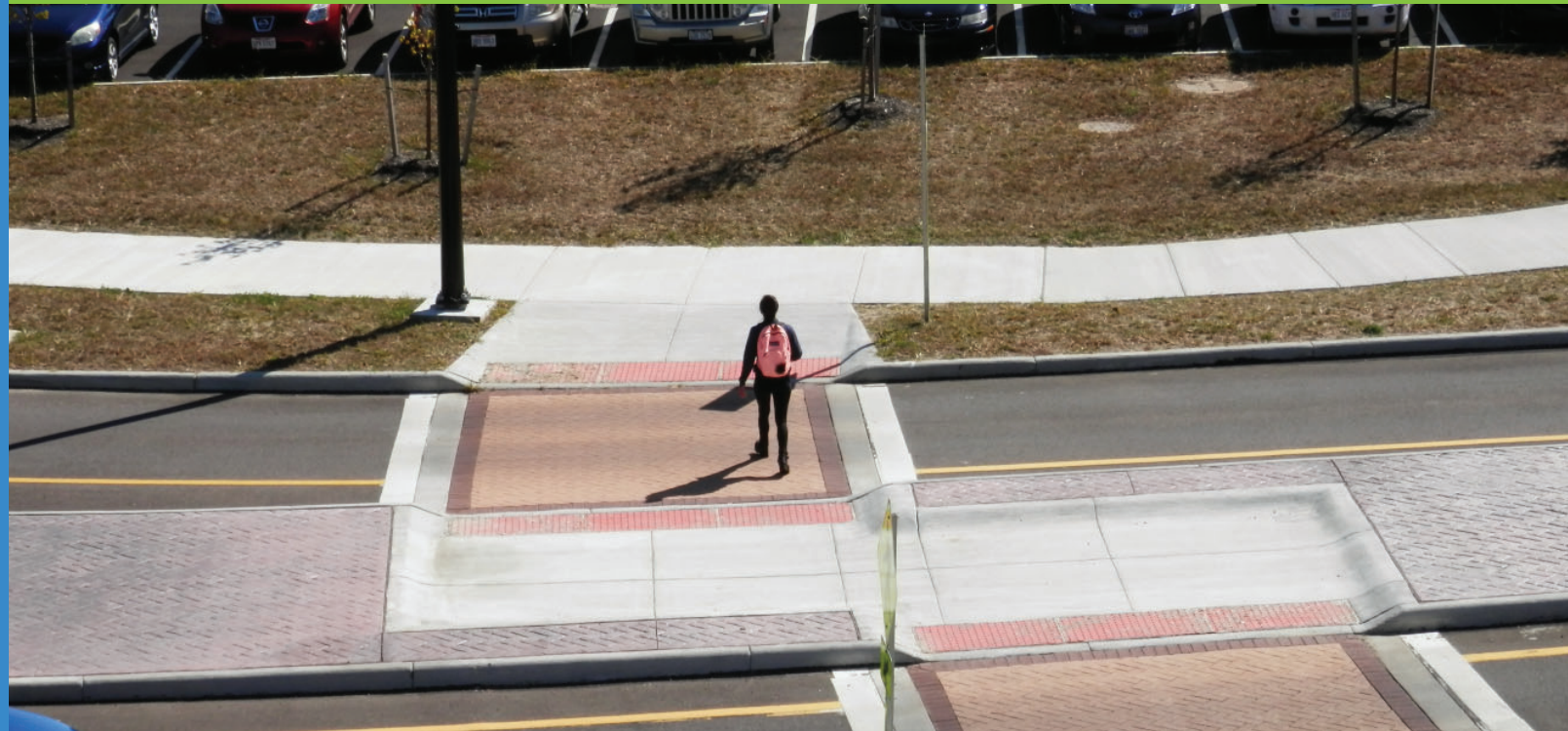




# 2019 Active Transportation Plan

December 2019



# 2019 Active Transportation Plan

## December 2019

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This report was prepared by the Akron Metropolitan Area Transportation Study (AMATS) in cooperation with the U.S. Department of Transportation, the Ohio Department of Transportation, and the Village, City and County governments of Portage and Summit Counties and Chippewa and Milton Township in Wayne County.

The contents of this report reflect the views of AMATS, which is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official view and policies of the Ohio and/or U.S. Department of Transportation. This report does not constitute a standard, specification or regulation.





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# EXECUTIVE SUMMARY

The 2019 *Active Transportation Plan (ATP)* prepared by the Akron Metropolitan Area Transportation Study (AMATS) presents the various strategies and recommendations that the agency will pursue to improve the Greater Akron area's bicycle and pedestrian networks. The ATP will be a key component of the upcoming long-range *Transportation Outlook 2045* to be prepared by AMATS in its role as the designated metropolitan planning organization for Portage and Summit counties and Chippewa and Milton townships in Wayne County.

The ATP is the successor to the agency's 2016 *Bike Plan* and 2015 *Pedestrian Plan*. The ATP represents a more holistic planning approach by the agency with regards to the region's bicycle and pedestrian networks. The ATP builds upon the foundations of these reports while clarifying the strategies and defining the goals that AMATS will pursue to improve the accessibility, efficiency and safety of the area's networks.





# PLAN VISION

Through various public outreach initiatives, the agency has determined that many residents consider biking and walking to be desirable and vibrant modes of travel, but not convenient or – in some cases – safe modes.

The *ATP* envisions a Greater Akron area in which biking and walking are not only integral parts of daily life, but vital components of a first-class, multi-modal transportation system. The *ATP* seeks to expand and refine the region's bicycle and pedestrian networks with regards to connectivity and safety while promoting active living, sound economic development, and sustainability throughout the region.

The *ATP* is divided into two sections devoted to the region's Bicycling and Pedestrian networks respectively. Each section includes three components that address connectivity, efficiency and safety.

The *ATP* presents the Greater Akron area with a comprehensive, sound vision to pursue regional connectivity while promoting safety for the area's cyclists and pedestrians. The ideas presented within this document allow the region to build on the successes of previous bike and pedestrian plans prepared by the agency yet represent fresh opportunities for improvement.





# BICYCLING

A basic tenet of the 2019 Active Transportation Plan (ATP) is to ensure that there will be transportation choices for people of all ages and abilities within the Greater Akron area. Cycling is an increasingly important component of the transportation system as both a recreational amenity and a viable transportation choice. It is a low-cost, sustainable alternative to driving and improves access and mobility for many people. Many Greater Akron area communities recognize the growing role of biking as a transportation option and are incorporating bicycle infrastructure into their future plans.

The ability of a community to accommodate cyclists can have direct economic, health, social, and environmental impacts. Making the Greater Akron area a more bicycle-friendly region will connect people and places, promote a healthy lifestyle, and stimulate positive economic impacts.

## EXISTING BIKING NETWORK

The Greater Akron area's bike network currently encompasses over 122 miles of shared-use paths and 50 miles of bike lanes. Significant elements of this regional network include The Ohio & Erie Towpath Trail, the Summit Metro Parks Bike and Hike Trail, The Portage Hike and Bike Trail, and the Headwaters Trail. The map on page 5 details the area's *Existing Bicycle Network*.

The region's network will likely continue to grow in the future as these shared-use paths present many opportunities for nearby communities to link to the current bike network. The completion of the Freedom Trail in Summit County, a shared-use path linking the downtowns of Akron and Kent via The Portage Hike and Bike Trail, exemplifies the sort of connections that area communities should pursue to promote biking as a viable means of transportation.

Connecting shared-use paths to such destinations as downtowns and other commercial areas promotes biking, not just for recreation, but for commuting. These linkages, coupled with appropriate biking amenities, provide opportunities for cyclists of various ages, abilities, and incomes.

While the Greater Akron area's network has experienced significant growth in recent years, major gaps remain in the region's still-burgeoning network. These gaps make it difficult, unsafe, and unpleasant for people to access many destinations. These network gaps discourage people from choosing to ride a

bike.

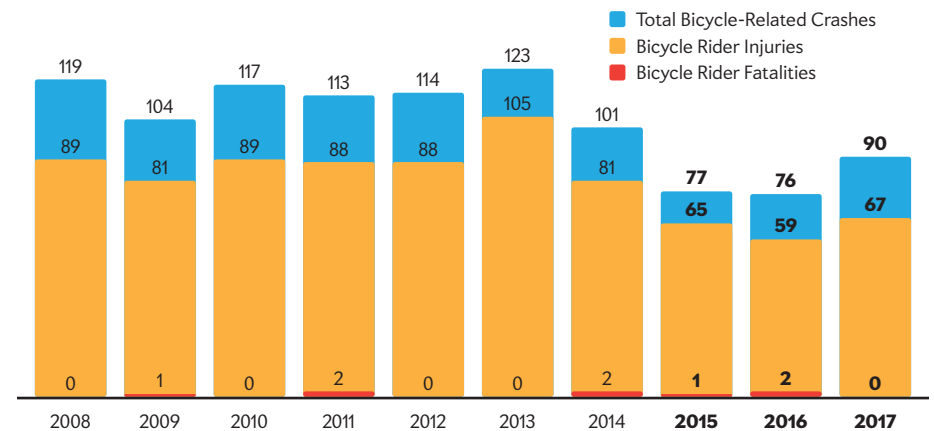
On-road facilities, most notably bike lanes, are gradually beginning to fill in remaining gaps and connect people to various destinations. The ATP encourages AMATS member communities and project sponsors to develop lanes and other facilities that will close gaps, especially if they provide access to the daily needs of the area's cyclists such as employment, education, food and medical care.

## BICYCLE SAFETY

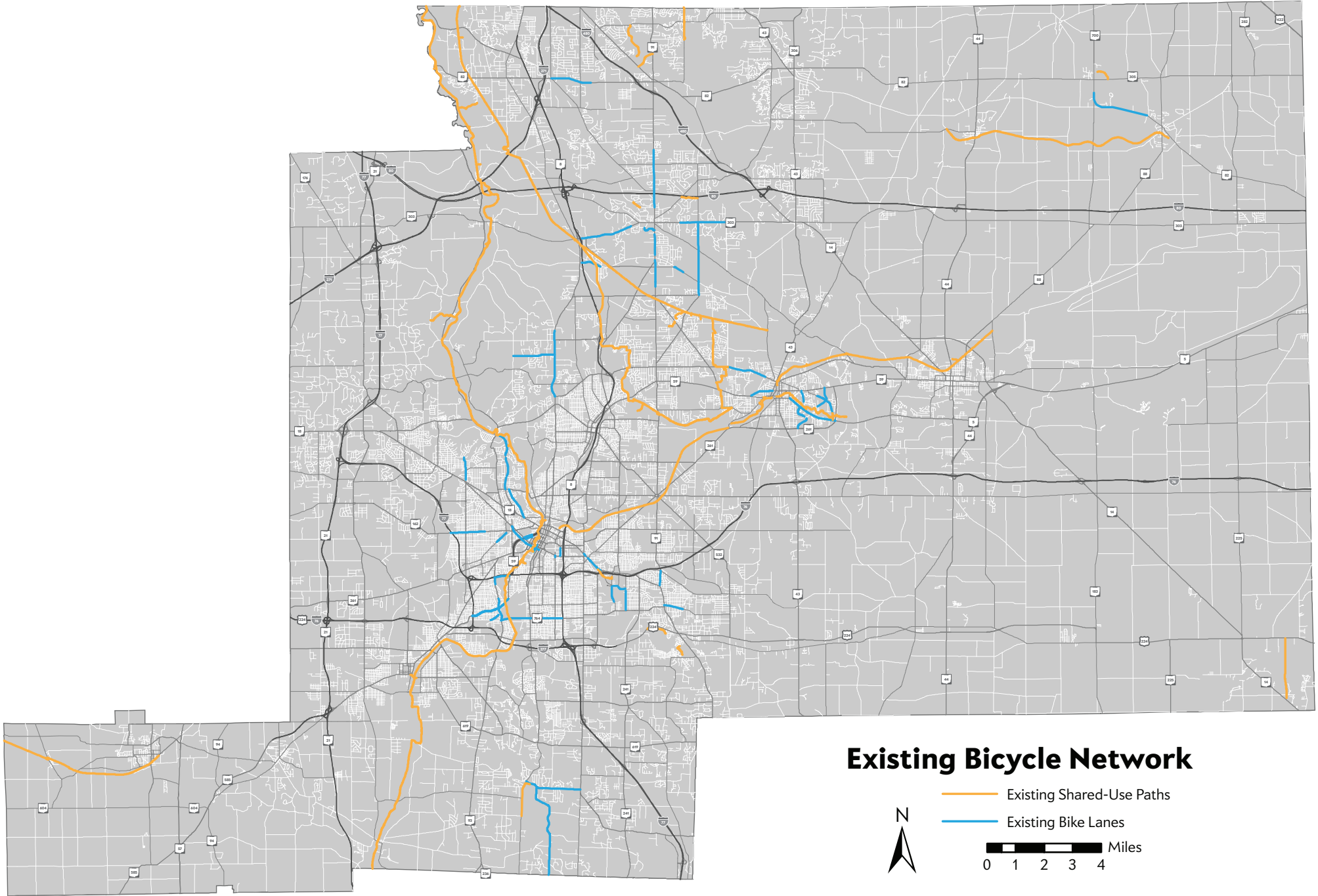
Safety concerns often deter people from choosing cycling over driving a motor vehicle. Overcoming the reluctance of would-be cyclists can be accomplished through the development of new safe active transportation infrastructure such as bike boulevards, bike lanes, shared-use paths, and wide shoulders. With the public's growing interest in the benefits of active transportation, promoting and providing safe environments will likely become increasingly important.

