



December 2015

2015 | PEDESTRIAN PLAN

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
THE PATH AHEAD	2
EXISTING CONDITIONS	4
WHERE WE ARE	4
2015 Sidewalk Inventory	6
2012-2014 Pedestrian-Related Crashes	8
TRENDS	10
WHERE WE ARE HEADED	10
STRATEGIES	12
WHERE WE WANT TO BE	12
Safety	14
Connectivity	20
Vibrancy	22
RECOMMENDATIONS	28
HOW WE GET THERE	28
IMPLEMENTATION	31
WHEN WE WILL GET THERE	36
APPENDICES	37
Appendix A - Definition of Terms	38
Appendix B - AMATS Planning Areas Defined	41
Appendix C - Urban Streetscape Rating System	42
Appendix D - Maps & Demographics	43
AMATS Population Change 2010 - 2040	44
Population Density by Census Tract	45
AMATS Employment Change 2010 - 2040	46
2010 Job Density	47
AMATS Area Schools	48
Percent Low Income Population by Census Tract	49
Percent 65+ Population by Census Tract	50
Percent Minority Population by Census Tract	51
Appendix E - TAP Scoring	52
Appendix F - Public Involvement	53



EXECUTIVE SUMMARY

THE PATH AHEAD

There is an old adage that states, “The journey of a thousand miles begins with a single step.” The Akron Metropolitan Area Transportation Study (AMATS) took its first step in meaningful pedestrian planning for the Greater Akron area when it released *The AMATS Regional Pedestrian Plan* in 2012. That document, which was an outgrowth of the agency’s Connecting Communities initiative, analyzed the area’s then-current pedestrian environment and facilities and identified future pedestrian needs. It heralded a new path for transportation planning in the Greater Akron area as for the first time the region’s pedestrian network was treated as an asset on par with our area’s highways, transit systems and trail networks.

Now this latest Pedestrian Plan follows the path of the AMATS initial plan, but takes additional steps forward to regional walkability. Walking is an important and - until recently - frequently overlooked facet of an area’s transportation system. Sound pedestrian infrastructure promotes safety, mobility, economic growth, social interaction and health benefits for all users of the transportation system.

It’s important to remember, that at some point during their travels, most people are pedestrians. The purpose of this plan is to promote a pedestrian-friendly environment where public spaces, including streets and off-street paths, offer a high level of convenience, efficiency, quality of experience and safety throughout the Greater Akron area. When walking is easy, enjoyable and safe, residents can easily integrate walking into their daily lives for transportation and experience the health benefits of regular physical activity.

In deciding which planning strategies should be included in the Pedestrian Plan, AMATS weighed whether a given strategy met the following principles of pedestrian planning:

- **Safety** - Does the strategy promote pedestrian safety throughout the Greater Akron area?
- **Connectivity** - Will the strategy contribute to a connected regional transportation system?
- **Vibrancy** - Does the strategy advance the vibrancy of the region, i.e., promote its quality of life?

The result of the agency's adherence to these principles is a strategic document grounded on detailed analyses of our region's current sidewalk and crosswalk network. This latest plan describes the circumstances and challenges confronting our pedestrian network while identifying potential best practices to further its development through smart, resourceful policies. Land use, urban and suburban issues, pedestrian-friendly designs, improved data compilation, and safety concerns are among the many topics addressed in this document.

The Pedestrian Plan will be used by AMATS as one of several significant inputs during the development of the upcoming long-range Regional Transportation Plan and guide policy and funding decisions for the Greater Akron area. We believe that this item will also prove to be a significant planning resource for communities and that the pursuit of the strategies presented herein will benefit all.

In keeping with the ambulatory nature of this document, the Regional Pedestrian Plan is divided into the following chapter headings: Where We Are, Where We Are Headed, Where We Want To Be and How We Get There. The plan includes appendices that provide more detailed information about terms, tools and practices, as well as supporting maps and demographics.

We hope that you find this item to be an informative guide to a pedestrian-friendly planning future for the Greater Akron area.



EXISTING CONDITIONS

WHERE WE ARE

A pretty straightforward definition of the word “walkability” is that it is a measure of how conducive an area is to walking. By that standard, how walkable is the Greater Akron area? Has the region improved its walkability since the first *AMATS Regional Pedestrian Plan* identified 260 sidewalk and crosswalk gaps? A look at the latest regional Sidewalk Inventory will give us a clearer picture.

2015 Sidewalk Inventory

The *2015 Sidewalk Inventory Update* utilized aerial photography from 2010, 2012, as well as ESRI’s World Imagery Basemap (providing Landsat images) to capture all existing sidewalks in our region. In previous updates, many pieces of secondary sidewalk infrastructure were overlooked. With this update, AMATS made a concentrated effort to include these secondary infrastructure pieces in the inventory. These pieces include but are not limited to sidewalks in commercial/retail businesses, industrial businesses, and institutional/educational facilities. Once completed, it has been determined that with the addition of these missing pieces, new additions to the area’s sidewalk infrastructure, along with the expansion of the AMATS coverage in Wayne County, there are now approximately 2,855 miles of sidewalks in the region.

The region continues to have a strong sidewalk network in all of its most urban cities. Perhaps not surprisingly, the older, more established communities, such as Akron, Barberton, Cuyahoga Falls, Kent and Ravenna, tend to have more extensive networks.

Some of the larger and more rapidly growing communities in our region continue to lack a significant inventory of sidewalks, but that situation is changing. It is these younger more suburban communities that pose some of the greatest challenges in establishing and fostering new pedestrian networks. Many of these communities develop without features such

as an established downtown central area or grid-like residential areas from which networks can grow. However, many of these younger communities are recognizing the importance of pedestrian travel and 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 are examples of this burgeoning suburban approach.

2012-2014 Crash Report

In September 2015, AMATS released its *2012-2014 Pedestrian Crash Report*, a three-year comprehensive analysis of crashes in the Greater Akron area. The analysis found that, while there were 464 pedestrian crashes during the period with 409 or 88 percent of them resulting in an injury and 10 in a fatality. It is worth noting that the number of fatal pedestrian crashes accounts for over 8 percent of all crash fatalities in the Greater Akron area during the period.

Other notable findings include:

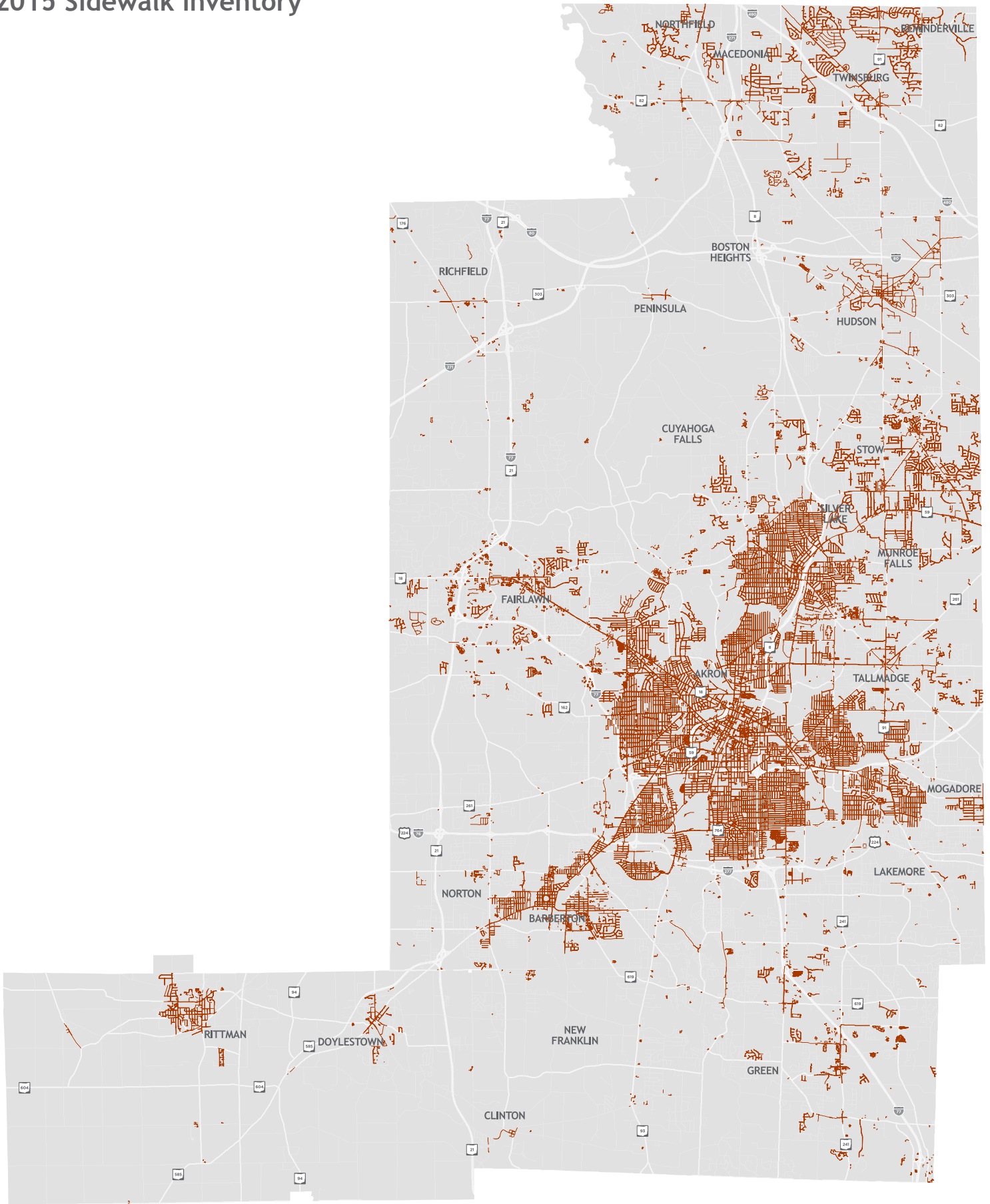
- Akron tops the list of communities with the most pedestrian-related crashes with Kent coming in second.
- People between the ages of 11 and 22 are involved in the most incidents and account for 32 percent of all pedestrian crashes.
- Most pedestrian crashes - over 48 percent - occur at intersections, which is where vehicles and pedestrians most often conflict with each other.
- Over 57 percent of intersection pedestrian crashes are the fault of the vehicle driver.
- Over 44 percent of pedestrian crashes occur away from intersections or at mid-block locations.
- Pedestrians are at fault in 47 percent of mid-block crashes. Police reports show that many of these crashes are due to pedestrians darting out into traffic.
- Pedestrian crashes occur most often in the afternoon hours and peak between 5-6 p.m. The morning peak occurs between 7-8 a.m.

