Open Streets*	Develop a toolkit for a program that opens streets to people walking and bicycling by temporarily closing access to motorists. Open Streets events give communities another perspective of how streets can be used for active modes and encourage people to walk and bicycle.	City of Clayton		Medium-term	New
Bike Share Program	Establish a Bike Share Program to allow those who might not own a bicycle to have access to bicycles.	City of Clayton	YMCA, Library	Medium-term	New
Amenities and Infrastructure that Supports those with Disabilities	Implement or upgrade amenities that support those with disabilities that walk or bicycle (e.g., audible pedestrian signals, tactical curb cuts, bicycle racks for trikes and adaptive bicycles).	City of Clayton		Medium-term	New

Program/Policy	Description	Responsible Party	Key Partners	Timeframe	Status
Free and low-cost bicycles and gear	Work with local businesses, non-profits, and charities to provide refurbished, free, or affordable bicycles, e-bicycles, cargo bicycles, and trikes or other adaptive devices. Giveaway and donation events should foster a culture of safe riding practices by including high-quality locks, lights, baskets or panniers, and helmets.	City of Clayton	Public Health – Dayton & Montgomery County	Short-term	New
Bicycle Racks	Install bike racks near frequented destinations and along key bicycle routes.	City of Clayton	Businesses	Medium-term	New
Bicycle Racks on Buses	Install bike racks on all buses/vans to make biking to/from transit more realistic.	Greater Dayton RTA		Medium-term	New
Walk/Bike/Roll to School Days*	Host and promote annual Walk/Bike/Roll to School Days. Request that members of the school board and Administration participates in AT activities. Walk and Bike to School Day resources and links should be added to the Northmont City Schools, Trotwood-Madison City Schools, and Miami Valley CTC webpages. This could include enabling school bus drivers to drop-off/pick-up students at remote locations on designated Walk/Bike to School Days and/or identifying possible remote drop-off and pick-up locations at pilot schools.	Northmont City Schools; Trotwood-Madison City Schools; Miami Valley CTC	City of Clayton	Long-term	New
Walk/Bike/Roll to Work Days*	Host and promote annual Walk/Bike/Roll to Work Days.	City of Clayton; Local Businesses		Long-term	New
Walking School Bus	Establish a Walking School Bus program and educate administrators and families on how a walking school bus program can alleviate concerns through principal meetings, school events, parent meetings and any other forums.	Northmont City Schools; Trotwood-Madison City Schools		Medium-term	New

*Top programs and policies voted on by the public during the fall Open Houses.

PRIORITY PROJECTS





PRIORITY PROJECTS

The infrastructure recommendations in this Plan are conceptual routes, meant to show the potential of a comprehensive active transportation system in Clayton. The recommendations are planning level in scope and are not necessarily constrained by existing challenges. In other words, funding, land use, property rights, terrain, and other project specific factors may make certain recommendations more or less practical than others. Project prioritization uses measurable data to determine which projects are feasible and align with stakeholders' priorities.

Project prioritization uses measurable data to determine which projects are feasible and align with the community's priorities. Implementation will require working with a larger number of partners to coordinate and build public support for priority projects. Whenever possible, recommendations in this plan should be incorporated into other street design projects. Every year, the City of Clayton should re-evaluate the priority list to track which projects have been implemented and adjust as needed.

PRIORITIZATION METHODOLOGY

As is true for most cities, the City of Clayton has limited funds for building bicycle and pedestrian infrastructure. The prioritization in this plan is a data-driven process that uses the Existing Condition analyses to score and rank projects based on conditions in their relative locations. It is important to note that while public feedback and right-of-way constraints are not variables listed in the overall prioritization, all proposed recommendations will take right-of-way constraints into consideration during development. For public support, projects were vetted against the public before being finalized.

The outline of variables and how weights were used for the facility prioritization are shown in Table 10 and Table 11. The results of the prioritization are noted in Table 4, Table 5, Table 6, Table 7 and displayed in Figure 21, Figure 22, Figure 23, and Figure 24.

PRIORITIZED NEIGHBORHOOD BIKEWAY METHODOLOGY

The proposed neighborhood bikeways were also run through the data-driven prioritization. When neighborhood bikeways are implemented, they are often implemented along the entire desired corridor at once since they are typically low cost and low effort. Due to this, we have grouped the corridors into phased priority corridors (high/medium/low) with some influence from the data-driven prioritization.

