



Yellow Springs

Active Transportation Plan

ACKNOWLEDGMENTS

SPONSORS

The Ohio Department of Transportation

CONSULTANT TEAM

David Shipps, *Principal In Charge*

Jeff Ciabotti, *Strategic Advisor*

Eli Glazier, *Project Manager*

Michael Blau, *Project Planner*

Sally Sharrow, *Planner*

Siba El-Samra, *Landscape Designer*

PREPARED BY

Toole Design

Lawhon and Associates

PLAN STEERING COMMITTEE

Tommy Arnold, *ODOT*

Patti Bates, *Village Manager*

Chris Bongorno, *Yellow Springs Active Transportation Committee*

Dorothée Bouquet, *Local Resident*

Laura Curliss, *Yellow Springs Active Transportation Committee*

Ted Donnell, *Planning Commission*

Jillian Drew, *Greene County Public Health*

Brian Housh, *Yellow Springs Village Council, Rails to Trails Conservancy*

Matthew Housh, *Yellow Springs Schools*

Dawn Johnson, *Mothers Out Front*

Robert Libecap, *Yellow Springs Senior Center*

Matt Lindsay, *Miami Valley Regional Planning Commission*

Barbara Mann, *Local Resident*

Eric Oberg, *Rails to Trails Conservancy*

Dan Pelzl, *Local Resident*

Christine Reedy, *Mothers Out Front*

Mariano Rios, *Local Resident*

Donna Silvert, *Local Resident*

Laura Skidmore, *Mothers Out Front*

Denise Swinger, *Yellow Springs Planning/Zoning/Economic Sustainability Liaison*

Shannon Webster, *Greene CATS*

Karen Wintrow, *Yellow Springs Chamber of Commerce*

Gary Zaremsky, *Local Resident*

Chris Zurbuchen, *Local Resident*

Cover photo credit: Karen Wintrow

CONTENTS

1 INTRODUCTION 1

2 EXISTING CONDITIONS..... 9

3 PUBLIC OUTREACH PROCESS..... 18

4 RECOMMENDATIONS 22

5 IMPLEMENTATION 40

APPENDIX A 55

FIGURES

Figure 1: Yellow Springs Bikeways (2010 Comprehensive Plan)	4
Figure 2: Morning Mode Share	5
Figure 3: Afternoon Mode Share	5
Figure 4: Distance from School	5
Figure 5: Sidewalk Severity by Parcel	5
Figure 6: Yellow Springs Area Level of Traffic Stress	6
Figure 7: State and US Bicycle Routes near Yellow Springs	12
Figure 8: Regional Infrastructure Recommendations	24
Figure 9: Local Infrastructure Recommendations	25
Figure 10: Xenia Avenue and Corry Street Existing Conditions	49
Figure 11: Xenia Avenue and Corry Street Intersection Redesign (S-4)	50
Figure 12: Walnut Street Limestone Street Existing Conditions	51
Figure 13: Walnut Street and Limestone Street Traffic Calming (S-13) and Walnut Street Shred Use Path (L-20)	52
Figure 14: Dayton Street and Winter Street Existing Conditions	53
Figure 15: Dayton Street and Winter Street Traffic Calming and Crossing Treatments (S-6)	54

TABLES

Table 1: Bicycle and Pedestrian Crash Data (2014-2018)..... 12

Table 2: Summary of organizations that support active transportation 15

Table 3: Regional Infrastructure Recommendations.....26

Table 4: Local Infrastructure Recommendations27

Table 5: Programming Recommendations33

Table 6: Clean Ohio Trails Fund Projects near Yellow Springs43

Table 7: Federal Funding Sources for Active Transportation Projects45

Table 8: Suggested Performance Measures.....47

CHAPTER 1

INTRODUCTION

Introduction

The Village of Yellow Springs Active Transportation Plan is an effort led by the Village's Active Transportation Committee. The Plan builds on existing plans to develop recommendations that guide the construction of active transportation facilities, like sidewalks and trails, as well as to develop new programs and policies that support active transportation. Beginning in December 2017, the Plan involved several meetings of an Advisory Committee, pop-up mapping events to gather feedback at community events, and culminated with an open house to present plan elements in late June 2018.

"Active Transportation" is an umbrella term for all the ways people can get around without using a motorized vehicle. The most common forms of active transportation are walking and bicycling, but especially in communities like Yellow Springs that have a larger proportion of older residents, people using wheelchairs or other assistive devices merit special consideration. The term does not limit these activities to their recreational function, but instead considers them as healthy, sustainable and practical ways to commute, run errands, connect to transit and carry out daily tasks, potentially reducing the need for private car ownership and improving the environment. In this document, the words "bicyclist" and "pedestrian" include users of scooters, tricycles, and other similar mobility devices.

Policy recommendations inform enforcement protocols and ensure investments in public infrastructure directly address safety and human mobility. Program recommendations build on existing efforts to encourage active travel through education.

Capital project recommendations focus on filling gaps in the active transportation network, starting with opportunities to incorporate Complete Streets principles into projects that are planned for the near-term. Mid and long-term project recommendations ensure that transportation and land use decisions are mutually supportive of active travel into the future.

Vision and Goals

The vision of the Village of Yellow Springs Active Transportation Plan is to develop a high-quality, integrated surface transportation infrastructure system that contributes to improved quality of life by promoting safety, recreation, environmental sustainability, health, equity/inclusion, and economic development in the pursuit of maintaining and enhancing the Village's vibrant and connected community for people of all ages and abilities. The Plan will strengthen the transportation bonds that connect Village residents to each other and bridge active transportation gaps that divide the Village from its neighbors.

The Plan provides the Village with an actionable road map for improving community mobility, with a focus on health and sustainable travel modes. The Plan components – policy, program and capital project recommendations – work in tandem to create a more complete and equitable transportation system for all users.



Bicycle parking at Yellow Springs Station (source: Karen Wintrow).

Background

The Village of Yellow Springs is in Greene County, and has a population of 3,784. Four percent of commutes are completed by bicycle and seven percent are taken on foot – both more than double the statewide rates.

The Village of Yellow Springs is not a newcomer to active transportation. When Dayton Street was widened in the 1960s, the League of Women Voters pushed for a bike path to be constructed. It was eventually built on the south side of the road between East Enon Road to Stafford Street, and the Bicycle Enhancement Committee was created to address bike path signage and the path's intersection crossings. Because dedicated bicycle facilities were so rare in the United States at the time, contractors did not construct smooth curb ramps for the path. The Committee made sure these ramps were adjusted so using the path would be as comfortable as possible. This first path along Dayton Street was a learning experience for the Village, and the two-way design created visibility issues and conflicts between motorists and bicyclists, specifically for westbound motorists turning across the bike path and motorists looking to turn onto Dayton Street. A similar facility was built along East Enon Road at the same time as the Dayton Street widening.

Another bike path was built along West South College Street subsequently that drew on international best practices, including Dutch bicycle infrastructure standards. In contrast to the two-way facility on Dayton Street, the design for West South College Street called for a dedicated sidewalk-level bike path for one-way travel on the north side of the street westbound, separated by a row of trees from a sidewalk. A shared use path – functionally a sidewalk – on the south side of the road provided for eastbound bicycle travel and pedestrian travel in both directions. The Committee made sure the curb ramp installation was up to their standards so no changes were needed after construction was complete.

After the West South College Street bicycle facilities were developed, a shared use path was constructed along the east side of Xenia Avenue between Herman Street to Brookside Drive, and then extended to Brannum Lane.

This trio of active transportation facilities was built at a time when other communities across the country were not providing special consideration to people walking and bicycling. These efforts highlight Yellow Springs' long-standing interest in creating and maintaining an accessible community where driving a car is not necessary or

essential to daily life. In subsequent years, much like with the Village's sidewalks, maintenance became a concern that led to declining comfort and in many cases a deterioration of the path surface rendering it functionally unusable by bicyclists and people with disabilities, which remains an ongoing challenge. This plan identifies recommendations that will improve these facilities.

Past Plans

This plan builds on prior plans developed for the Village and its environs. It relies on these plans for existing conditions data, issue identification, and recommendation support.

Yellow Springs and Miami Township Vision (2010)

This document is the culmination of a year-long process to identify a vision and goals for the Village and Miami Township. The report identified ten aspirational goals, three of which relate to active transportation:

- Energy, Environment & Sustainability: Commitment to a sustainable local economy and environment
- Facilities, Services & Infrastructure: Safe and supportive facilities, services and infrastructure that encourage community building and collaboration.
- Place & Identity: A vibrant community that values wellness, tolerance and local history, cultivates social and environmental responsibility, and welcomes new people and new ideas in a remarkably authentic place.

One of the Principles for Land Stewardship specifically identifies the desired role of transportation in the area:

Places are connected and accessible throughout the community by transportation methods other than automobiles. Destinations within the villages and throughout the township are safely and attractively connected for pedestrians and bicyclists. The general development pattern within the villages is conducive to this intent and should be reinforced with future development and redevelopment. Overall, a network of non-automobile choices connects the community for all levels of ability.

In line with this principle, a priority action of the report is to prepare a pedestrian and bicycle plan for Yellow Springs and the Township that seeks to:

Provide additional sidewalks in Yellow Springs, based on universal design and complete streets concepts. Update existing sidewalks where needed for accessibility and enforce maintenance requirements of property owners. To enable greater use of bicycles, bike racks should be more widely available (particularly in downtown), the number of bike lanes should be increased and clearly marked, and signage installed to inform automobile drivers to share the road with bicyclists. The plan should include a feasibility analysis for constructing multi-use trails throughout the township and, specifically, a bike path connecting Yellow Springs and Clifton.

Yellow Springs Comprehensive Plan (2010)

The Comprehensive Plan, currently being updated, discusses both pedestrian and bicycle networks.

Yellow Springs' pedestrian network is relatively complete in the central business area. However, elsewhere in Town's the system is non-direct, discontinuous, and in some areas non-existent. The key implication of not having an interconnected system of sidewalks and bikeways is that residents have limited choice in transportation modes and the increased dependency on automobile use perpetuates. A major issue for the Comprehensive Plan is to identify an integrated system of transportation solutions, including a network of pedestrian facilities and bicycle routes. These improvements need to be provided in coordination with the street system and the locations of existing and future transit routes as an integral part of a complete transportation system.

The Bikeways Appendix of the 2010 Comprehensive Plan highlights a network of primary bikeways, secondary bikeways, and future bikeways, shown in Figure 1. The Appendix highlights northern, western, and southern gateways to the Village, trailheads, and intersections that require improvement.

Yellow Springs School Travel Plan (2011)

The 2011 School Travel Plan reviewed how students are traveling to and from school. The Plan found that in the morning 15% of students walked to Mills Lawn Elementary

Figure 1: Yellow Springs Bikeways (2010 Comprehensive Plan)



School, 11% walked to McKinney Middle School, and 1% walked to The Antioch School; 3%, 18%, and 12% biked respectively, identified in Figure 2. In the afternoon, 22% of Mills Lawn students walked, 19% of McKinney students walked, and 1% of Antioch School students walked; 3%, 18%, and 15% biked respectively, identified in Figure 3. The Plan notes that 77% of Mills Lawn students in 2011 lived within two miles (a bikeable distance) of school, a higher proportion than the national average (Figure 4).

The Plan assessed barriers to walking and biking to Village schools and developed short and long-term recommendations for bike parking, crosswalk enhancements, curb ramp repairs, sidewalk and traffic calming construction, and improved signals and signage.

Figure 2: Morning Mode Share

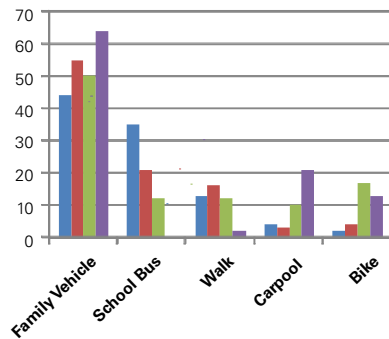


Figure 3: Afternoon Mode Share

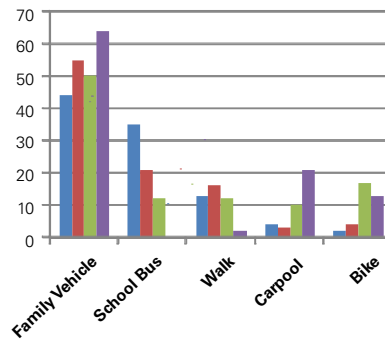
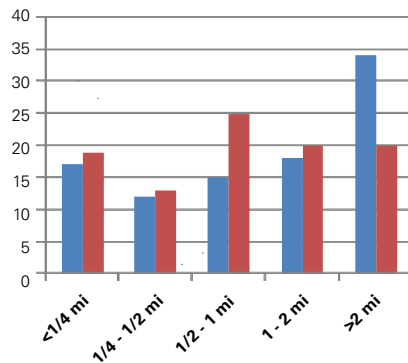


Figure 4: Distance from School

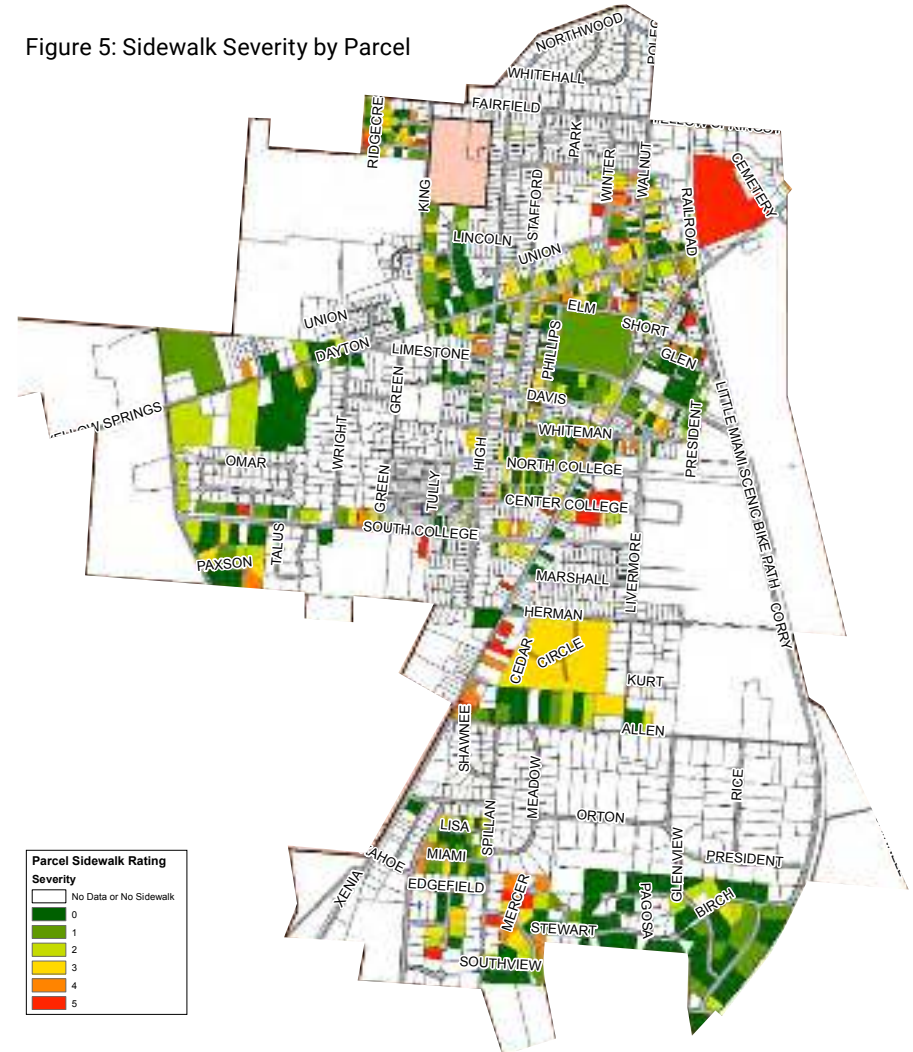


- National SRTS
- Mills Lawn K – 6
- McKinney 7, 8
- Antioch School preK – 6

The Path Forward: A Report on Village Sidewalks (2015)

The Village completed a sidewalk study in 2015 that culminated in a report titled The Path Forward: A Report on Village Sidewalks that sought to understand the quantity and quality of pedestrian infrastructure village-wide, and identify steps to improve sidewalk condition, which involved examining the benefits and costs of various funding and repair strategies. A map of sidewalk severity (Figure 5) was produced as part of the report.