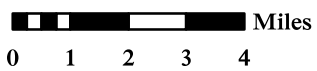
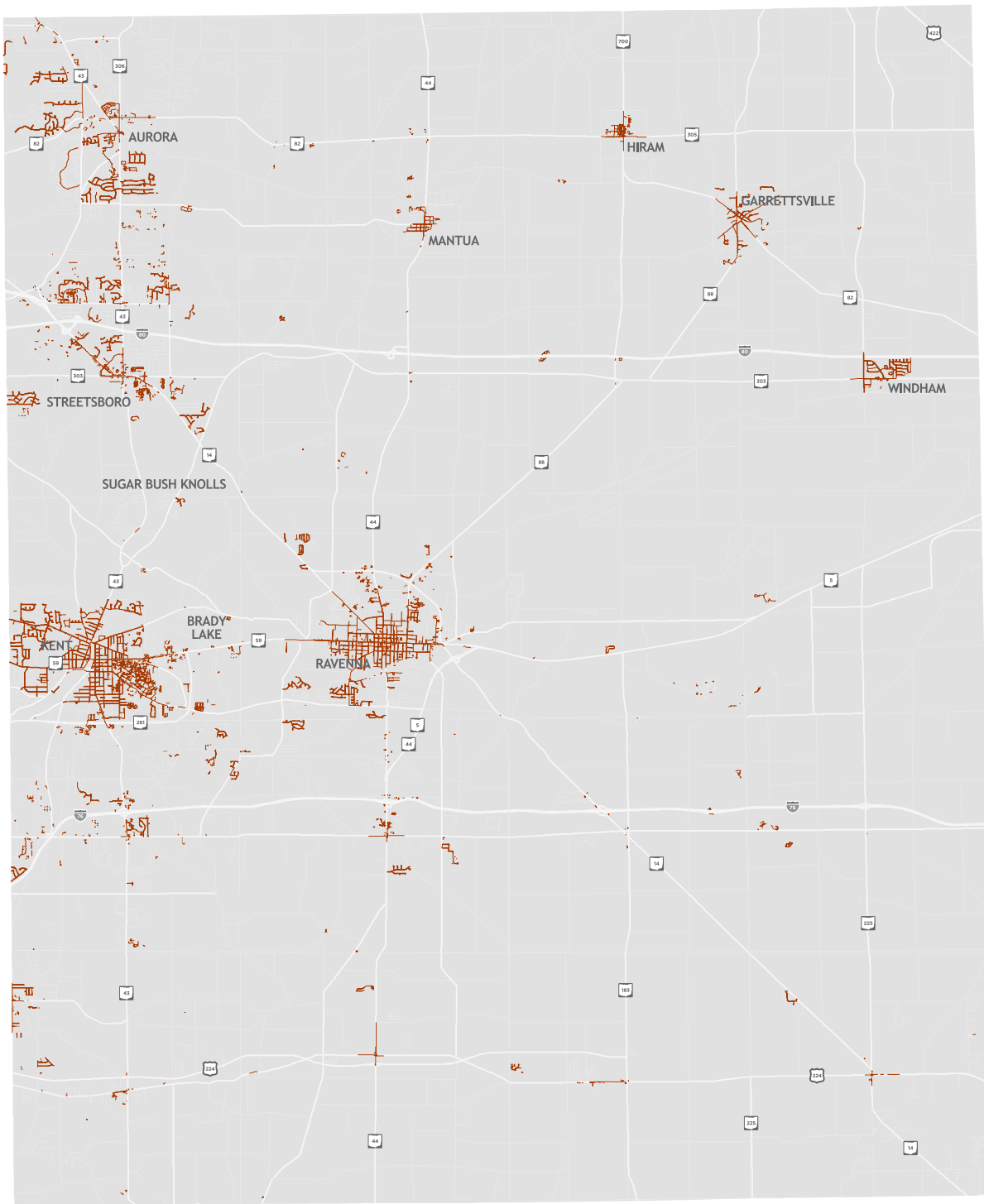
The complete *2012-2014 Crash Report* is available on the *Reports, Maps, and Data* page of the AMATS web site at amatsplanning.org.

Off-Road Trails

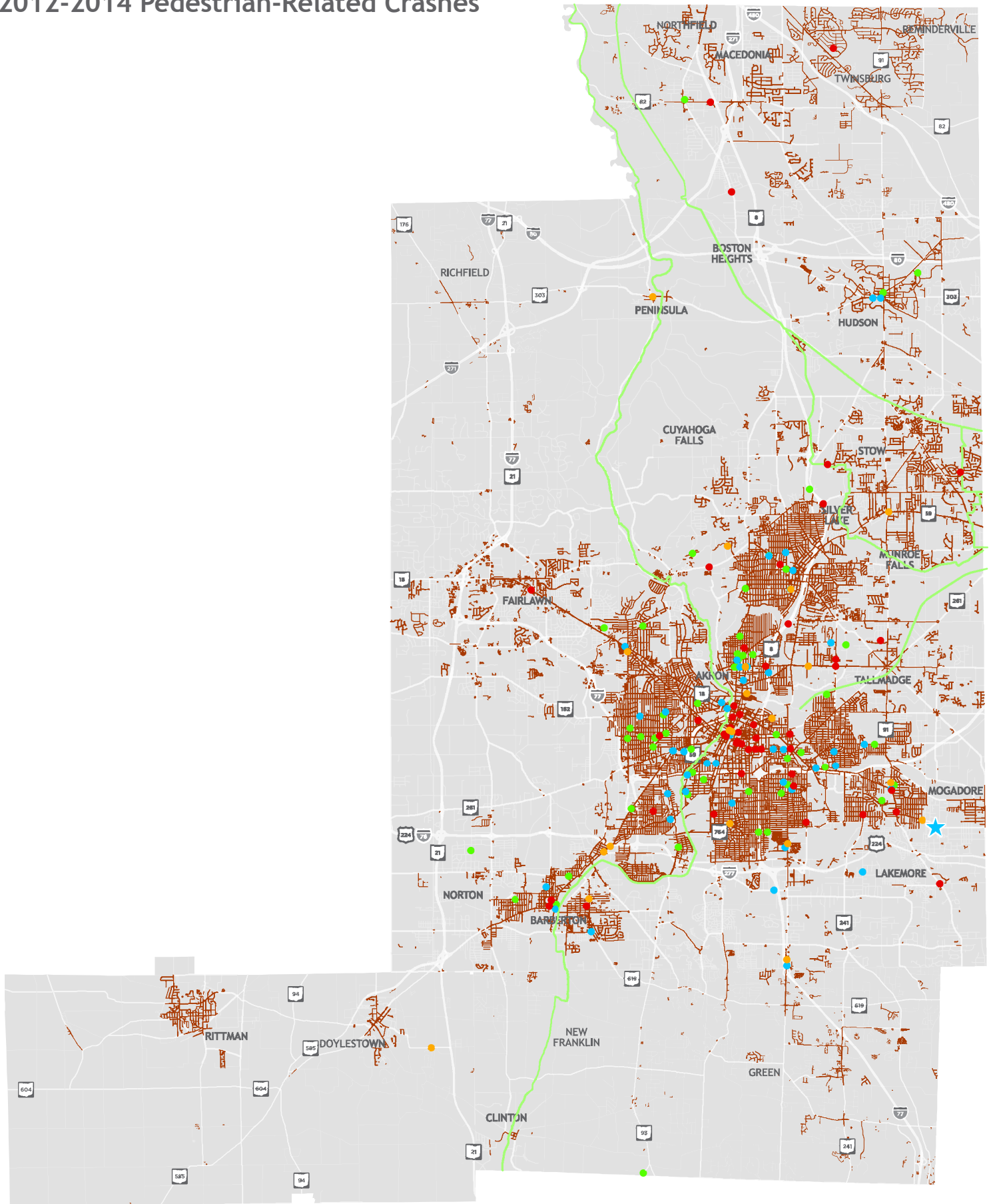
The Greater Akron area's network of recreational trails for hiking and biking has increased in recent years. Since the completion of the Ohio & Erie Canal Towpath Trail through Summit County in 2012, total trail mileage in the area has grown from 100 to 115 miles at present. While these trails are devoted primarily to recreational use within the region's many parks, those that are located in and near residential neighborhoods are no doubt used by the public for travel as well. The Ohio & Erie Canal Towpath Trail and other regional trails are a significant pedestrian amenity and connectivity to them is important in creating a regional pedestrian network. These trails will be addressed in more detail in the agency's coming update of the 2012 Bike Plan.

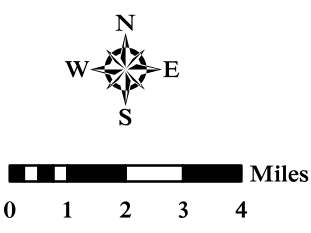
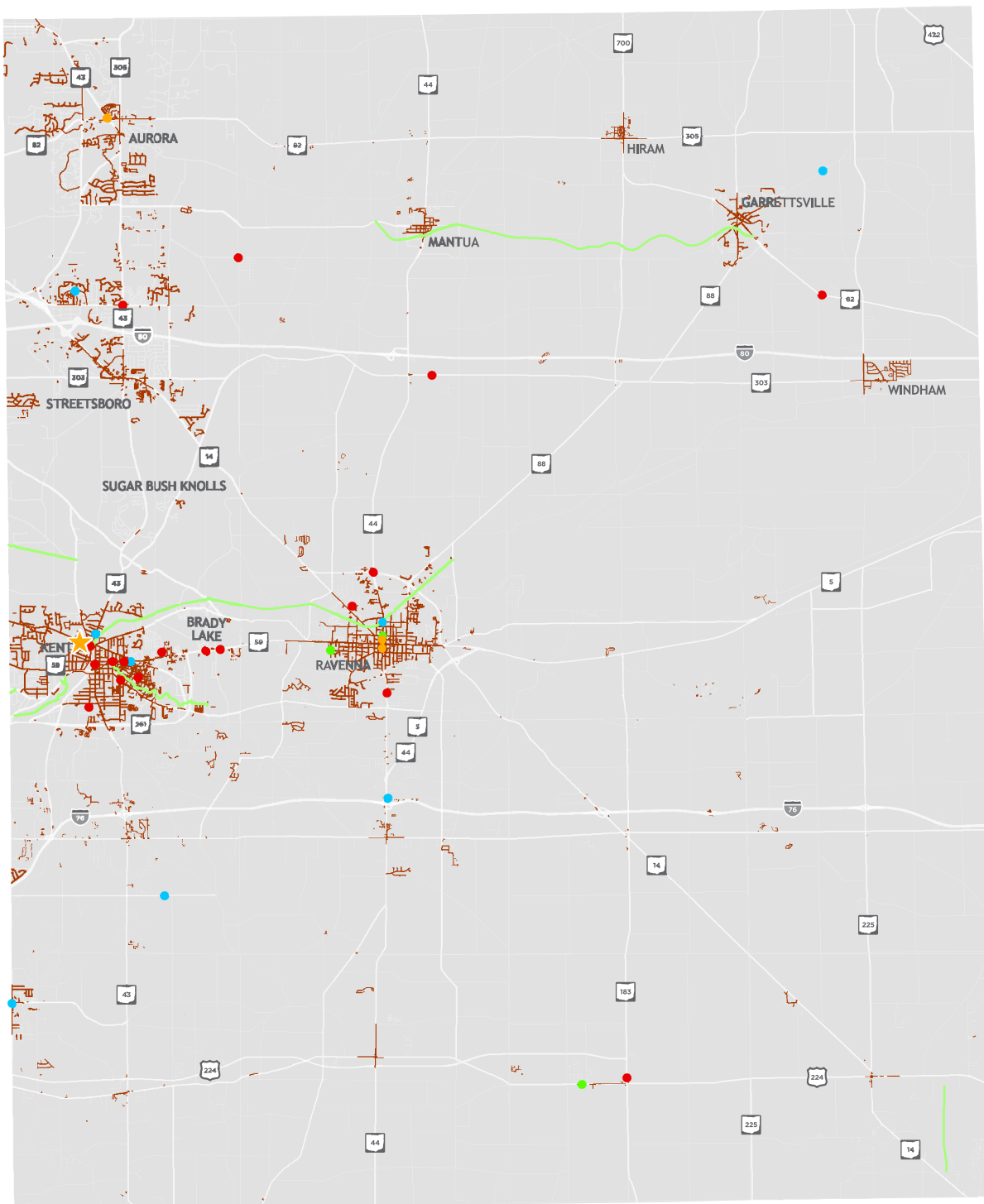
2015 Sidewalk Inventory





2012-2014 Pedestrian-Related Crashes





- Grade School (Ages 5-13)
- High School (Ages 14-17)
- Young Adult (Ages 18-23)
- Senior Citizen (Ages 65 & Up)
- All Others
- ★ Fatal Crash
- Existing Trails



TRENDS

WHERE WE ARE HEADED

In the preceding section, we looked at where the Greater Akron area stands in terms of its current level of walkability and related issues. In this section, we turn our focus to what the region will be like if these current conditions and trends remain unchanged. Will our pedestrian system have unmet needs or will it be a vibrant part of a sustainable regional transportation system in the coming years?

To answer these questions, we must consider what changes may be on the horizon for the region. We will begin by analyzing AMATS-prepared forecasts for the area's population and employment levels.

Population and Employment

According to the *AMATS 2040 Planning Data Forecast*, the region is expected to experience a slight increase in population of 2.4 percent between 2015 and 2040. Similarly, the region's employment is expected to see moderate, but healthy growth of 7.6 percent over the same period.

Portage and Summit counties are expected to hold to these same population and employment trends as the region at large. Portage County's population is expected to grow by 7.5 percent and its employment by 5.4 percent while Summit County's population is expected to grow by 0.8 percent and its employment by 8.1 percent. The Wayne County portion of the Greater Akron area consisting Chippewa and Milton townships and the city of Rittman is expected to see population growth of 3.1 percent and employment growth of 4.6 percent during the period.