Such infrastructure investments may represent prudent expenditures by communities and project sponsors considering that - out of the 243 bicycle-related crashes that occurred in the Greater Akron area between 2015 and 2017 - a staggering 191 crashes or 79 percent resulted in an injury (See chart below). Tragically, three crashes resulted in fatalities. AMATS has determined that many of these crashes involve younger cyclists, including children. The largest age group involved in bicycle-related crashes during the period was 14-year-olds with 18 crashes.

**Bicycle-Related Crashes 2008-2017**







## Existing Bicycle Network

— Existing Shared-Use Paths

— Existing Bike Lanes

0 1 2 3 4 Miles





## BICYCLE ACCESSIBILITY

The *ATP* urges Greater Akron area communities to pursue complete street principles in the coming years. Changing built environments to make physical activity such as cycling more appealing and accessible through sound land use practices and roadway design with all users in mind is at the core of AMATS' efforts with this plan.

People who cannot or prefer not to drive should have safe and efficient transportation choices. The more accessible a system is, the more likely that people will opt to choose active transportation for their trips to school, stores, medical care and recreational opportunities. The region's bicycle facilities should meet accessibility requirements and provide safe, convenient, and interconnected transportation networks.

Many barriers exist that can prevent potential active transportation such as cycling from being a viable choice. Eliminating physical barriers may mean providing routes around steep slopes or across freeways, rail lines or waterways. Other means to improve accessibility include places to rest such as benches and ensuring safe crossing times across busy roadways.

Existing shared-use paths provide a strong framework for creating a comprehensive bicycle network. These paths are used primarily for recreation, but also serve as portions of routes for commuter trips. The area's larger paths present unique opportunities to develop a more extensive, regional on-road bicycle network with convenient links to public transit routes and service.

The regional bike network continues to grow at a slow, but steady pace. There are 122 total miles of shared-use paths throughout Greater Akron, including The Ohio & Erie Canal Towpath Trail. The Ohio & Erie Canal Towpath Trail makes up 41 miles north to south through Summit County. The Summit Metro Parks Bike and Hike Trail, The Portage Hike and Bike Trail and Headwaters Trail make up another 47 miles of the region's shared-use paths.

## BICYCLE EFFICIENCY

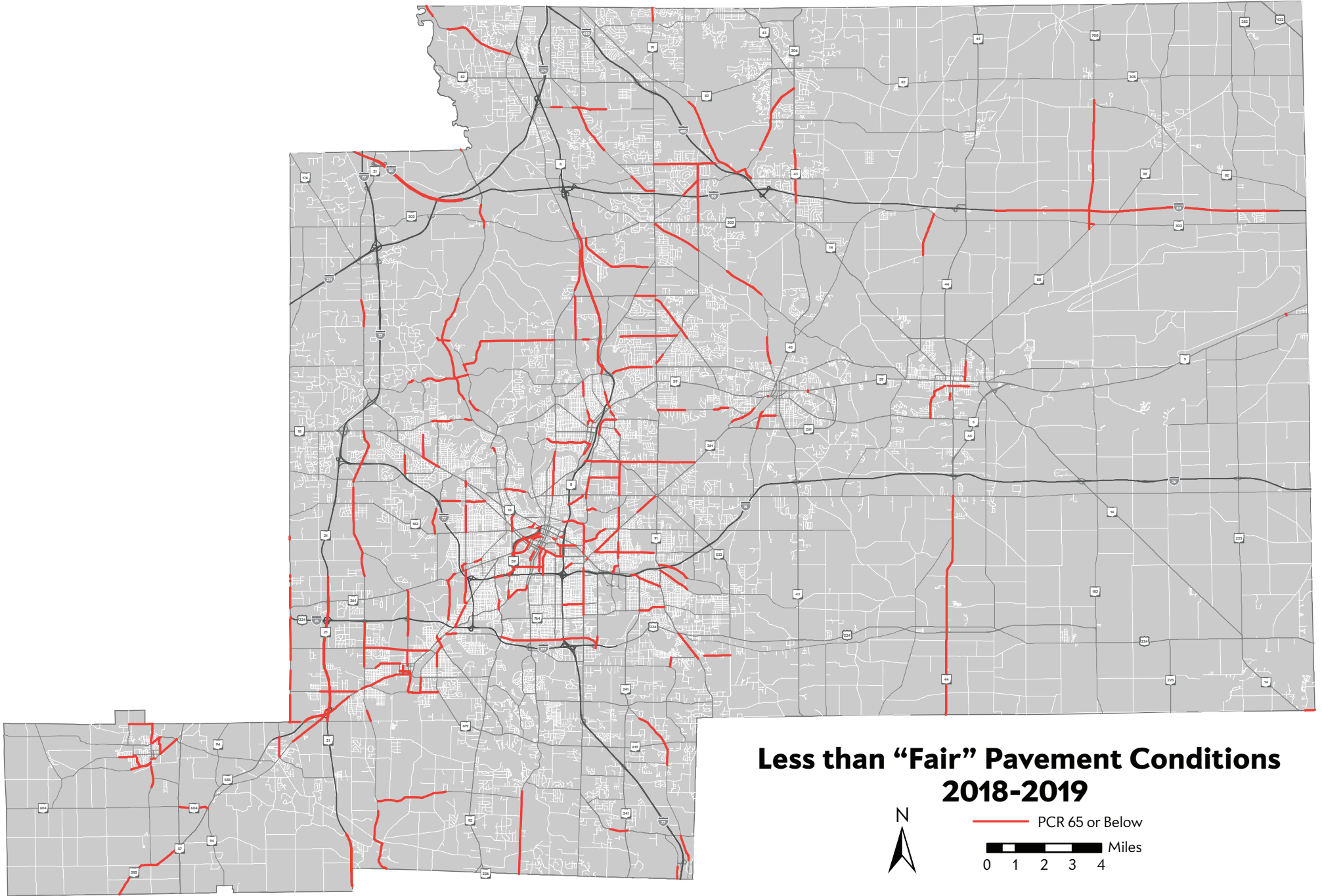
The bicycle is often the most time-efficient mode of travel for short trips, especially in urban areas. In many urban areas, bicycles offer the flexibility of a motor vehicle while providing other conveniences such as free parking, the ability to park closer to destinations, and faster travel times compared to motor vehicles.

The *ATP*, while recognizing that many Greater Akron area neighborhood streets and county road systems are suitable for cycling in their present form, suggests that communities consider developing dedicated bicycle facilities on their major streets and roadways where feasible. Key ingredients to the successful pursuit of such facilities are practicality and public support. Both of these ingredients can be gauged through demonstration projects prior to the development of actual projects. By concentrating improvements for cyclists on major streets that feed into existing shared-use paths, an interconnected regional system will emerge in the Greater Akron area that capitalizes on a majority of roadways that are already bicycle-compatible.

In the interim – until such a system fully emerges – the *ATP* urges area communities to improve and maintain their streets and roadways to accommodate all forms of vehicular traffic, including bicycles. Improvements may take the form of new directional signage, bike share stations, or the orientation of sewer grates so that they do not pose hazards to cyclists.

Regular maintenance of roadway surfaces prevents the formation of rough pavement, which not only diminishes the enjoyment of a bicycle ride, but also poses a significant hazard to cyclists. When encountering potholes and patches, cyclists generally face the dilemma of having to swerve into traffic around the obstacles or having to ride over or through them, risking a heightened possibility of crashing and sustaining injury in either case. Poor pavement conditions may push some cyclists to follow longer, more circuitous routes to their destinations to avoid the danger and discomfort of a deteriorated road. Still others may choose a different mode of transportation altogether.

The Ohio Department of Transportation (ODOT) utilizes a method of visually assessing pavement condition known as the Pavement Condition Rating (PCR) system. Pavement condition is rated on a scale from 0 (Very Poor) to 100 (Excellent). The map on page 7 highlights the segments in the Greater Akron area that are rated either Poor or Very Poor. Analysis of the PCR along known and potential cycling corridors can aid community leaders in deciding how to prioritize repairs. Smooth and well-maintained routes will eliminate the need for cyclists to follow less-direct paths to their desired destinations. This should result in improved safety and efficiency in terms of on-road bicycle routes.



## Less than “Fair” Pavement Conditions 2018-2019



— PCR 65 or Below  
0 1 2 3 4 Miles



## BICYCLE GOALS AND STRATEGIES

The League of American Bicyclists has identified the 5 *E's of Bicycling*, which are principles that are fundamental to the establishment and maintenance of a safe, bicycle-friendly community. These principles are:

- 🚲 Engineering
- 🚲 Education
- 🚲 Enforcement
- 🚲 Encouragement
- 🚲 Evaluation

These principles and how AMATS will promote them in the Greater Akron area are elaborated below:

### *Engineering*

A safe and inviting bicycle network is comprised of a variety of physical elements. Examples of infrastructure that may be considered for incorporation into the regional bicycle network include:

- 🚲 Bike boulevards
- 🚲 Bike lanes
- 🚲 Bike routes
- 🚲 Bridges
- 🚲 Cycle tracks
- 🚲 Road diets
- 🚲 Shared-use paths
- 🚲 Sharrows
- 🚲 Wide shoulders

Maintaining road and trail surfaces to be free of potholes and debris is also critical to increasing a cyclist's safety and confidence. AMATS plays a key role in ensuring that the Greater Akron area's roads and trail surfaces are well-maintained. The agency, as the area's federally designated metropolitan planning organization, provides the financial and technical support that communities and project sponsors need to meet their maintenance demands.

AMATS administers several robust federal funding programs on behalf of the area. The Surface Transportation Block Grant (STBG), Resurfacing, and Transportation Alternatives Set-Aside (TASA) programs exist to assist communities with their construction and maintenance needs. Projects

funded by these programs run the gamut of major widenings to streetscape improvements. AMATS develops and applies the criteria - under the direction of its membership - for applicants seeking funding from these programs for various purposes. The agency provides technical support through analyses of the area's transportation networks such as safety and Level-of-Service studies and through coordination when appropriate and necessary with other entities such as the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Ohio and U.S. departments of transportation.

### *Education*

Education includes the coordinated distribution of information regarding existing bicycle facilities and their role in the area's transportation system. AMATS provides education and outreach through its Switching Gears Program, the agency's regional initiative to promote cycling. This program promotes cycling through three notable products and services described in the bullets below:

- 🚲 *Switching-Gears.org* - A website dedicated to advocating and promoting regional cycling. The website is a clearinghouse of information about bike-related events, cycle shops, regional trails, and maintenance and safety tips.
- 🚲 *Bike-N-Brainstorm Events* - These are public meetings which include a bike ride and brainstorming session among AMATS staff and participants. Cyclists become active players in transportation planning by sharing their insights on how to improve biking and pedestrian access in a community. The agency uses feedback from these events when weighing bike and pedestrian projects for the region.
- 🚲 *Bike User Map* - A free comprehensive map of streets and shared-use paths in the AMATS region. The map rates cycling routes according to their respective levels of difficulty. AMATS periodically updates the map and distributes this item at events, bicycle shops, libraries, community centers, and other appropriate venues throughout the region.

### *Enforcement*

The proper use and full value of the bicycle network hinges on the enforcement of laws pertaining to the interaction between motorists and cyclists. AMATS promotes public awareness of laws and regulations

impacting cyclists through its press releases, social media and web site postings. An example of such laws that AMATS has promoted is the state of Ohio's "three-foot" law enacted in 2017. This law requires motorists to provide a three-foot buffer between their vehicles and a cyclist when passing on a roadway. (Motorists found violating this law face a misdemeanor charge and a \$150 fine.)

AMATS seeks opportunities to partner with local police departments at appropriate events promoting public safety, such as "Bike Rodeos," conferences, fairs, and workshops. The agency also has a working rapport with local and county law enforcement officials and the Ohio Department of Public Safety (ODPS) which it utilizes during the compilation of various crash reports and safety studies regarding travel within the region.