Figure 5: Sidewalk Severity by Parcel



Miami Valley Bike Plan Updated (2015)

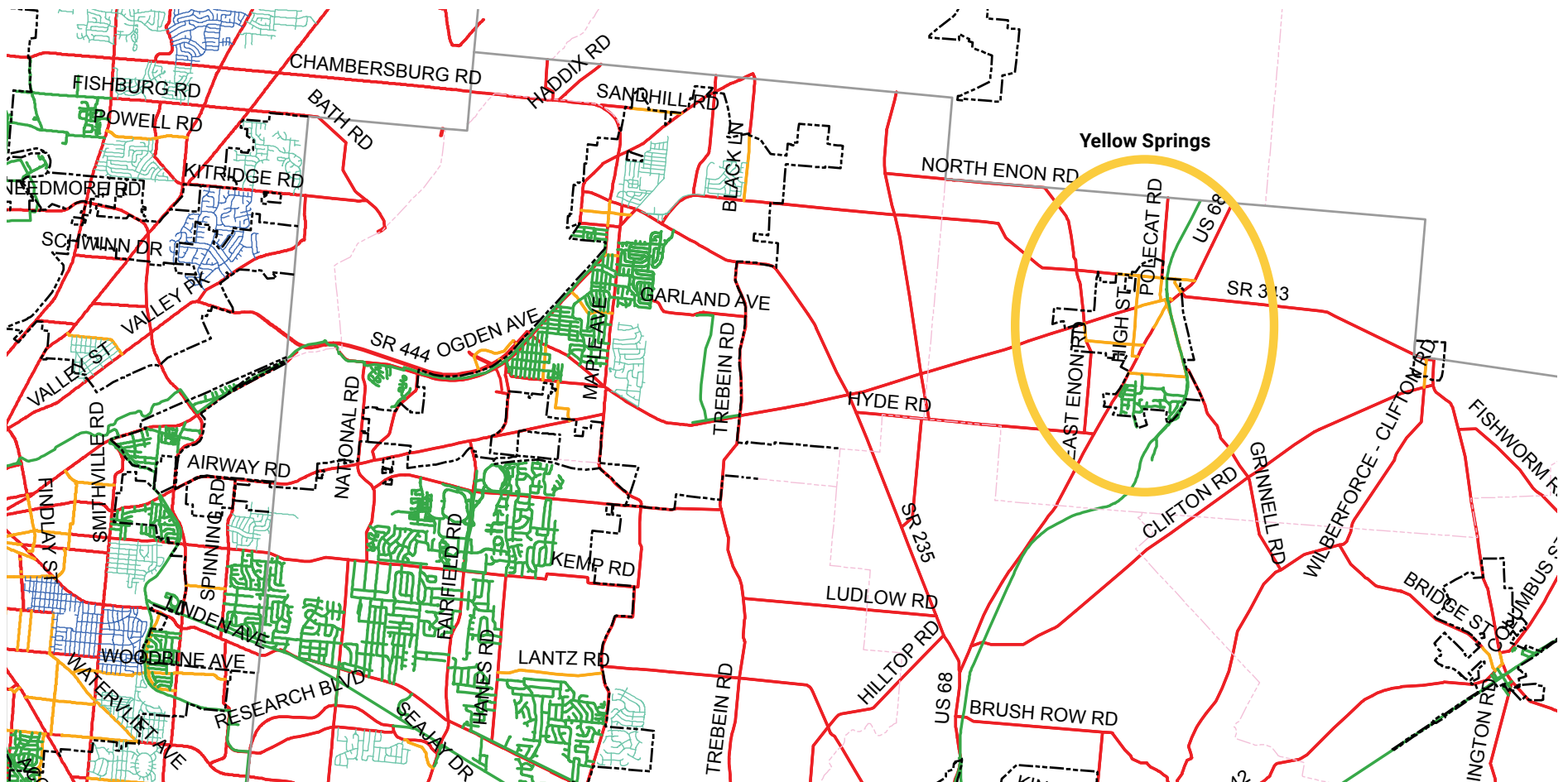
This plan by the Miami Valley Regional Planning Commission (MVRPC) was an update to the 2008 Comprehensive Local-Regional Bikeways Plan. It builds upon the 2008 plan by increasing its focus on on-street facilities, such as bike lanes.

The MVRPC conducted a Level of Traffic Stress (LTS) assessment on all roads within the study area, a bicycle-planning tool that uses the number of travel lanes, speed limit, presence and width of bicycle facilities and other roadway features to determine bicyclist comfort levels. Figure 6 shows the resulting map: all roadways are scored

based on how comfortable they are for different types of bicyclists: LTS 1 (All Ages and Abilities), LTS 2 (Mainstream Adults), LTS 3 (Enthusiased and Confident Bicyclists), and LTS 4 (Strong and Fearless Bicyclists).

The goal of conducting an LTS analysis is to help develop a network of low-stress/high-comfort bikeways that connect communities to local destinations safely and directly. The plan developed a Vision Map of bikeways across the region, including Yellow Springs, but does not make specific facility recommendations for these streets.

Figure 6: Yellow Springs Area Level of Traffic Stress



Village Complete Streets Policy (2017)

The policy was adopted in December 2017 and aims to make the Village's transportation system "more complete" by taking advantage of "opportunities presented by necessary reconstruction and expansion of the system whenever practicable." The policy stipulates:

All current and projected users of the public right-of-way should be able to safely and conveniently reach their destinations along and across a street, road or trail, regardless of their physical ability or chosen mode of transportation, in order for that street or road to be considered complete.

The policy highlights the active transportation benefits of Complete Streets by emphasizing environmental, public health, economic development, and quality of life improvements. The policy includes the following quantitative performance measures, some of which are included in this Plan, in addition to qualitative measures, like surveys of road users.

- Linear feet of new and repaired ADA complaint sidewalks.
- Linear feet of new and repaired curb ramps installed.
- Total number and type of crosswalk and intersection improvements.
- Total number of new transit stops and routes.
- Rates of ridership on transit routes.
- Total number of crashes, injuries and fatalities by mode, as available.
- Rates of children walking, biking or rolling to school.
- Total number of off-street bicycle routes.
- Total number of new on-street bicycle routes, defined by streets and roads with clearly marked or signed bicycle accommodations.

The MVRPC played a significant role in this effort. It led the public involvement activities for policy development, and the Village's policy was modeled on the MVRPC's 2011 award-winning Complete Streets policy.



This man is demonstrating bicycling as a form of transportation, not just recreation (source: Karen Wintrow).



Bicycle parking (source: Karen Wintrow).

CHAPTER 2

EXISTING CONDITIONS

Existing Active Transportation Facilities

Sidewalks

The Path Forward: A Report on Village Sidewalks found that there were 17.2 miles of sidewalk in the village in varying condition, as shown in Figure 5. The 2011 School Travel Plan estimated that 35% of the streets in the Village have sidewalks. Major streets like Dayton Street, Xenia Avenue, and West South College Street have sidewalks on both sides; while secondary streets in the Village core have sidewalks on one side; and other streets, mostly residential with the exception of Corry Street, do not have sidewalks at all.

Recently, the Village used a 2012 Safe Routes to School (SRTS) infrastructure grant to construct sidewalks along Yellow Springs-Fairfield Road between Fair Acres Road and Winter Street, and along Winter Street from Yellow Springs-Fairfield Road to Pleasant Street. The Village is also working with the Ohio Department of Transportation (ODOT)

on constructing an “accessible loop” of sidewalks and curb ramps along Dayton Street, Xenia Avenue, South College Street, and Enon Road.

During fieldwork conducted in March 2018, the Project Team observed that the Village’s existing sidewalks are generally narrow, and they tend to have standing water after rainfall. Root intrusion from mature trees in narrow tree lawns causes sidewalk panels to heave and crack, presenting tripping hazards and accessibility issues for people who use wheelchairs or other mobility devices. General sidewalk deterioration due to age was also present in most areas, except along Xenia Avenue north of Allen Street, most of the commercial core of the Village, and the SRTS project area. Many sidewalks do not have Americans with Disabilities Act (ADA)-compliant curb ramps or curb ramps of any kind. Missing curb ramps were noted across the Village; however the issue was particularly evident along Elm Street between Walnut Street and Phillips Street, where there are no curb ramps on either side of the street for children to use to access the Mills Lawn School campus, even though a sidewalk runs along the school-side of Elm Street.

Sidewalk repair and replacement prioritization is beyond the scope of this project, but the Village is aware of the importance of quality sidewalks in improving accessibility, increasing economic development, and protecting itself against liability for trip and fall as well as ADA civil rights lawsuits. The Village should endeavor to create a sustainable strategy for addressing its sidewalk accessibility issues in parallel with its pursuit of the recommendations made in this document.

Trails

The Little Miami Scenic Trail (LMST) runs along the eastern side of the Village and connects it to the larger Miami Valley Bikeway Network, billed as the nation’s largest paved trail network with over 340 miles of trail. Village residents can bicycle to Springfield, Xenia, Dayton, Urbana, Cincinnati, Columbus, and beyond, all on trails. To the north of the Village, the Ellis Trail Spur provides a connection between the LMST and Ellis Park. In the southern part of the Village, Stewart Drive’s cul-de-sac is connected by a trail to Glen View Road to provide an essential east-west pedestrian and bicycle connection.

The LMST is a major amenity for Village residents, but it is also the primary economic development driver for the area. During weekends and festivals, the Yellow Springs daytime population swells as out-of-towners shop and recreate in Village businesses



Sidewalks on Downtown Dayton Street (source: Karen Wintrow).

and patronize Village restaurants. Yellow Springs is very much a trail town. Trail towns are typically small, rural communities through which one or more recreational trails pass. Trail towns support trail users with services, promote trails to community members, and embrace trails as a resource to be protected and celebrated.

From 2015 to 2017, the Miami Valley Regional Planning Commission's (MVRPC) Regional Bikeway Counting Program estimated average daily totals of between 252 and 287 users on the LMST at count locations north and south of Yellow Springs, with estimated annual totals of over 107,000 users. Given that the Village's 2017 population was just over 3,700, these numbers illustrate the LMST's role as a regional destination, generating significant economic activity in Yellow Springs.

In addition to the LMST, which is a high-quality bicycle facility for north-south travel through the Village, Yellow Springs is also well-served by natural surface trails in adjacent Glen Helen Nature Preserve and John Bryan State Park.

Bikeways

Beyond the LMST, the majority of streets in the Village are low-speed and low-volume, comfortable for family bicycling. A Level of Traffic Stress (LTS) analysis completed by the MVRPC (Figure 6) identified Xenia Avenue, Dayton Street, Corry Street, State Route (SR) 343, Polecat Road, High Street, Enon Road, and Allen Street as roadways that are more stressful and may be difficult for less confident bicyclists to bike along or to cross, potentially deterring more trips being made by bike.

The Village has striped shared lane markings or "sharrows" on West South College Street and Xenia Avenue between the LMST and Limestone Street. These pavement markings let motorists know that they should expect bicyclists to be using the roadway, and by indicating where bicyclists should ride, help avoid "dooring" and other bicycle-car collisions. The Project Team observed that the sharrow pavement markings were faded in both locations. Community members indicated during public outreach for this plan that these markings should be refreshed, and that existing bicycle actuated signals should be recalibrated. There is also a "Bicycles May Use Full Lane" sign facing the southbound direction of Polecat Road just outside the Village boundary.



Riders on the Little Miami Scenic Trail (source: Karen Wintrow).



Riders in front of Yellow Springs Station on the Little Miami Scenic Trail (source: Karen Wintrow).

In addition to shared lane markings and signage, wide shoulders on US Route (US) 68/Xenia Avenue can accommodate bicyclists, although they are not marked as bicycle facilities. Shared lane markings and signage can provide some assurance to confident bicyclists that their right to use the roadway is respected, but do little to make people of all ages and abilities comfortable traveling by bicycle on major streets.

State and US Bike Routes

Ohio is establishing a network of State and US and bicycle routes that will span over 4,000 miles of on-street bikeways and trails. Two routes are near Yellow Springs. The LMST is part of proposed State Bike Route (SBR) 23. It travels north to Springfield and Urbana. In Yellow Springs, it follows Corry Street past Antioch College and then continues south to Xenia. In 2017, the Village of Yellow Springs passed a resolution supporting SBR 23 as an officially designated AASHTO bicycle route. The Ohio to Erie Trail is part of US Bike Route (USBR) 21. It bypasses Yellow Springs but travels through nearby Xenia, connecting with Dayton and Columbus. Xenia, Cedarville, Greene County, and other nearby local jurisdictions have passed resolutions in support of USBR 21. Figure 7 shows existing and proposed facilities that are part of the State and US bicycle route proposed network.