At the subarea level, future population growth should be the strongest in northwestern Portage County and northern Summit County at 16.1 percent and 11.5 percent respectively. Employment growth is expected to be strongest in south-

ern Summit County at 33.9 percent and southwestern Portage County at 10.9 percent. Moderate employment growth is expected in all but the two easternmost subareas that comprise the Greater Akron area.

These population and employment trends are detailed in the accompanying maps in Appendix D.

While population and employment growth will likely be considered welcome news for the region, especially with regards to the revenue-generating benefits that some communities will reap, growth will also pose challenges to many of those same communities and their neighbors. Suburban areas generally lack adequate existing infrastructure to support new development, which means that resources must be allocated to provide new roads, sewer and water lines. The seemingly sudden appearance of new residential areas and employment centers in outlying suburbs also places added stress on transit services and can lead to gaps in existing pedestrian networks. Unfortunately, pedestrian networks and related amenities tend to be afterthoughts in the planning of such developments. AMATS urges a change in this approach and recommends that communities weigh pedestrian concerns at the outset of planning for future residential and commercial developments.

Equity

A growing concern to policymakers and the public is the concept of equity in transportation. Access to affordable and reliable transportation widens opportunity and is essential to addressing poverty, unemployment, and other equal opportunity goals such as access to good schools and health care services. Current transportation investments may not benefit all communities and populations equally. The negative effects of some transportation decisions — such as the disruption of low-income neighborhoods — are broadly felt and have long-lasting effects. Auto-centric planning practices, a paucity of pedestrian thoroughfares and accompanying transit opportunities tend to isolate urban and low-income people from jobs and services. Similarly, seniors, people with disabilities, and people in rural areas often have limited transportation choices.

Providing equal access to transportation means providing all individuals with an equal opportunity to succeed. Transportation equity provides people with multiple transportation options; promotes equal employment opportunities; requires equal decision-making power; promotes healthy and sustainable communities; and requires meaningful civil rights protections.

A pedestrian system should be available and accessible to all regardless of age, community, income, and disabilities. Striving for an equitable system requires sound capital investments and quality service delivery. The findings of *Dangerous by Design 2014*, a comprehensive analysis compiled by Smart Growth America, underscores the need for communities to pursue Complete Streets principles. These principles urge transportation planners and engineers to plan and design pedestrian systems and streets with all users in mind on a consistent basis. *Dangerous by Design 2014* reveals that failure to do so may have significant negative impacts on our elderly and minority populations.

According to *Dangerous by Design 2014*, older adults suffer disproportionately from pedestrian deaths in the U.S. While comprising nearly 13 percent of the total population, adults aged 65 and older account for nearly 21 percent of pedestrian fatalities nationwide from 2003 to 2010. Similarly, while African Americans comprise nearly 13 percent of the U.S. population, they account for more than 17 percent of all pedestrian fatalities. Hispanics account for slightly more than 15 percent of the population, but nearly 19 percent of pedestrian fatalities. The analysis suggests that a possible explanation for these pedestrian fatality rates among minorities is that African Americans and Hispanics are more likely to live in urbanized areas, and in particular, suburban locations and along busy arterial routes, which can be especially dangerous for pedestrians.

To aid planners and engineers in the Greater Akron area, the *2015 Pedestrian Plan* includes maps in Appendix D that identify the locations of elderly and minority populations within our region. AMATS hopes that this information will help communities meet the unique needs of these populations.



STRATEGIES

WHERE WE WANT TO BE

Where do we want the Greater Akron area to be in terms of walkability? It seems like a simple question. It's also a question that can generate more than one answer.

There are three overall goals for the region's pedestrian system which guide the strategies and recommendations presented in this Pedestrian Plan. They are to create a safe, connected and vibrant pedestrian network throughout the AMATS area. Providing infrastructure that is safe and connects people to destinations and activity centers is critical in creating a walkable community. Creating places that are pedestrian friendly and inviting are also key components.

So, how do we in the Greater Akron area make these goals an everyday reality for our region? Fortunately, there's a host of pedestrian planning practices available to us that point the way. These practices are described below and grouped by goal headings.

There are also constantly evolving design standards which communities can look towards on how to implement pedestrian improvements. NACTO's Urban Street Design Guide is one example which is supported by the Federal Highway Administration.

AMATS recognizes that appropriate pedestrian practices will likely vary greatly in a region as diverse as ours. A practice suited for densely populated, highly urban downtown Akron probably won't work in many of the rural townships throughout the Greater Akron area. What makes a good pedestrian environment depends on community context. To help communities determine which practices are the most appropriate for them to pursue, the Pedestrian Plan includes Appendix B - Planning Areas Defined.

GOALS

SAFETY

CONNECTIVITY

VIBRANCY

A sense of safety is an important consideration as people make the choice to walk. The AMATS 2012-2014 Crash Report found that, of the 464 pedestrian crashes in the AMATS area during the three-year period, 409 or 88 percent of these crashes resulted in an injury and - worse yet - 10 resulted in death. Fortunately, there are a variety of planning and engineering practices that can promote pedestrian safety when walking along and across roadways. Among the safety practices available to Greater Akron area communities are those involving road diets, sidewalks and crosswalks.

Road Diets

A road diet is a traffic-calming strategy that 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 reallocated for other uses such as bike lanes, bus lanes, parking, pedestrian refuge islands, or more sidewalk space. A recent example of a road diet can be found on Copley Road in Akron shown in the before and after picture below.

Road diets have been used successfully across the nation and the process is endorsed by the Federal Highway Administration (FHWA) to promote safety. Our agency compiled the AMATS Road Diet Analysis, which identifies 60 candidates for road diets across the Greater Akron area. The analysis is a useful planning resource that:

- Defines and provides a visual explanation of the road diet concept.
- Identifies pre-existing road diet locations in the AMATS area.
- Develops a methodology to identify potential road diet locations with declining traffic volumes and excess capacity.



Before



After

Sidewalks

A safe sidewalk network is the foundation of any good pedestrian environment. Wide, well-maintained sidewalks allow pedestrians easy access from one place to another. Good sidewalks increase the pedestrian appeal of a neighborhood, but those which are poorly designed and maintained may be a detriment. Among the sidewalk-related issues communities should consider are:

Accessibility – 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 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.

Continuity & Logical Termini – 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.



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

Maintenance – In order to create a safe, comfortable pedestrian environment, sidewalks exhibiting deteriorated pavement or those that frequently pose weather-related hazards should be addressed by communities as quickly as possible. Snow removal, in particular, should be a priority for communities during inclement weather. Inadequate snow removal frequently forces pedestrians to walk in streets thus posing a safety hazard. Maintenance refers not only to ensuring that sidewalks remain as level as possible, but also ensuring that alternative routes are provided and clearly labeled when repairs block sidewalk access.

Separation from the Street – Sidewalks should be buffered from the streets that they run along, particularly along wide arterial streets carrying fast moving traffic. 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. Whenever possible, new sidewalks constructed in our region should be separated or “buffered” from traffic through such means as on-street parking, landscaping, and street furniture.

Width – Sidewalk width can vary depending on the context of the surrounding area. Narrower sidewalks are typically found in residential areas. Federal guidelines suggest that sidewalks in residential areas be no less than 60” in width – generally enough space that two people using mobility devices or strollers may pass. Wider sidewalks should be provided in areas of significant pedestrian activity.



Crosswalks

As important to walking along a street is the ability for a pedestrian to cross a street safely. It is during the process of crossing a street that pedestrians are the most vulnerable to conflicts with vehicular traffic. A variety of practices are available to Greater Akron area communities to promote safe passage across a roadway. Among these crosswalk practices are:

ADA Ramps – The Americans with Disabilities Act (ADA) established guidelines for the construction of ramps to accommodate the needs of individuals using mobility devices. Maximum slopes, widths and textural treatments enable safe pedestrian maneuvering. Most communities in our region offer ADA ramps at key crosswalks and new ramps are being added on a continuous basis.

Bump-Outs – Bump-outs, also known as “curb extensions” or “bulb-outs,” are the extension of an intersection corner. Bump-outs reduce the distance that pedestrians must cross, improve visibility between motorists and pedestrians, and calm traffic by reducing driving speeds.

They are one of the best ways to implement a “road-diet” or the intentional reduction of traffic through-lanes to reduce traffic speeds and volumes through a selected area. Bump-outs often incorporate attractive urban design features, adding to the aesthetic appeal of the pedestrian environment. Bump-outs should be considered in areas with large volumes of pedestrians or in areas with narrow sidewalks.

Enhanced Signage – Signs alert drivers to the presence of pedestrian activity in an area. Although it is not recommended that signage alone be used to designate a pedestrian zone or crossing, it can be used to supplement other forms of pedestrian crosswalk solutions effectively. New technology is increasingly available to maximize the effectiveness of pedestrian crossing signs.



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 – This is a relatively new concept to our region. 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 2010-2012 Pedestrian Crashes Report* found that more than 20 percent of total area pedestrian/vehicle crashes occurred at mid-block locations. The frequency and severity of these crashes spurred the agency to compile the *AMATS Mid-Block Crossing Analysis*. The analysis identifies 41 potential mid-block crossing locations throughout the Greater Akron area and recommends potential safety improvements such as raised crosswalks, pedestrian islands and bump-outs. (These improvement strategies are more fully defined in this section and Appendix A - Definition of Terms.)

A variety of strategies are available to create safe mid-block crossing locations for pedestrians. Rarely is only one strategy used at mid-block crossings. Frequently, two or more are used in combination to maximize effectiveness. Sound mid-block crossings should exhibit the following characteristics:

- Crossing the street is simple and convenient for pedestrians.
- Excellent pedestrian and location visibility.
- Slowed or controlled vehicle speeds in the pedestrian crossing area.
- Driver awareness of the crossing location.
- Drivers yield the right-of-way to pedestrians crossing legally.





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.

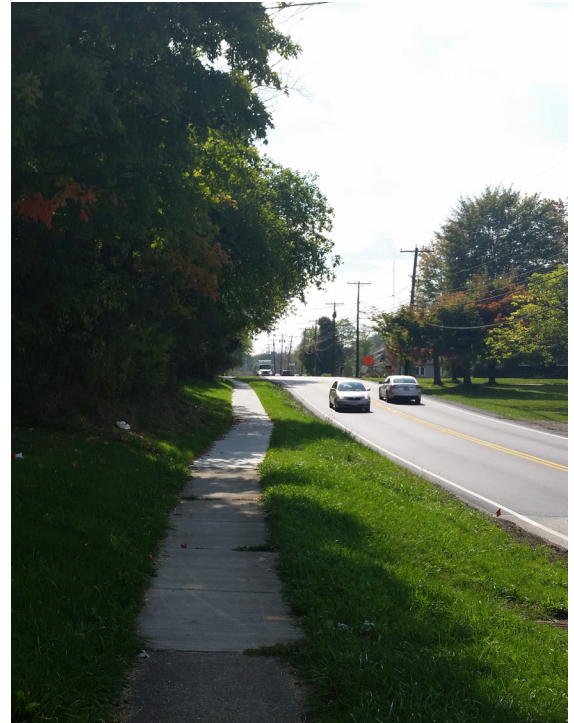
Raised Crosswalks – Raised crosswalks physically lift pedestrians to a height slightly above the roadway, increasing their visibility to oncoming drivers. Their elevation also serves as a form of traffic calming, serving as speed bumps to slow vehicles down, thus creating a more comfortable atmosphere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



CONNECTIVITY

Connectivity refers to the degree to which transportation networks such as streets, sidewalks, and trails link people to their destinations. Since the late 1950s, the land use patterns and practices of Greater Akron area communities have tended to focus on vehicular travel. An unintended consequence of this focus has been a failure of the region to tap its pedestrian network of sidewalks as a resource.

Direct, convenient connections to destinations encourage pedestrians to travel by foot rather than car. Over the last several years here is a new awareness and willingness by area communities to view their pedestrian networks as assets. The area is making strides at promoting regional connectivity by filling in the many remaining gaps in its sidewalk and trail systems.



S Prospect St, Ravenna



State Rd, Cuyahoga Falls

Suburban Connectivity Issues

Much of the Greater Akron area has been developed in adherence to suburban or exurban land use patterns. As noted earlier, these patterns tend to be auto-centric rather than pedestrian friendly in their designs resulting in residential and commercial areas that discourage pedestrian travel.

Many of the area's newer housing subdivisions feature cul-de-sacs and curved streets that not only discourage automobile through traffic, but also pedestrian travel. Similarly, the street designs in suburban retail and commercial areas not only discourage pedestrian travel, but can also be hazardous. Huge buildings, large setbacks from the street, large parking lots, and multi-lane streets with few intersections tend to dominate the commercial landscape in suburban areas. Pedestrians tend to avoid these areas because they are inconvenient and dangerous.

