Madison on the MOVE

City of Madison Transportation Plan

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TSW

Acknowledgements

Project Advisory Group

Himanshu Bhatwala - Corridor Design Commission and Business Owner

Reverand Aaron Carter, Sr. - Pastor, Bethlehem Baptist Church

Joe DiLetto - Planning & Zoning Commission

Clifton Hanes - Downtown Development Authority of Madison

Cynthia Jones - Planning & Zoning Commission

Councilmember Eric Joyce - City Council

Blake McCormack - Morgan County Board of Commissioners

Cameron Palmer - Madison-Morgan Conservancy Junior Board

Brooks Pennington IV - Fire Chief

Brittany Prouxl - Resident

Jin Chiew Wee - Downtown Business Owner

Zachary Williams - Local Developer

Elected officials

Mayor Fred Perriman

Councilmember Carrie Peters-Reid - District 1

Councilmember Eric Joyce - District 2

Councilmember Ed Latham - District 3

Councilmember Rick Blanton - District 4

Councilmember Betsy Wagenhauser - District 5

City of Madison

John Klimm - City Manager

Monica Callahan - Planning Director

Mollie Bogle - Assistant Planning Director

Aaron Wadley - City Engineer

Erin Tewksbury - Street Superintendent

Jill Reale - Planner I

Consultant Team

Bert Kuyrkendall - Project Manager, TSW

Anna Baggett - Deputy Project Manager, TSW

TSW

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Executive Summary

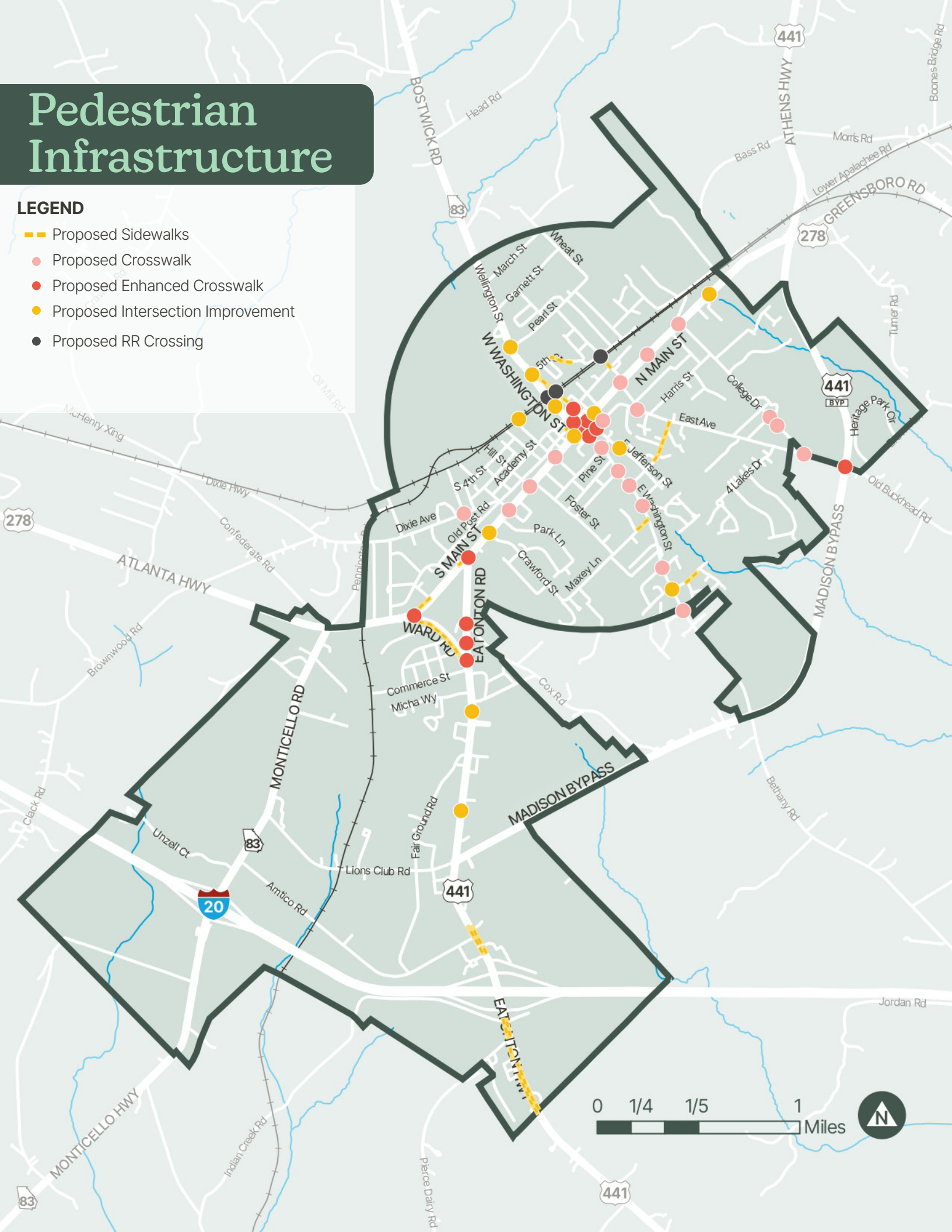
The City of Madison Transportation Plan provides a practical framework for creating a transportation system that works for everyone. The plan focuses on building a balanced and inclusive network that ensures safety, accessibility, and convenience for pedestrians, cyclists, drivers, and transit riders. With a planning window of 20 years, it outlines actionable steps for improving mobility, including projects like new street connections, better sidewalk ramps, and safer crosswalks. The plan also includes long-term projections and analysis of traffic and transportation needs, offering recommendations to address future challenges and support Madison's growth. By tackling current issues while anticipating future demands, this plan serves as a roadmap to help Madison stay connected and moving safely.