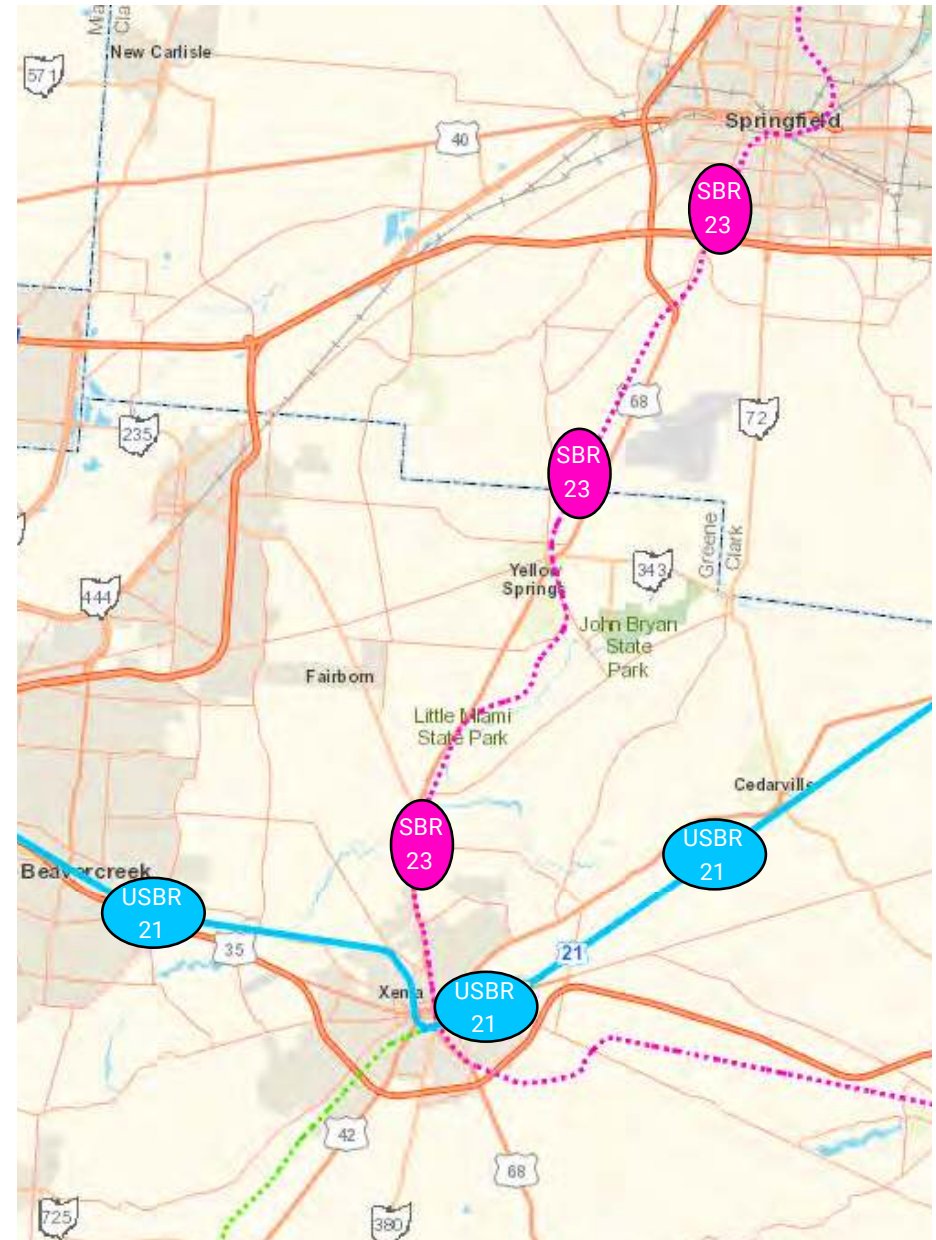
Crash Analysis

Five years of crash data were reviewed and mapped using ODOT's GIS Crash Analysis Tool; this exercise identified problem locations are for all road users, but especially for people walking and bicycling. During the time period reviewed (2014-2018), there were no fatal bicycle or pedestrian crashes within Village limits. Table 1 shows bicycle and pedestrian crash data for this time period. Crashes occurred at the following locations:

Table 1: Bicycle and Pedestrian Crash Data (2014-2018)

Injury Type	Instances
None reported	2
Possible	7
Non-incapacitating	6
Incapacitating	2
Total	17

Figure 7: State and US Bicycle Routes near Yellow Springs



- South Walnut Street north of east Limestone Street (1)
- Yellow Springs Fairfield Road east of North Walnut Street (1)
- Polecat Road south of Northwood Drive (1)
- Off-road, near the Antioch Commons Golf Course between Kurt and East Herman Streets
- Dayton Street between King and Corry Streets (3)
- Xenia Avenue between South College and Cemetery Streets (10)

A cluster of four crashes occurred on Xenia Avenue between Corry Street and the LMST, likely due to higher pedestrian and bicycle activity in this area because of the trail. In total, there were 240 crashes of all types within Village boundaries from 2014 to 2018.

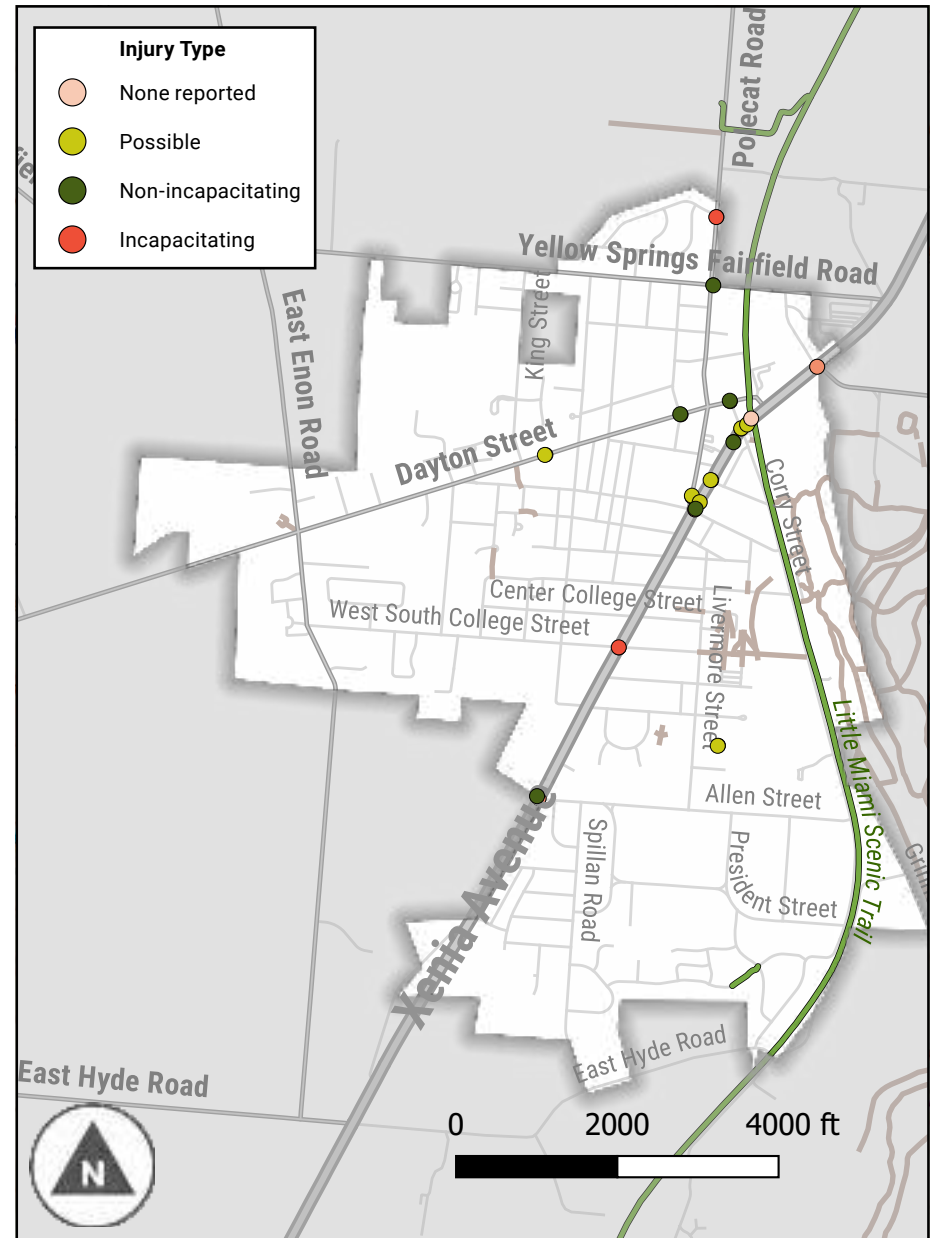
Existing Programs and Policies

Effective active transportation programs and policies can increase walking and bicycling, even absent high-quality infrastructure. When that infrastructure already exists, as is the case in Yellow Springs, programming can act as a multiplier, spurring even more people to walk and bike for both recreation and transportation.

Active transportation planning and design can be broken down into 5 Es, with Equity as a prioritizing factor throughout: Education, Encouragement, Enforcement, Engineering, and Evaluation. Of these, all but Engineering – the actual design and construction of improvements to the built environment that improve safety and accessibility for people walking and bicycling – involve programming.

Education is the array of programs that teach people of all ages how to walk and bike safely.

Encouragement programs are those that get people excited about walking and bicycling, either by providing incentives for developing walking and bicycling habits or



by creating venues for walking and bicycling, like hosting a “fun run” or 5k race.

Enforcement programs help deter unsafe behaviors by people using all travel modes. In certain contexts, this may mean having a Trail Ranger program where volunteers draw user attention to inappropriate or unsafe uses of the trail. In other places, it may mean having law enforcement officers create speed enforcement zones to deter dangerous driving and share information about the rules of the road. Law enforcement officers must apply traffic laws consistently and equitably to ensure safe roads for all users.

Evaluation and planning programs include bicycle and pedestrian counts, crash analysis, and other efforts that help communities develop a sense of progress around active transportation performance measures. One popular evaluation method is to conduct pre- and post-installation pedestrian and bicycle counts when a new piece of active transportation infrastructure is installed to measure its effect on local mobility, and help make the case for additional investments.

Organizations in and around Yellow Springs already offer programs that address several of the Es. Many programs span multiple Es, like education and encouragement. It is important to review current programs and policies, shown in Table 2, to help the Project Team understand where programming gaps may exist, so they can be addressed in the Plan recommendations.

Education

Yellow Springs Schools is conducting most of the active transportation educational programming in the Village. Safe Routes to School (SRTS) programs are generally a major element of a successful community’s educational strategy, and Yellow Springs is no exception. Yellow Springs Schools conducts two major educational programs every year that involve bicycling. The “Into the Wild” program takes seventh grade students on a three-day bicycle trip along the LMST. The focus of the trip is project-based learning about aspects of the school curriculum, including math and science. Third and fourth grade students have a shorter “Bike Hike” on the trail south of Yellow Springs toward Xenia. **The Yellow Springs Police Department** staffs these excursions and teaches bicycle safety.

In addition to these programs, the 2011 Yellow Springs School Travel Plan recommended educational programming, including developing route maps for

students to walk and bicycle to school and pedestrian safety lessons led by the school nurse. Route maps were developed using a \$15,000 grant for educational outreach.

From discussions, we learned that the success of the Village SRTS effort has helped spawn the Village Active Transportation Committee and sparked interest in the fledgling **Bike Yellow Springs** group, a chapter of **Bike Miami Valley**.

Greene CATS Public Transit provides both demand-responsive scheduled rides and community based flex routes throughout Greene County and with limited service to Montgomery County. Greene CATS vehicles have front-mounted bike racks to facilitate multi-modal trips. Greene CATS also has a Mobility Management program that offers Travel Training to individuals and groups to teach them about mobility options across the County. This Training has been offered at the Senior Center and at the middle/high school. In addition, Greene CATS has offered Street Smarts training at both locations to reinforce safe pedestrian travel behavior. There is a classroom portion of this training, and a portion spent walking around Yellow Springs with a police escort. Greene CATS has offered to collaborate with Yellow Springs Schools on providing Street Smarts programming tailored to specific ages.

While the **Police Department** does not have formal bicycle education programming beyond participating in the Into the Wild program, it is considered locally to be walking and bicycling-friendly. The Department has six bicycle officers (60% of its personnel) certified by the International Police Mountain Biking Association, typically deployed during festivals and events. The Police and Fire Departments are in a good position to champion outreach centered around safety, education, and enforcement.

The Bicycle Enhancement Committee was the predecessor of the Active Transportation Committee. This Committee used to stage a bicycle rodeo education program for residents, but this activity no longer occurs.

Encouragement

Greene County has an extensive park trail program with educational material on proper etiquette and operations. They also help to program several events centered around walking, hiking, and biking at their facilities. Every year in June, **Greene County Parks and Trails** hosts the Green Trails Cycling Classic featuring a different trail every

day for four days. Additionally, there are regular Night Rides and Morning Miler rides hosted on the five paved trails that comprise the Green County trail network. Several seasonal hikes are hosted throughout the year, some in association with educational opportunities, and there are seasonal summer camp and scouting opportunities for children.

Glen Helen Nature Preserve offers nearly 100 programs every year, many utilizing the existing trails. It has approximately 15 miles of footpath trails of varying materials connecting to both John Bryan State Park and the Clifton Gorge State Nature Preserve. Additionally, the Buckeye Trail and North Country Trail are accessible via Glen Helen Nature Preserve. The Buckeye Trail is a 1,440-mile hiking trail circling the state of Ohio. The North Country National Scenic Trail is the longest in the National Trails System, stretching 4,600 miles over seven states. The Glen Helen Nature Preserve's main office location at 405 Corry Street is located off the Little Miami Scenic Trail, and the main parking lot is often utilized as a staging point for cycling on the trail.

Glen Helen Nature Preserve has also been working with Greene County, Yellow Springs, Clifton, and ODOT to evaluate a potential shared use path to the north of the preserve, connecting Yellow Springs with Clifton, along with improvements to the Preserve parking lot at the north end to improve limited mobility access and parking. A recommendation to build the trail is included in this Plan. A preliminary alignment concept plan and planning-level cost estimates are already underway.

In Fall 2017, the **Yellow Springs Senior Center**, the **Greene County Council on Aging**, and the Alzheimer's Association used \$25,000 in funding from the Dayton Foundation, in conjunction with additional funding from the Yellow Springs Foundation, to implement Dementia-Friendly Yellow Springs. This effort researched programs and advocacy focused on providing safer and clearer accommodations for seniors. The Yellow Springs Senior Center also provides appointment-based on-demand transportation services during the week, in addition to promoting active transportation events such as hikes at Glen Helen Nature Preserve and Morning Miler bicycle rides through their Facebook feed and blog.

A bike sharing program or co-op can be seen as both an infrastructure program and an encouragement activity because it lowers the barrier to bicycling by making it unnecessary to own or maintain a bicycle. **Antioch College** has implemented an on-campus bicycle co-op program which allows students to check out bikes. Twenty-five bicycles are available free of charge to students, faculty, and staff on a first come, first serve basis from designated bike racks around campus. An annual budget of

\$1,000 provides tools, equipment, and parts. Community donations and the police department's abandoned bike auction program supplies the bicycles, which are painted red and identified as Antioch College bicycles. A student is hired each term to manage the fleet with Antioch College Facilities Staff support.

The **Rails-to-Trails Conservancy** hosts an annual Opening Day for Trails event which celebrates the beginning of spring trails season. In 2018, the local Rails-to-Trails office cohosted it with the **Yellow Springs Chamber of Commerce**, the **Black Pug Bike Repair Shop**, **The Village Cyclery**, **Yellow Springs Brewery**, the **Village of Yellow Springs**, **Greene County Public Health**, and **Miami Township Fire-Rescue**. In addition to promoting active transportation, **Greene CATS** taught people how to mount a

Table 2: Summary of organizations that support active transportation

Responsible Organization	Education	Encouragement	Evaluation
Active Transportation Committee			
Antioch College		◆	
Bike Miami Valley	◆	◆	
Bike Yellow Springs			
Glen Helen Nature Preserve		◆	
Greene CATS	◆		
Greene County Council on Aging		◆	
Greene County Parks and Trails		◆	◆
Greene County Public Health	◆		
Local Bicycle Shops		◆	
Miami Township Fire-Rescue		◆	
Miami Valley Regional Planning Commission		◆	◆
Police / Fire & Rescue	◆		
Yellow Springs Chamber of Commerce	◆	◆	◆
Yellow Springs Schools		◆	
Yellow Springs Senior Center		◆	
Village of Yellow Springs			◆

bicycle on a bus rack, and **Greene County Public Health** led Bike Safety Games. Often, encouragement and educational activities overlap at the same events.

Other events the Chamber of Commerce promotes include the semiannual Yellow Springs Street Fair, which has been ongoing for 40 years. At this event, bicycle parking demand is so high that bike valet parking has been provided by Bike Miami Valley for the last seven years. With upwards of 350 miles of interconnected trails in southeastern Ohio, the Yellow Springs Street Fair is a strong bicycle destination with thousands of riders.

Local destinations such as Young's Jersey Dairy and Yellow Springs Brewery also sponsor bicycle-accessible events and charity rides. Two newer groups, the Active Transportation Committee and Bike Yellow Springs are both active in the Village, but they have not yet started regular programming.