Table 10. Prioritization Method (Bikeways and Shared Use Paths, Neighborhood Bikeways, and Sidewalks)

Variable	Description	Category	Weight
High Risk Network	Projects receive a point if identified as <u>high risk</u> in the high-risk network.	Safety	40
Level of Traffic Stress	Project receive more points the higher the level of traffic stress on the street: <ul style="list-style-type: none"> » LTS 4 = 1 pts » LTS 3 = .67 pts » LTS 2 = .34 pts » LTS 1 = 0 pt 		
Connections to Existing	Counts the number of connections to ODOT District Work Plan projects and existing projects (including projects outside of Clayton City boundary). Any other project within 200 feet of a project counts as a connection.	Connections	25
Non-motorized Activity (Streetlight)	The higher the bike or walk activity the more points: <ul style="list-style-type: none"> » Highest = 1 pts » High = .5 pts » Moderate = .25 pt 		
Needs Analysis	Based on ODOT's Walk.Bike.Ohio efforts . The higher the need, the higher the points. Indicators: Minority Groups, Youth, Older Adults, Poverty, No High School Diploma, Limited English Proficiency, and No Access to a Motor Vehicle.	Equity	35
Demand Analysis	Based on ODOT's Walk.Bike.Ohio efforts . The higher the demand, the higher the points. Indicators: Employment Density, Population Density, Walk/Bike Commute Mode, Park Density, Presence of Colleges/University, Retail Employment Density, and People at or Below 200% of the Federal Poverty Line. It is important to note that areas with higher rates of disparity, costs are ranked higher.		
Equity Index	Based on the U.S. Climate and Economic Justice Screening Tool and ODOT's Highway Safety Improvement Plan (HSIP) Location Equity Measure. Disadvantaged communities will receive a point.		

Table 11. Prioritization Method (Crossing Improvements)

Variable	Description	Category	Weight
High Risk Network	Projects receive a points based on if they are medium or high risk identified in the high-risk network. <ul style="list-style-type: none"> » High = 2 pts » Medium = 1 pt 	Safety	50
Synergy	Projects receive a point for overlap with ODOT District Work Plan projects or city-identified project.	Synergy	10
Needs Analysis	Based on ODOT's Walk.Bike.Ohio efforts . The higher the need, the higher the points. Indicators: Minority Groups, Youth, Older Adults, Poverty, No High School Diploma, Limited English Proficiency, and No Access to a Motor Vehicle.	Equity	40
Demand Analysis	Based on ODOT's Walk.Bike.Ohio efforts . The higher the demand, the higher the points. Indicators: Employment Density, Population Density, Walk/Bike Commute Mode, Park Density, Presence of Colleges/University, Retail Employment Density, and People at or Below 200% of the Federal Poverty Line. It is important to note that areas with higher rates of disparity, costs are ranked higher.		
Equity Index	Based on the U.S. Climate and Economic Justice Screening Tool and ODOT's Highway Safety Improvement Plan (HSIP) Location Equity Measure. Disadvantaged communities will receive a point.		