#### *Encouragement*

Even with well-engineered facilities and sufficient education, people still need encouragement to bike. Encouragement may come from any combination of special events, riding groups, public advertising campaigns, health promotions, local cycling media and websites. AMATS promotes cycling by participating in, and planning events such as Bike-N-Brainstorms and Bike-to-Work Week.

#### *Evaluation*

Planning an effective bicycle network requires both the evaluation of systems already in place and the determination and design of new facilities to be integrated into the existing infrastructure. An important component of this latter consideration is the incorporation of ancillary elements, such as those listed above under Engineering, into the design of residential and commercial developments. Successful planning also focuses on assessing the present and projected extent of cycling in the Greater Akron area and access to attractions and destinations in the communities served by the area's cycling network. The ATP provides a frank assessment of the network's current status and offers direction for its future development based on connectivity and complete street approaches.

AMATS accepts the five "E" principles put forth by the League of American Bicyclists as appropriate standards by which to assess and improve the Greater Akron area's bicycle network. The agency will apply these principles in the pursuit of the desired outcomes of fewer bicycle-related crashes and zero fatalities. The agency will routinely evaluate how the region is meeting these principles through annual bicycle assessments to

measure the success of service provided in terms of physical biking facilities and ridership patterns.

The ATP states the following goals for the Greater Akron area regarding the promotion of cycling as a mode of active transportation. This listing includes potential strategies for use by AMATS and its members in the pursuit of these goals.

### **1. Promote a zero-death target for bicycle crashes and overall bicycle crash reduction.**

#### *Strategies:*

The agency will weigh the potential safety benefits to cyclists of project applications to its funding programs. Examples of safety-oriented projects include new bicycle and pedestrian facilities like shared-use paths, improved crossings and lighting, road diets, and other traffic calming measures. Other bicycle goals listed below also will work toward educating AMATS members and the public of ways to achieve a zero bicycle death target and overall crash reduction.

### **2. Attract 500 new attendees to workshops and public empowerment events between approval of the ATP and its next update by AMATS.**

#### *Strategies:*

The agency will host a minimum of four Bike-N-Brainstorm events per year. AMATS developed the Bike-N-Brainstorm in 2012 to serve as an innovative tool for public outreach. Jointly arranged with community officials from within the AMATS region, these events engage participants by giving them a voice in the planning process for potential improvements to the bicycle network within the host community.

In the future, the agency will seek to broaden the scope of these events beyond bicycle planning to address related public health and safety issues. The agency will invite representatives of local and county health departments to discuss how cycling and networks may benefit the public. The participation of health officials will provide the agency with another resource to promote awareness of and participation in these events. AMATS will also partner with area communities to distribute 1,000 complimentary LED bicycle lights, water bottles and other safety-related items and literature when possible.



**3. AMATS encourages its membership to invest an average of \$1.1 million in TASA funds per year in additional shared-use and pedestrian infrastructure throughout the Greater Akron area between now and 2045.**

*Strategies:*

The agency will apply available resources through its funding programs, primarily the TASA Program, to the development of new cycling, pedestrian and shared-use facilities, networks and systems, especially those that provide access to heretofore inaccessible areas, and related active transportation amenities and support infrastructure. The ATP recommends that the AMATS membership commit a base level of funding resources of \$1.1 million per year toward the development of new facilities, networks and systems for the duration of the ATP. This funding commitment should not exclude the use of new local, state and federal funding opportunities should they arise during the life of the ATP nor should such opportunities affect the agency’s commitment to a set level of funding for such projects.

Applicants for major improvement projects may receive additional points under forthcoming scoring criteria for projects that provide access to major shared-use paths while incorporating connectivity and complete street principles into their design. Examples of projects that may qualify for such points include new bike lanes, dedicated bike and pedestrian bridges, crossings, wide shoulders, and convenient links to shared-use paths.

The accompanying table presents bike-oriented projects that are currently planned for the Greater Akron area. These projects exemplify the type that the agency should continue to pursue in the coming years.

Upcoming Shared-Use Path Projects (2020-2023)	Location	AMATS Funding	Total Cost
The Portage Hike and Bike Ravenna Rd Bridge Connector	Portage County	\$353,600	\$442,000
Veterans Trail Phase 1	Hudson	\$500,000	\$1,418,300
The Portage Hike and Bike Brady's Leap Connector	Kent	\$700,000	\$1,305,600
The Portage Hike and Bike Freedom Trail Connector	Tallmadge / Kent	\$700,000	\$2,726,400
Magic Mile Towpath Connector	Barberton	\$422,640	\$1,038,000
CVNP Bicycle and Pedestrian Bridge	Summit County	\$700,000	\$906,500
Freedom Trail Phase 4	Akron	\$700,000	\$4,128,737

**4. Improve pavement to ensure efficient trips by investing a minimum of \$2.5 million per year in STBG and Resurfacing funds in the Greater Akron area’s road surfaces between now and 2045.**

*Strategies:*

AMATS members are encouraged to not only maintain, but to invest and improve pavement and road surfaces in their respective communities to ensure smoother road conditions for cyclists. The agency’s STBG and Resurfacing funding programs are the best available resources to help communities achieve this goal. Those projects that include bike lanes and wide shoulders to accommodate cyclists may receive additional points under forthcoming scoring criteria. The ATP recommends that the AMATS membership commit a minimum investment of \$2.5 million per year in area pavement and road surfaces for the duration of the ATP. This funding commitment should not exclude the use of new local, state and federal funding opportunities should they arise during the life of the ATP nor should such opportunities affect the agency’s commitment to a set level of funding for such projects.

## SUMMARY

The Bicycling section of the ATP recognizes that the Greater Akron area’s existing bike network is incomplete in its present form. The ATP embraces the five principles of Engineering, Education, Enforcement, Encouragement and Evaluation as put forth by The League of American Bicyclists as its guiding tenets to improving the area’s network.

While AMATS believes that the four goals and strategies identified in this section represent sound approaches to further development of the regional bike network with available resources, the member communities of AMATS should by no means limit themselves to the Goals and Strategies presented in these pages. Members are encouraged to pursue opportunities to promote cycling as a form of active transportation within their respective communities. The membership should do so with the knowledge that resources in the form of financial and technical support are available from AMATS to assist them in their endeavors.

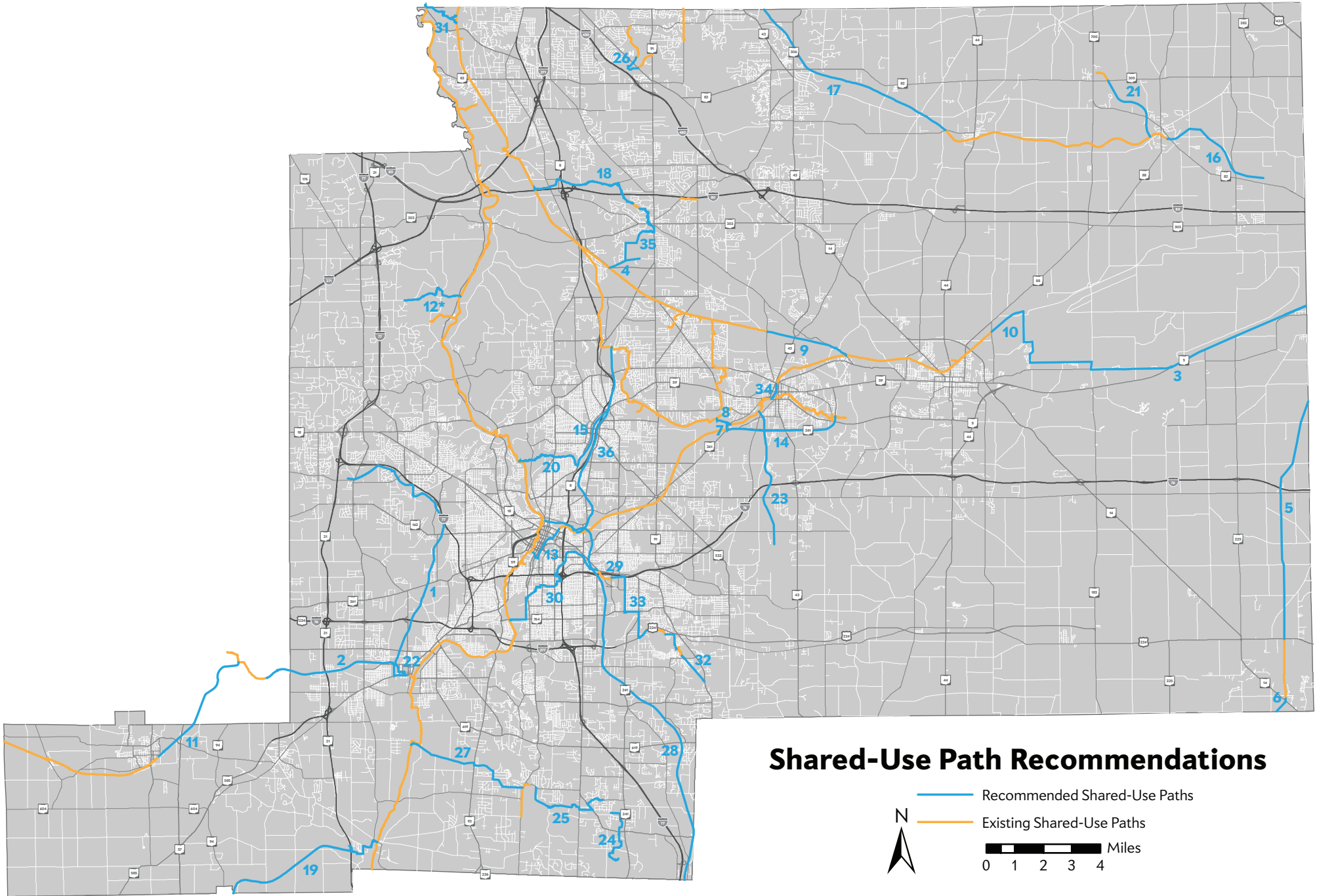
# SHARED-USE PATH RECOMMENDATIONS

While all shared-use paths are eligible for funding through AMATS, it is important to identify specific shared-use paths of regional significance. The table below and the map on page 12 shows recommended future shared-use paths in the Greater Akron area.