Enforcement

No enforcement activities were identified beyond standard public safety practices.

Evaluation

Bicycle and pedestrian count information is available from **Greene County Parks and Trails** for the Little Miami Scenic Trail south of the Ellis Spur Bikeway and north of the Riding Centre on East Hyde Road for 2014 through 2016. There are additional bicycle count data from 2015 along the trail north of Grinnell Road. No other pedestrian or bicycle counts were available along other corridors in the Village. Student travel tallies and a parent survey were completed in 2009 as part of the 2011 School Travel Plan. Beyond this, no survey data were found documenting public perception of active transportation improvements.

CHAPTER 3

PUBLIC OUTREACH PROCESS

Introduction

Public outreach was an essential tool in the plan development process. Involving the public builds trust in the planning process and improves the overall quality of the findings. Two primary means of public involvement were used during plan development: project advisory team and public meetings and events.

Project Advisory Team

The Village's Active Transportation Committee, a group of residents interested in improving active transportation in Yellow Springs, was a key supporter of the Village's application to ODOT for technical assistance for plan development. Committee members have regularly participated in the plan process as the Project Advisory Team, providing initial impressions of Village needs and perceptions of community attitudes toward active transportation. Early on, team members assisted the Project Team in understanding past and ongoing active transportation programming and capital projects, and helped gather existing planning documents and essential spatial data. The Project Team and the Village's Project Lead first met with a subset of the Advisory Team on December 12, 2017 to develop an understanding of goals and identify a desired timeline, as well as to communicate about data needs. A subsequent kickoff meeting with the full Advisory Team occurred on January 23, 2018, which detailed the project schedule, role of the Advisory Team, a community engagement strategy, and next steps. The next Advisory Team meeting was held on March 28, 2018, and focused on a review of observed issues the Project Team encountered during March 27 fieldwork, and the existing active transportation programming occurring in the Village and its surroundings. At this meeting, the Project Team explained the upcoming community mapping pop-up event format and dates, and received feedback from the Advisory Team. Another Advisory Team meeting was held on May 23, 2018 to review feedback from the community mapping pop-up events and to discuss the draft facility and programmatic recommendations, including identifying priority projects. The final Advisory Team meeting was held on June 27, 2018 to finalize the set of recommendations and identify an implementation strategy and parties responsible for moving projects forward.

Community Pop-Up Mapping Events

To gather feedback from the Yellow Springs community on important walking and bicycling routes, as well as barriers to walking and bicycling, the Project Team held several mapping events. Called "pop-up" events, the Project Team set up tables and poster boards with information about the plan and maps for the community to add linework and recommendations at Village events where there were large groups of people present. In this way, the Project Team brought the planning process to the community, rather than developing and promoting standalone events that may not attract a wide cross-section of attendees.

The first mapping event took place as part of the Opening Day for Trails event on April 7, 2018 at the train station on the LMST. At this event, the Project Team gathered valuable information on the quality of existing facilities, such as the West South College Street bike path, where new sidewalks would be helpful, that bike parking is needed along Xenia Avenue, and many other points.

The second mapping event was during Walk and Bike to School Day on May 9, 2018 on the Mills Lawn School campus. The Project Team connected with many Mills Lawn students and parents about traffic safety issues and where facility improvements are needed, both to aid in walking and bicycling to school, but also general active transportation connectivity within the Village and other places.

The Advisory Team used the same maps and other materials to gather community feedback at the Yellow Springs Farmer's Market on two occasions in May 2018. The Village also hosted a booth at the 2018 Yellow Springs Street Fair that included the recommendations and renderings of three proposed projects.

Open House

An Open House was held on June 27, 2018 to share draft infrastructure and programming recommendations with the community. The dual goals of the Open House were to inform community members about the plan and gather feedback on which projects were the most important and should be prioritized for conceptual graphic development by the Project Team. The Open House also featured a hands-on activity where attendees could reimagine the West South College Street cross-section by placing elements like sidewalks, bike lanes, and landscaping within the street's right-of-way. Feedback on plan recommendations from this open house helped the Project Team work with the Advisory Team to revise the draft active transportation plan.

Maps and public feedback from all public engagement events can be reviewed in Appendix A.



Opening Day for Trails pop-up mapping booth.



Open house.

CHAPTER 4

RECOMMENDATIONS

Introduction

The Project Team developed infrastructure, programming, and policy recommendations by drawing on existing Yellow Springs plans, field review of existing conditions for active transportation, discussions with the Advisory Team, and feedback from the Yellow Springs community. The recommendations section is divided into three parts: infrastructure, which includes linear improvements and spot improvements; programming, including example programs from other communities; and policy.

Infrastructure Recommendations

Infrastructure recommendations were separated into two groups based on whether the proposed facility served active transportation trips within the Village or connected the Village to surrounding amenities and communities. The tables on the following pages highlight first the regional projects (Table 3) and then the local ones (Table 4). Table fields provide information on the corresponding map identification number (IDs starting with “S” are spot improvements; those starting with “L” are linear improvements), project extents, description, and if Advisory Team members thought the project was a priority. Infrastructure recommendations are shown in Figure 8 and Figure 9.

Projects are assigned one of three priority levels:

1. Short-Term (1-2 years)
2. Medium-Term (3-5 years)
3. Long-Term (6-10 years)

The priority assigned to a given project is based on the amount of support the project received from the advisory team. All Safe Routes to School-eligible projects were assigned Level 1 priority to support the Village’s SRTS grant application. Projects that were not ranked or considered by the advisory team are not assigned a priority. Map identification number is unrelated to priority, and is related to the recommendation’s location on the corresponding map. More information on prioritization is included in Chapter 5. Possible funding sources are also listed for each project, and are described in more detail in Chapter 5.

Figure 8: Regional Infrastructure Recommendations

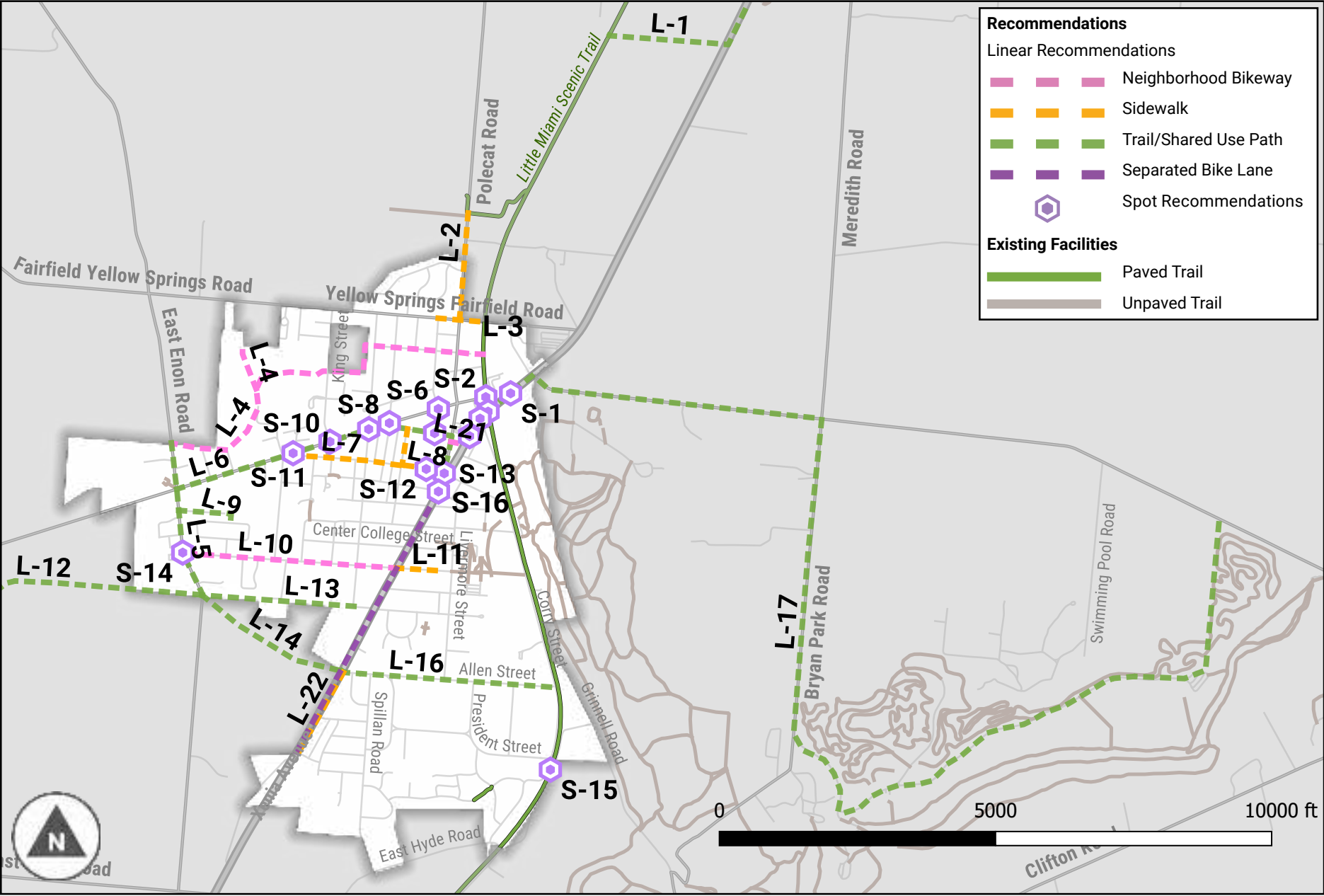


Figure 9: Local Infrastructure Recommendations

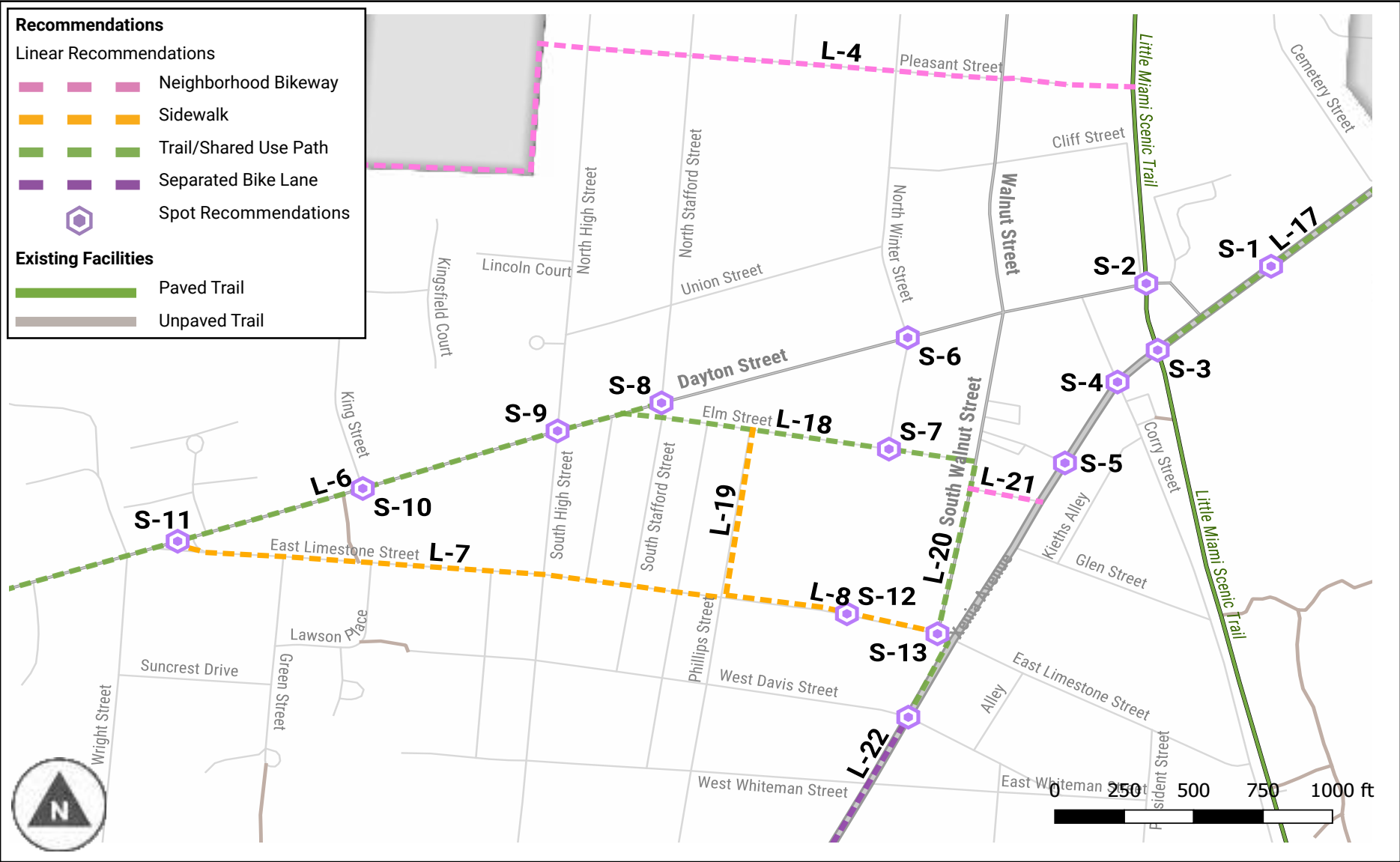


Table 3: Regional Infrastructure Recommendations

Map ID	Location	Recommendation	Description	Priority	Possible Funding Sources
L-1	Trail from LMST to Young's Jersey Dairy	New Trail	This spur trail north of the Ellis Park Spur Trail would provide a low-stress connection between the Village and Young's Jersey Dairy. This is a major regional tourist attraction, and there is not currently a comfortable route to walk or bicycle there for people of all ages and abilities. Building this trail would provide that connection, allowing Yellow Springs residents or visitors to take advantage of the activities at Young's Jersey Dairy while avoiding US 68. The recommendation includes a trail crossing of US 68 with signage and flashing lights to alert drivers to trail users' presence. A viable alternative recommendation is a two-way separated bike lane on US 68 to Young's Jersey Dairy.	1	
L-17	SR 343 from Xenia Avenue to Clifton	New Trail	This trail would connect the Village to Clifton along the northern edge of Glen Helen Nature Preserve and through John Bryan State Park. This alignment is currently undergoing conceptual design.	2	
L-2	Polecat Road from Yellow Springs-Fairfield Road to Ellis Park	New Sidewalk	Extending from Yellow Springs-Fairfield Road, this sidewalk would provide a dedicated pedestrian connection between the Village and Ellis Park.	-	
L-12	Trail from Enon Road to Agraria	New Trail	Constructing a trail connection between Agraria and the education campus would help facilitate educational opportunities for Yellow Springs students so they can involve themselves more easily in Agraria's sustainability and community resilience programming.	-	