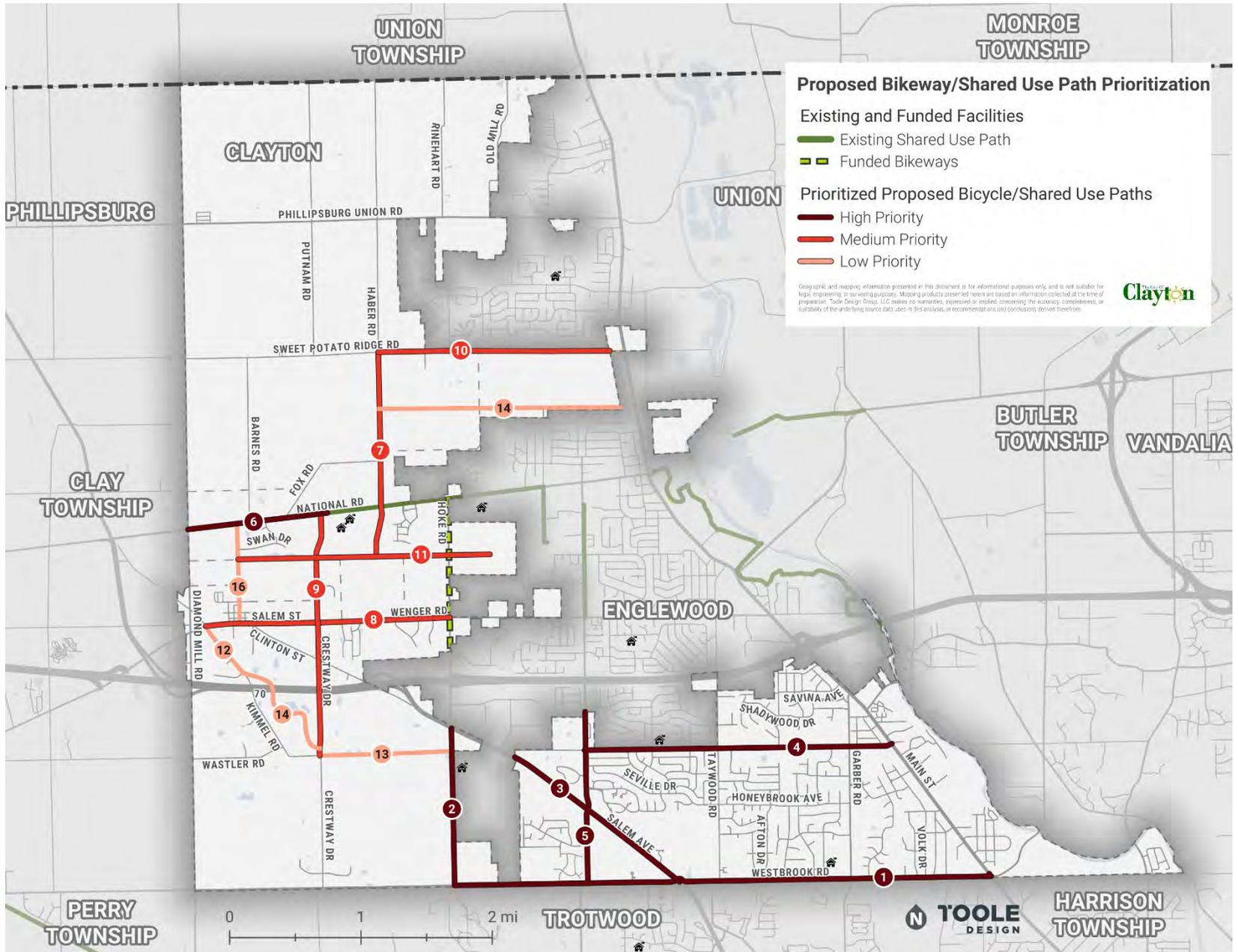


Figure 21: Proposed Bikeways/Shared Use Path Prioritization (Numbered labels indicate the prioritization ranking)