Map No.	Recommended Shared-Use Path	From	To
1	3 Creeks - Pigeon Creek / Wolf Creek Trail	Copley High School (Copley Township)	<b>RECOMMENDED</b> 3 Creeks - Silver Creek Trail (Hopocan Ave in Barberton)
2	3 Creeks - Silver Creek Trail	<b>EXISTING</b> Interurban Trail (Medina County)	<b>FUNDED</b> Magic Mile (Barberton)
3	Arsenal South Trail	<b>RECOMMENDED</b> Conrail Freedom Secondary Trail (S Main St in Charlestown Township)	Trumbull County Line (Paris Township)
4	<b>FUNDED</b> Barlow Road Trail	Weeping Willow Dr (Hudson)	Terex Rd (Hudson)
5	Berlin Lake Trail North	<b>EXISTING</b> Berlin Lake Trail (Deerfield Township)	Trumbull County Line (Paris Township)
6	Berlin Lake Trail South	Mahoning County Line (Deerfield Township)	<b>EXISTING</b> Berlin Lake Trail (Deerfield Township)
7	<b>FUNDED</b> Bike & Hike Trail (Freedom Trail Connector)	<b>EXISTING</b> Freedom Trail (Kent)	<b>EXISTING</b> The Portage Hike and Bike Trail (Kent)
8	Bike & Hike Trail (The Portage Connector)	<b>EXISTING</b> Bike & Hike Trail (Kent)	<b>EXISTING</b> The Portage Hike and Bike Trail (Kent)
9	Bike & Hike Trail Extension	Hudson Rd (Franklin Township)	Ravenna Rd (Franklin Township)
10	Conrail Freedom Secondary Trail	<b>EXISTING</b> The Portage Hike & Bike Trail (Peck Rd in Ravenna Township)	<b>RECOMMENDED</b> Arsenal South Trail (S Main St in Charlestown Township)
11	County Line Trail North	<b>EXISTING</b> County Line Trail (Rittman)	<b>EXISTING</b> Interurban Trail (Medina County)
12*	Everett Road Trail*	Farmstead Rd (Bath Township)	<b>EXISTING</b> Towpath Trail (Boston Township)
13	Freedom Trail (Phase IV)	<b>EXISTING</b> Freedom Trail (Akron)	<b>EXISTING</b> Towpath Trail (Akron)
14	Freeway Trail	Middlebury Trailhead (Kent)	<b>EXISTING</b> Esplanade Trail (Kent)
15	Front Street Connector Trail	<b>RECOMMENDED</b> Highbridge Connector Trail (Easton Dr in Akron)	<b>RECOMMENDED</b> Veterans Trail (Front St / Hudson Dr in Cuyahoga Falls)
16	Headwaters Bikeway East	<b>EXISTING</b> Headwaters Bikeway (SR-82 in Garrettsville)	Horn Rd (Windham Township)
17	Headwaters Bikeway West	Geauga County Line (Aurora)	<b>EXISTING</b> Headwaters Bikeway (Mennonite Rd in Mantua Township)
18	Heights to Hudson Trail	<b>EXISTING</b> Bike & Hike Trail (Boston Heights)	Veterans Way (Hudson)
19	Heritage Trail	<b>EXISTING</b> Heritage Trail (Marshallville North Corporation Limit - Chippewa Township)	<b>EXISTING</b> Towpath Trail (Clinton)
20	Highbridge Connector Trail	<b>EXISTING</b> Towpath Trail (Akron)	<b>RECOMMENDED</b> Front Street Connector Trail (Easton Dr in Akron)
21	Hiram Trail	<b>EXISTING</b> Hiram Trail (Hiram East Corporation Limit)	<b>EXISTING</b> Headwaters Bikeway (Garrettsville)
22	Magic Mile West	5th St / Park Ave (Barberton)	4th St / W Wooster Rd (Barberton)
23	Mogadore Lake (W & LE)	<b>EXISTING</b> The Portage Hike & Bike (Kent)	Mogadore Reservoir (Brimfield Township)
24	Southgate Connector Trail	Portage Lakes Career Center (Green)	Boettler Park (Green)
25	Nimisila Bikeway West	<b>EXISTING</b> Nimisila Reservoir Trail (Green)	Caston Rd (Green)
26	Park Loop Trail	<b>EXISTING</b> Center Valley Bikeway (Twinsburg)	<b>EXISTING</b> Center Valley Parkway (Twinsburg)
27	Portage Lakes Trail	<b>EXISTING</b> Towpath Trail (New Franklin)	<b>EXISTING</b> Nimisila Reservoir Trail (Green)
28	Railroad Corridor Trail	<b>EXISTING</b> Freedom Trail (Akron)	Stark County Line (Green)
29	Rubber City Heritage Trail East	<b>EXISTING</b> Rubber City Heritage Trail (Akron)	<b>RECOMMENDED</b> Spartan Trail West (Akron)
30	Rubber City Heritage Trail West	<b>EXISTING</b> Towpath Trail (Akron)	<b>EXISTING</b> Rubber City Heritage Trail (Akron)
31	Sagamore Hills Bike & Hike Connector	<b>EXISTING</b> Towpath Trail (Cuyahoga County)	<b>EXISTING</b> Bike & Hike Trail (Sagamore Hills Township)
32	Spartan Trail East	<b>EXISTING</b> Spartan Trail (Springfield Township)	Springfield High School (Springfield Township)
33	Spartan Trail West	<b>RECOMMENDED</b> Rubber City Heritage Trail (Akron)	<b>EXISTING</b> Spartan Trail (Springfield Township)
34	<b>FUNDED</b> The Portage Hike and Bike (Brady's Leap Connector)	W Main St (Kent)	N Water St (Kent)
35	<b>FUNDED</b> Veterans Trail North	<b>FUNDED</b> Barlow Road Trail (Hudson)	Darrow Rd (Hudson)
36	Veterans Trail South	<b>EXISTING</b> Freedom Trail (Akron)	<b>EXISTING</b> Bike & Hike Trail South (Stow)

\* Summit County has closed and barricaded Everett Rd from Farmstead Rd to Oak Hill Dr with plans to vacate





### Shared-Use Path Recommendations





- Recommended Shared-Use Paths
  - Existing Shared-Use Paths
- Miles  
 0 1 2 3 4

\* Summit County has closed and barricaded Everett Rd from Farmstead Rd to Oak Hill Dr with plans to vacate

# WALKING

The 2019 Active Transportation Plan (ATP) defines a pedestrian as a person travelling on foot, in a wheelchair, or in another health-related mobility device. Sidewalks are walkways separated from a roadway with a curb and are constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians. The sidewalk is where pedestrians do most of their traveling and is the space where they should be able to move freely and feel safe from collisions with vehicles, including bicycles. The pedestrian environment is shaped by this infrastructure and other factors such as parks, land use, availability of transit, and private development.

Despite the Greater Akron area's overall walkability, the presence, quality, and connectivity of its pedestrian networks vary greatly throughout the region from community to community. This lack of network connectivity affects pedestrian comfort and safety. The ATP urges area communities and project sponsors to pursue a more attractive and cohesive network. The area's network should:

-  Connect pedestrians to destinations
-  Integrate sidewalks with shared-use paths
-  Provide frequent and safe crossings at busy roadways
-  Provide wayfinding signs for easy navigation

While recognizing that there is no singular pedestrian network within the region – nor may there ever be a need for one – the ATP envisions a network with improved interconnectivity within and between communities that provides adequate space to walk comfortably and promotes safety by separating pedestrian and vehicular traffic.

Community pedestrian networks should embrace complete street principles, be aesthetically pleasing, and provide convenient access to the necessities of a vibrant life such as commerce, food, medical care and recreation. If community engineers and planners carefully weigh three overarching considerations throughout the planning process – accessibility, efficiency and safety – a comprehensive pedestrian network with the potential for regional connectivity may someday be realized in the Greater Akron area. The ATP addresses these three considerations and their current states in the region's pedestrian networks in the passages below.

# ACCESSIBILITY

The ATP defines pedestrian accessibility as the ability or ease to walk to desired activities, destinations, goods and services within a reasonable time, at a reasonable cost, and with the greatest convenience. Many factors affect accessibility including built environments, land use, pedestrian amenities, network connectivity, and integration between travel modes.

To ensure that sidewalks are accessible to pedestrians, the Federal Highway Administration (FHWA) promotes sidewalk dimensions based on a “zone system.” The zone system determines the width of the sidewalk corridor and ensures that obstacles, such as newspaper boxes or utility poles, do not limit pedestrian access. Communities with walkable commercial districts may want to adopt a similar system to ensure that their pedestrian areas are as accessible as possible, while allowing for landscaping and pedestrian amenities. The four zones and recommended minimum standards that comprise the zone system are described in the table below.

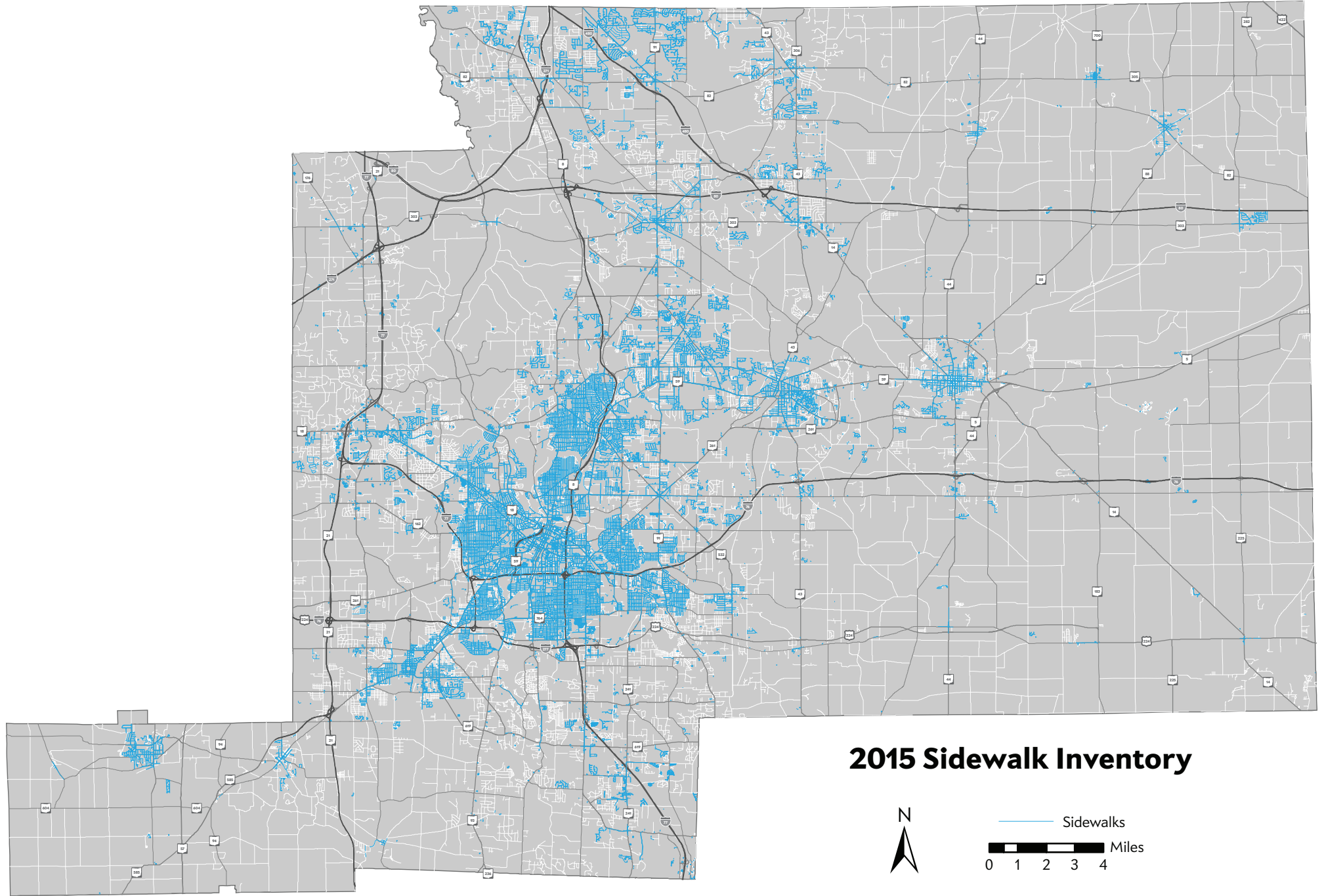
Zone	Minimum Width
Curb Zone	6 inches
Planter / Furniture Zone	24 inches (48 inches if planting trees)
Pedestrian Zone	60 inches
Frontage Zone	30 inches
Total Sidewalk Corridor	10 feet

The AMATS region boasts 2,860 miles of sidewalks. The map on page 14 identifies the area's 2015 Sidewalk Inventory. A number of the region's older established communities have extensive sidewalk networks that also provide access to available transit service. Unfortunately, many of these older networks also lack newer amenities and facilities that would encourage additional pedestrian travel such as crosswalks, mid-block crossings, plazas, signs, signals, illumination, benches and connections to shared-use paths.

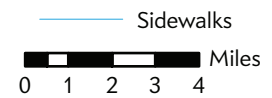
While older networks may hinder pedestrian travel, it is the region's more recently developed suburban communities that pose some of the greatest challenges to the promotion of pedestrian travel. Some of the larger and more rapidly growing communities continue to lack a significant inventory of sidewalks. These newer communities lack an established downtown from which networks can grow.

Thanks in part to the AMATS Connecting Communities Initiative the region has made considerable progress in promoting pedestrian accessibility in





## 2015 Sidewalk Inventory







both its older, established and newer, suburban communities. The program helps communities strike a balance between their land use decisions and transportation investments by providing financial grants for the development of plans and studies that promote vibrant, livable communities. Many communities throughout the region are recognizing the importance of pedestrian travel since the initiative's launch in 2009.

Barberton's Magic Mile Corridor, Bath Township's State Route 18 Sidewalk Improvement Project and Richfield's Kinross Lakes Parkway South Project are results of program grants. These communities used program grants to fund studies that eventually led to significant pedestrian improvements. A number of suburban communities are nurturing the beginnings of sound networks as a means to promote their residents' quality of life while providing access to local employment, retail and service areas. The communities of Fairlawn, Green, Twinsburg and Streetsboro exemplify this burgeoning suburban approach within the Greater Akron area.

## EFFICIENCY

The most efficient sidewalk networks tend to be those that are designed at the outset to meet the needs of pedestrians (See *Appendix C - Sidewalk Design Principles*). As past economic development and planning practices promoted urban sprawl, roadways gradually replaced sidewalks as the primary means to reach destinations. Generally, the greater the distance, the more likely it becomes that people will choose motor vehicles rather than walking to get to their destinations.

The ATP urges communities and project sponsors to adopt a more pedestrian-oriented approach to transportation planning that reduces significant obstacles to walking. During sidewalk planning and construction, logical termini should be a prime consideration. A sidewalk should never end in the middle of nowhere, but rather it should terminate at the entrance to a pedestrian attraction. Demand should also be considered when planning new sidewalks. One of the clearest signals of unmet pedestrian demand is the presence of a "goat path" – a worn path in the grass, created from years of repeated pedestrian use. General characteristics of sound pedestrian-oriented design are that sidewalks should:

-  Exist where pedestrian traffic is present
-  Lead to recognized destinations
-  Provide access to transit service
-  Eliminate gaps in routes or connections

Current sidewalk networks in the Greater Akron area appear to be adequate with regards to existing in known pedestrian traffic areas and providing access

to recognized destinations (communities should decide for themselves if improvements with regards to these characteristics should be pursued). It is in the areas of providing pedestrian access to transit service and eliminating gaps in network connections that the ATP urges the region's communities to seek improvements.