List of Funding Source Acronyms

CMAQ – Congestion Mitigation and Air Quality

COTF – Clean Ohio Trails Fund

GSCP – Green Space Conservation Program

HSIP – Highway Safety Improvement Program

MVRPC – Miami Valley Regional Planning Commission

ODNR – Ohio Department of Natural Resources

ODOT – Ohio Department of Transportation

OPWC – Ohio Public Works Commission

SRTS – Safe Routes to School

TA – Transportation Alternatives

Priority Levels

1. Short-Term (1-2 years)

2. Medium-Term (3-5 years)

3. Long-Term (6-10 years)

Table 4: Local Infrastructure Recommendations

Map ID	Location	Recommendation	Description	Priority	Possible Funding Sources
S-4	Xenia Avenue at Corry Street	Intersection Redesign	This intersection should be redesigned to reduce the turning radius on the northeast corner. This treatment helps improve safety for people of all ages and abilities by reducing the amount of time people are crossing the street and reducing driver turning speeds. The Village should also consider a raised crosswalk on the southern leg of this intersection to provide a final gateway element for the commercial core. If this intersection is completely redesigned, the Village could consider a raised intersection treatment, essentially elevating the intersection to sidewalk-level.	1	
L-6	Dayton Street from Enon Road to Elm Street	Shared Use Path Reconstruction	This sidepath on the eastbound side of Dayton Street is a unique transportation legacy of Yellow Springs. The sidepath should be reconstructed together with the existing sidewalk as a shared use path to provide bicyclists an alternative to sharing the road with motor vehicles on Dayton Street. Particular care should be given during reconstruction to the sidepath's intersection crossings. The Village should consider using raised crossings to maintain the trail surface across minor intersections. This would improve safety for shared use path users by encouraging minor street yielding and slowing drivers turning from Dayton Street. It would also have traffic calming effects that would benefit all road users.	1	
L-10	West South College Street from Enon Road to Xenia Avenue	Neighborhood Bikeway	The current street configuration does not lend itself to reconstructing the westbound sidepath in the same way as on Dayton Street (L-6) due to the mature trees between the sidepath and the sidewalk. In the short term, the Village should consider installing chicanes, signage, and other treatments to make this corridor a neighborhood bikeway. In the long term, as trees need to be removed, the Village should prepare to reconfigure the corridor's public space such that high quality dedicated pedestrian and bicycle facilities can be provided. With 60 feet of width, the corridor could have two ten-foot travel lanes, two eight-foot separated bike lanes, two six-foot sidewalks, and still have a six-foot area for landscaping on either side.	1	
S-3	Xenia Avenue at LMST	Improved Trail Crossing	Construct a pedestrian median island for the LMST with overhead warning signage and a Rectangular Rapid Flashing Beacon (RRFB). This treatment serves to slow drivers entering the commercial center of Yellow Springs and allows trail users to cross one lane of traffic at a time. A phased approach could be used to install the overhead signage and RRFB first, followed by the median island. Space for the median island can be obtained by restriping the existing paved shoulders as part of the travel lanes.	1	

Map ID	Location	Recommendation	Description	Priority	Possible Funding Sources
S-2	Dayton Street at LMST	Improved Trail Crossing	Construct a raised crossing for the LMST with overhead signage warning signage and a RRFB. Signage for drivers and trail users at this location should be adjusted to indicate that Dayton Street traffic should yield to trail users. This treatment serves to prioritize trail users and slow drivers entering the commercial center of Yellow Springs. A phased approach could be used to install the overhead signage and RRFB first, followed by the raised crossing if yielding compliance does not improve.	1	
L-8	Limestone Street from South Walnut Street to Phillips Street	New Sidewalk	A sidewalk should be installed on the north side of Limestone Street between South Walnut Street and Phillips Street to help students safely access school grounds.	1	
S-7	Winter Street at Elm Street	Traffic Calming/ Crossing Treatments	This is the intersection immediately adjacent to Mills Lawn School, but there is no accessible way to cross the street. All curb ramps at this location should be reconstructed and curb ramps should be built on the Mills Lawn side to connect the existing sidewalk to the crosswalk. Curb extensions should be installed into the parking lanes to shorten crossing distances, improve visibility, and slow turning drivers.	1	
L-7	Limestone Street from Dayton Street to Phillips Street	New Sidewalk	Limestone Street from Dayton Street to Phillips Street is a major sidewalk gap in the Village's pedestrian network. Installing a sidewalk in the eastbound direction would make it easier and safer for students to walk to Mills Lawn School and for all residents to travel to the downtown area. This recommendation was frequently mentioned by the Advisory Team and in community mapping sessions.	1	
L-18	Elm Street from Dayton Street to Short Street	New Shared Use Path	The Dayton Street Shared Use Path (L-6) should continue onto Elm Street along the north side of Mills Lawn School and connect to the commercial core via Short Street (L-23).	1	
L-19	Phillips Street from Limestone Street to Elm Street	New Sidewalk	This sidewalk on the eastern side of the street helps complete an accessible perimeter around Mills Lawn School.	1	
L-20	Walnut Street from Short Street to Limestone Street	New Shared Use Path	This shared use path on the western side of Walnut Street helps complete an accessible perimeter around Mills Lawn School. It is also recommended to convert Walnut Street to one-way traffic southbound. This change would improve circulation during pick-up and drop-off times. Back-in angled parking on the west side of the street would buffer people on the shared use path from adjacent traffic. Back-in parking is preferable to head-in parking because it improves driver sight lines, directs vehicle occupants away from the street when they open their doors, and makes loading/unloading safer.	1)

Map ID	Location	Recommendation	Description	Priority	Possible Funding Sources
S-6	Dayton Street at Winter Street	Traffic Calming/ Crossing Treatments	<p>The new sidewalks on Winter Street make this location very important to access Mills Lawn School and central Yellow Springs in general. Motorists do not heed current signage to yield at this location, and a more robust approach is necessary from a safety perspective.</p> <p>This location would be well-served by several treatments:</p> <ul style="list-style-type: none"> • Curb extensions at all corners to shorten crossing distances, improve visibility, and slow turning drivers • A raised crossing at the eastern leg of the intersection to connect the new sidewalk across Dayton and emphasize pedestrian priority • RRFB or other treatment to warn drivers that pedestrians are entering the roadway <p>Each of these treatments would make this intersection safer and help enhance the gateway into the Yellow Springs commercial area. With no traffic control between Enon Road and Walnut Street, motorists tend to drive quickly along this corridor, causing safety issues and reducing quality of life.</p>	1	
S-5	Xenia Avenue at Emporium	Midblock Crossing with Curb Extensions	<p>Pedestrians regularly cross the street at this location midblock. This treatment makes it safer and more convenient to do so by extending the sidewalk to the edge of the parking lane. Curb extensions improve visibility for both drivers and pedestrians and reduce crossing distance. The Village should also consider a raised crosswalk at Xenia Avenue and Short Street to enhance pedestrian right-of-way and slow drivers.</p>	2	
L-4	Pleasant Street from Enon Road to LMST	Neighborhood Bikeway	<p>The potential Glass Farm development is a unique opportunity to improve bicycle connectivity in the northern part of the Village. This recommendation, which could be completed in phases, envisions Pleasant Street as a bicycle boulevard with traffic calming treatments, stop signs at most cross streets for uninterrupted flow, and wayfinding signage. Initially, this bikeway could travel between North High Street and the Little Miami Scenic Trail, but in time, it could be extended to King Street, then the internal circulation of Glass Farm, and on to Enon Road. The connection provides an alternative to bicycling on Dayton Road to access the LMST and the Village's commercial areas.</p>	2	

Map ID	Location	Recommendation	Description	Priority	Possible Funding Sources
S-11	Limestone Street at Dayton Street	Intersection Redesign	Redesign this intersection so the two streets meet at a 90-degree angle. The current configuration encourages high speed turns from Dayton Street to Limestone Street eastbound. Regular, right-angled intersections improve visibility for all users and reduce travel speeds.	2	
L-11	East South College Street from Xenia Avenue midway to Livermore Street	New Sidewalk	There is a sidewalk gap in the westbound direction from Xenia Avenue midway to Livermore Street. A new sidewalk here would provide a pedestrian connection on this corridor to Antioch College.	3	
S-8	Stafford Street at Dayton Street	Traffic Calming	The parking lanes at this location make the street seem wide, which encourages faster speeds. Install curb extensions at all corners to visually narrow the street, slowing drivers, shortening crossing distances, and improving visibility. Curb extensions can act as a gateway treatment to help drivers understand that they are entering a downtown area where slower speeds and increased attention are necessary.	3	
S-9	High Street at Dayton Street	Traffic Calming	The parking lanes at this location make the street seem wide, which encourages faster speeds. Install curb extensions at all corners to visually narrow the street, slowing drivers, shortening crossing distances, and improving visibility. Curb extensions can act as a gateway treatment to help drivers understand that they are entering a downtown area where slower speeds and increased attention are necessary.	3	
S-15	LMST at Riding Centre	Pavement Markings and Signage	According to the community pop-up mapping events, motorists turning from Hyde Road or Corry Street may not be aware of trail users, creating an unsafe situation. Signage and pavement markings should be added to make motorists aware of the trail crossing.	3	
L-3	Yellow Springs-Fairfield Road from Winter Street to LMST	New Sidewalk	This sidewalk extends from the recently completed sidewalk on the south side of Yellow Springs-Fairfield to connect to the Polecat Road sidewalk recommendation (L-2) and the LMST overpass. Currently, the overpass has steps down to the road, but no sidewalk or safe accommodation. The Village may consider replacing the steps with a ramp to improve accessibility.	3	
L-5	Enon Road from Dayton Street to southwestern Village boundary	Shared Use Path Reconstruction	This recommendation involves reconstructing an existing sidepath on the southbound side of Enon Road between Dayton Street and the southwestern Village boundary, in addition to constructing a new shared use path between Dayton Street and the eventual end of the Pleasant Street Neighborhood Bikeway (L-4). The sidepath should be built to current standards, allowing comfortable travel for people on foot, bicycle, and accessibility devices in both directions. Specific widths can be identified as part of the design process.	3	

Map ID	Location	Recommendation	Description	Priority	Possible Funding Sources
L-14	Trail from Enon Road to Allen Street	New Trail	This is a conceptual alignment for a trail between these two locations should this land ever become part of Yellow Springs and be developed. The Village should preserve a corridor to develop this trail if the opportunity presents itself.	3	
L-15	Xenia Avenue from Allen Street to Kahoe Lane	Sidewalk Reconstruction	South of Allen Street, the sidewalk on the northbound side of Xenia Avenue is narrow and in disrepair. These conditions make it difficult to access Dollar General and other stores on this corridor and for residents in southern Yellow Springs to access more central amenities, especially if they use scooters or wheelchairs.	3	
L-16	Allen Street from Xenia Avenue to LMST	New Shared Use Path	This shared use path in the westbound direction on Allen Street would better connect people across the lower portion of the Village. The shared use path would feed into the pedestrian/bicycle connection through new development (L-14) and to the education campus along L-5.	3	
L-21	Short Street from Walnut Street to Xenia Avenue	Shared Street	Open Short Street to people by prohibiting cars other than delivery vehicles. Program the space with tables and chairs and consider other placemaking features. Bicycle parking, especially dimensioned for bicycles with trailers or cargo bikes, should be provided. This space also provides a connection for pedestrians and bicyclists from the path along Elm Street (L-18) to the commercial core. Closing this street to cars would also improve the safety of arrival and dismissal at Mills Lawn School by changing local circulation patterns.	3	
S-10	Dayton Street at King Street	Traffic Calming/ Crossing Treatments	Add signage, a crosswalk, and curb extensions at this location to alert drivers that people will be crossing to access Bill Duncan Park and the Greene CATS flag stop.	3	
S-12	Mills Lawn School Dropoff Area	Traffic Calming/ Crossing Treatments	The existing crosswalk at Mills Lawn School should be converted to a raised crossing to reinforce pedestrian priority at this location.	3	
S-13	Walnut Street at Limestone Street	Traffic Calming	Curb extensions should be used at the northwest and northeast corners to tighten this intersection to reduce crossing distance for pedestrians and slow turning vehicles. The yield condition for southbound road users on Walnut Street should also be converted to a stop condition, which should increase pedestrian confidence when crossing at this location.	3	
S-16	Davis Street at Xenia Avenue	Traffic Calming/ Crossing Treatments	Curb extensions and enhanced crosswalks across Xenia Avenue should be installed at this location to help develop the southern gateway to the commercial center of the Village.	-	

Map ID	Location	Recommendation	Description	Priority	Possible Funding Sources
S-14	Enon Road at West South College Street	Intersection Redesign	This intersection should be redesigned to intersect at a perpendicular angle. Curb radii, particularly at the southeast corner, should be narrowed. Redesigning the intersection would improve safety for all road users by improving visibility and reducing crossing distance and driver speeds.	-	
S-1	Xenia Avenue from Cemetery Street to Dayton Street	Traffic Calming	Install landscaped curb extensions into the parking lane between Cemetery Street and Dayton Street to define the parking lane and visually narrow the roadway. This is a way to enhance the Village gateway by creating a sense of enclosure, informing motorists that they are entering an area where active transportation users have priority and should drive accordingly.	-	
L-22	Xenia Avenue from Davis Street to Kahoe Lane	New Separated Bike Lane	A two-way separated bike lane should be installed on the western side of Xenia Avenue. Between Davis Street and South College Street, space for the facility can be made from repurposing underused on-street parking. South of South College Street, consolidating shoulder space from both sides of the road can make space for the bicycle facility.	-	
L-23	Xenia Avenue from Davis Street to Limestone Street	New Shared Use Path	A shared use path should be installed to connect the northern terminus of the Xenia Avenue Separated Bike Lane (L-22) to Limestone Street and Mills Lawn School. This approach maintains existing parking in front of the Library.	-	
L-13	Herman Street from High Street to Enon Road	New Trail	This proposed facility uses an existing natural surface path to Gaunt Park from South High Street and continues the path to Enon Road. At the western end, trail users would be able to continue onto Agraria (L-12) or the education campus (L-5).	-	
L-9	Trail from Omar Circle to Enon Road	New Trail	This trail along a right-of-way to the north of the development would provide an additional route for Omar Circle residents to enter and exit, improving their access to local amenities. This recommendation was suggested at a community pop-up mapping event.	-	

Programming Recommendations

Active Transportation described earlier, with an additional category for recommended programs beyond the E's. Blue markers in Table 5 indicate topics the organizations are already pursuing. Yellow markers indicate recommended programs for that organization.

These recommendations build on the programming already in place in Yellow Springs and greater Greene County to provide a more supportive environment for active transportation. The recommendations are divided into the non-engineering E's of

Education

Bicycle and Pedestrian Education as Physical Education

Responsible Party: Yellow Springs Schools

Table 5: Programming Recommendations

Responsible Organization	Education	Encouragement	Enforcement	Evaluation	Other
Antioch College		◆			
Bike Miami Valley	◆	◆			
Bike Yellow Springs	◆			◆	
Glen Helen Nature Preserve		◆			
Greene CATS	◆				
Greene County Council on Aging		◆			
Greene County Parks and Trails		◆		◆	
Greene County Public Health	◆				
Local Bicycle Shops		◆			
Miami Township Fire-Rescue	◆ ◆	◆	◆		
Miami Valley Regional Planning Commission		◆		◆	
Yellow Springs Police Department	◆ ◆		◆		
Yellow Springs Chamber of Commerce	◆	◆		◆	◆
Yellow Springs Schools	◆ ◆	◆ ◆		◆ ◆ ◆	
Yellow Springs Senior Center		◆			
Village of Yellow Springs			◆	◆	◆



Existing Programs



Recommended Programs

Program Spotlight: Cleveland Safe Routes to School Bicycle and Pedestrian Physical Education

Started in 2016, this program trains and equips physical education teachers in Cleveland public schools to teach a five-week bicycle and pedestrian education course for second graders. Unlike in Washington, D.C. where all second graders participate, in Cleveland, teachers must offer to lead the program and receive training from the League of American Bicyclists to do so. To date, the program has cost about \$16,000 and trained 12 physical education teachers and between 150 to 300 children per year. The five-part curriculum teaches pedestrian safety, fitting helmets and balancing on bicycles, starting and stopping on bicycles, safe bicycle riding, and a bicycle rodeo. There is an optional culminating trip to a local park to walk and ride along a trail using newly-learned skills.