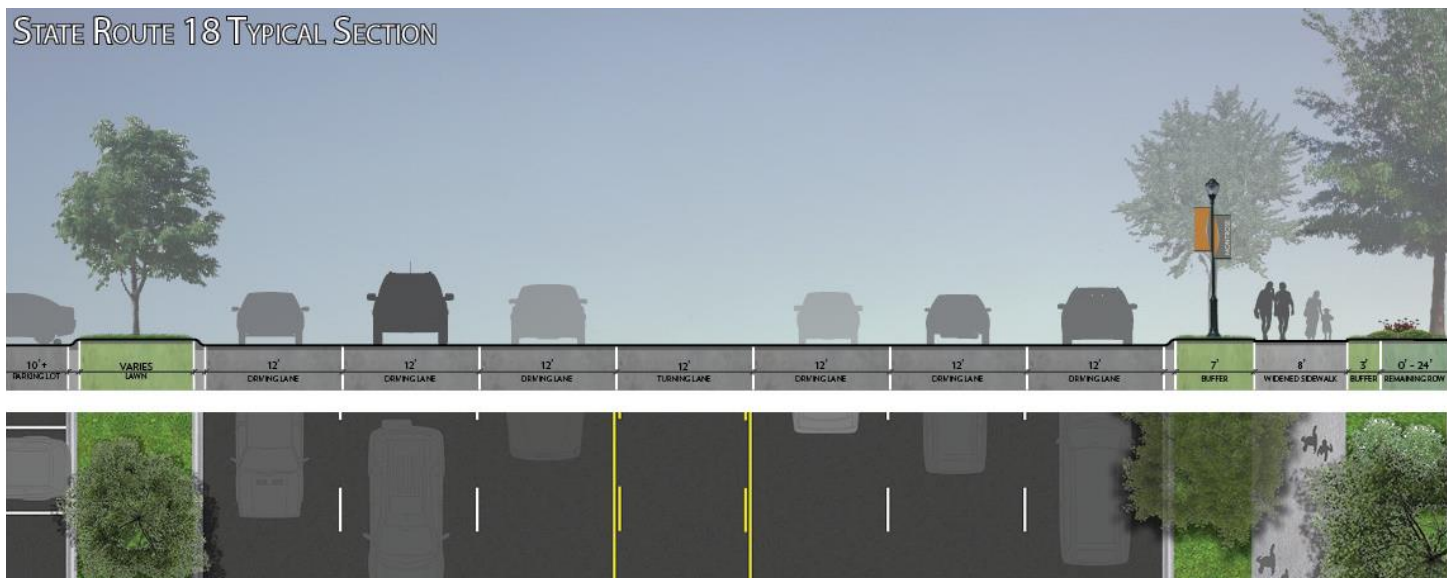
The Montrose area exemplifies the aforementioned problems with many of the region's suburban retail and commercial areas. This sprawling area contains a high concentration of stores, restaurants and commercial businesses. While Montrose is well served by transit and includes sidewalks along most arterial roads, the automobile is the dominant form of transportation as evidenced by the area's expansive parking lots, great distances between buildings and intersections, and the intimidating design speeds and widths of roads.

To improve the situation in Montrose, AMATS - together with Bath and Copley townships and the city of Fairlawn - completed the *Montrose Multi-Modal Connectivity Plan-2015*. This analysis issued recommendations to improve pedestrian access throughout the study area based on Connecting Communities and complete streets principles. The study recommended improving access and pedestrian safety along state Route 18 and internal roadway networks through streetscape, pedestrian crossing, and roadway enhancements. There were also recommendations to widen sidewalks and trails to connect the district for pedestrians.

Right:
SR 18 intersection at Acme plaza, existing & proposed



Below:
Proposed widened sidewalk along SR 18



VIBRANCY

Being a pedestrian traveling through the Greater Akron area should be about more than simply reaching a destination safely and easily. It should also be enjoyable and interesting. It should be vibrant.

To promote vibrancy, the area's pedestrian network should invite people to walk and feature pleasurable and interesting places. Walking is supported by mixing land uses and engaging streetscapes that combine to create a pedestrian-friendly network. Among the pedestrian-friendly strategies which Greater Akron area communities should consider are:

Land Use – Land use patterns should mesh and foster pedestrian travel regardless of whether they are for residential or commercial uses. Examples of sound land use practices are:

Mixed-Use Development

This approach blends a combination of residential, commercial, cultural, institutional, or industrial uses while providing ample pedestrian connections. Mixed-use developments tend to foster pedestrian-friendly environments because of the reduced distances between housing, workplaces, retail businesses, and other destinations.

Infill Development

This approach reuses or repurposes land or existing developed sites within urban and suburban areas. Infill development conserves a community's financial resources by using existing infrastructure, increases walkability by contributing to safe and attractive pedestrian environments, and creates new opportunities for mixed-use neighborhoods that recapture the "sense of place" that newer developments tend to lack.

Parking – Many of our region's current parking practices work to deter pedestrian activity by making it unattractive or downright dangerous. Despite these difficulties, pedestrian-friendly parking solutions are available. These solutions include:

- Constructing buildings up to the street and providing parking behind them typically with alleyway access.
- Implementing shared-parking provisions where different land uses experience peak parking demand at different times of the day, e.g., offices require parking during the day while restaurants and hotels rely on it in the evening.
- Providing parking in multi-level garages and incorporate active uses such as retail and offices at the street level.
- Incorporating well-marked and/or landscaped pedestrian walkways and refuges into the design of large parking lots.
- Incorporating access management to minimize driveways thereby reducing vehicle/pedestrian conflict points.
- Improving aesthetic appeal by masking parking lots with vegetation, attractive fencing, artwork, and similar amenities.

Internal Circulation – In areas where large parking lots exist, it is important to ensure that there are adequate internal pathways for pedestrian circulation. Parking lots that do not include internal sidewalks are unattractive and can create potentially dangerous conditions when pedestrians are required to travel in areas where drivers are entering and exiting parking stalls and do not expect to see pedestrians. Internal circulation systems should include sidewalks accessible from every parking stall.

On-Street Parking – The design of on-street parking in a commercial district impacts the pedestrian environment. While parking can create a buffer between pedestrians and traffic and narrow the crossing width of streets, cars parked too close to intersections hamper pedestrian sightlines, putting pedestrians at risk when crossing the street. Below are potential ways to make on-street parking safer for pedestrians:

- Remove parking from approaches to intersections - between 15 to 20 feet - to increase visibility of oncoming traffic.
- Build bump-outs to shorten crossings and increase sight lines and minimize the loss of on-street parking spaces.
- Institute back-in, diagonal parking to slow traffic down.



Portage Crossing, Cuyahoga Falls



Streetscapes – A pedestrian-friendly streetscape is one that provides a sense of excitement and encourages pedestrians to explore and mingle in the area. Great streetscapes contain few gaps in the street-wall, contain buildings with interesting architectural features, and mix a variety of land uses. Generally, streetscapes are built to pedestrian scale, provide a sense of security from the vehicular traffic, and include easily traversable streets so that activity can move fluidly from one side of the street or block to another.

AMATS prepared an Urban Streetscape Rating System, which rates streetscapes on a scale of “A” for exciting and “E” for those devoid of pedestrian appeal. This system is included as Appendix C - Urban Streetscape Rating System in this plan. Please note that the ratings generally apply to any downtown, town center or urban planning area. Suburban and other less densely developed planning areas are difficult to rate using this method as they were typically built with an emphasis on automobile accessibility.

Street Furniture – Street furniture has many benefits to pedestrians, from offering them a place to sit and talk to providing shelter from the rain. Street furniture typically includes, but is not limited to:

- Benches
- Pedestrian-scaled lighting
- Bicycle racks/storage lockers
- Pedestrian shelter such as bus shelters, gazebos, and awnings.
- Outdoor amphitheaters, fireplaces, game tables and other social gathering places.

Street furniture can vary greatly, from simple yet functional pieces to those exhibiting elaborate design. Ideally, street furniture will complement the prevailing architectural features and general “feel” of a neighborhood. For instance, classic wrought iron themes may be most appropriate in an older historical neighborhood whereas whimsical pieces would work best in a neighborhood known for its artistic flair.

Public Art – Public art serves many purposes – from a lovely fountain or statue that serves as a neighborhood focal point or gathering place, to murals that add a touch of color and recall the history of a particular area.

Lighting - Quality outdoor lighting can help establish a pedestrian-friendly environment, especially in business districts. Crosswalks, in particular, should be given special attention so that pedestrians waiting at curbside or in the crosswalk are visible to drivers. Places with significant pedestrian activity or with walkable business districts should consider supplementing their existing roadway lighting with pedestrian-oriented lamps. The design of these poles, like other pieces of street furniture, should be coordinated to fit the overall character of the locale.

Street Trees/Landscaping – Planted areas, landscaping, and street trees can greatly enhance the attractiveness of a locale or a business district. These improvements also provide benefits for stormwater management. Elements of “green streets,” such as trees, planted buffers and curb extensions, stormwater planters, rain gardens, and bioswales, can significantly reduce stormwater runoff and improve natural stormwater filtration.

A common complaint about street trees is that their roots may crack the pavement. If planted properly so that they receive adequate water, the root structure is less likely to spread toward the surface. Street trees should be small trees of native species, with canopies that stay relatively compressed.





Downtown Kent Redevelopment



Wayfinding Signage – Wayfinding signage provides an excellent means of assisting pedestrians who are unfamiliar with a particular area. Signage should be at a pedestrian scale, and can range from arrows pointing in the direction of an attraction, to a full area map in larger areas, or where there are many potential destinations of interest.

Wayfinding signage serves purposes beyond providing a sense of direction. Distinctive, decorative signage is useful in the identification of a particular district or neighborhood. Sign design can complement area architecture or can reflect the artistic flair of a particular area.

Although wayfinding signage is commonly found in downtown or town center planning areas, it by no means must be limited to these locations. Wayfinding signage is highly effective in areas of transitioning land use. An example would be where the Ohio & Erie Towpath Trail transitions from the wilderness of the Cuyahoga Valley National Park to the quaint Village of Peninsula, with its various shops, restaurants and other attractions.

Another potential use for wayfinding signage could be to direct pedestrians to shops, restaurants and other attractions in larger suburban centers. Long plazas stretching farther than the eye can see, coupled with long hot or cold walks to reach these plazas could cause area pedestrians to hesitate exploring a shopping center that they are unfamiliar with or they might completely miss businesses of interest. Wayfinding signage in suburban centers could inform them of nearby destinations, helping them determine whether it is worth the trek to an unfamiliar area.





HOW WE GET THERE

In the preceding sections, we looked at the current state of the Greater Akron area's pedestrian system. We've also considered what kind of a system that we want to pursue for our region and the tools available to us to do so. Now that we know where we want to be with regards to walkability, the question remains: How do we get there?

A partial answer to that question may be found in the following recommendations offered by AMATS for the consideration of the area's communities. Our agency believes that the regional vision of creating safe, comfortable pedestrian environments for everyone and of any ability can be achieved through the pursuit of these recommendations by our member communities.

For the purposes of brevity and simplicity, this plan offers seven general recommendations for the consideration of communities with the Greater Akron area. These eight recommendations are:

1. *Special Emphasis on Multi-Modal Areas.*
Communities should place special emphasis on providing high-quality, well-maintained pedestrian infrastructure in multi-modal areas, which are places where multiple modes of transportation converge. Examples of such areas include transit stops, trailheads, Cuyahoga Valley Scenic Railway stations, and similar locations. Smooth sidewalks, high-visibility crosswalks, pedestrian shelter and ample lighting are examples of the amenities that should be provided in these locations.
2. *Incorporate High Quality Pedestrian/Urban Design to Create Attractive Pedestrian Areas.*
Although sidewalks and crosswalks help a pedestrian get through an area, the interesting environments created by high-quality urban design actually attracts pedestrians to an area. Attractive environments not only draw visitors, but encourage them to stay and conduct business there.

Examples of such locales in the Greater Akron area include Cuyahoga Falls' Portage Crossing, Hudson's First and Main and Kent's Acorn Alley districts. Although pedestrian-friendly locales may differ from one another, they share many characteristics in common. Using the general streetscape guidelines described in Appendix C and establishing design codes particular to the aspirations of each individual community, the Greater Akron area could develop additional interesting places for people to live, work and relax.