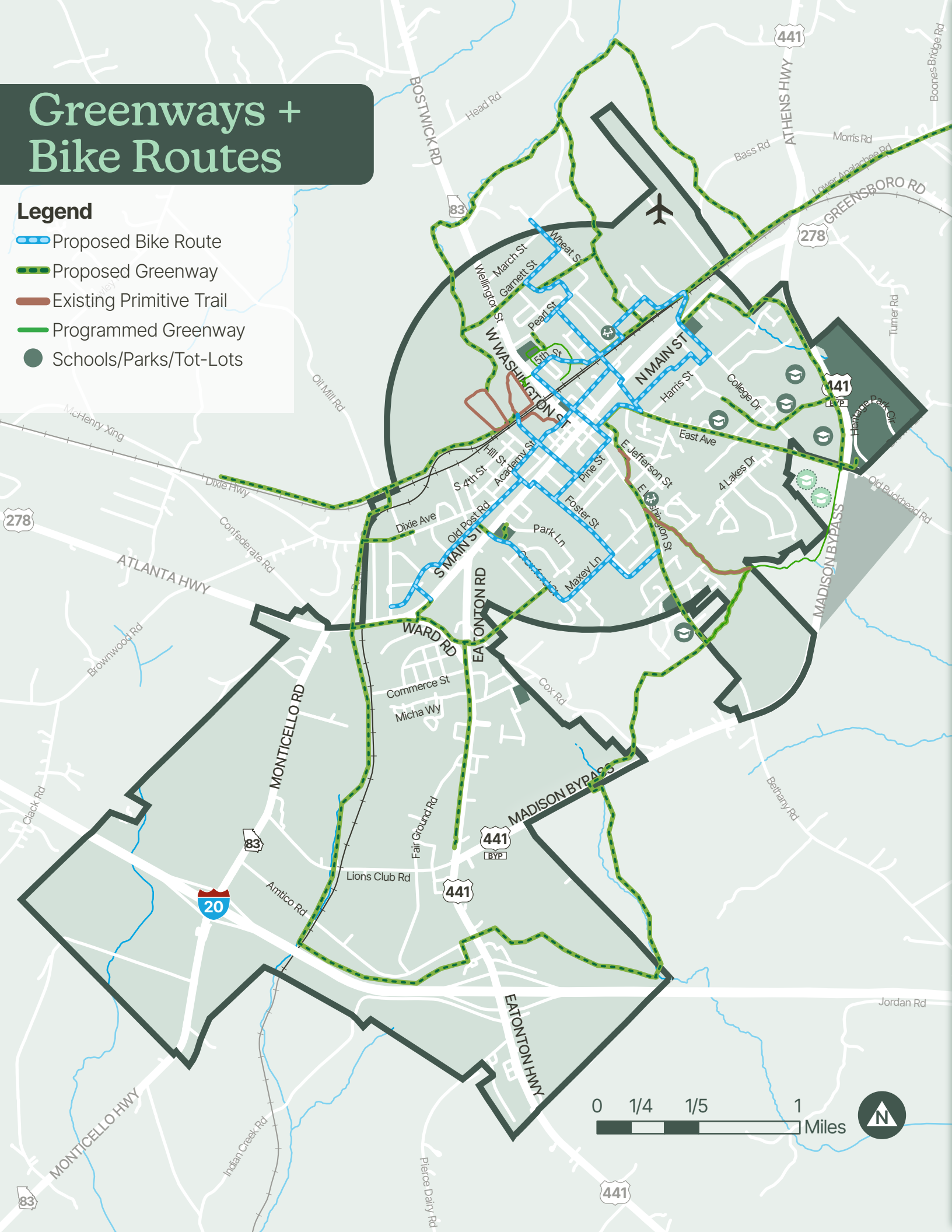
Designed to be a tool for decision-making, the plan incorporates community involvement in shaping Madison's streets and transportation priorities. It aims to inspire policies and programs that reflect the city's commitment to equitable access and safe mobility for all. Its primary goals, listed here, were developed directly through engagement with local residents and business owners to ensure they reflect the community's vision and needs. These goals focus on sustainability, connectivity, and enhancing quality of life, offering clear direction for policies, programs, and projects that support both daily life and long-term growth in Madison.