Yellow Springs Schools could use the physical education curriculum to teach safe walking and bicycling behaviors to elementary school students. In Washington, D.C. public schools, second-grade students learn how to ride bicycles, starting in the gymnasium before exploring the surrounding neighborhood. A similar program in Yellow Springs could increase the number of students bicycling to school, reduce car trips to and from school, and improve safety for all users. Teaching these skills to students would help create lifelong pedestrians and bicyclists and support the Village's vision for this plan, the "pursuit of maintaining and enhancing the Village's vibrant and connected community for people of all ages and abilities".

Bicycle Rodeos

Responsible Party: Yellow Springs Police Department

The Bicycle Enhancement Committee used to regularly host bicycle rodeos to teach children how to bicycle safely. A bicycle rodeo is an activity with different stations that test various bicycling skills like obstacle avoidance, riding slowly but stable, and starting and stopping. Bicycle rodeos can be great activities as part of larger events like the Yellow Springs Street Fair or Opening Day for Trails. The Yellow Springs Police Department could take responsibility for operating these events as part of



Bicycle rodeos teach various bicycling skills to children.

their mandate to improve public safety. Bike Yellow Springs could also assume responsibility for this activity.

Encouragement

Walking School Buses and Bike Trains

Responsible Party: Yellow Springs Schools

Yellow Springs Schools could help set up Walking School Bus and Bike Train programs at Mills Lawn School. In many places, parents may not be comfortable with their child walking or riding to school alone, but they are unable to accompany them every day. Walking School Buses and Bike Trains use adult volunteers who walk or ride to school with their child and stop by houses along the way, picking up additional children. In this way, children can walk or ride to school and are supervised the entire time. Usually, parents whose children participate take turns being the chaperon. With the elementary school starting nearly an hour before the middle/high school, high school students could also walk and ride with elementary school children to school. This approach would require additional training for those chaperoning students but may

be an effective way to get the program started. These programs encourage students to be active and help create a culture of walking and bicycling. With about 75 percent of Yellow Springs Schools students living within the Village, and Mills Lawn being, at most, a walkable mile and a half from the furthest corner of the Village, a robust Walking School Bus and Bike Train program could be very effective.

Bicycle Friendly Business Program

Responsible Party: Village of Yellow Springs

The Village could encourage local businesses to apply for the League of American Bicyclists' Bicycle Friendly Business program. This would have the dual benefit of helping increase awareness of how businesses can make bicycling easier and more convenient for their employees through improved end-of-trip facilities and incentives, while also allowing the Village to market itself as home to "X number" of Bicycle Friendly Businesses. The Chamber of Commerce would be the ideal organization to bring this idea to fruition.

Bicycle Parking

Responsible Party: Village of Yellow Springs



Walking School Bus.



Bicycle parking in downtown Dayton.

Program Spotlight: Columbus Pace Car Program

Columbus' Pace Car program has people sign and return a form with the following pledge: "I pledge to drive within City of Columbus speed limits; stop at all stop signs, red lights, and for pedestrians in crosswalks; give myself enough travel time so that I'm not sacrificing safety or courtesy; reduce overall car usage; not text while driving; be courteous to and share the road with bicyclists, pedestrians, and other drivers; and to display the Columbus Pace Car Program decal in my vehicle." If 60 percent of a neighborhood signs the Pace Car pledge, the City posts a sign along a street in the neighborhood calling it a "Pace Car Neighborhood". More information can be found at: www.columbus.gov/PaceCar.



The Project Team frequently heard that bicycle parking is an issue in the Yellow Springs commercial areas. The Village could develop a program that takes requests for bicycle parking locations and works with adjacent property owners to install new parking. Depending on available funding, the Village could pay for the racks itself or share the cost with the business owner. The Village could partner with Greene County Public Health to develop a unique Yellow Springs "U-rack" design that could help brand bicycle parking in the Village. In partnership with local businesses, the Downtown Dayton Partnership installed almost 100 branded bike racks throughout Downtown. In Yellow Springs, there is one seasonal bike corral in the Village, and the Village may consider permanently placing it and potentially other corrals downtown on Dayton Street and Xenia Avenue.

Enforcement

Pace Car Program

Responsible Party: Village of Yellow Springs

The Village could start a Pace Car program for Village residents. Started in Boise, Idaho, a Pace Car program is a way to reinforce safe driving behaviors by having program participants act as role models for other drivers. Participants drive at or below the speed limit at all times, stop fully at all stop signs, yield for pedestrians, pass bicyclists with due care, and obey all other traffic laws. Starting a program could be as simple as developing a pledge for participating drivers to sign and having participants place Pace Car stickers on their cars to inform others about the program. Pace Car stickers legitimize driving within the speed limit and convey to other motorists that following the rules is a matter of safety and consideration for other road users, not a matter of timid or clueless driving. Pace car programs have been implemented in major, mid-sized, and small cities, including Salt Lake City, UT; Mesa and Tempe, AZ; Boulder, CO; Durham, NC; Atlanta, GA; Bellingham, WA; Minneapolis-St. Paul, MN; Missoula, MT. This scalable and cost-effective program could contribute to a safer and more courteous travel environment in Yellow Springs.

Targeted Enforcement Along Dayton Street and Xenia Avenue

Responsible Party: Yellow Springs Police Department

With a plurality of crashes in the past few years occurring on Xenia Avenue and Dayton Street, the Yellow Springs Police Department should regularly conduct speed and yielding compliance ticketing and education efforts along these streets in the Village. Motorists should understand that if they drive on these corridors with any

regularity and they are speeding or driving irresponsibly, they will be ticketed. This will help create a culture of safety and compliance in Yellow Springs aiming to reduce the number of crashes and increase pedestrian and bicyclist comfort. Officers must enforce traffic laws equitably to build community support for the program. Many progressive police departments have used implicit bias training to educate officers about the role that pervasive racial stereotypes have on policing practices.

Extend School Zone Around Mills Lawn School

Responsible Parties: Village of Yellow Springs and Yellow Springs Schools

The Mills Lawn School school zone along Limestone Street currently ends at the end of Walnut Street. To further slow traffic during the school day, this zone could be extended north and south along Xenia Avenue to Glen Street and Davis Street respectively to slow motorists and enable safer crossings of Xenia Avenue at this location. If the Village and school officials find it prudent, the school zone could also be extended along Winter Street to Dayton Street and east and west along Dayton Street from Walnut Street to Elm Street. The Village and the School District can file a School Zone Extension request with ODOT to start the process of expanding the school zone. More information can be found at: www.dot.state.oh.us/Divisions/Operations/Traffic/miscellaneous/Pages/Regulations-SchoolZones.aspx

Evaluation

Student-Led Pedestrian Environment Evaluation

Responsible Party: Yellow Springs Schools

Using Yellow Springs Schools Project-Based Learning approach, high school students could develop an asset management database for the Village that catalogs the characteristics and condition of pedestrian infrastructure including sidewalks, crosswalks, pedestrian signals, curb ramps, and signage. Students would develop Geographic Information Systems (GIS) and cartography skills while providing the Village with a prioritized list of pedestrian facilities in need of repair or improvement. This program could fill a critical gap in the Village's data needs. Previously, the Village has conducted walk audits, but has not done GIS-based systematic data collection. This data collection is important to help the Village understand where specific problem areas are for walkability.

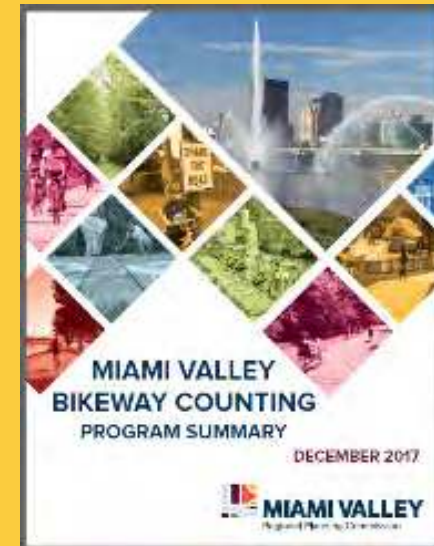
Regular Bicycle And Pedestrian Counts

Responsible Party: Village of Yellow Springs

The Miami Valley Regional Planning Commission (MVRPC) has automated counters

Program Spotlight: Miami Valley Bikeway Counting Program

The Miami Valley Regional Planning Commission began a bicycle count program in 2014. In the first two years of the program, 29 trail locations received counts. Additional data from partnering trail management agencies was also used, which have permanent trail counters installed at numerous locations on the regional bikeway network. MVRPC staff are conducting short-term studies with automatic bicycle counters on roads and bike lanes. MVRPC members can checkout an automatic bicycle counter to perform similar short-term studies in their areas. Detailed results and methodology of the program can be found in the program summary report: <https://www.mvrpc.org/transportation/traffic-count-program/bicycle-counting-program>



at several locations along the Little Miami Scenic Trail, and Greene County Parks and Trails has an infrared trail counter, but on-street data collection is lacking. To determine how many people are walking and bicycling every day on Village streets, Yellow Springs could conduct several days of bicycle and pedestrian counts every year. This program would help identify popular active transportation corridors and how levels of walking and bicycling change over time. Village staff could coordinate volunteers to conduct these counts, but this is another good opportunity for Yellow Springs students to organize and lead. MVRPC members can borrow automatic counters to perform short-term studies in their jurisdictions. The counting equipment can be checked out from MVRPC offices. More information can be found at: www.mvrpc.org/transportation/traffic-count-program/bicycle-counting-program. The UCLA Bike Count Data Clearinghouse also has resources for starting a count program: www.bikecounts.luskin.ucla.edu.

Regular Student Travel Tallies

Responsible Party: Yellow Springs Schools

Yellow Springs Schools collected student travel tallies as part of the 2011 School Travel Plan but have not done so since. Travel tallies help the administration and other jurisdictions understand how students are getting to and from school. Regularly collecting this data can provide insight into how other programs and infrastructure improvements are changing student active transportation mode share.

Adopt a Walkable School Siting Policy

Responsible Party: Yellow Springs Schools

Work with Yellow Springs Schools to ensure that new school sites are located within walking distance of Yellow Springs residents. Siting schools so people must drive to them increases traffic congestion around arrival and dismissal and is detrimental to student health by limiting physical activity.

Encourage Walking and Bicycling Through Zoning

As part of the Comprehensive Plan Update, the Village could strengthen zoning guidance that encourages walkability through mixed-use development, including the Village's form-based code, to provide pedestrian-friendly urban design and site design standards. For example, the code could require commercial buildings to have pedestrian-scaled, sidewalk-oriented facades and entrances, much like many of the buildings already in the downtown commercial corridor. The zoning code could also be used to provide more bicycle parking at commercial and multi-family residential buildings by potentially allowing developers to build less car parking if they build high-quality and secure long-term bicycle parking.

Policy Recommendations

Develop and Adopt a Vision Zero Plan

Responsible Party: Village of Yellow Springs

Vision Zero is a policy originally from Sweden that strives for zero fatalities or serious injuries on our roads each year. All aspects of a jurisdiction's decision-making revolve around achieving this goal systematically, from design of infrastructure to enforcement approaches to motorist education. Yellow Springs is a small community where there are not regularly serious injuries or fatalities on the road. There were none between 2014 and 2016, for instance. However, Vision Zero is more about creating an environment where deaths and injuries are not avoided by sheer luck, but because street design does not allow them to happen by keeping speeds low, improving visibility, and encouraging a culture of safe and law-abiding road users.

CHAPTER 5

IMPLEMENTATION

Introduction

Implementing this plan will take time and significant effort. The following implementation strategy identifies short-, medium-, and long-term plan priorities and highlights those people or organizations responsible for moving priority projects forward. While Village staff and the Advisory Team have been involved in this planning process, implementation will require working with a larger number of partners, as well as building public support for priority projects. In their professional capacities, members of the Advisory Team may be responsible for implementing specific plan recommendations. In their capacity as Advisory Team members, they will need to continue to support the Plan and garner community buy-in.

The strategy also describes potential funding sources for both infrastructure and programming projects and recommends performance measures to help the Village understand how plan implementation is changing active transportation for the better.

Project Priorities

Short-Term (1-2 Years)

Short-term projects are the most important phase of implementation. Projects that are successfully completed early on in the process in a highly visible area with the potential to serve many users would generate excitement around the plan and show the Village's commitment to expanding active transportation as a valid means of travel. As such, funding, community support, and political will to pursue the recommendations in this Plan will be most important during the first two years of implementation. Projects that scored highly during the Advisory Team's prioritization exercise include an intersection redesign at Xenia Avenue and Corry Street (S-4, shown in Figure 10 and Figure 11), shared use path reconstruction at Dayton Street from Enon Road to Elm Street (L-6), a neighborhood bikeway on West South College

Street from Enon Road to Xenia Avenue (L-10), and improved trail crossings on the LMST at Dayton Street (S-2) and Xenia Avenue (S-3).

All Safe Routes to School-eligible projects were assigned to Level 1 to support the Village's SRTS grant application. These projects are: a new sidewalk on Limestone Street from South Walnut Street to Phillips Street (L-8), traffic calming/crossing treatments at Dayton and Winter Streets (S-6), traffic calming/crossing treatments at Winter and Elm Streets (S-7), a new sidewalk on Limestone Street from Dayton Street to Phillips Street (L-7), a new shared use path on Elm Street from Dayton Street to Short Street (L-18), a new sidewalk on Phillips Street from Limestone Street to Elm Street (L-19), and a new shared use path on Walnut Street from Short Street to Limestone Street (L-20).

The only regional recommendation that ranked as a short-term project was a trail from the LMST to Young's Jersey Dairy (L-1). Improving active transportation accommodations at these important locations early on in implementation will build momentum for medium- and long-term projects.

Medium-Term (3-5 Years)

Projects completed during the medium-term phase of plan implementation would fill critical gaps in Yellow Springs' active transportation network in the Village center. They would build upon short-term successes and remedy safety and connectivity issues not addressed during the first phase.

Medium-term projects include a new sidewalk next to Mills Lawn Elementary School (L-8), a midblock crossing on Xenia Avenue at Emporium (S-5), traffic calming and crossing treatments at Winter Street and Elm Street (S-7), a new sidewalk on Limestone Street from Dayton Street to Phillips Street (L-7), a neighborhood bikeway on Pleasant Street from Enon Road to the LMST (L-4), and an intersection redesign at Limestone Street at Dayton Street (S-11). The only regional recommendation that ranked as a medium-term project was a trail on SR 343 from Xenia Avenue to Clifton (L-17).

Long-Term (6-10 Years)

During the last phase of implementation, low-priority projects would fill in the final gaps in the active transportation network, particularly in the southern part of the Village and beyond (L-12, L-14, L-15, and L-16).