3. *Consider pedestrian improvements during resurfacing projects.*

The AMATS Resurfacing Program is tremendously popular with local communities. The resurfacing process is an excellent time for communities to consider improvements in their local pedestrian infrastructure network. Prior to restriping a newly surfaced roadway, communities should consider transferring a portion of the vehicle lane width to creating wider shoulders, which may be used as informal sidewalks in areas where such typical amenities would not be practical. The restriping process also provides an excellent opportunity to lay down high-visibility crosswalks at key intersections.

4. *Consider traffic calming techniques/sidewalk widening in high pedestrian areas.*

Areas that experience high volumes of pedestrian traffic should consider implementing traffic calming measures. The concept of traffic calming is the intentional slowing of vehicular traffic through an area either by physical means - such as reducing the number of lanes, textured pavements and bump-outs - or psychological means - such as adding street trees, on-street parking and the narrowing of lanes to slow drivers down. These measures promote pedestrian comfort and safety. While a pedestrian hit by a vehicle traveling at 20 mph has a 90% chance of survival, the survival rate drops to 50% if hit by a vehicle traveling at 30 mph. Chances of survival drop to 10% if hit by a vehicle traveling at 40 mph according to safeylit.org. Traffic calming is most often found in downtowns or urban centers due to their high levels of pedestrian activity. They may also be implemented in less dense planning areas.

Sidewalks in residential areas should meet or exceed the federal minimum width guideline of 60 inches. In downtown, town center, urban core and other dense planning areas, widths will vary depending on neighborhood or block context. Wide sidewalks should be constructed in areas experiencing heavy foot traffic or in areas planned for such uses as sidewalk cafes or extensive street furniture. Widths should be sufficient to give ample through travel space, while providing a buffer from the street on one side and traffic entering and exiting buildings on the other.

5. *Catalog "Goat Paths" and prioritize for sidewalk construction if possible.*

"Goat paths" are pathways worn into the ground from sustained, heavy volumes of pedestrian use. They serve as excellent indicators of pedestrian demand. Municipalities should catalog goat paths in their communities and incorporate them into their sidewalk prioritization process. Goat paths around transit stops, schools and higher density residential areas should be given top priority. A recent example of a goat path converted into a sidewalk can be found in Ravenna. Using AMATS-administered Transportation Alternatives Program (TAP) funds, Ravenna constructed a sidewalk on a frequently used goat path extending along North Chestnut Street from the Ravenna High School to the Robinson Memorial Hospital.

Although cities have the authority to address goat paths existing along public right-of-way, there is little that can be done about paths that traverse private property. In situations like these, the municipality should work with the land owner to see if there is any mutually beneficial accommodation that could be agreed upon to meet clear pedestrian demand.

6. *Incorporate pedestrian amenities in large parking lots.*

Large parking lots, such as those found at shopping malls, retail centers, and office parks, pose a variety of hazards to pedestrians. They are often disconnected from streets and sidewalks except for narrow, busy driveways. Motorists seldom follow the lane configurations and posted speeds in the wide-open lots. These factors frequently lead to a "free-for-all" scenario where drivers travel unpredictably and do not anticipate the presence of pedestrians. Large parking lots require long walks by pedestrians from streets to buildings, which can be uncomfortable

during hot summers or cold winters. Tight rows of parked cars obstruct drivers' views of pedestrians – especially children – leading to dangerous environments.

Whenever possible, land owners and developers should incorporate pedestrian amenities to lessen negative impacts and improve the overall appeal of an area. Giant Eagle's Portage Crossing Market District in Cuyahoga Falls is a recent example of a pedestrian-friendly parking lot. The store's lot features wide sidewalks for pedestrians to move safely while avoiding vehicles entering and exiting the area.

7. *Develop and implement pedestrian counting programs.*

Accurate pedestrian counts provide hard evidence of area pedestrian demand and may be used as an official warrant to justify the provision of additional or enhanced pedestrian infrastructure. The availability of pedestrian count data is important during the application process for a variety of funding sources.

AMATS has undertaken pedestrian and bicycle counts in select locales of the Greater Akron area to gain a better understanding of pedestrian demand at those locations. We recommend that local communities do likewise, particularly in areas where pedestrian infrastructure is thought to be insufficient or in locations where extensions may be necessary.

8. *Prioritize pedestrian safety and improvements near schools.*

Creating a safe and health environment for children to walk to school is a critical part in making the AMATS area more walkable. Communities should focus on the immediate areas surrounding schools (1/4 mile) to prioritize pedestrian facilities to provide safe routes to school. Programs such as Safe Routes to Schools provide planning of pedestrian facilities around schools and educational programs to encourage walking to school.

Member communities are by no means limited to the recommendations or strategies presented herein and, in fact, are encouraged by AMATS to consider and pursue other pedestrian-friendly strategies that may be suited to their respective needs and standards.

AMATS is pleased to report that, since the approval of the *AMATS Regional Pedestrian Plan* in 2012, the Greater Akron area has made progress on a number of the recommendations identified in that plan. Among the most notable achievements are the inclusion of Complete Streets principles as criteria in the *AMATS Funding Policy Guidelines* and the creation of pedestrian improvement overlay zones, which are utilized during the agency's ongoing compilation of crash data.

IMPLEMENTATION

We stated earlier in this section that the aforementioned recommendations provide only a partial answer to the question of how do we get to the regional pedestrian system that we want. The other part of the answer to that question is implementation.

What policy changes should the Greater Akron area and its resident communities implement to promote walkability? Potential strategies may be found in three unique options: Complete Streets principles; Connecting Communities; and the Transportation Alternatives Program.

Complete Streets

Complete Streets is a transportation approach that ensures all future street projects will take into account the needs of all travelers, regardless of age, ability, or mode of transportation. Although supporters work diligently and thoughtfully to craft supportive policies, it is only after adoption that the work truly begins. If all goes well, Complete Streets becomes a compass as a community changes its day-to-day transportation planning, design, operation, and maintenance practices.

Complete Streets is not concerned only with travel mode whether it's foot, bike, bus or car, but also the traveler. Older adults, people with disabilities, children, people with lower incomes, and those with limited access to transportation have unique needs that should be considered during system design. These populations are an important part of the conversation about a new way of approaching transportation planning. The most successful Complete Streets efforts result not only in better projects, but also in a better process in which transportation agencies are actively seeking ways to create a safer and more multi-modal transportation system.

The onus of developing appropriate community-level Complete Streets policies rests with the Greater Akron area communities themselves. Given the disparate natures and needs of the many villages, townships and cities within the AMATS region, the communities therein should consider appointing committees of various stakeholders to begin comprehensive analyses of their respective pedestrian systems. A recent example of this practice in action is the city of Akron's creation of a Complete Streets Committee to address such issues. Complete Streets analyses should provide candid assessments of present and future pedestrian needs and provide recommendations that balance sound planning principles with fiscal realities while meeting identified needs.

Public outreach by communities should be a key component in the development of an effective Complete Streets policy. An engaged citizenry that is actively involved throughout the planning process, from the identification of pedestrian needs to proposing potential solutions, will not only aid in the development of an effective Complete Streets policy, but also in its implementation.

The compilation of these community-level policies will eventually impact which area pedestrian projects are ultimately pursued by project sponsors and selected for funding by the AMATS Policy Committee.



Components of a Complete Street Kent, OH Example

- A) Pedestrian scale lighting
- B) Places to sit
- C) Outdoor dining
- D) Waste receptacle
- E) Street trees
- F) Wide sidewalk
- G) Buildings up to sidewalk
- H) Large windows at street level
- I) On-street parking
- J) Planter/furniture zone

Connecting Communities

Connecting Communities is an AMATS-sponsored initiative that promotes a sustainable balance between environmental, social and economic concerns by improving coordination between land use and transportation throughout the Greater Akron area. Connecting Communities utilizes regional planning processes to: explore strategies to increase transportation choices and accessibility; help communities make collaborative, informed decisions to coordinate development; reduce environmental impacts; and improve regional connectivity.

The intent of this initiative is to create more vibrant livable communities through the coordination of resources, partners and stakeholders. Connecting Communities is a proactive approach by the agency to promote regional collaboration and address how transportation funding, project selection and planning can complement land uses that encourage investment and revitalization of established neighborhoods.

Connecting Communities urges improvements to pedestrian planning and facilities through targeted investments based on comprehensive analyses. Since its launch in 2010, the initiative's Connecting Communities Planning Grant Program has sponsored studies in the Montrose area and in the communities of Akron, Barberton, Boston Heights, Kent, Ravenna and Richfield. Many of the recommendations of these studies are being pursued by AMATS and their respective community sponsors. This initiative will continue to be a resource available to the region for the foreseeable future.

Transportation Alternatives Program

The AMATS-administered Transportation Alternatives Program (TAP) is a tremendous resource available to Greater Akron area communities. This program provides funding for the development of pedestrian facilities throughout the region. Currently, the TAP provides funding for several categories of pedestrian improvement-type projects including:

- On-Road and Off-Road Trail Facilities - Funds the planning, design and construction of pedestrian and bike infrastructure.
- Safe Routes for Non-Drivers - Funds pedestrian and bicycle infrastructure for children, older adults and those with disabilities.
- Abandoned Railroad Corridors for Trails - Funds the conversion of old railroad corridors into useful trails for pedestrians and cyclists.
- Community Improvement Activities - Right-of-way improvements, including billboard issues, historical preservation and vegetation management and erosion control, i.e., landscaping.

All TAP projects must relate to surface transportation and address a transportation need, use or benefit. Preliminary engineering, right-of-way and construction are eligible project costs. Planning is an eligible project phase only for Safe Routes to School (SRTS) District Travel Plans provided that the sponsor has first pursued and secured funding from the Ohio Department of Transportation SRTS Program. The TAP project scoring criteria can be found in Appendix F.

According to the Federal Highway Administration (FHWA), road diets are among the FHWA's Proven Safety Countermeasures. If work to benefit eligible TAP activities would cause impacts to a highway, requiring reconstruction resulting in a road diet, then TAP funds may cover most costs of a road diet.

Streetscaping and corridor landscaping projects may be eligible for TAP funds under the program's "community improvement activities" category if sponsored by an eligible entity and selected through the required competitive process. Lighting for pedestrian facilities may also be eligible if they are a component of other eligible TAP categories. Project sponsors are urged to consider energy-efficient methods and options that reduce light pollution.

Akron2Akron

A group that hosts informal monthly walking tours of Akron's neighborhoods. The tours provide information about neighborhoods and encourage meaningful dialogue about how to utilize space in Akron. Each tour is led by a volunteer "neighborhood champion" and most tours are kid and pet friendly. Akron2Akron will assist individuals interested in leading a tour of their neighborhood by providing them with a "toolkit" on how to do so and promotion through social media.

Tours typically last one hour and end at a neighborhood establishment such as a local restaurant, bar, coffee shop, church or park where participants have the opportunity to network. These meetings aren't formal networking events, but rather a time for people to chat about what they learned and saw on the tour. It's also a way to engage the local businesses and establishments.

For more information, visit the Akron2Akron website at akron2akron.com or contact the group via email at akron2akron@gmail.com.



Jane's Walk

A global walking initiative held annually on the first weekend of May that began in Toronto in 2007 as a means to explore local neighborhoods and foster open discussion among neighbors and communities. It was created by friends and colleagues of Jane Jacobs, urban advocate and author of *The Death and Life of Great American Cities*. Jacobs' emphasis was on the interests of local residents, at a time when scale models and grand visions of the future removed designers from the experience of the city by foot.

By getting out and walking the walk, participants learn about the everyday events and rhythms of the neighborhoods that surround our immediate lives. The walks also help support participation in active planning for building better communities.

For more information, visit the Jane's Walk web site at janeswalk.org or contact the group via email at info@janeswalk.net.



Walk Audits

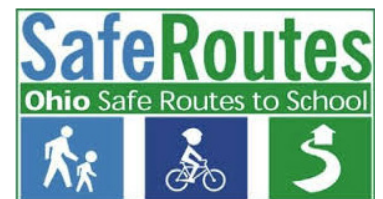
These are assessments of the walkability or pedestrian access of an external environment. Walking audits are often undertaken in street environments to consider and promote the needs of pedestrians as a form of transport. They can be undertaken by a range of different stakeholders including: local community groups; transportation planners/engineers; urban designers; local police officers; and local politicians/councilors. Walking audits often collect both quantitative and qualitative data on the walking environment. In October 2015, USDOT published a Road Safety Assessments guide to help communities complete walk or bike audits. The guide can be found at transportation.gov/safer-people-safer-streets/road-safety-assessments.