Plan Goals

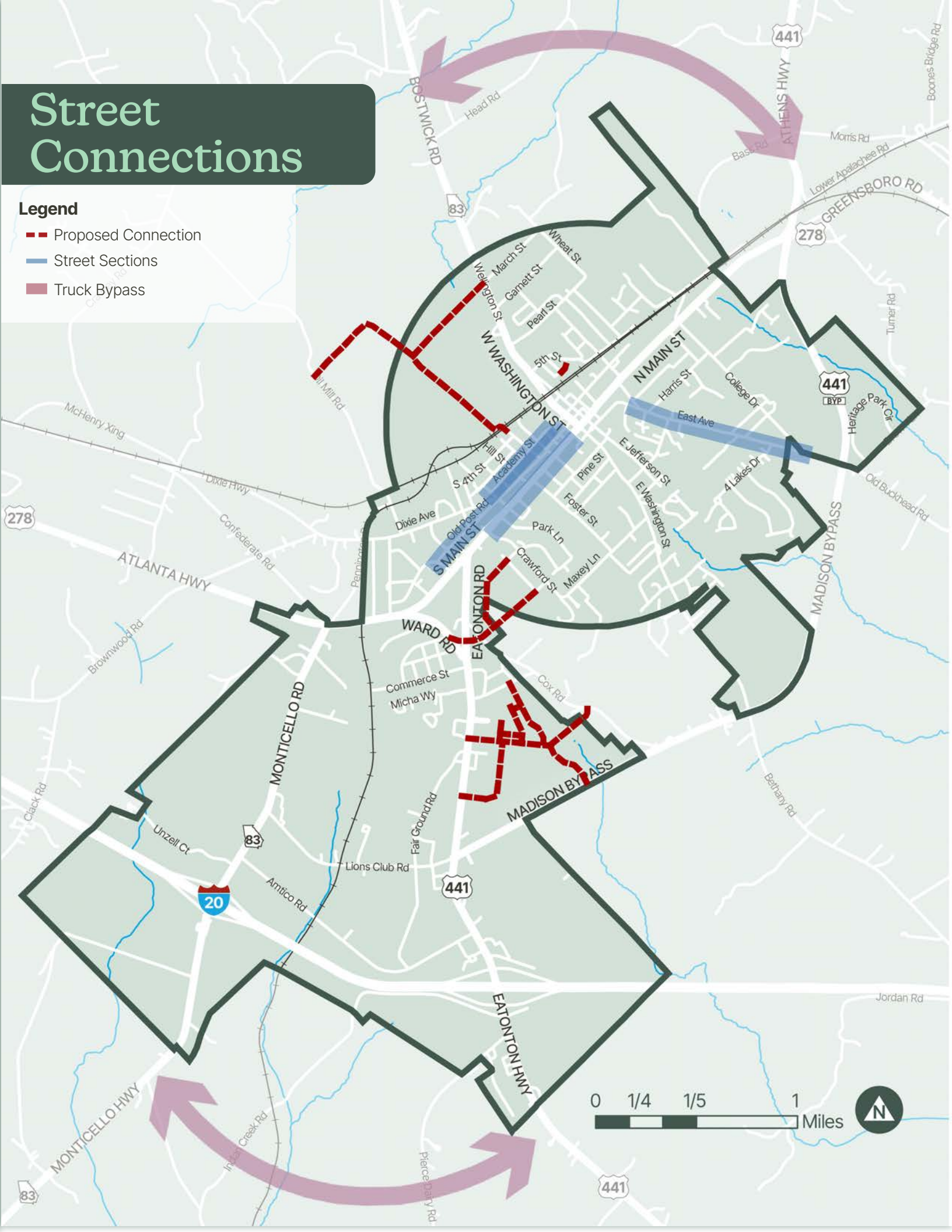
- Consider accessibility and connectivity for all ages, abilities, and modes when making improvements to the transportation network
- Enable safe walking, biking, and carting to daily needs, like schools, parks, and the grocery store, as well as for recreation
- Improve pedestrian safety through additional infrastructure, better street design, and traffic control measures
- Ensure transportation improvements enhance or maintain the City of Madison's small-town character
- Reconnect isolated and disinvested communities by removing barriers and creating new connections
- Reduce traffic congestion at intersections and promote calmer, safer driving on neighborhood and downtown streets
- Re-route truck traffic away from downtown and neighborhoods to alleviate impacts to noise, safety, and the small-town experience
- Provide practical, buildable, and fundable solutions to address Madison's transportation challenges