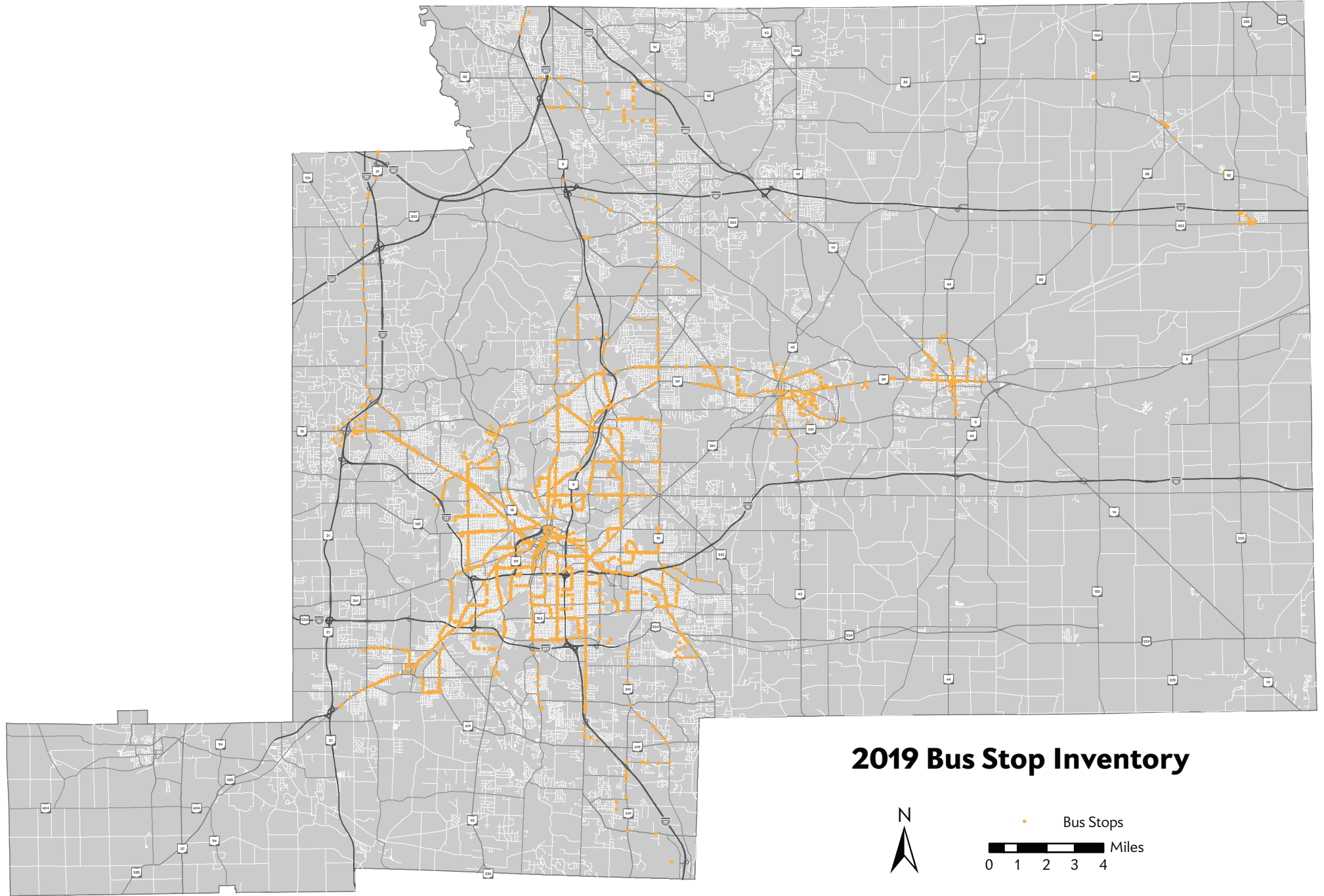
Sidewalks provide the best available means for many transit-dependent populations – such as people with disabilities, the elderly, and low income persons – to access bus routes and service. It is not a coincidence that most transit stops are located on or near sidewalks. Access to these stops is especially critical for persons using mobility devices. Currently, the Greater Akron area has 2,614 stops located throughout Portage and Summit counties (See *2019 Bus Stop Inventory* map on page 16). Of those 2,614 stops, 610 (23 percent) are located in areas without sidewalks.

Connectivity gaps in the region's sidewalk networks may force pedestrians to travel along extended detours in order to avoid them. Depending on their length, speed and traffic volume on adjacent roadways, such detours may subject pedestrians to hazardous journeys, especially in cases where no practical detour exists.

## SAFETY

The ATP recognizes that past transportation planning practices – not just in the Greater Akron area, but across the nation – have tended to emphasize vehicular traffic rather than the needs of pedestrians. This emphasis has created built environments that are difficult and unsafe for pedestrians. Pedestrians walking on sidewalks abutting busy streets are subject to a variety of disturbances such as vehicle noise, exhaust fumes, puddle-splashes, and potential crashes from passing vehicles. Pedestrians will often take the most direct route to their destination, regardless of whether the shortest route is completely legal or safe. The AMATS *Mid-Block Crossing Analysis* compiled by the agency in 2014 underscores this obvious truth. The analysis found that, of the 459 pedestrian-related crashes in the AMATS area between 2010 and 2012, 20.3 percent occurred at locations without dedicated mid-block crossings. The agency determined that pedestrian-related collisions with vehicles typically end in injury – 86 percent of crashes – and sometimes death – 11 percent of all crashes.

The *Dangerous by Design 2019* report published by Smart Growth America and the National Complete Streets Coalition analyzes traffic deaths that occurred between 2008 and 2017. The report includes a Pedestrian Danger Index (PDI) and fatality statistics for the 100 largest metro areas as defined by the U.S. Census Bureau. The PDI measures how deadly it is for people to walk based on the number of people struck and killed by drivers while walking, controlling for



## 2019 Bus Stop Inventory



• Bus Stops  
0 1 2 3 4 Miles

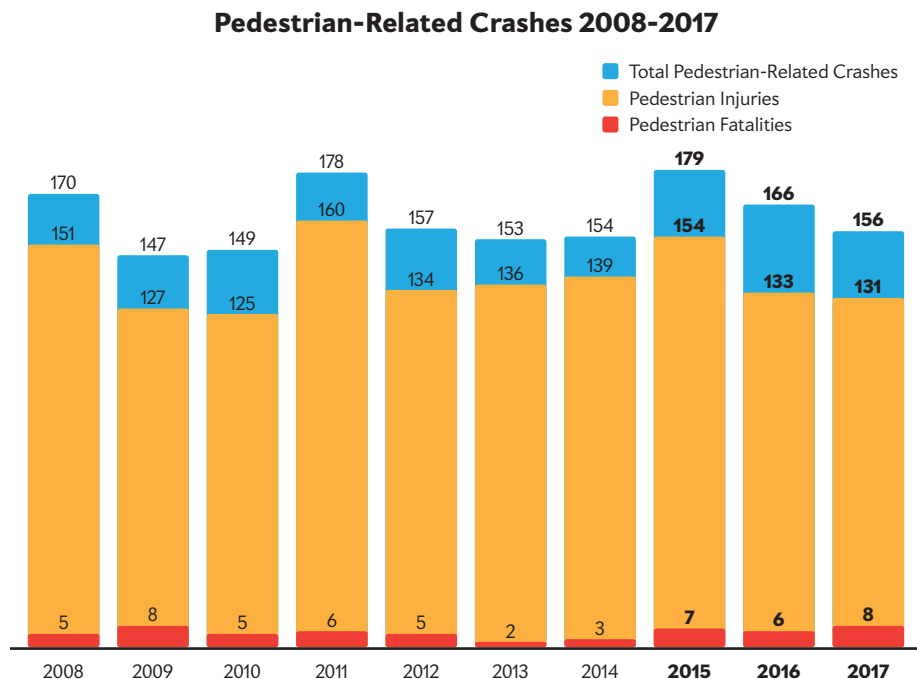


the number of people that live in a state or metro area and the share of people who walk to work.

The report finds that Americans aren't walking more and are only driving slightly more than they were in 2008. Driving apparently became safer between 2008 and 2017 as traffic deaths among motor vehicle occupants decreased by 6.1 percent despite vehicle miles traveled increasing by 8.1 percent. In stark contrast, travel by walking did not experience comparable numbers. Sadly, pedestrian deaths increased by 35.4 percent during the period although walking as a share of all trips increased by less than 1 percent.

Despite fewer fatalities, the Akron metro area has a higher PDI index at 44.4 than larger metro areas in Ohio such as Cleveland-Elyria and Cincinnati which have 35.9 and 42.9 respectively. The AMATS 2015-2017 Crash Report found that there were 501 pedestrian-related crashes from 2015 to 2017 with 418 (83 percent) resulting in an injury. By comparison - in terms of percentages - 24 percent of the region's vehicular-related crashes resulted in an injury during the same three-year period. Tragically, 21 of the area's pedestrian-related crashes resulted in a fatality. Among the more troubling findings from the report is that 97 (19.4 percent) of these crashes involve people under the age of 18.

The following graph shows pedestrian-related crashes in the AMATS area since 2007.



The AMATS crash report found that pedestrian crashes occur almost evenly at intersections and at mid-block areas. Many intersection-related pedestrian crashes occurred when a vehicle was making a turn or a pedestrian was crossing the street against the signal. Time and light conditions are other factors affecting the frequency of crashes in the Greater Akron area. Generally, pedestrian crash totals begin a sharp climb in the month of September before peaking in October, possibly due to the resumption of school and less hours of daylight. Sizable percentages of area crashes also occur on dark roadways equipped with lighting (33 percent) and on dark roadways lacking lighting (9 percent).

## PEDESTRIAN GOALS AND STRATEGIES

The ATP proposes the following goals and strategies for communities and project sponsors regarding pedestrian and sidewalk networks within the Greater Akron area.

### 1. Promote a zero-death target for pedestrian crashes and overall pedestrian crash reduction.

Strategies:

Successful pedestrian projects that encourage walking tend to be those that promote safety - not only for pedestrians - but other users of transportation systems. Many of the Greater Akron area's existing walking networks consist of community sidewalks that are along busy roadways that also serve as transit routes. Communities and project sponsors should make pedestrian safety improvements a priority on those routes and streets with high traffic volumes and speeds.

The ATP urges communities and project sponsors to pursue project designs that:

- 🚶 Buffer pedestrians from auto traffic
- 🚶 Increase safety and comfort crossing roadways
- 🚶 Improve connectivity and connections to destinations
- 🚶 Improve comfort and ease of walking
- 🚶 Increase the attractiveness of walking
- 🚶 Slow speed of automobile traffic

The agency will weigh the potential safety benefits to pedestrians of project applications to its funding programs.

The ATP encourages communities and project sponsors to embrace the

Every Day Counts (EDC) initiative, which was launched by the FHWA in 2009. One component of the EDC is the implementation of innovative strategies to enhance roadway safety for all users. The Safe Transportation for Every Pedestrian (STEP) Program is one such innovation. STEP advocates the incorporation of specific pedestrian safety countermeasures that have an established record of reducing conflicts between pedestrians and vehicles. Such countermeasures include, but may not be limited to:

- 🚶 Crosswalk visibility enhancements
- 🚶 Leading pedestrian intervals
- 🚶 Pedestrian crossing/refuge islands
- 🚶 Pedestrian hybrid beacons
- 🚶 Raised crosswalks
- 🚶 Rectangular rapid flashing beacons
- 🚶 Road diets

The FHWA publishes tools to aid in the analysis of the need for pedestrian safety countermeasures and determination of the most appropriate treatment(s) for a given location, such as its Field Guide for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations. AMATS recommends the adoption of any single one or combination of these countermeasures where analysis deems them necessary, practicable, and feasible. The following STEP-suggested countermeasures can improve pedestrian safety when used in the appropriate roadway context:

- 🚶 **Rectangular Rapid Flashing Beacons (RRFBs)**  
Active (user-actuated) or passive (automated detection) amber LEDs that use an irregular flash pattern at mid-block or uncontrolled crossing locations. They significantly increase driver-yielding behavior.
- 🚶 **Leading Pedestrian Intervals (LPIs)**  
Signalized intersections allow pedestrians to walk, usually three to four seconds, before vehicles get a green signal to turn left or right. The LPI increases visibility, reduces conflicts, and improves yielding.
- 🚶 **Pedestrian Hybrid Beacons (PHBs) or High intensity Activated crossWalk (HAWKs)**  
These beacons provide positive stop control for higher-speed, multi-lane roadways with high vehicular volumes. PHBs are an intermediate option between a flashing beacon and a full pedestrian signal.