Safe Routes to School

The Ohio Safe Routes to School (SRTS) Program is funded by the Federal Highway Administration (FHWA) and administered by the Ohio Department of Transportation (ODOT). The program supports projects and programs that enable and encourage walking and bicycling to and from school. A School Travel Plan (STP) is the written document that outlines a community's intentions for enabling students to engage in active transportation, i.e., walking or bicycling, as they travel to and from school. STPs are required for funding requests made through the ODOT SRTS program. The STP is created by a team and involves key community stakeholders in identifying both barriers to active transportation and a set of solutions to address them.

In 2013, AMATS joined representatives from the Akron Public Schools, the city of Akron, and various other local organizations in an SRTS Planning Team, which was responsible for preparing an STP for Akron. Other Greater Akron area communities with active SRTS Programs include Aurora, Barberton, Hudson, Stow-Munroe Falls and Streetsboro. Along with establishing educational programs, many of these communities are pursuing connectivity improvements such as new crosswalks, sidewalks, signals and other pedestrian facilities.

For more information about the Ohio Safe Routes to School Program, visit the program web site at <http://www.dot.state.oh.us/Divisions/Planning/ProgramManagement/HighwaySafety/ActiveTransportation/Pages/SRTS.aspx>.



Better Block

A demonstration tool that rebuilds an area using grassroots efforts to show the potential to create a great walkable, vibrant neighborhood center. Better Block projects are collaborative sessions in which groups develop solutions to design problems. These events allow communities to engage in the "complete streets" buildout process and provide feedback to community stakeholders in real time. Better Block projects show how communities can come together to transform blighted blocks into vibrant neighborhood destinations.

During Better Block projects, event organizers use available community resources to convert downtrodden locales into pedestrian-friendly and bike-friendly destinations for people of all ages. These projects typically involve establishing temporary facilities such as makeshift bike lanes, cafe seating, trees, plants, lighting, and pop-up businesses to show the potential for revitalized economic activity in an area. The before and after of the Akron North Hill Better Block is below.

Better Block events are gaining in popularity and help cities rapidly implement infrastructure and policy changes. For more information, visit the Better Block web site at betterblock.org or contact the group via email at info@teambetterblock.com.



When We Will Get There

When will the Greater Akron area's journey to an ideal pedestrian system end? The answer to this question is that it never will.

There will be no final mile marker, no goal post, and no sign announcing the region's arrival at a single comprehensive and convenient pedestrian network. Sound pedestrian planning for our region will require ongoing commitments by all involved at the local, regional, state and federal levels. Developing pedestrian-oriented systems of sidewalks and related amenities should be based on consistent thoughtful practices and policies to ensure their inclusion throughout the planning process.

In the face of increasingly scarce resources, sidewalks and other pedestrian amenities are typically the first to be cut. If the AMATS area wants to encourage walking as a safe transportation choice, it is critical to make pedestrian infrastructure a priority. To do this, many of the strategies and ideas presented in this report can be implemented as standalone projects or as complementary pieces of larger projects. An example of the latter approach is the cooperation between the city of Akron and Ohio & Erie Canal Towpath Trail stakeholders during Akron's Combined Sewer Overflow Project. The city worked with stakeholders to develop a new trail route for the duration of construction of the project's 6,000-foot Ohio Canal Interceptor Tunnel. The city pursued the new route to ease inconveniences that trail users may experience during construction while providing new, safe and challenging experiences during their travels.

Creating a safer and more connected and vibrant pedestrian network will help ensure that Greater Akron provides economic and healthy transportation options for everyone.



Appendix A - Definition of Terms	38
Appendix B - AMATS Planning Areas Defined	41
Appendix C - Urban Streetscape Rating System	42
Appendix D - Maps & Demographics	43
AMATS Population Change 2010 - 2040	44
Population Density by Census Tract	45
AMATS Employment Change 2010 - 2040	46
2010 Job Density	47
AMATS Area Schools	48
Percent Low Income Population by Census Tract	49
Percent 65+ Population by Census Tract	50
Percent Minority Population by Census Tract	51
Appendix E - TAP Scoring	52
Appendix F - Public Involvement	53

Appendix A - Definition of Terms

Below are the definitions of pedestrian planning terms.

Accessible Pedestrian Signal (APS)

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

Bump Outs

“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.

Chicanes

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.

Connectivity

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

A type of thoroughfare that is intended for use only by pedestrians and not 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.”)

High-Intensity Activated crossWalk (HAWK)

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.”)

Leading Pedestrian Interval (LPI)

Signal timing that provides the walk signal several seconds before vehicles are given a green signal. 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

Crossings 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

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)

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.

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.

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.

Sidewalk

A 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.

Safe Routes to School (SRTS)

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.

Trail

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 (TA)

The TA Program is a federal funding program to support the construction of trails, sidewalks, lighting and traffic signals to support pedestrian and bicycle safety.

Thoroughfare

A transportation route connecting one location to another.

Traffic Calming

Consists of physical design and other measures, including narrowed roads and speed humps, put in place on roads for the intention of slowing down or reducing motor-vehicle traffic as well as to improve safety for pedestrians and cyclists.

Urban Design

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.

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

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.

Walkshed

The walkable area around a particular location, such as a transit stop. The walkshed is typically defined as one-quarter or one-half mile around a transit stop or other location.

Wayfinding

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

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 - Urban Streetscape Rating System



A -- Active

- Small units, many doors (15-20 doors per 100 m/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



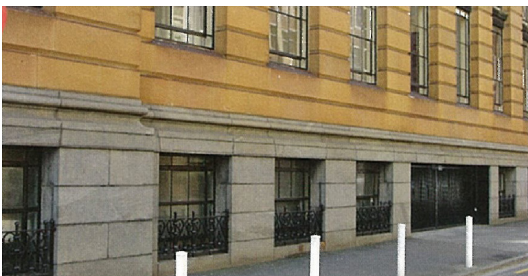
B -- Friendly

- Relatively small units (10-14 doors per 100 m/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 m/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 m/328 feet)
- Almost no variation in function
- Many blind or uninteresting units
- Few or no details



E -- Inactive

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

Source:

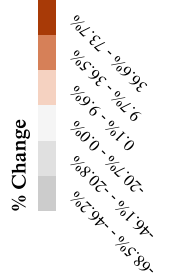
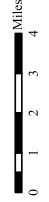
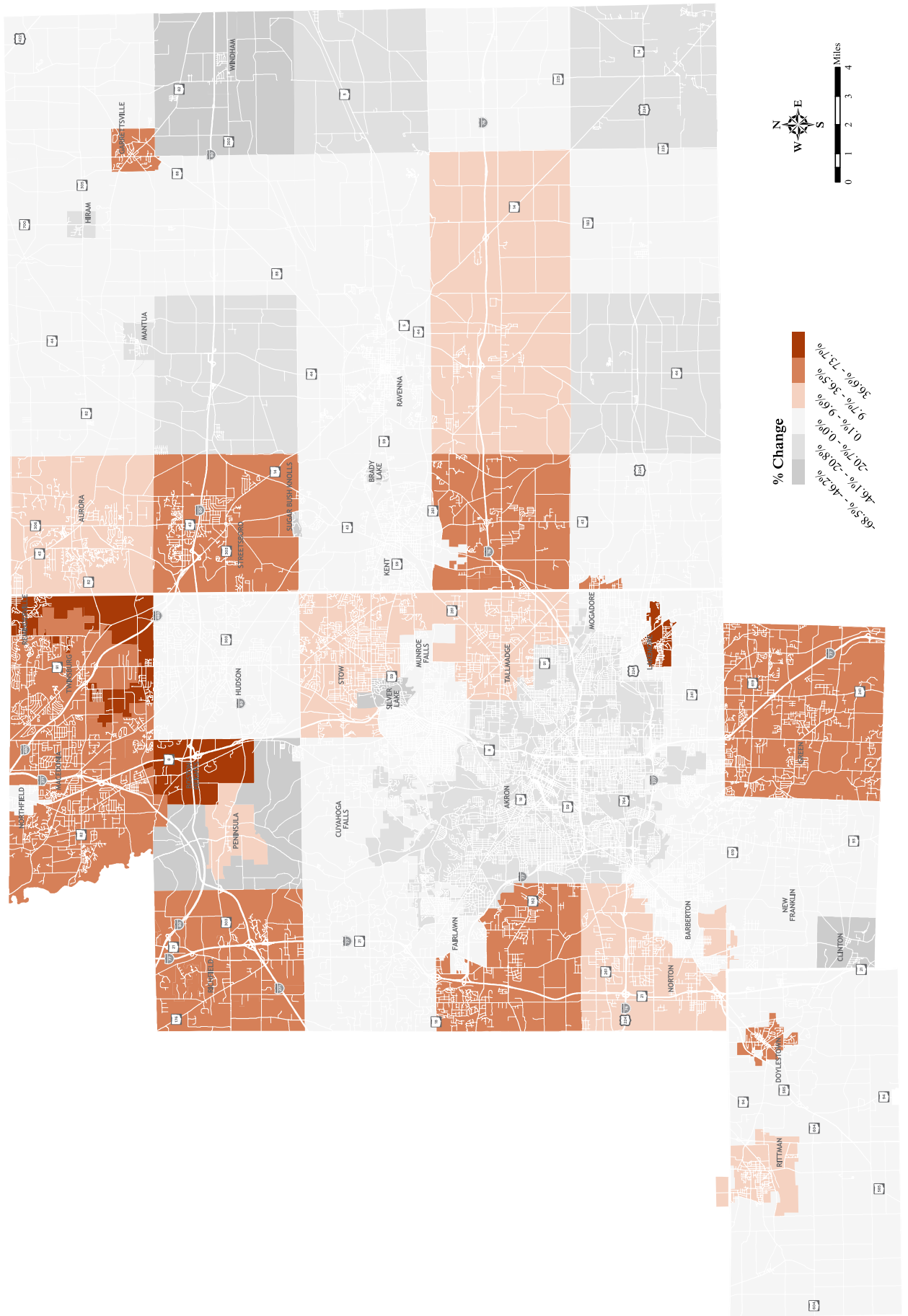
"Close Encounters With Buildings," Urban Design International, 2006
Further developed: Gehl Architects -- Urban Quality Consultants, 2009