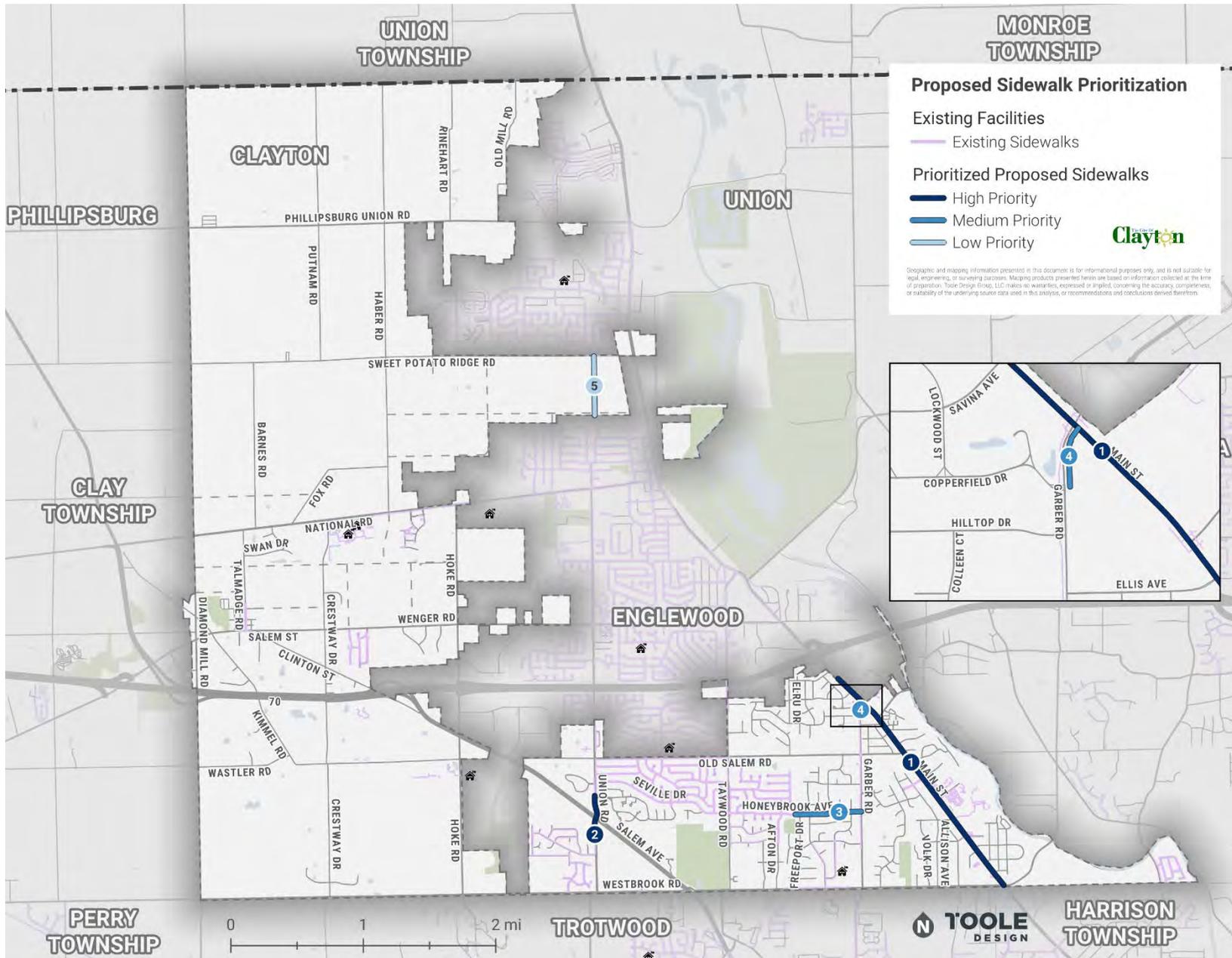


Figure 22: Proposed Sidewalk Prioritization (Numbered labels indicate the prioritization ranking)

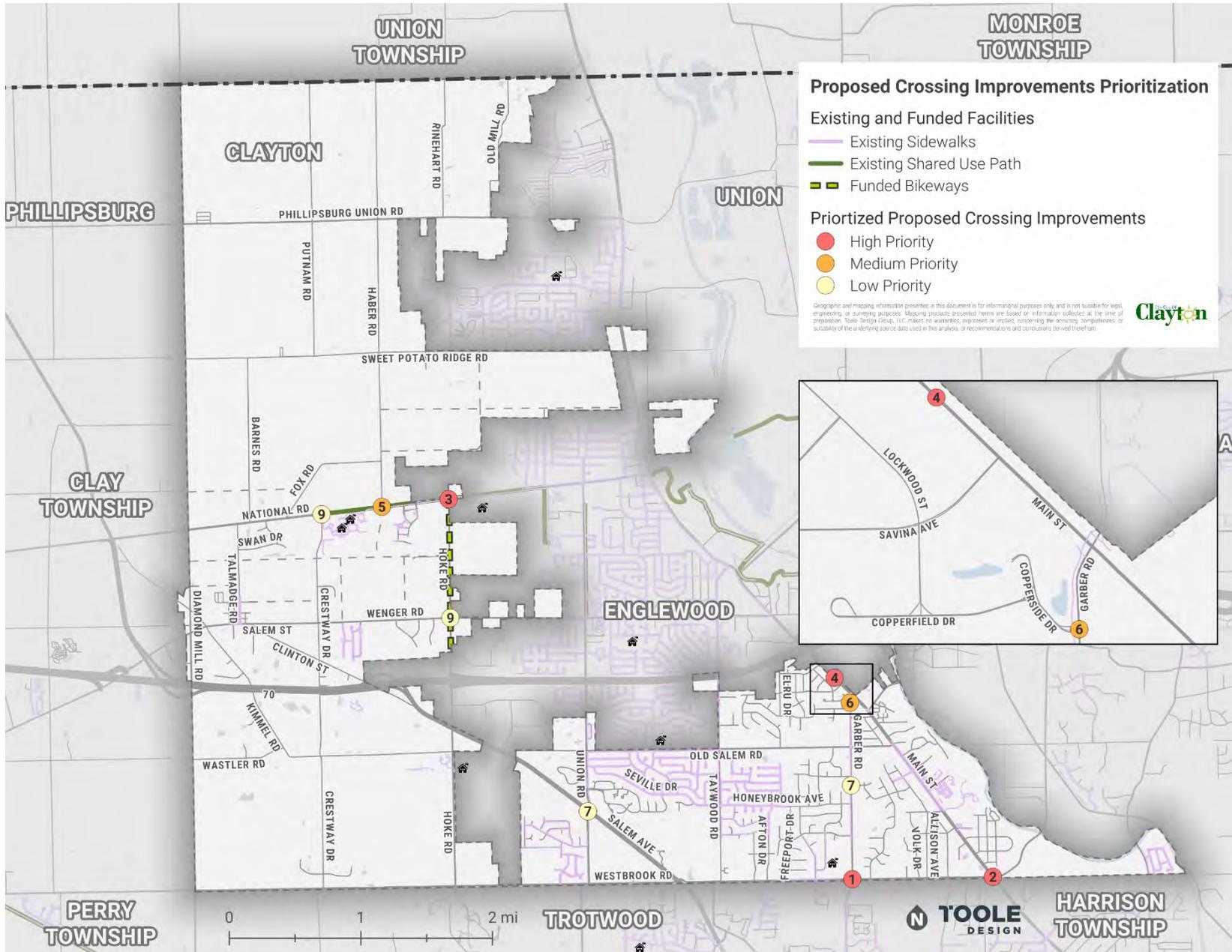


Figure 23: Proposed Crossing Improvements Prioritization (Numbered labels indicate the prioritization ranking)