## 2. AMATS encourages its membership to invest an average of \$1.1 million in TASA funds per year in additional shared-use and pedestrian infrastructure throughout the Greater Akron area between now and 2045.

Strategies:

The goal of increasing total pedestrian or sidewalk investment throughout the region will require the simultaneous pursuit of several general strategies by AMATS and its membership. AMATS will aid its member communities in seeking funding for projects to increase mileage by providing application and technical assistance throughout the planning process. At the local level, communities should invest in:

- 🚶 Sidewalks
- 🚶 Sidewalk amenities and infrastructure
- 🚶 Street projects that provide new walkways
- 🚶 Shared-use paths

Sidewalks and their related amenities and infrastructure are more fully addressed in *Appendix D – Sidewalk Amenities and Infrastructure*.

The ATP recommends that the Greater Akron area continue investment in sidewalk infrastructure. AMATS currently has 1.5 million programmed in sidewalk infrastructure projects.

Upcoming Sidewalk Projects (2020-2023)	Location	AMATS Funding	Total Cost
Moore Rd Sidewalks	Green	\$500,000	\$1,554,000
Darrow Rd Sidewalks	Stow	\$500,000	\$760,946
Raber Rd Sidewalks	Green	\$516,050	\$1,372,710

The area should continue similar investments in sidewalk infrastructure in the future. Such investments will not only improve pedestrian accessibility, but provide new connections to the region’s growing sidewalk network.

### 3. Sidewalk Network Improvements with METRO RTA and PARTA

#### Strategies:

The ATP encourages Greater Akron area communities to work in close concert with METRO RTA in Summit County and the Portage Area Regional Transportation Authority (PARTA) in Portage County when developing new sidewalk networks and when planning improvements to existing ones (See *Bus Stops Lacking Sidewalk Access* map on page 20). The region's communities and transit authorities should:

- ✚ Increase the number of bus stops with a sidewalk connection
- ✚ Ensure that networks include pedestrian-friendly bus stops and related amenities
- ✚ Provide convenient transit access in those locations where there is known heavy pedestrian traffic
- ✚ Consider convenient pedestrian access when identifying new transit connections and routes
- ✚ Conduct in-depth, periodic analyses of bus stop locations and route connections within the Greater Akron area

### 4. Seek a 100 Percent Participation Rate Among Greater Akron Area School Districts in the Ohio Safe Routes to Schools (SRTS) Program

#### Strategies:

The ATP recommends that Greater Akron area communities provide high-quality, safe bicycle and pedestrian infrastructure near schools. According to *publicschools12.com*, the Greater Akron area has a total of 52 school districts including charter schools. Of that total, 15 school districts are located within Portage County, 34 are within Summit County, and three are within Wayne County.

Totals available from the Ohio Department of Transportation (ODOT) demonstrate the potential for increased participation by Greater Akron area school districts in the SRTS Program. Currently, only nine area districts are participating in the program. Of these districts, two – Aurora and Streetsboro – are located in Portage County, six – Akron, Barberton, Green, Hudson, Norton and Stow – are located in Summit County, and one – Rittman – is located in Wayne County.

AMATS encourages all area communities to:

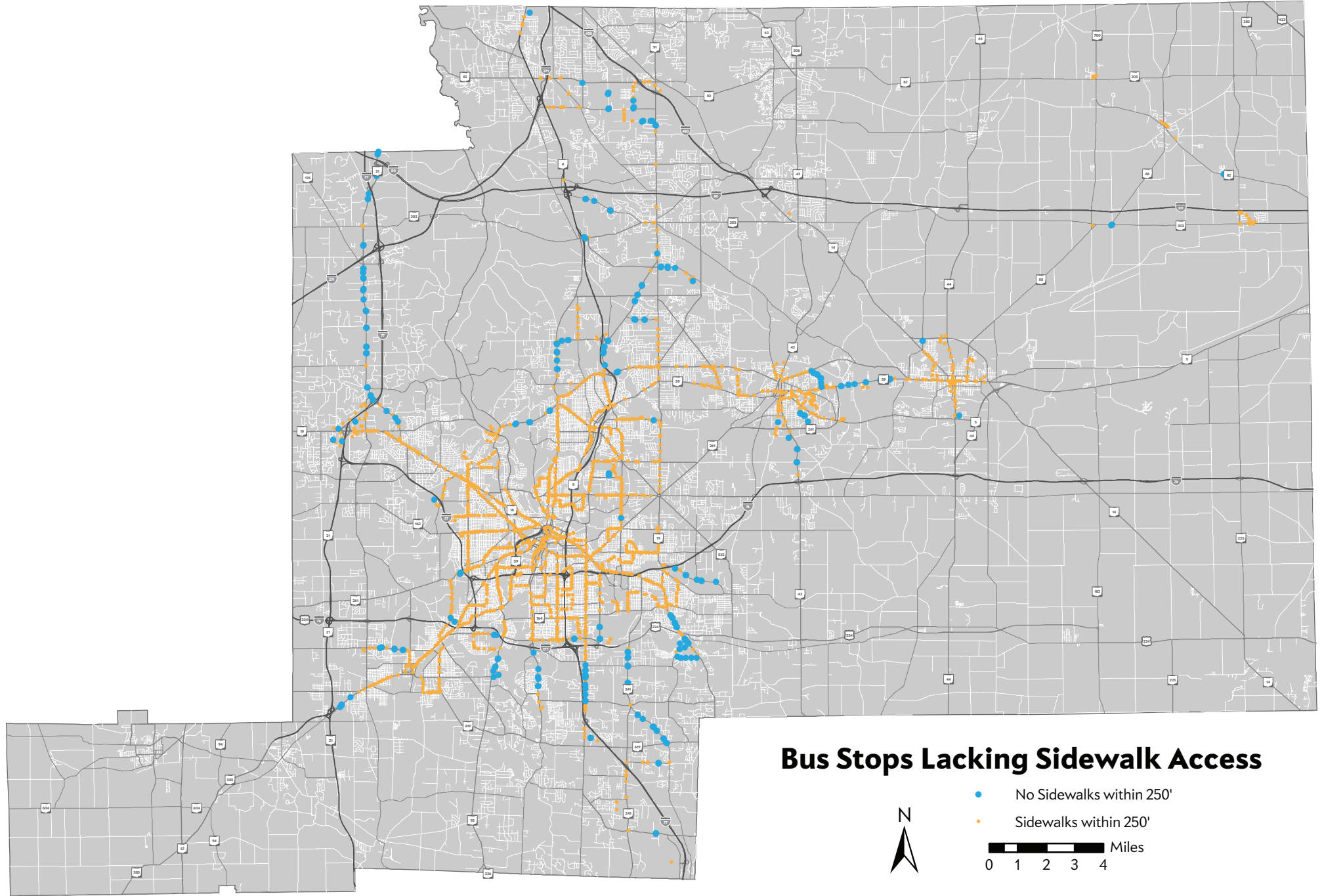
- ✚ Participate in the Ohio SRTS Program
- ✚ Craft individualized School Travel Plans (STPs)
- ✚ Provide clean sidewalk routes for students that walk to school

Funded by the FHWA and administered by ODOT, the SRTS Program supports projects and programs that enable and encourage walking and cycling to and from school. A School Travel Plan is a document outlining a community's plans for engaging students in active transportation, i.e., walking or cycling, as they travel to and from school. Plans are required for funding requests made through the SRTS Program.

The ATP recommends that the agency develop project scoring criteria during the next regularly scheduled update of the AMATS Funding Policy Guidelines that weighs whether project applications can demonstrate pedestrian and cycling safety improvements near area schools. Such project applications will be considered accordingly under forthcoming scoring criteria. Communities and project sponsors should be encouraged by AMATS to prepare applications in cooperation with parents, local school officials, and the SRTS Program. Such projects whose sponsors indicate that planned projects have an express purpose to improve public safety will be given precedence over others whose primary purpose is beautification or historical preservation.

For more information about the SRTS Program, please visit <http://www.dot.state.oh.us/Divisions/Planning/ProgramManagement/HighwaySafety/ActiveTransportation/Pages/Funds.aspx>.





## Bus Stops Lacking Sidewalk Access

● No Sidewalks within 250'

● Sidewalks within 250'

0 1 2 3 4 Miles



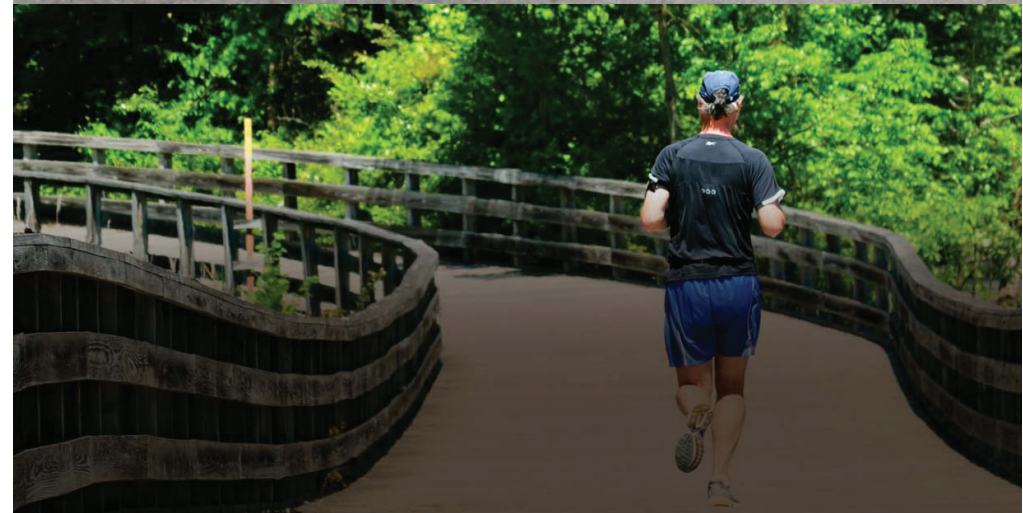
# CONCLUSION

The Greater Akron area has made tremendous strides in the pursuit of regional connectivity since the Akron Metropolitan Area Transportation Study (AMATS) launched its Connecting Communities Initiative in 2009 and its Connecting Communities Planning Grant Program in 2010. In the years since, the area has constructed new sidewalks, bike lanes, and shared-use paths and hosted many events and public awareness campaigns to promote cycling and walking as safe and vibrant means of transportation.

These AMATS-led initiatives also heralded a new approach to regional transportation planning by the agency and its member communities: Complete street concepts became guiding principles throughout the planning process. The Bike Plans and Pedestrian Plans developed by AMATS in the years soon after the adoption of this approach represented the agency's initial attempts to promote connectivity among the region's various cycling and pedestrian networks.

The *2019 Active Transportation Plan (ATP)* prepared by AMATS represents something new yet again for transportation planning in the Greater Akron area. The *ATP* presents a more holistic, cohesive vision – not only for the region's cycling and pedestrian networks – but also its transit and roadway networks. Rather than viewing these networks as generally separate entities as has been done in the past, the *ATP* urges area communities and project sponsors to identify and pursue opportunities to link these networks to an even greater extent for the benefit of all transportation users. The *ATP* clarifies the strategies and defines the goals that AMATS will pursue to improve the accessibility, efficiency and safety of the area's networks, especially those pertaining to active transportation such as cycling and walking.

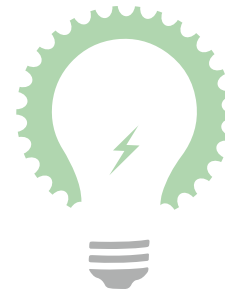
The *ATP* will be a key component of the upcoming long-range *Transportation Outlook 2045* to be prepared by AMATS in its role as the designated metropolitan planning organization for Portage and Summit counties and Chippewa and Milton townships in Wayne County. The *ATP's* goals of improved efficiency and safety for cyclists and pedestrians and establishing dedicated levels of funding for cycling and pedestrian networks are integral to the region's promotion of active living, sound economic development, and sustainability.