Appendix D - Maps & Demographics

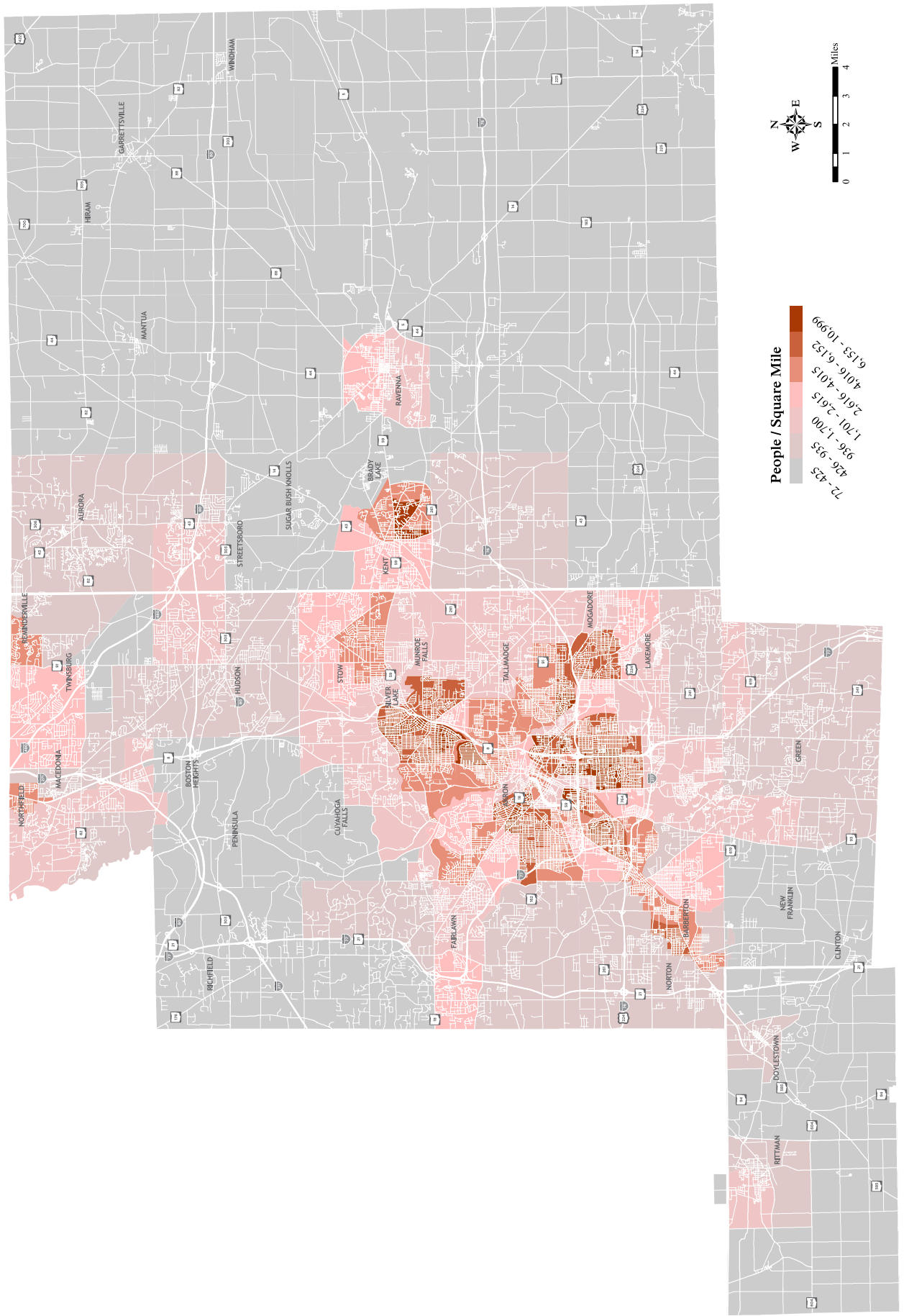
The following pages include maps depicting data that was used in the development of the Pedestrian Plan and will continue to be used for implementation within projects throughout the years to come.

AMATS Population Change 2010 - 2040	44
Population Density by Census Tract	45
AMATS Employment Change 2010 - 2040	46
2010 Job Density	47
AMATS Area Schools	48
Percent Low Income Population by Census Tract	49
Percent 65+ Population by Census Tract	50
Percent Minority Population by Census Tract	51