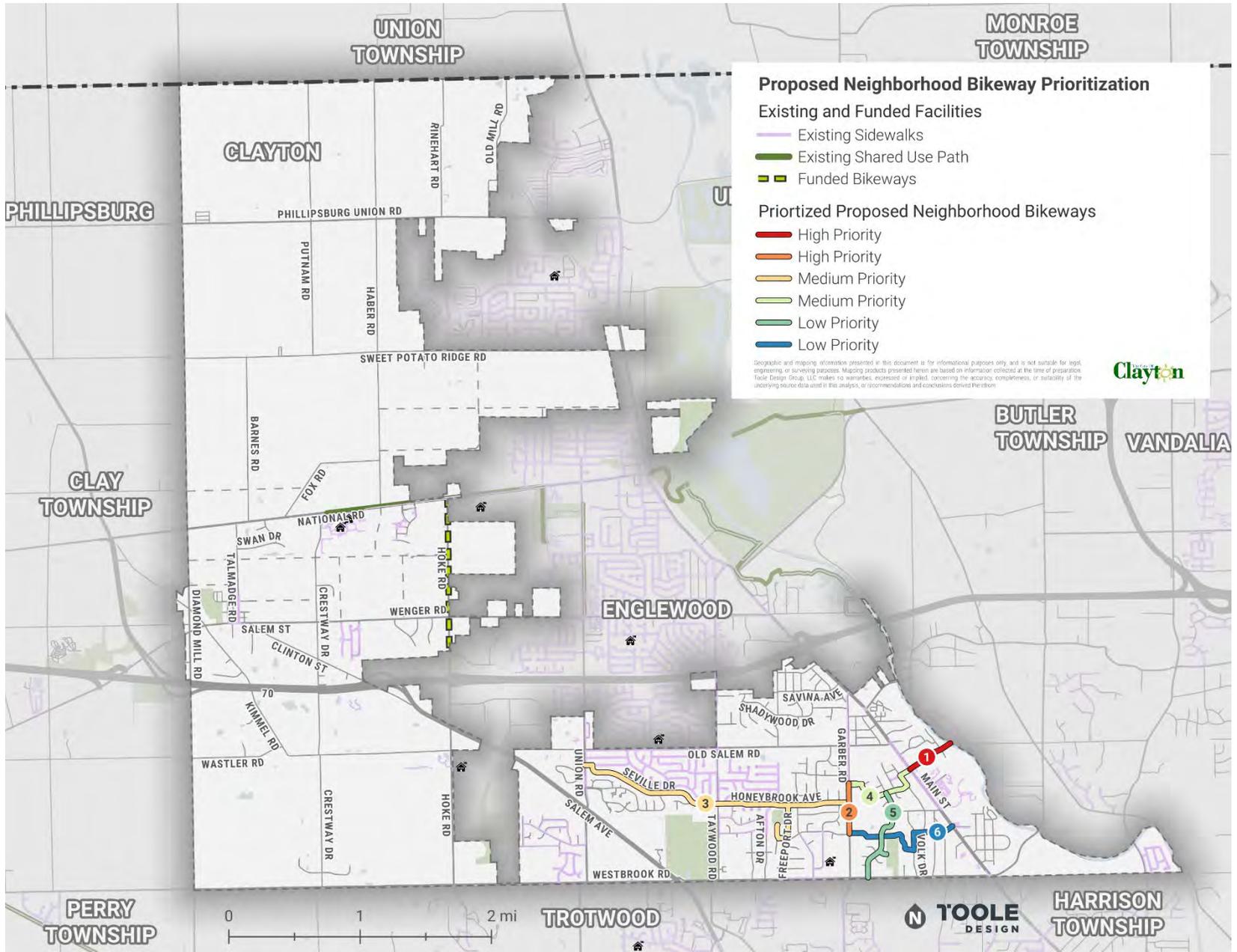


Figure 24: Proposed Neighborhood Bikeway Prioritization (Numbered labels indicate the prioritization ranking)

PRIORITIZED INFRASTRUCTURE PROJECT LIST

Implementing this plan will take time and significant effort. Figure 21, Figure 22, Figure 23, and Figure 24 identify short-, medium-, and long-term plan priorities and the ranking are also listed in Table 4, Table 5, Table 6, Table 7. Implementation will require working with a larger number of partners, as well as building public support for priority projects. Whenever possible, recommendations in this plan should be incorporated into other roadway projects. Every year Clayton should re-evaluate the priority list to track which projects have been implemented and to make adjustments as needed.

PRIORITY PROJECTS

In addition to the prioritization infrastructure project list, two projects were identified to assist with initial implementation steps:

- » National Road – completing the existing shared use path through the city of Clayton boundaries.
- » Old Salem Road – improving safety and reducing speeds through traffic calming, design elements, and bicycle facilities.