Pedestrian Infrastructure




Greenways + Bike Routes
Legend
Proposed Bike Route
Proposed Greenway
Existing Primitive Trail
Programmed Greenway
Schools/Parks/Tot-Lots
BOSTWICK RD
Head Rd
ATHENS HWY
441
Boones Bridge Rd
Morris Rd
Bass Rd
Lower Apalachee Rd
GREENSBORO RD
278
83
Wheat St
March St
Garnett St
Wellington St
Pearl St
5th St
W WASHINGTON ST
N MAIN ST
Harris St
College Dr
East Ave
Harbage Park Cir
Turner Rd
Old Buckhead Rd
Oil Mill Rd
McHenry Xing
Dixie Hwy
Hill St
Academy St
S 4th St
Pine St
E Jefferson St
E Washington St
4 Lakes Dr
Dixie Ave
Old Post Rd
S MAIN ST
Park Ln
Foster St
Maxey Ln
Confederate Ct
Confederate Rd
ATLANTA HWY
MADISON BYPASS
WARD RD
EATONTON RD
Commerce St
Micha Wy
Cox Rd
Brownwood Rd
MONTICELLO RD
Clack Rd
Fair Ground Rd
Lions Club Rd
Amtico Rd
20
Bethany Rd
Jordan Rd
EATONTON HWY
MONTICELLO HWY
Indian Creek Rd
Pierce Dairy Rd
0
1/4
1/5
1
Miles
N

Street Connections



01 Existing Conditions

Introduction

Introduction

This existing conditions assessment represents the first phase of the City of Madison's Transportation Plan and a foundation for its recommendations. It documents and evaluates the current conditions of Madison's transportation system as well as relevant community characteristics. This includes a review of previous plans, mapping analysis, and field observations.

Largely, this chapter presents mapping analysis and quantitive data. While community input certainly informs the discussion of the data presented, an extensive public engagement summary can be found on page 31.

Brief History

Like in many cities and towns across the country, transportation systems played an important role in Madison's history and development. In 1809, four principal streets defined the new town's central square, and these were named after four U.S. founding fathers: Jefferson, Hancock, Monroe (now Main Street), and Washington. The town soon flourished as a well-known stagecoach stop along a popular route between Charleston and New Orleans.

By 1841, rail arrived to start a new era of transportation. An east-west rail line, connecting Augusta to Madison (until extended to Terminus/aka Marthasville/aka Atlanta), became integral to the city's antebellum success in exporting cotton. In 1888, the north-south rail linking Macon and Athens reached town, increasing cotton processing and millwork production and heralding a gilded age for Madison as a railroad nexus.