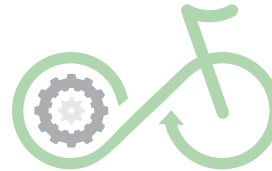


# APPENDICES

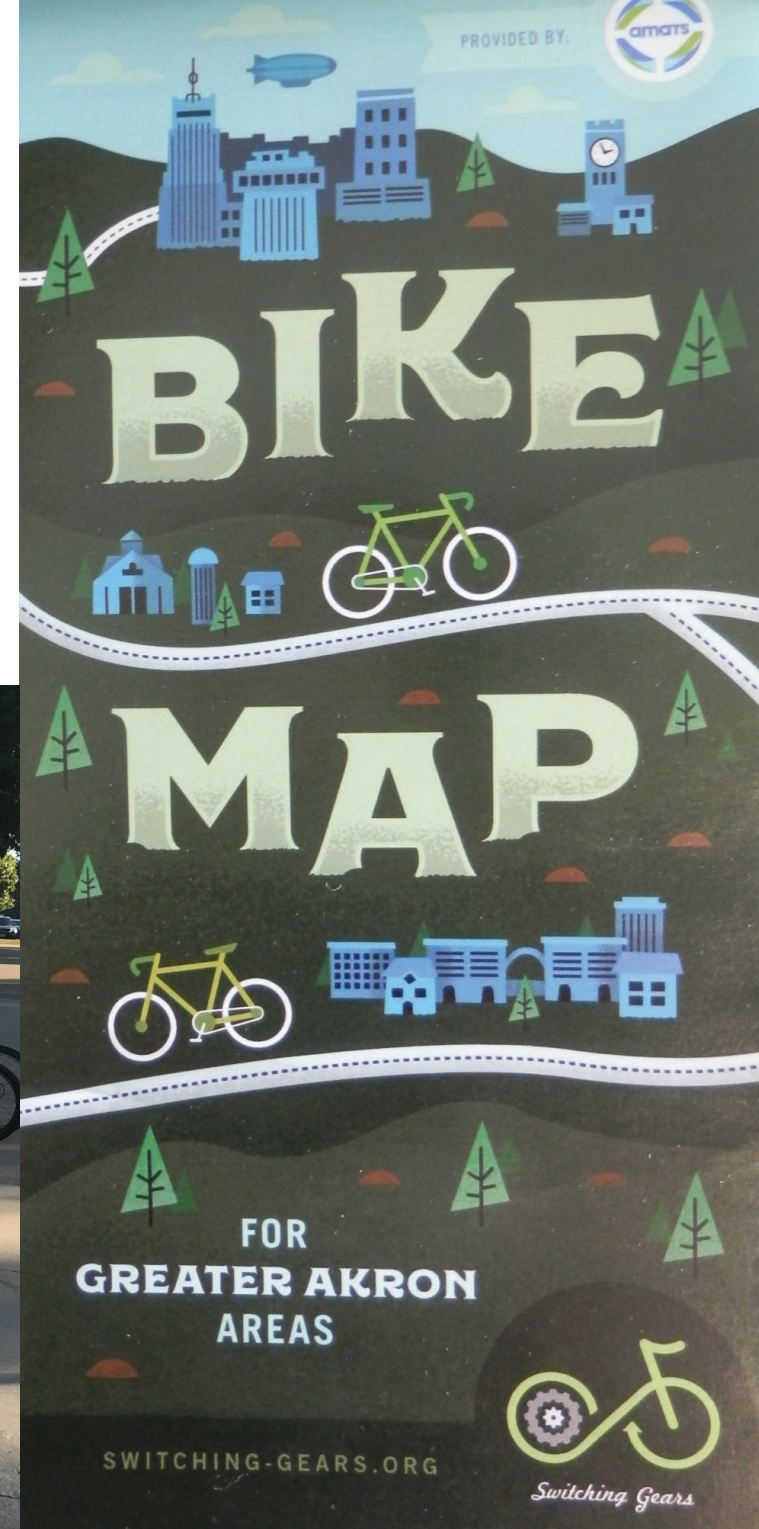
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*Bike-N-Brainstorm*



*Switching Gears*





# APPENDIX A

## Glossary of Terms

### Active Transportation

Active transportation includes non-motorized transportation options such as walking and biking and is ideally linked with transit networks. The pursuit of active transportation options that are realistic, affordable and convenient for all users would promote health, economic development, environmental and safety benefits.

### Active Transportation Plan (ATP)

A comprehensive set of strategies to ensure better options for biking, walking and transit. ATPs include recommendations for prioritizing infrastructure improvements and outline recommendations for new policies, processes, and infrastructure based on public and stakeholder input.

### Accessible Pedestrian Signal (APS)

This is a traffic signal that provides auditory and/or vibrotactile information to pedestrians who are blind or have low vision.

### Bicycle Facilities

A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking and storage facilities, and shared roadways not specifically designated for bicycle use.

### Bike Lane

This is a dedicated lane for bicyclists that is separated from motor vehicle traffic by pavement markings and is signed for preferential or exclusive use by bicyclists. Bike lane widths can range from 4 to 6 feet and should be striped, signed, and marked in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

### Bike-N-Brainstorm

A public outreach tool used by AMATS to engage cyclists with the aim of improving the Greater Akron area's biking infrastructure. AMATS encourages and hosts these events which include a bike ride along a predetermined route followed by a discussion among participants regarding how communities may improve their bike networks and related amenities.

### Bike Route

This is a system of bikeways designated by the jurisdiction having authority that includes appropriate directional and informational route markers. Bike routes can be an option where room does not permit or the need does not exist to create additional pavement width for cyclists. Bike routes are typically found on low volume, low speed streets. They are especially helpful in way finding to link neighborhoods with networks of greenways and other types of bike facilities.

## Bikeway

A generic term for any road, street, path or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

## Bump Out

“Bump outs,” also known as curb extensions or bulb-outs, extend the sidewalk space into the street and provide benefits to pedestrians by shortening the crossing distance and improving visibility for both pedestrians and vehicles.

## Chicane

This is a type of traffic-calming strategy to reduce the speed of vehicles for safety. Chicanes are created by installing a series of staggered mid-block bump-outs on alternating sides of the street. On two-way streets, chicanes can either deflect both lanes or narrow the roadway to one lane used by both directions.

## Connecting Communities Program

The AMATS Connecting Communities Program encourages the pursuit of vibrant livable areas by helping communities strike a balance between their land use decisions and transportation investments. The grant program supports community studies that promote alternative forms of transportation to motor vehicles such as walking and cycling.

## Connectivity

This term refers to the extent to which urban forms permit or restrict movement of people or vehicles in different directions. Connectivity is generally considered a positive attribute of an urban design, as it permits ease of movement and avoids severing neighborhoods. Urban forms which lack connectivity, e.g., those severed by arterial roads or with many long cul-de-sacs, are considered to discourage movement on foot and encourage longer journeys by car. (This concept is also occasionally referred to as “permeability.”)

## Crosswalk

A place designated for pedestrians to cross a road. Crosswalks are designed to keep pedestrians together where they can be seen by motorists, and where they can cross most safely across the flow of vehicular traffic.

## Footpath

This is a type of thoroughfare that is intended for use only by pedestrians and excludes other forms of traffic such as motorized vehicles and cycles.

## Geographic Information System (GIS)

A system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

## Goat Path

A path created as a consequence of foot or bicycle traffic. The path usually represents the shortest or most easily navigated route between an origin and destination. Width and erosion severity can be indicators of how much traffic a path receives. Goat paths emerge as shortcuts where constructed ways take a circuitous route, have gaps, or are non-existent. (These paths are also known as a “desire line,” “social trail,” “cow path,” “goat track,” “pig trail” or “bootleg trail.”)

## Green-Colored Pavement

This pavement was granted statewide interim approval for bike lanes to ODOT in 2011. Green-colored pavement within a bicycle lane increases the visibility of the facility, identifies potential areas of conflict, and reinforces priority to bicyclists in conflict areas. The pavement may be installed within bicycle lanes as a supplement to other pavement markings and is commonly applied at intersections, driveways, conflict areas, and along non-standard or enhanced facilities such as cycle tracks. Motorists are expected to yield right of way to bicyclists at these locations.

## Greenways and Park Trails

A greenway is a linear parcel of land set aside to preserve open space. Greenways are generally located in floodplain areas and along wooded stream corridors that are unsuitable for development. Greenway and park trails typically are 8 to 10+ feet wide and may or may not be paved.

## High-intensity Activated crossWALK

A traffic signal used to stop road traffic and allow pedestrians to cross safely. The beacon flashes yellow, then is steady yellow, then a steady red, then flashes red to make drivers aware to stop. The purpose of a HAWK beacon is to allow protected pedestrian crossings, stopping road traffic only as needed. Where standard traffic signal 'warrants' prevent the installation of standard three-color traffic signals, a HAWK provides an alternative. It is also known as a Pedestrian Hybrid Beacon or "PHB."

## Jane's Walk

This is an international walking initiative that provides opportunities for people to engage in city planning by meeting and exploring cities through short walking tours. These tours usually culminate in discussions regarding how communities may improve their pedestrian networks. AMATS encourages and hosts Jane's Walk events throughout the Greater Akron area.

## Leading Pedestrian Interval (LPI)

Signal timing that provides the walk signal several seconds before vehicles are given a green signal. LPI provides pedestrians with an advanced start so that they are more visible in the crosswalk.

## Manual on Uniform Traffic Control Devices (MUTCD)

The Federal Highway Administration standards for signs, signals, and pavement markings.

## Mid-Block Crossing

This is a crossing at non-intersection locations where marked crosswalks have been provided. Mid-block crosswalks can facilitate direct crossings to places that people want to go, but which are not well served by an existing traffic network.

## Pedestrian

This is a person traveling on foot, whether walking or running. For the purposes of this plan, those traveling using motorized scooters and wheelchair users are considered as pedestrians.



## **Pedestrian Level of Service (LOS)**

This is a measure that assesses the quality of the pedestrian experience through an analysis of sidewalk conditions, traffic volumes and speeds, and other characteristics of the roadway.

## **Rail-Trail**

A shared-use path, either paved or unpaved, built within the right-of-way of an existing or former railroad.

## **Rectangular Rapid Flashing Beacon (RRFB)**

A beacon attached to the standard pedestrian crossing sign and activated by pedestrians.

## **Refuge Island**

Also known as a pedestrian refuge or pedestrian island, is a small section of pavement or sidewalk, completely surrounded by asphalt or other road materials, where pedestrians can stop before finishing crossing a road.

## **Right-of-Way**

A general term denoting land, property or interest therein, usually in a strip acquired for or devoted to transportation purposes.

## **Right of Way**

The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian.

## **Road Diet**

A road diet reduces the amount of space for motor vehicles, either through eliminating lanes or shrinking the width of lanes. The reclaimed space from a road diet is then re-allocated for other uses, such as more sidewalk space or a pedestrian refuge island.

## **Roadway**

The portion of the highway, including shoulders, intended for vehicular use.

## **Rumble Strips**

A textured or grooved pavement sometimes used on or along shoulders of highways to alert motorists who stray onto the shoulder.

## **Safe Routes to School (SRTS)**

This is a national movement to improve safety of walking and biking to school, improve pedestrian and bicycle access to schools, and encourage biking and walking to school. SRTS includes state and federal funding programs as well as local programs.

## **Shared Roadway**

This is a lane within a roadway that indicates that cyclists may be in the lane through sharrow pavement markings or other signage.

## Shared-Use Path

A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared-use paths may also be used by pedestrians, wheelchair users, and other non-motorized users. Shared use includes side paths and rail to trails.

## Sharrow

A shared lane pavement marking consisting of a bicycle symbol placed in the roadway lane that indicates that motorists should expect to see and share the lane with bicycles. Unlike bicycle lanes, they do not designate a particular part of the roadway for the exclusive use of bicycles.

## Shoulder

This is the portion of the roadway contiguous with the travel lane for accommodation of stopped vehicles, emergency use and for lateral support of sub-base, base and surface courses. The shoulder is on the same level as the existing roadway surface.

## Sidewalk

The portion of a street or highway right of-way designed for preferential or exclusive use by pedestrians. Generally, a sidewalk is paved path along the side of a road. A sidewalk may accommodate moderate changes in grade (height) and is normally separated from the vehicular traffic by a curb. There may also be a road verge, which is a strip of vegetation, grass, bushes or trees or a combination of these, more commonly referred to as a “Devil’s Strip” in Northeast Ohio, either between the sidewalk and the roadway.

## Signed Shared Roadway (Signed Bike Route)

This is a shared roadway which has been designated as a preferred route for bicycle use.

## Thoroughfare

This is a road or street that connects one location to another.

## Traffic Calming

Measures that consist of physical design, including narrowed roads and speed humps, put in place on roads for the intention of slowing down or reducing motor-vehicle traffic and to improve safety for pedestrians and cyclists.

## Trail

This is a type of facility that is physically separated from motor vehicle traffic by an open space or barrier or is located in an independent right-of-way. Trails are usually shared with other non-motorized users including pedestrians.

## Transportation Alternatives Set Aside (TASA)

The TASA Program provides funding for bicycle and pedestrian facilities. Funding for TASA projects is assigned to MPO areas by Congress with ODOT sub-allocating a portion of its statewide TASA funding to Ohio MPOs. All TASA projects must relate to surface transportation and address a transportation need, use, or benefit. Project categories include pedestrian and bicycle facilities including Safe Routes to School infrastructure projects.

## Traveled Way

This is the portion of the roadway for the movement of vehicles, exclusive of shoulders.