National Road (Project ID 4)

National Road (US Hwy 40) is a two-lane road that carries approximately 6,900 cars per day through the city of Clayton, connecting residents to the Northmont Middle School/High School campus (ODOT TIMS, Accessed February 2025). Currently, there is a shared use path that travels along National Road from Union Road in Englewood and terminates at the Northmont Middle School/High School campus. By continuing the National Road shared use path from the Northmont Middle School/High School campus to the western boundary of Clayton at Diamond Mill Road the shared use path would be completed through the city of Clayton, also completing a segment of bicycle facility that is recommended in MVRPC's Active Transportation Plan. A Preliminary Opinion of Probable Construction Cost was developed to begin the implementation process and better understand construction costs and project assumptions. For additional information see Appendix E.

Old Salem Road (Project ID 16)

Northmoor Elementary sits on the north side of Old Salem Road within the city of Englewood, surrounded by Clayton and Englewood neighborhoods. Old Salem Road is a two-lane road, within the city of Clayton, that carries approximately 5,300 cars per day connecting neighboring communities (ODOT TIMS, Accessed February 2025). A multimodal toolkit was developed to improve safety and reduce speeds for students traveling to and from school. The toolkit goes into detail on the benefits, criteria, and approximate cost range on several traffic calming and design elements such as speed cushions, curb extensions, speed humps, and raised crossings. Depending on the existing traffic speeds and context, all features included in the toolkit may not be necessary but implemented in combination with one another allows for the maximum amount of speed reduction and safety improvements. Additionally, separated bicycle lane guidance has been included in the toolkit since Old Salem Road is included in the infrastructure project list. To view the toolkit and for additional information see Appendix F.

IMPLEMENTATION





IMPLEMENTATION

ROLES AND RESPONSIBILITIES

Collaboration is the first step towards successful implementation of the Clayton ATP. Stakeholders involved in the planning process will be collectively responsible for the design, funding, construction, maintenance, monitoring, and/or evaluation of the network. See Table 12 for a list of responsibilities.

Table 12. Implementation Responsibilities

Agency	Responsibility	Description
City of Clayton	City-owned facilities	Adopt and publish the Active Transportation Plan, posting a final update to the City of Clayton’s website.
City of Clayton, Public Works Department	City-owned facilities	<p>Annually review the upcoming street paving plan to identify opportunities to incorporate on-street bicycle facilities.</p> <p>Convene trail partners to establish, adopt, and/or update universal maintenance policy and practices for regional off-street trail network within the City’s boundaries.</p> <p>Design and implement an annual evaluation of existing bicycle and pedestrian facilities. Evaluation can consist of condition, usage, etc.</p>



Agency	Responsibility	Description
		Design and build new active transportation facilities within City boundaries.
Neighboring jurisdictions (City of Englewood, City of Union, City of Brookville, City of Trotwood, Clay Township, Village of Phillipsburg)	City-owned facilities	Collaborate with the City of Clayton when building or improving active transportation facilities to ensure a continuous system for users.
Montgomery County	County-owned facilities	Incorporate bicycling and walking facilities in county transportation projects and look for funding for standalone projects. Roads entering the City of Clayton should be examined for speed studies.
ODOT	State owned facilities outside of municipalities	Incorporate bicycling and walking facilities into state owned roads. Support the implementation of local projects through technical resources and funding.

FUNDING STRATEGIES

Active transportation projects comprise a fraction of overall transportation network construction and maintenance. While pedestrian and bicycle infrastructure generally does not serve as many users as highways, bridges, and other critical infrastructure, it can have a substantial positive effect on local economies. Additionally, providing opportunities for active living promotes public health and may reduce the burden on tax-payer funded healthcare systems over time. In this light, active transportation infrastructure is a critical component of a complete transportation network and results in a positive return on investment for communities that fund such projects.

Several state and federal funding sources can be used to supplement local funding sources to build out the active transportation network and fund related programming efforts. Table 13 lists the primary funding sources for active transportation projects in Ohio; click on the name of each funding source to access web pages with further information. Additionally, as part of the statewide Walk.Bike.Ohio Plan, ODOT published a [Funding Overview Report](#) that provides more details on types of funding available, schedules, and eligibility requirements. For information on funding for public transit, visit the [ODOT Office of Transit’s website](#).