Long-term projects include those that received the lowest scores from the Project Advisory Committee, as well as those that were not scored. These projects include new sidewalks in multiple locations (L-3, L-11, L-19), new trails and shared use paths in multiple locations (L-9, L-13, L-14, L-16, L-18, L-20, shown in Figure 12 and Figure 13, and L-23), traffic calming and crossing treatments in multiple locations (S-1, S-6, shown in Figure 14 and Figure 15, S-8, S-9, S-10, S-12, S-13, shown in , and S-16), an intersection redesign at Enon Road and West South College Street (S-14), sidewalk reconstruction on Xenia Avenue from Allen Street to Kahoe Lane (L-15), a shared street on Short Street from Walnut Street to Xenia Avenue (L-21), a separated bike lane on Xenia Avenue from Davis Street to Kahoe Lane (L-22), and pavement markings and signage for the LMST at Riding Centre (S-15). Two regional recommendations were not ranked: a new sidewalk on Polecat Road from Yellow Springs-Fairfield Road to Ellis Park (L-2), and a new trail from Enon Road to Agraria (L-12).

In parallel with these phases, the Village should look for other opportunities to expand its active transportation network. It is typically more cost-effective to include active transportation improvements in larger transportation projects or as part of routine maintenance, such as resurfacing. The majority of the proposed network is on-street or in the right-of-way, which provides many opportunities for leveraging resources with other agencies.

Including the proposed facilities in other transportation projects that are not part of this plan should be pursued whenever possible, even if they do not coincide with the suggested timeline. Furthermore, additional improvements that are not part of this plan should also be considered as circumstances permit (for example, if bike lanes are able to be installed during a resurfacing project on a road that is not part of the proposed network but connects to a proposed facility). Any change that enhances connectivity and convenience for active transportation users, whether or not it is part of this plan, should be considered.

Project Delivery

Active transportation projects vary in scope, complexity, and funding sources. All projects should assess the needs of stakeholders, availability of resources, and effectiveness of designs by following the five phases of ODOT's Project Delivery Process:

Phase 1 – Planning

The purpose of the Planning Phase is to identify transportation problems, assess existing and future conditions, identify stakeholders, develop goals and objectives, define the purpose and need and determine the scope, schedule and budget for the project.

Phase 2 - Preliminary Engineering

In this phase, more detailed information is collected through field investigations and other technical studies and designs are further refined. At the end of this phase, a preferred alternative should be selected.

Phase 3 - Environmental Engineering

Environmental Engineering builds on the preliminary engineering to determine the environmental impacts and potential mitigations for a project before moving on to final design.

Phase 4 - Final Engineering/Right-of-Way

In Phase 4, the detailed engineering design of the preferred alternative and right-of-way acquisition for the project are completed.

Phase 5 – Construction

The fifth phase of project delivery is construction, including the necessary pre- and post-construction tasks. Once constructed, projects must be maintained. The responsibility for maintenance may be with a different agency than the one that constructed or funded the project.

More information about the ODOT Project Development Process is available on its website: <http://www.dot.state.oh.us/projects/pdp/Pages/default.aspx>

(to be further vetted)

Several state funding sources can be used to build out Yellow Springs' active transportation network and fund related programming efforts.

Clean Ohio Trails Funds Recreational Trails Program

Infrastructure recommendations include many trail and shared use path projects that could be funded through the Clean Ohio Trails Fund. The Clean Ohio Trails Fund works to improve outdoor recreational opportunities for Ohioans by funding trails for outdoor pursuits of all kinds. Eligible projects include: Land acquisition for a trail, trail development, trailhead facilities, engineering, and design. Local governments,

Potential Funding Sources

Table 6: Clean Ohio Trails Fund Projects near Yellow Springs

Agency	Year	Project	Description	Award
Five Rivers Metroparks	2004	Three County Recreation Trail	Acquisition of 15.1 acres of abandoned rail corridor for future trail development	\$500,000
Champaign County Commissioners	2001	Simon Kenton Trail	Construct 6.23 miles of trail along a railroad right-of-way from Critter Court (in Springfield) to Woodburn Road in Champaign County.	\$450,000
City of Xenia	2006	Jamestown Connector	Construct 3.7 miles of 10-foot asphalt shared-use trail and construct a tunnel under U.S. 35 and a bridge over S. Detroit to make a connection into Xenia Station to complete the 11-mile trail.	\$431,000
Greene Co. Recr., Parks & Cultural Arts Depart.	2002	Jamestown Connector	Replace nine bridges along the Jamestown Connector right-of-way.	\$420,000
Greene Co. Recr., Parks & Cultural Arts Depart.	2002	Jamestown Connector, Phase 3	Design and construct 5.5 miles of the 10.5-mile Jamestown Connector with a 10-foot wide, asphalt multi-use trail from Hoge Road to Jasper Road.	\$400,000
Green County Park District	2006	Wellston Line Trail	Construct two bridges and 4.24 miles of asphalt trail on existing rail corridor.	\$350,000
City of Kettering	2005	Kettering Recreational Trail	Two section to engineer and construct a one mile paved extension of the Kettering Recreation trail.	\$260,000
Five Rivers Metroparks	2002	Kettering Recreational Trail	Design and construct a trail extending the Kettering Recreational Trail from Woodbine Avenue to Woodman Drive.	\$230,000
Five Rivers Metroparks	2001	Wesleyan Connector Trail	Construct a 1,650 foot trail and 185-foot bridge that will connect Wesleyan Metropark to Adventure Central and the McGee Bikeway.	\$215,000
City of Springfield	2001	Buck Creek Scenic Trail	Construct 3,900 linear feet of trail connecting the existing terminus of the Buck Creek Trail through Old Reid Park to Croft Road.	\$215,000
City of Beavercreek	2010	Rotary Park Connector	Acquisition, engineering, and construction of an 4600 linear foot segment that will connect landlocked housing developments, regional bikeways, downtown Beaver Creek, businesses, schools, and amenities. This trail will go through 2 existing parks.	\$204,523
City of Centerville	2006	Iron Horse Trail	Construction of the Iron Horse Trail, a 1.94 mile asphalt trail between the City of Centerville and the City of Kettering.	\$200,000
Beavercreek Township	2002	Beavercreek Trail Connector	Design and construct a trail connector linking homes, parks, schools to the Creekside and Miami Valley trail systems.	\$140,000

park and joint recreation districts, conservancy districts, soil and water conservation districts, and non-profit organizations are eligible to receive grants for conservation projects from the Clean Ohio Trails Fund. Applicants must provide a 25 percent local match, which can include contributions of land, labor, or materials. Up to 75 percent matching State of Ohio funds are reimbursed under the Clean Ohio Trails Fund. All projects must be completed within 15 months from the date that they are signed into contract. The Clean Ohio Trails Fund has supported over a dozen projects near Yellow Springs totaling more than \$4 million (Table 6).

Highway Safety Improvement Program

Nine infrastructure recommendations are near recorded crash sites within Yellow Springs. These projects may be eligible for Highway Safety Improvement Program (HSIP) funding. Most of Ohio's fatalities, serious injuries, and total crashes occur on local roads, and ODOT recognizes the public safety benefit of engineering improvements in high-crash locations beyond the ODOT network. ODOT works with MPOs and local governments to identify locations with severe safety problems and fund infrastructure improvements in these areas through HSIP. HSIP can cover up to 100% of funding for a given project.

Safe Routes to School

SRTS projects include traffic calming, enhanced crossing treatments, signal upgrades, sidewalks, and other countermeasures. These treatments are most effective when used in combination with non-infrastructure solutions (i.e. education, encouragement, enforcement, and evaluation). Seven infrastructure recommendations in the Yellow Springs Active Transportation Plan are near schools. Projects that meet the requirements of ODOT's SRTS program are eligible for SRTS funding. Communities and schools interested in applying must complete the Parent Surveys and Classroom Tallies for relevant schools and submit student address data to ODOT to develop two-mile radius maps. Information on the SRTS program, requirements for funding, and resources on developing School Travel Plans can be found at walk.ohio.gov. SRTS can cover up to 100 percent of funding for a given project.

Green Space Conservation Program

The Green Space Conservation Program is administered by the Ohio Public Works Commission. Its goals include enhancing eco-tourism and economic development related to outdoor recreation in economically challenged areas and providing pedestrian or bicycle passageways between natural areas and preserves. Applicants must provide a 25 percent local match. The Green Space Conservation Program has funded dozens of projects in the Miami Valley, although most are not trail-related.

Transportation Alternatives Program

The Transportation Alternatives Program is one of the most common funding sources of active transportation projects. Currently, ODOT provides up to 95 percent (this is due to the use of Toll Revenue Credit) of the construction cost up to a maximum amount for projects scheduled to begin in FY 2023 or sooner. Projects scheduled to begin construction after 2024 will be funded up to 80 percent, with remaining costs borne by the locality where the project is located. TAP applications are due in May.

Congestion Mitigation and Air Quality Improvement Program

CMAQ Improvement Program funds are available to a wide range of government and non-profit organizations, as well as private entities contributing to public/private partnerships. They are controlled by metropolitan planning organizations (MPOs) and state departments of transportation. Often, these organizations plan or implement their own air quality programs besides approving CMAQ funds for other projects. Funding is available for areas that do not meet the National Ambient Air Quality Standards (nonattainment areas) as well as former nonattainment areas that are now in compliance (maintenance areas). CMAQ-funded projects may include bicycle and pedestrian facility improvements, bicycle racks and lockers, and individualized marketing initiatives that promote bicycling and walking.

Table 7 lists additional federal funding sources for bicycle and pedestrian infrastructure projects based on project type and eligibility.

Other Sources

In addition to relying on state funding, the Village will need to allocate money from

Table 7: Federal Funding Sources for Active Transportation Projects

Project Type	Funding Sources										
	TIGER	TIFIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	TRP	SRTS
Bicycle and pedestrian overpasses	●	●	●	●	●	●	●	●	●	●	●
Bicycle parking	●	●	●	●	●	●	●	●	●	●	●
Bicycle and pedestrian scale lighting	●	●	●	●	●	●	●	●	●	●	●
Crosswalks (new or retrofit)	●	●	●	●	●	●	●	●	●	●	●
Curb ramps	●	●	●	●	●	●	●	●	●	●	●
Bike lanes	●	●	●	●	●	●	●	●	●	●	●
Paved shoulders	●	●	●	●	●	●	●	●	●	●	●
Separated bike lanes	●	●	●	●	●	●	●	●	●	●	●
Shared use paths	●	●	●	●	●	●	●	●	●	●	●
Sidewalks (new or retrofit)	●	●	●	●	●	●	●	●	●	●	●
Signed routes	●	●	●	●	●	●	●	●	●	●	●
Signs and signals	●	●	●	●	●	●	●	●	●	●	●
Streetscaping	●	●	●	●	●	●	●	●	●	●	●
Traffic calming	●	●	●	●	●	●	●	●	●	●	●
Trail bridges	●	●	●	●	●	●	●	●	●	●	●
Trail crossings	●	●	●	●	●	●	●	●	●	●	●
Trail facilities (e.g. restrooms)	●	●	●	●	●	●	●	●	●	●	●
Tunnels/underpasses	●	●	●	●	●	●	●	●	●	●	●

● Funds may be used for this activity ● See program-specific notes for restrictions ● Eligible, but not competitive unless part of a larger project ● Not eligible

Program Abbreviations

TIGER: Transportation Investment Generating Economic Recovery Discretionary Grant program

TIFIA: Transportation Infrastructure Finance and Innovation Act (loans)

FTA: Federal Transit Administration Capital Funds

ATI: Associated Transit Improvement (1% set-aside of FTA)

CMAQ: Congestion Mitigation and Air Quality Improvement Program

HSIP: Highway Safety Improvement Program

NHPP: National Highway Performance Program

STBG: Surface Transportation Block Grant Program

TA: Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program)

RTP: Recreational Trails Program

SRTS: Safe Routes to School Program / Activities

its operating and capital budgets to implement Plan infrastructure and programming recommendations. With the Village's limited resources, this may be difficult. Floating an active transportation levy to raise funds is an option that should be considered. Such a levy could be used to repair priority sidewalks and construct short-term, high-priority recommendations. Because such a levy would need to be approved by Village residents, this effort would require significant public engagement so voters understand the benefits the levy would bring.

In addition (and as a possible multiplier) to a levy, Plan implementation will hinge on the ability to secure funding sources from other government agencies and non-profit organizations.

Performance Measures

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 in the Plan are constructed and programs are started, the Village should ask itself "are these investments paying active transportation dividends?" An affirmative answer reinforces decisions the Village has made, and provides evidence that future investment will also yield positive results. The performance measures in Table 8 help track progress towards achieving the Plan vision discussed at the beginning of this document. Progress on these measures should be documented and published for public review annually. While considering these measures is a good starting point, the Village would need to commit more time to develop a robust performance measures program. This includes establishing baseline measurements, performance targets, data collection frequency, and data collection and analysis responsibility. Active transportation performance measures guidance is listed below:

- Great Rivers Greenway District (St Louis): [Gateway Bike Plan](#)
- Federal Highway Administration: [Guidebook for Developing Pedestrian and Bicycle Performance Measures](#)
- Fehr and Peers: [Active Transportation Performance Measures](#)

The Village should continue to collect the performance measure data listed in its Complete Streets Policy, below, which could provide baseline measurements for some of the performance measures in Table 8.

- Linear feet of new and repaired ADA complaint sidewalks.
- Linear feet of new and repaired curb ramps installed.
- Total number and type of crosswalk and intersection improvements.
- Total number of new transit stops and routes.
- Rates of ridership on transit routes.
- Total number of crashes, injuries and fatalities by mode, as available.
- Rates of children walking, biking or rolling to school.
- Total number of off-street bicycle routes.
- Total number of new on-street bicycle routes, defined by streets and roads with clearly marked or signed bicycle accommodations.

Revisiting and updating this plan on a regular basis will maintain momentum for active transportation in Yellow Springs. As funding, political, and community circumstances evolve, updating the Plan to reflect such changes will ensure its continued relevance. Updates every four to six years should achieve this goal.

Table 8: Suggested Performance Measures and Metrics

Performance Measure	Description
Semi-Annual Pedestrian and Bicycle Counts	After developing a baseline of pedestrian and bicycle activity, aim for year over year increases.
Education Programming	Track the number of children and adults who participate in pedestrian and bicycle education programming every year.
Safety	Track the number of crashes that occurs in Yellow Springs every year, including whether bicyclists or pedestrians were involved and the level of severity, if injuries occurred.
Public Opinion	Conduct an annual active transportation survey to gauge resident comfort and opinion about active transportation in the Village.
Mode Share	Currently bicycle mode share is four percent and pedestrian mode share is seven percent. Track how these figures change as Census data are available.
Students Walking and bicycling	Update student travel tallies for all schools and identify a baseline percentage of students who walk and bike. Conduct travel tallies semi-annually and measure the change in the number of students walking and bicycling.