## Urban Design

This is the process of designing and shaping cities, towns and villages. Urban design deals with the larger scale of groups of buildings, streets and public spaces, whole neighborhoods and districts, and entire cities, with the goal of making urban areas functional, attractive, and sustainable.

## Vertical Traffic Calming

Vertical traffic calming devices, such as speed bumps, speed humps and raised intersections, are devices that are placed in the middle of a road bed and require vehicles to slow down to cross over them.

## Vision Zero

Vision Zero is a national campaign to eliminate all traffic-related deaths and serious injuries. Local governments can elect to become a Vision Zero community by setting clear goals for reducing traffic fatalities and serious injuries, committing resources to achieving those goals, developing a plan or strategy around those goals, and establishing a Vision Zero Task Force.

## Walkability

A measure of how conducive an area is to walking. Walkability has many health, environmental, and economic benefits. Factors influencing walkability include the presence or absence and quality of footpaths, sidewalks or other pedestrian rights-of-way, traffic and road conditions, land use patterns, building accessibility, and safety, among others. Walkability is an important concept in sustainable urban design.

## Walking Audit

This is an assessment of the walkability or pedestrian access of an external environment. Walking audits are often undertaken in street environments to consider and promote the needs of pedestrians as a form of transport. They can be undertaken by a range of different stakeholders including: local community groups; transportation planners/engineers; urban designers; local police officers; and local officials. Walking audits often collect both quantitative and qualitative data on the walking environment.

## Walk Friendly Community / Bike Friendly Community

Communities can gain designation as a Walk Friendly Community (through the Walk Friendly Communities Program) or as a Bike Friendly Community (through the League for American Bicyclists). Both designations require communities to conduct a self-assessment about policies and programs that impact active transportation. In addition to recognition, communities also receive feedback and resources to improve their local active transportation network and culture.

## Walkshed

This is the land area within a defined walking range of a specified location such as a transit stop.

## Wayfinding

Directional guidance for pedestrians, including signs, maps, and kiosks.



## Wide Curb Lane Facility

Travel lane that is 14 feet or more, allowing a bicyclist to pass a four-wheel vehicle.

## Zone System

In order to ensure that sidewalks are accessible to pedestrians, the FHWA promotes sidewalk dimensions based on a “zone system.” The zone system determines the width of the sidewalk corridor and ensures that obstacles, such as newspaper boxes or telephone poles, do not limit pedestrian access. The four zones that comprise this system are: the curb zone; the planter/furniture zone; the pedestrian zone; and the frontage zone. (This design system was initially developed by the city of Portland, Oregon in its Portland Pedestrian Design Guide, 1998.)

# APPENDIX B

## AMATS Planning Areas Defined

To better illustrate the differences in context found within the communities that comprise the region, AMATS described eight “Planning Areas” – categorizations for communities based on their dominant land use characteristics – in its 2010 *Connecting Communities* report. The eight categories are as follows:

### Downtown



The Downtown area is the hub of the regional transportation system. It supports high levels of public transportation and pedestrian activity. It is the central business district with dense, tall buildings and a mix of office, residential, government and cultural uses.

### Suburban Center



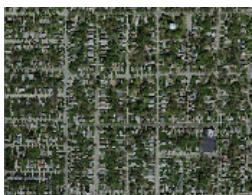
Suburban Centers are major business and retail hubs. They consist of a mix of shopping centers, big-box stores and office parks. Usually these areas are auto-dependent and do not support transit and pedestrian activity.

### Town Center



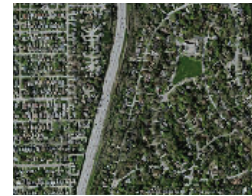
Town Centers are smaller hubs for business, retail, residential and government uses predominantly along main streets. These centers are pedestrian-friendly, transit-accessible and can consist of both business and office space.

### Urban Core



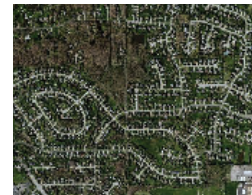
Urban Core areas consist of a grid block street pattern with high pedestrian activity and easy access to transit. They provide a dense mix of single and multi-family housing with businesses located along main streets and corner stores.

### Urban



Urban areas are mature, developed neighborhoods adjacent to the urban core area. They have both grid and curving street patterns with moderate levels of transit accessibility and pedestrian activity. They are predominantly single-family with retail along main streets and in small shopping centers.

### Suburban



Suburban areas (suburbs) are predominantly single-family housing units with retail and business located in shopping centers and office parks. Residential streets are predominantly curved and terminate in cul-de-sacs. Suburbs are auto-dependent with limited transit and pedestrian activity.

### Exurban



Exurban areas (exurbs) are predominantly low-density and single-family, with residential housing typically along country roads or detached subdivisions surrounded by agricultural and park land. They are auto-dependent, without sidewalks and transit is limited to individual door-to-door service.

### Rural



Rural areas consist of large tracts of agricultural, park or vacant land. Housing is predominantly along country roads and is very low-density and auto-dependent. There are no sidewalks and transit is limited to individual door-to-door service.

# APPENDIX C

## Sidewalk Design Principles

TheCityFix, an online resource devoted to analysis on urban sustainability and development, published a 2015 article by Paula Manoela dos Santos, entitled, “*The 8 Principles of the Sidewalk: Building More Active Cities.*” This appendix is based on that article.

### 1. Proper Sizing

Sidewalks are made of up three zones: the free zone, where people actually walk; the service zone, where street furniture like benches or trashcans are located; and the transition zone, which gives those on the sidewalk access to buildings lining the street. Understanding the relationship between these components is key for designing appropriately sized sidewalks.

### 2. Quality Surfaces

The material used to construct sidewalks needs to be consistent, firm, stable and slip-resistant. In order to ensure that a sidewalk functions properly, designers must be aware of how the sidewalk is being constructed and the quality of the handiwork.

### 3. Efficient Drainage

Waterlogged streets, paths, or sidewalks are unsuitable for walking. Sidewalks that accumulate water become useless, as pedestrians will likely end up diverting their route through car-filled roads, risking their safety.

### 4. Universal Accessibility

The sidewalk, as a public space, should be accessible to a wide spectrum of users—including those with limited mobility. This means designing spaces that serve those in wheelchairs, on crutches, pregnant women, the elderly, and others with special mobility needs. Listing out the different potential users and their mobility limitations during the design process can help ensure the final product will meet the needs of all pedestrians.

### 5. Secure Connections

Pedestrians often transition to other modes of public transport and need to be able to safely access stations. It’s important that sidewalks are connected and integrated within larger transport networks.

### 6. Attractive Spaces

Streets are a fundamental part of the urban environment. Sidewalks can play an important role in making the urban experience more enjoyable. Interesting, vibrant sidewalks that can captivate people and make walking more attractive will ultimately facilitate more physical activity while reducing traffic congestion

### 7. Permanent Security

Day or night, weekday or weekend, sidewalks are always open for us. However, there are fewer people out on foot during certain times of the day and week, leading to potentially unsafe situations given the lack of friendly eyes on the street. Adopting strategies to positively influence safety and security can further encourage walking and help all city dwellers feel more at home in their city.

### 8. Clear Signage

Just like drivers of motor vehicles, pedestrians need clear information so that they can both orient themselves in the city and understand the rules and guidelines of particular sidewalks.



# APPENDIX D

## Sidewalk Amenities and Infrastructure

Sidewalks are the most common form of walkway infrastructure and are exclusively for pedestrians, although some communities may opt to allow cyclists on sidewalks. Sidewalks run parallel to a street or roadway and represent a sound infrastructure choice. They can be constructed in a variety of settings ranging from calm neighborhood streets to busy arterials. The FHWA recommends that sidewalks be at least 5 feet in width if they are set back from a curb to allow two people to walk comfortably side-by-side. However, a sidewalk that is 6-feet wide or greater is sometimes preferred, especially in locations with heavy pedestrian traffic.

Sidewalk amenities and infrastructure can run the gamut from streetscape improvements to crossings. While the ATP encourages communities to pursue opportunities to promote vibrant streetscapes along their sidewalk networks through the use of such amenities as street furniture, public art, and landscaping, these opportunities should not take precedence over actual physical growth of their networks in the form of new sidewalks and crossings. The development of new and various types of crossings represents a prime opportunity for the region to grow its pedestrian networks in terms of mileage. New crossings will also aid the region in its pursuit of improved safety and connectivity. The ATP recommends that communities consider developing the following types of crossings:

### **High-Visibility Crosswalks/Pavement**

The use of high-visibility materials at pedestrian crossings establishes a clear pedestrian domain and reinforces the potential presence of pedestrians to motorists. High-visibility markings remove all doubt as to the legal domain of both pedestrians and motorists, resulting in the safe travel of both parties. Materials for high-visibility crosswalks can range from bright, reflective roadway striping to elaborately colored and patterned pavements.

### **Mid-Block Crosswalks**

Mid-block crosswalks facilitate safe direct crossings to places that people want to go, but which are not well served by an existing traffic network. These facilities minimize random “darting” across busy streets by pedestrians and alert motorists to be aware of their presence. The AMATS Mid-Block Crossing Analysis compiled by the agency in 2014 identified 41 potential mid-block crossing locations throughout the Greater Akron area.

### **Pedestrian Bridges**

A pedestrian bridge is a type of crossing for situations where the only safe option to cross a busy roadway, railroad, waterway, or other barrier is to travel over it. Such bridges completely separate pedestrians from vehicular traffic.

### **Pedestrian Islands**

A pedestrian island is a protected area that allows pedestrians to cross one direction of traffic at a time. This makes finding gaps in traffic easier on two-way streets. Pedestrian islands differ from medians in that they are not continuous, but are only provided at the crossing location. Pedestrian island design ranges from simple concrete pads in the middle of a road or intersection to lushly landscaped refuges incorporating beautiful design. Pedestrian islands also serve as a traffic calming measure because they raise driver awareness of pedestrian activity and create a physical obstacle that slows passing traffic.

### **Raised Crosswalks**

Raised crosswalks physically lift pedestrians to a height slightly above the roadway, increasing their visibility to oncoming drivers. Their elevation also serves as a form of traffic calming, serving as speed bumps to slow vehicles down, thus creating a more comfortable atmosphere for pedestrians.

# APPENDIX E

## Transportation Alternatives Set Aside (TASA) Scoring

### Transportation Alternatives Program

#### Project Evaluation Criteria

The following project types are eligible for TAP funding (includes Planning / Engineering, Right of Way, and Construction):

<b>1. Facilities (Multi-Purpose Trail, Bike Lane, Sidewalk)</b>	<b>Points</b>
Regional Trail	25
Secondary Trail / Sidewalk / Bike Lane <i>(Towpath, Portage, Headwaters, Bike and Hike)</i>	15
<b>2. Project Type / Logical Termini</b>	<b>Points</b>
Facility connects to two existing facilities or two activity centers	25
Facility connects to one existing facility or one activity center	20
Facility is a stand-alone project (ex. new trail)	15
Trail project is an asphalt upgrade from limestone	5
<i>Activity centers are considered retail plazas, office parks, schools, hospitals or recreation parks</i>	
<b>3. Level of Use</b>	<b>Points</b>
How much use is the facility projected to have? <i>Considers density of population, existence of goat paths, popularity of trails</i>	0-15
<b>4. Consistency with Plans</b>	<b>Points</b>
Project recommended in Connecting Communities Planning Grant	5
Project is specifically recommended in <i>Transportation Outlook 2040</i>	5
Project is recommended as part of Ohio SRTS Travel Plan	5
Project is on existing transit line	5
Project area has a history of bicycle / pedestrian accidents	5
<b>5. Equitable Distribution of Funds</b>	<b>Points</b>
The Ratio of Funds Received (and Programmed) to a Target Budget Percentage	
0-50	10
51-100	8
101-150	6
151-200	4
201-250	2
Over 250	0

# APPENDIX F

## Urban Streetscape Rating System

### A – Active

- Small units, many doors (15-20 doors per 100 meters (328 feet))
- Large variation in function
- No blind and few passive units
- Lots of character in facade relief
- Primarily vertical facade articulation
- Good details and materials

### B – Friendly

- Relatively small units (10-14 doors per 100 meters (328 feet))
- Some variation in function
- Few blind and passive units
- Facade relief
- Many details

### C – Mixture

- Large and small units (6-10 doors per 100 meters (328 feet))
- Modest variation in function
- Some blind and passive units
- Modest facade relief
- Few details

### D – Boring

- Large units, few doors (2-5 doors per 100 meters (328 feet))
- Almost no variation in function
- Many blind and uninteresting units
- Few or no details

### E – Inactive

- Large units, few or no doors (0-2 doors per 100 meters (328 feet))
- No visible variation in function
- Blind or passive units
- Uniform facades, no details, nothing to look at

Source: "Close Encounters With Buildings," Urban Design International, 2006