Table 13. Primary Active Transportation Funds in Ohio

Funding Source	Distributed by	Eligible Project Examples	Eligible Project Sponsor
<u>Transportation Alternatives</u>	MVRPC	Bicycle & pedestrian facilities Safe routes for non-drivers Conversion & use of abandoned railroad facilities Overlooks & viewing areas	Local governments
<u>Safe Routes to School</u>	ODOT	Infrastructure Non-Infrastructure School Travel Plan assistance	Local governments (infrastructure) Local governments, school or health district, or non-profit (non-infrastructure)
<u>Highway Safety Improvement Program</u>	ODOT (Coordinate with local ODOT District to submit a safety study)	Signalization Turn lanes Pavement markings Traffic signals Pedestrian signals/crosswalks Bike lanes Road diets	Local governments
<u>Recreational Trails Program</u>	Ohio Department of Natural Resources (ODNR)	New recreational trail construction Trail maintenance/restoration Trailside and trailhead facilities Purchase/lease of construction & maintenance equipment Acquisition of easements Educational programs	Local governments State and federal agencies Park districts Conservancy districts Soil and water conservation districts Non-profits
<u>Clean Ohio Trails Fund</u>	ODNR	New trail construction Land acquisition for a trail Trail planning/engineering and design (must include construction)	Local governments Park districts Conservancy districts Soil and water conservation districts Non-profits
<u>Clean Ohio Green Space Conservation Program</u>	Ohio Public Works Commission (OPWC)	Open space acquisition including easements Bike racks Kiosks/Signs Hiking/Biking trails Pedestrian bridges Boardwalks	Local governments Park districts Conservancy districts Soil and water conservation districts Non-profits

MAINTENANCE STRATEGIES

The long-term performance of bicycle and pedestrian networks depends on both the construction of new facilities and an investment in continued maintenance. Maintaining bicycle and pedestrian facilities is critical to ensuring those facilities are accessible, safe, and functional.

FREQUENCY

The first step to approaching maintenance is to understand how often maintenance should be performed. Many activities, such as signage updates or replacements, are performed as needed, while other tasks such as snow removal are seasonal (see Table 14). Creating a winter maintenance approach is important to encourage year-round travel by walking and biking. One key component of this approach should be identifying priority routes for snow removal. More information on winter maintenance such as types of equipment needed for different facility types and how to consider snow removal in the design of facilities can be found in [Toole Design's Winter Maintenance Resource Guide](#) and in [ODOT's Pedestrian and Bicycle Snow and Ice Removal Toolkit](#).

Table 14: Maintenance Activity Frequency

Frequency	Facility Type	Maintenance Activity
As Needed	Shared Use Paths	Tree/brush clearing and mowing
		Replace/repair trail support amenities (parking lots, benches, restrooms, etc.)
		Map/signage updates
		Trash removal/litter clean-up
		Repair flood damage: silt clean-up, culvert clean-out, etc.
	Patching/minor regrading	
Seasonal	Shared Use Paths/ Separated Bike Lanes / Paved Shoulders/ Bike lanes	Sweeping
	Bicycle Boulevards	Sign replacement
	Sidewalks	Concrete panel replacement
	All	Snow and Ice control
Yearly	Shared Use Paths	Planting/pruning/beautification
		Culvert/drainage cleaning and repair
	Shared Use Paths/ Sidewalks	Installation/removal of seasonal signage
5-year	Shared Use Paths	Evaluate support services to determine need for repair/replacement
		Perform walk audits to assess ADA compliance of facilities
10-year	Shared Use Paths	Surface evaluation to determine need for patching/regarding/re-striping of bicycle facilities
		Repaint or repair trash receptacles, benches, signs, and other trail amenities, if necessary
20-year	Shared Use Paths/ Sidewalks	Sealcoat asphalt shared use paths
		Resurface/regrade/re-stripe shared use paths
		Assess and replace/reconstruct shared use paths/ sidewalks

PLAN FOR MAINTENANCE

Creating a strong maintenance program begins in the design phase. The agency that will eventually own the completed project should collaborate with partners to determine the infrastructure placement, final design, and life cycle maintenance cost. Maintenance staff should help identify typical maintenance issues, such as areas with poor drainage or frequent public complaints. They may have suggestions for design elements that can mitigate these issues or facilitate maintenance activities and can provide estimates for ongoing maintenance costs for existing and proposed facilities.

COORDINATION AND RESPONSIBILITY BETWEEN AGENCIES

Many jurisdictions struggle with confusion around which entity – city, village, township, county, or state – is responsible for the maintenance of trails and other active transportation facilities. Frequently there is no documentation showing who is responsible for maintenance of existing facilities, which can prolong unsafe conditions for trail users. Coordination between the government agencies is key for effective maintenance programs. Intergovernmental agreements (IGAs) are used to codify the roles and responsibilities of each agency regarding ongoing maintenance. For example, a local government may agree to conduct plowing, mowing, and other maintenance activities on trails in its jurisdiction that were built by another agency. Clarifying who is responsible for maintenance costs and operations ensures that maintenance problems are resolved in a timely manner.

MAINTENANCE ACTIVITIES

Different facility types require different types of strategies to be maintained. Table 15 breaks down maintenance activities and strategies for each by facility type.