Figure 10: Xenia Avenue and Corry Street Existing Conditions



CORRY STREET AND XENIA AVENUE

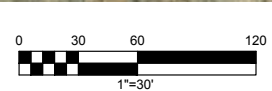


Figure 11: Xenia Avenue and Corry Street Intersection Redesign (S-4)



**CORRY STREET AND XENIA AVENUE
INTERSECTION REDESIGN CONCEPT**

NOT FOR CONSTRUCTION

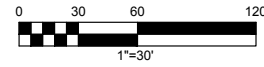


Figure 12: Walnut Street Limestone Street Existing Conditions



LIMESTONE STREET AND WALNUT STREET

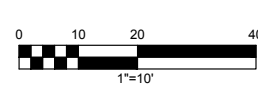
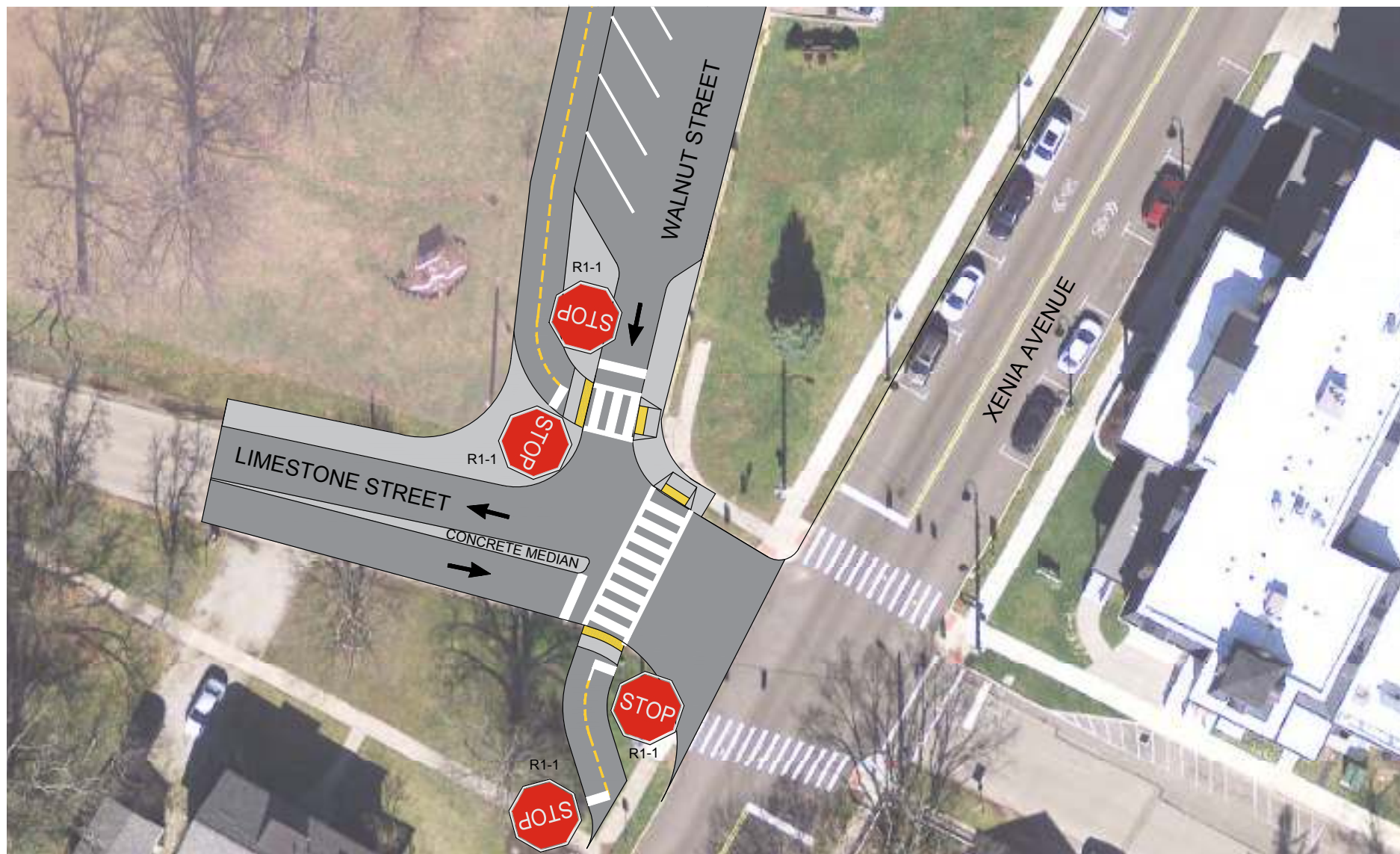


Figure 13: Walnut Street and Limestone Street Traffic Calming (S-13) and Walnut Street Shared Use Path (L-20)



LIMESTONE STREET AND WALNUT STREET INTERSECTION REDESIGN CONCEPT

NOT FOR CONSTRUCTION

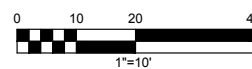


Figure 14: Dayton Street and Winter Street Existing Conditions



DAYTON STREET AND WINTER STREET

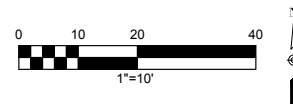
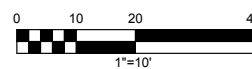


Figure 15: Dayton Street and Winter Street Traffic Calming and Crossing Treatments (S-6)



DAYTON STREET AND WINTER STREET RAISED CROSSING

NOT FOR CONSTRUCTION

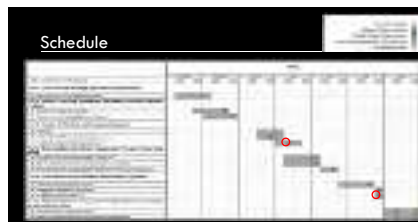
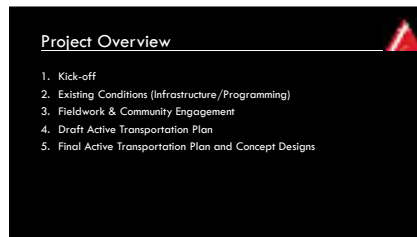
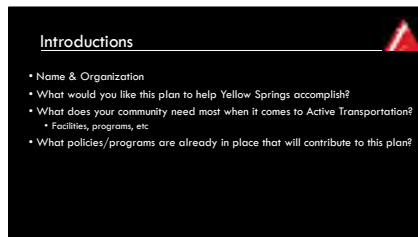
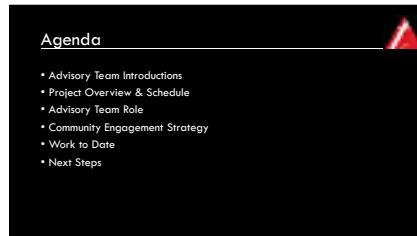
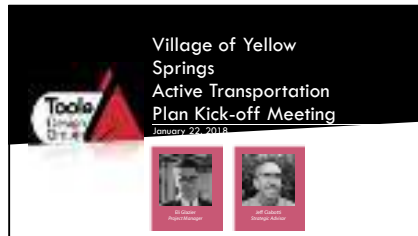


APPENDIX A

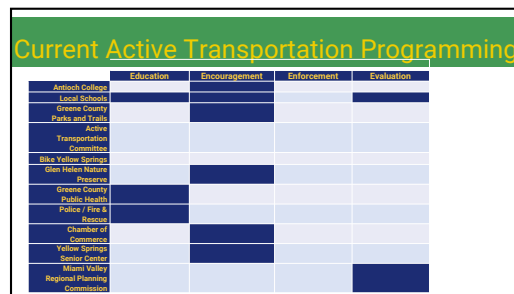
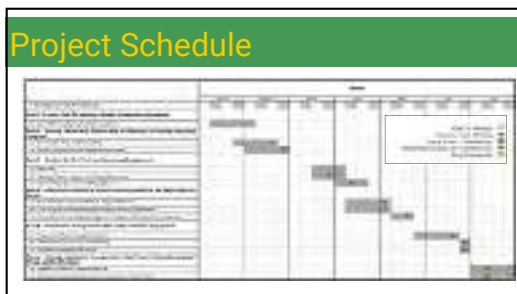
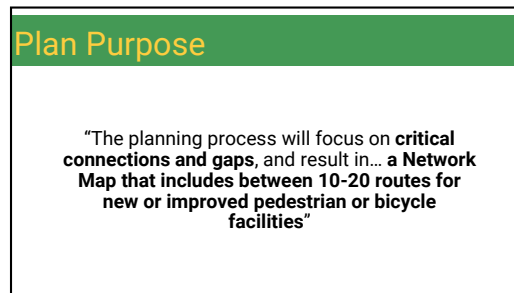
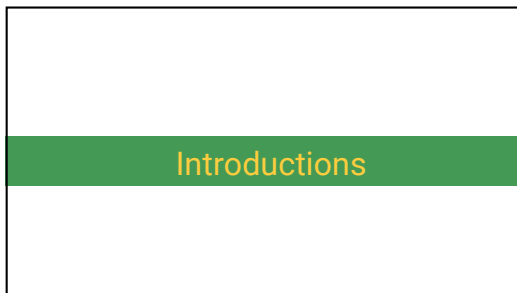
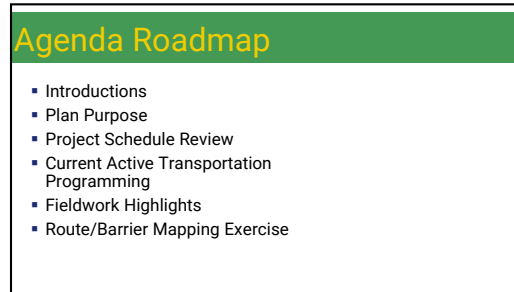
PUBLIC OUTREACH MATERIALS

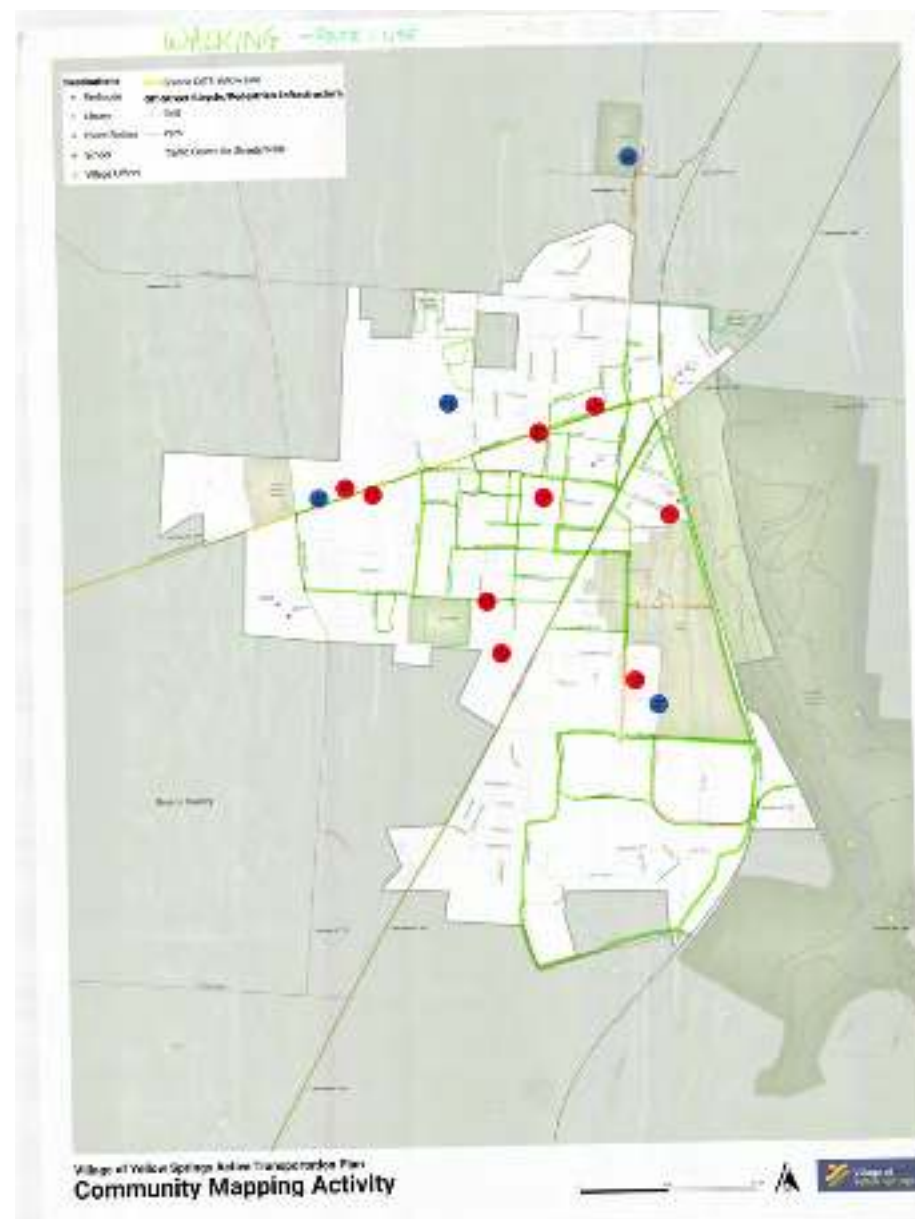
Project Advisory Team Meeting Materials

Kickoff Meeting



Advisory Team Meeting 1





Pop-Up Community Mapping Exercise Notes

BIKING FEEDBACK

Barriers:

1. Hazard at S. Walnut Street and Limestone (intersection). There is too much to watch out for, especially for young riders. Proposed a safe crossing/signage, etc.
2. High speeds in both directions on Yellow Springs Fairfield Road.
3. There are blind corners on each approach at the Riding Center connection to the Little Miami Scenic trail (on Corry Street south of Birch). Suggested adding crosswalk or something to alert traffic.

Destinations:

1. Kroger – one commenter bike commutes to work at Kroger via Fairfield-Yellow Springs Rd. There is high speed traffic on this corridor.
2. Fairborn/Wright State University – would like it to be easier/safer to reach by bike.
3. Library

Routes:

1. Desire bike path along 343 (north of Glen Helen) to Clifton. Two commenters mentioned this.
2. Desire bike path from McKinny Middle School west to Agraria. Two commenters mentioned this.

General Comments:

1. Suggestion to reduce speed limit to 25 mph on Dayton Street between N. Wright Street and Walnut Street
2. Take out the side path on Dayton Street and other side paths throughout the village. They are in disrepair.
3. All pathways/routes should be connected.
4. Make sidewalks better for bicycles (outside of business district where bicycles are not allowed to ride on sidewalks). Space the joints farther apart and put elastomer down.

WALKING FEEDBACK

Barriers:

1. Lack of sidewalks on Spillan Road from Allen Street to Edgefield Drive (“IGA Land” Neighborhood): this part of town is becoming isolated because there is no safe route. Xenia Ave is not safe. This general comment was made by four people.
2. Would like to see better crosswalk signage at Dayton and Winter intersection (“Stop for Pedestrians”)
3. Sidewalk from Dayton St to Cliff/Yellow Springs needs maintenance. The sidewalk is narrow and sometimes hard to navigate.
4. It is hard to get off the Elm Street roadways because the roadway is in bad shape and there is a drop off.
5. Lack of sidewalks around Mills Lawn Elementary School – this was noted by multiple people.
6. Lack of sidewalks on the north side of Fairfield Road.
7. Need crosswalks on Dayton Street at High Street and King Street.

Destinations:

1. High School and Middle School: Either King or High St sidewalk connection to Yellow-Springs Fairfield Rd
2. Library

Routes:

1. Phillips to Dayton: would like a sidewalk connection
2. King Street connection from Yellow Springs Road to Dayton Street. Another commenter agreed and suggested traffic calming/speed bumps on King Street.
3. Yellow Springs Fairfield Road from Fair Acres Road west to city limit. Development planned south of Yellow Springs Fairfield Road (unincorporated area at northwestern end of town). Commenter suggested working with the developer to accommodate

walking along Yellow Springs Fairfield Road.

4. Northwood Neighbor (Fair Acres) – want connection sidewalk to Ellis Park and the spur from neighborhood (Northwood Dr).

5. Connect Fairfield Road to King Street (add sidewalks).

General Comments:

1. Need improvements to curb cuts along College St.

2. Talk with the Yellow Springs Senior Citizens organization. Commenter suggested taking a survey at the senior center and mentioned that many people who use the center need rides to get there.

3. One commenter wants sidewalks everywhere. She does not have a car.

Open House Street Mix Exercise

Online Street Mix Activity for Xenia Avenue: <https://streetmix.net/-/709346>