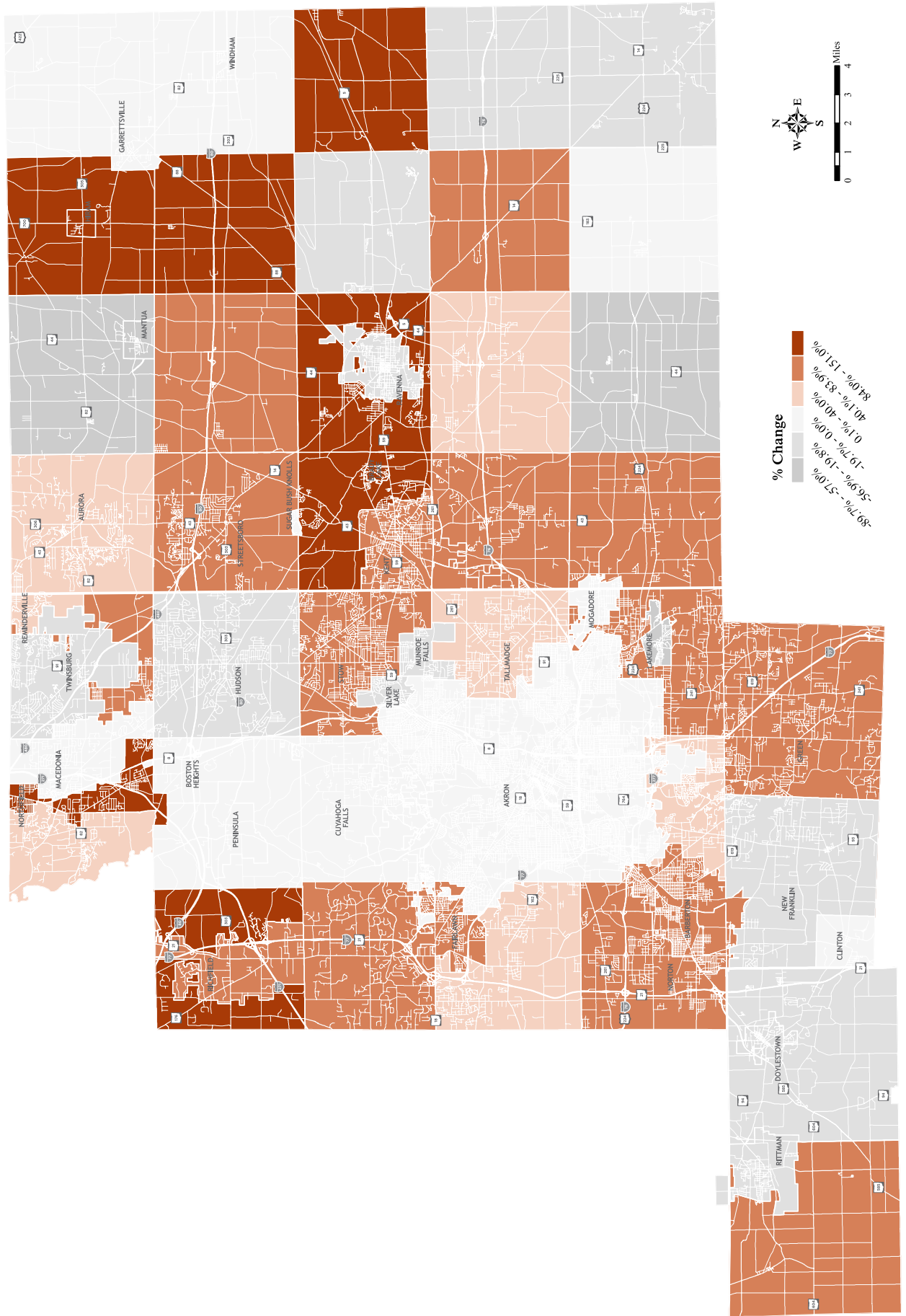
AMATS Population Change 2010 - 2040



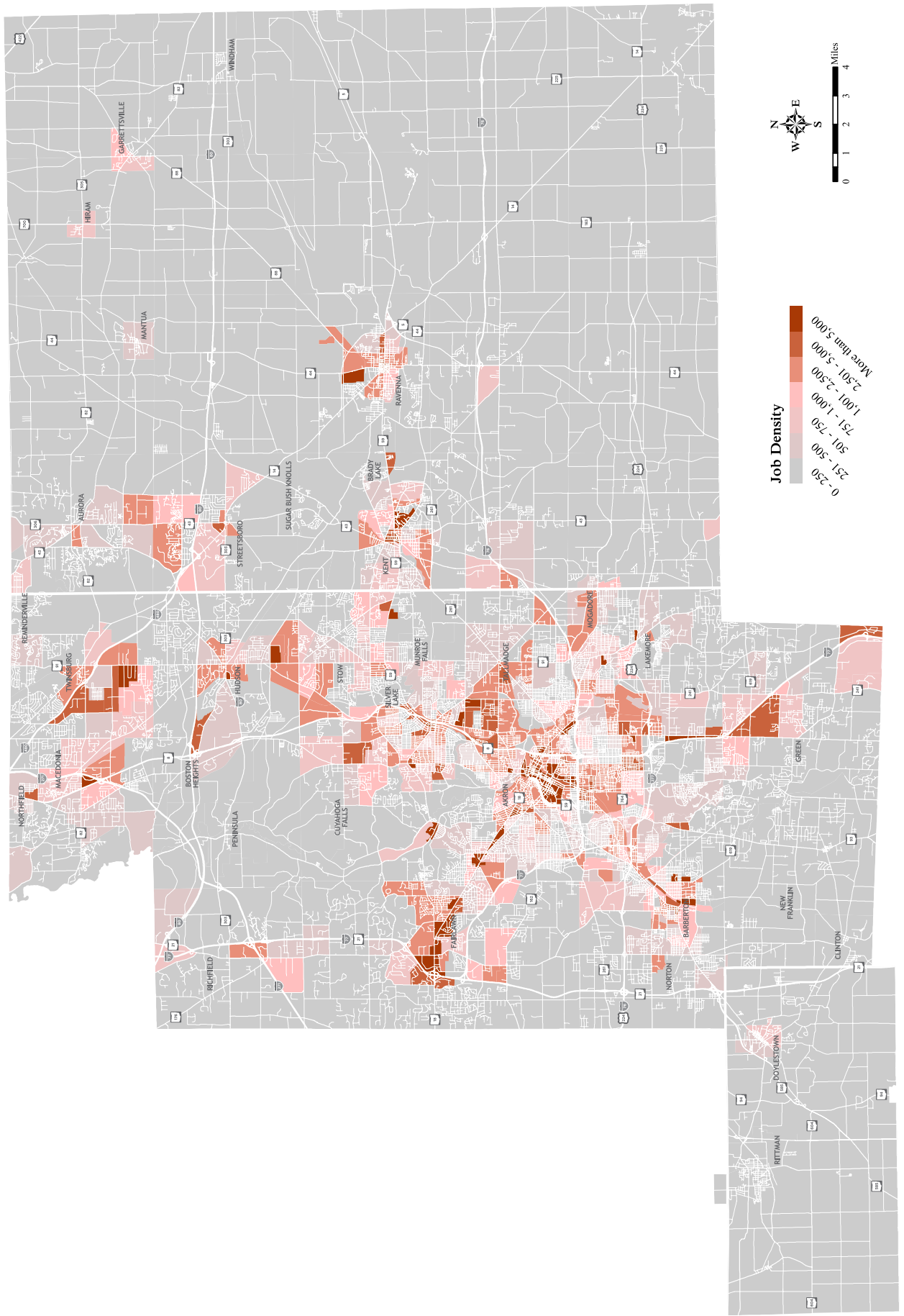
Population Density by Census Tract

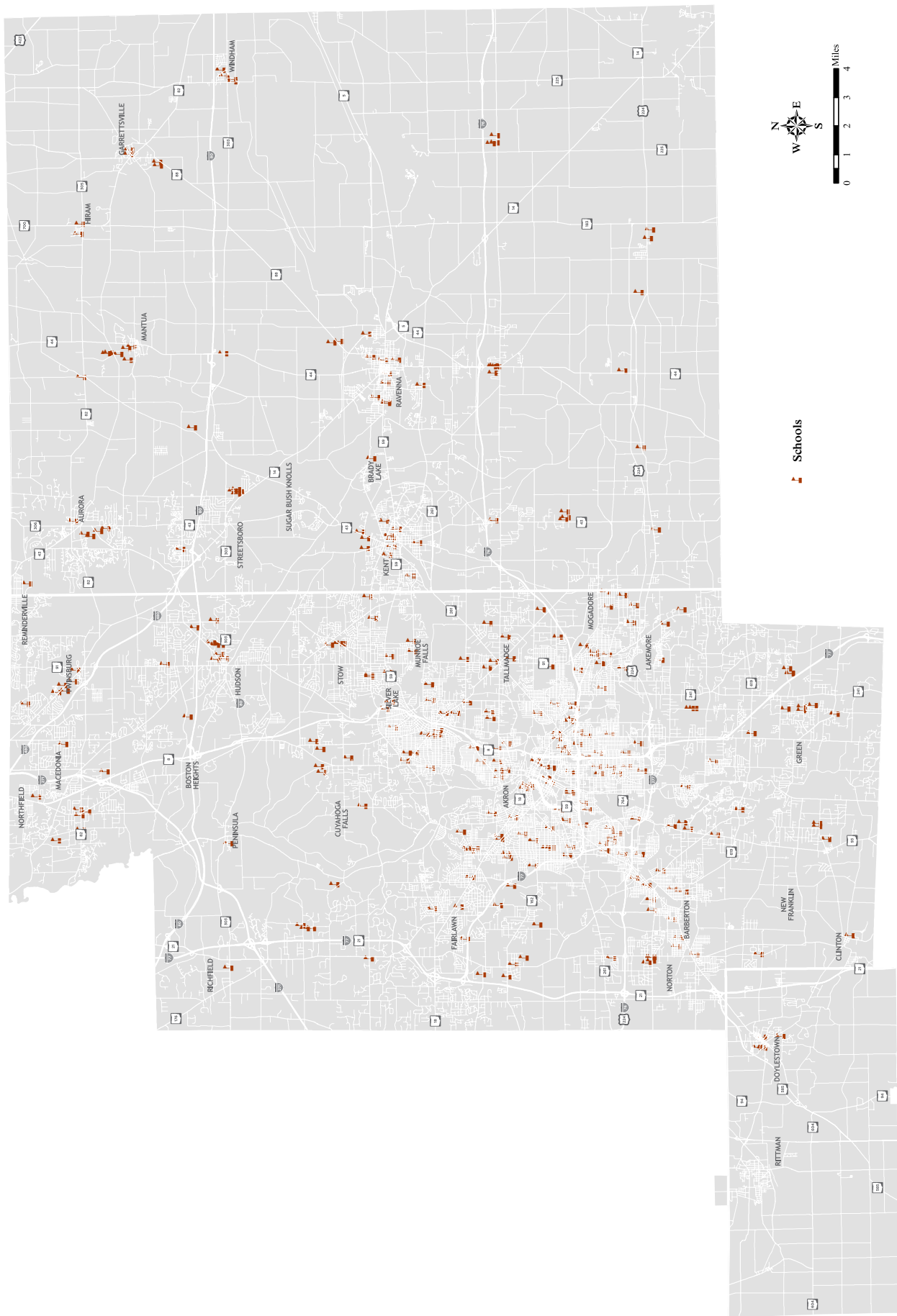


AMATS Employment Change 2010 - 2040

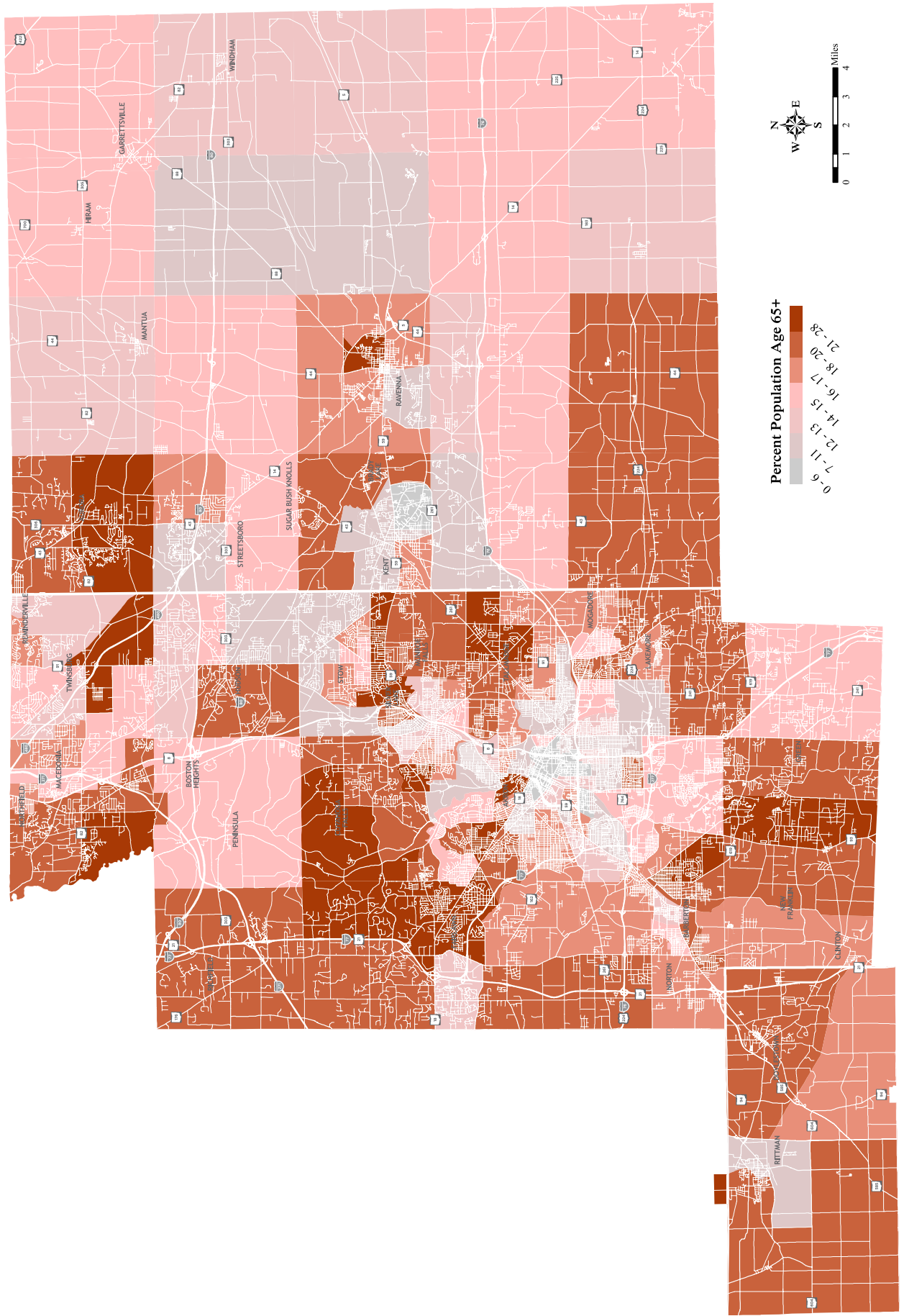


2010 Job Density

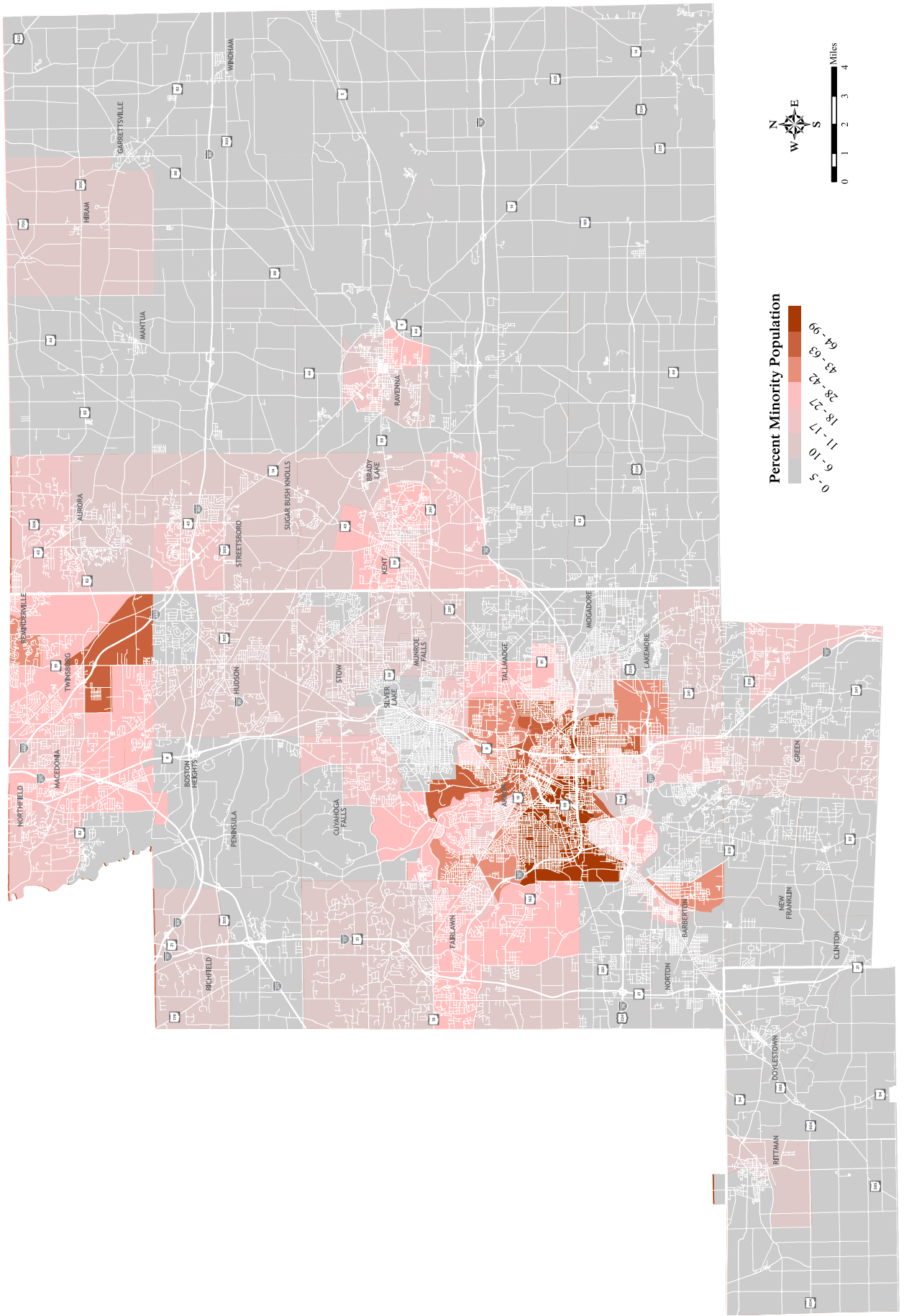




Percent 65+ Population by Census Tract



Percent Minority Population by Census Tract



Appendix E - TAP Scoring

TRANSPORTATION ALTERNATIVES PROGRAM Project Evaluation Criteria

The following project types are eligible for TAP funding (includes PE, RW & CO):

1. Facilities - <i>multipurpose trail, bike lane and sidewalk</i>	Points
Regional Trail (Towpath, Portage, Headwaters, Bike and Hike)	25
Secondary Trail/Sidewalk/Bike Lane	15
2. Project Type / Logical Termini	Points
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 Activity Centers are considered retail plazas, office parks, schools, hospitals or recreation parks	5
3. Level of Use	Points
How much use is the facility projected to have? Considers density of population, existence of goat paths, popularity of trails	0 - 15
4. Consistency with Plans	Points
Project recommended in Connecting Communities Planning Grant	5
Project is specifically recommended in Transportation Outlook 2040	5
Project is recommended as part of Ohio SRTS Travel Plan	5
Project is on an existing transit line	5
Project area has a history of bicycle/pedestrian accidents	5
5. Equitable Distribution of Funds	Points
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
Fair Share Target Budget calculation is described under Program Administration	

Appendix F - Public Involvement

During the development of the 2015 Pedestrian Plan, AMATS utilized proactive outreach strategies to foster public dialogue regarding the aims and purposes of this item. The draft plan was available for public review and comment on the agency web site, amatsplanning.org, beginning Nov. 6, 2015 through Dec. 17, 2015. Additionally, the agency made extensive use of social media, such as Twitter and Facebook, and e-mails were sent to all AMATS committee members and area media to solicit comments regarding the draft plan.

The draft 2015 Pedestrian Plan was publicized as the primary discussion item in a Nov. 26, 2015 advertisement in the Beacon Journal inviting the public to attend the Dec. 3, 2015 meeting of the AMATS Citizens Involvement Committee (CIC).

The CIC meeting included representatives from the Kent Environmental Council and Streets4All, a pedestrian advocacy group. Several attendees praised the development of the plan. Mr. Per Johnson, the Streets4All representative, suggested that the draft plan be modified to address the unique needs of the Greater Akron area's elderly and minority populations. Mr. William Maki, CIC member, stated that the plan should urge communities to pursue pedestrian amenities beyond merely meeting the compliance standards contained in the federal Americans with Disabilities Act (ADA) primarily for the convenience of elderly persons.

Additional CIC suggestions were that the draft plan cite additional examples of Complete Streets principles within the region, most notably the city of Akron's appointment of a Complete Streets Committee of stakeholders. Other attendee comments concerned the need for crosswalks as safety improvements along Copley Road in Akron, primarily in the area in which a road diet project was recently completed, and the need for accurate data collection prior to the pursuit of road diet projects.

The complete Dec. 3, 2015 meeting of the CIC is available as an MP3 podcast on the AMATS web site. The 2015 Pedestrian Plan has been modified based on the comments received during the CIC meeting and public outreach period.

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 a portion of 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.



Akron Metropolitan Area Transportation Study
806 CitiCenter | 146 S High Street
Akron, Ohio 44308-1423
(330) 375-2436 | Fax: (330) 375-2275
www.amatsplanning.org