Table 15: Maintenance Strategy Recommendations

Facility Type	Maintenance Activity	Strategy
<i>Shared Use Paths/ Separated Bike Lanes</i>	Pavement Preservation	Develop and implement a comprehensive pavement management system for the shared use path network.
	Snow and Ice Control	Design shared-use paths to accommodate existing maintenance vehicles.
	Drainage Cleaning/Repairs	Clear debris from all drainage devices to keep drainage features functioning as intended and minimize trail erosion and environmental damage.
		Check and repair any damage to trails due to drainage issues.
	Sweeping	Implement a routine sweeping schedule to clear shared-use paths of debris.
		Provide trail etiquette guidance and trash receptacles to reduce the need for sweeping.
	Vegetation Management	Implement a routine vegetation management schedule to ensure user safety.
		Trim or remove diseased and hazardous trees along trails.
		Preserve and protect vegetation that is colorful and varied, screens adjacent land uses, provides wildlife habitats, and contains prairie, wetland and woodland remnants.
	ADA Requirements	Conduct walk and bike audits to assess accessibility of new, proposed, and existing shared-use paths.
Ensure that ADA compliance is incorporated into the design process for new facilities.		

<i>Facility Type</i>	<i>Maintenance Activity</i>	<i>Strategy</i>
<i>Paved Shoulders/ Bike Lanes</i>	Pavement Markings	Explore approaches to routinely inspect pavement markings for bicycle infrastructure and replace as needed.
		Consider preformed thermoplastic or polymer tape on priority bikeways (identified in this Plan) adjacent to high-volume motor vehicle routes (preformed thermoplastic or polymer tape are more durable than paint and requires less maintenance).
	Snow and Ice Control	Clear all signed or marked shoulder bicycle facilities after snowfall on all state-owned facilities that do not have a maintenance agreement with a local governmental unit in place.
	Sweeping	Implement a routine sweeping schedule to clear high-volume routes of debris.
<i>Bicycle Boulevards</i>	Sign Replacement	Repair or replace damaged or missing signs as soon as possible.
<i>Sidewalks</i>	Pavement Preservation and Repair	Conduct routine inspections of high-volume sidewalks and apply temporary measures to maintain functionality (patching, grinding, mudjacking).
		Consider using public agency staff or hiring contractors for sidewalk repairs, rather than placing responsibility on property owner (property owner can still be financially responsible).
	Snow and Ice Control	Educate the public about sidewalk snow clearance.
		Require sidewalk snow clearance to a width of five feet on all sidewalks.
		Establish required timeframes for snow removal.
	Implement snow and ice clearing assistance programs for select populations.	

ON-GOING MONITORING AND EVALUATION

Measuring the performance of active transportation networks is essential to ongoing success. Bicycle and pedestrian counts, crash records, and other data contribute to a business case for continued improvement of and investment in multimodal infrastructure. As recommendations are implemented, Clayton must be able to measure whether these investments are paying active transportation dividends (i.e. more people walking and bicycling). An affirmative answer reinforces this Plan’s legitimacy and provides evidence that future investments will also yield positive results. The performance measures in Table 16 have will chart progress towards making walking and bicycling safe, connected, and comfortable. Clayton should establish baseline targets and revisit these metrics as new plans and priorities occur. Data on these measures should be documented and published for public review annually. A robust performance measures program includes establishing baseline measurements, performance targets, data collection frequency, and data collection and analysis responsibility.

Table 16: Performance Measures

<i>Performance Measure</i>	Goal	Timeline (how often is data collected/updated)	Responsibility (who will collect the data)
<i>Active Transportation Infrastructure</i>	Increase miles of pedestrian network built	Annually	City of Clayton Public Works Department
	Increase miles of bicycle network built	Annually	City of Clayton Public Works Department
	Increase miles of shared use path built	Annually	City of Clayton Public Works Department
	Increase miles of sidewalk built	Annually	City of Clayton Public Works Department
	Increase amount of traffic and crossing improvements	Annually	City of Clayton Public Works Department
	Increase amount of bicycle parking facilities	Annually	City of Clayton Public Works Department
<i>Education</i>	Increase in the number of active transportation events (Bike Month events, Walk/bike/roll to work/school events) and attendees	Bi-annually	City of Clayton
	Increase in the number of policies implemented	Annually	City of Clayton
<i>Safety</i>	Decrease in the number of total pedestrian and bicycle crashes and serious injury and fatal crashes	Annually	City of Clayton, Dayton and Montgomery County Public Health
	Number of active transportation amenities distributed (bikes, helmets)	Annually	City of Clayton, Dayton and Montgomery County Public Health
<i>Funding</i>	Amount of funding received for active transportation	Annually	City of Clayton

APPENDICES



APPENDICES

CONTENTS

Appendix A. State of Walking and Biking Report

Appendix B. Safe Routes to Schools Materials

Appendix C. Raw Survey Results

Appendix D. Prioritization (Raw Data)

Appendix E. National Road Cut Sheet

Appendix F. Old Salem Road Cut Sheet