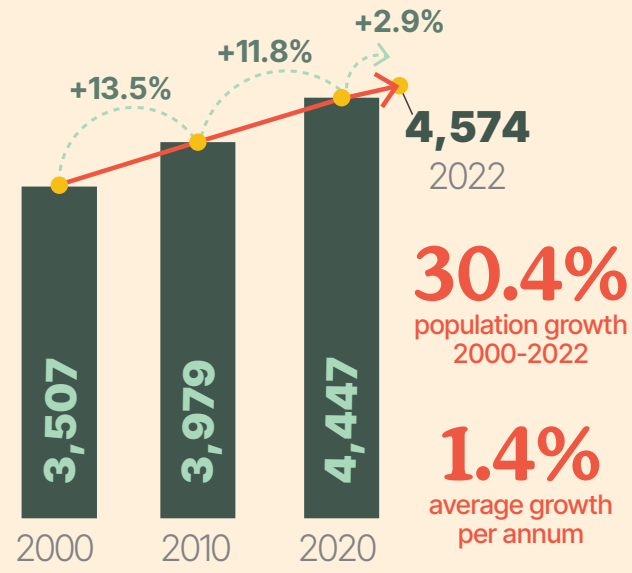
In the 1900s, the automobile changed America's landscape. Two auto-trails—or transcontinental highways predating the U.S. Highway system—ran through the city: the east-west National Highway and a loop of the north-south Dixie Highway. Again, Madison benefited as a transportation intersection. By 1920, downtown streets were paved. When Interstate I-20 arrived in 1969, Madison gained modern connectivity and became the mid-point from Atlanta to Augusta.

Community Characteristics

The city's growth continues, increasing from 3,507 in 2000 to 4,574 in 2022, a considerable 30.4% change with an average 1.4% increase per annum (American Community Survey (ACS), 2022/2000). For perspective, that is double the growth rate Madison witnessed between two decades of 1980 and 2000 (14%). While growth brings many benefits, it places added pressure on a small town's transportation system.

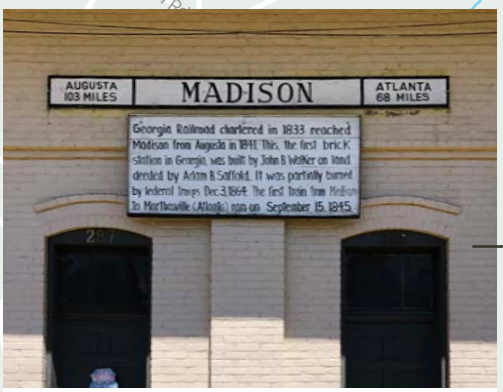
It is important to understand the city's characteristics to anticipate community needs. The city's median income is $73,965 which is slightly lower than that of Morgan County's median income of $81,525 (ACS, 2022). Most community members own at least one vehicle, as only 8.1% of households do not have access to a car. Madison is home to several families with children; they represent 31.6% of households. Of these families, 74.3% have at least one child under 6 years of age (ACS, 2022). Nearly a quarter of the population (22.2%) is retirement age—or over 65 years of age (ACS, 2022). With families and older populations, accessibility will be key in determining transportation improvements and priorities.

Population Growth



Source: Decennial Census for 2000, 2010, + 2020; ACS Estimates 2022 (Table DP05)

Study Area



The sign on the historic rail depot describes Madison's railroad history.

Relevant Plan Review

At its core, this transportation plan aims to update to the Major Thoroughfare Plan from 2007 with more of an emphasis on non-vehicular modes. Since the previous plan, there has been some progress, while most of its goals and recommendations remain relevant. The following section provides an overview of this plan.

Major Thoroughfare Plan

In the same year as the county-wide effort, the City of Madison embarked on a transportation plan of its own. The plan assessed current and future transportation needs and determined a set of prioritized lists of transportation improvements.

The plan's principles include improving transportation system performance and safety, maintaining Madison's unique identity, considering context sensitive design over simple functional classifications, and promoting street grid design in new developments rather than widening roadways for capacity.

The plan made a series of policy recommendations to reinforce the concepts outlined in the plan. Key policies address access management for primary corridors like Monticello Road/SR 83 from US 278 to city limits, Eatonton Road/US 441 from US 278 to city limits, and US 441 Bypass from N. Main Street to Lion's Club Road. It also presented a street grid master plan, requiring street grid application with new development. Other policy recommendations included mobility-related updates to the zoning code including traffic calming policy and program, and traffic impact study requirements. The plan also suggested that the city devise a strategic parking plan to alleviate downtown parking issues.

The concept map on the next page depicts the recommended major and minor projects from the Major Thoroughfare Plan. A key major recommendation is the proposed bypass that GDOT scheduled for 2035 but is not yet funded. While this bypass has yet to be constructed, it remains a key community desire to divert freight trucks away from downtown.

Other major recommendations include a realignment of the following intersections:

- The triangle (S. Main Street, Eatonton Road, and Ward Road);
- Monticello Road/SR 83 and Atlanta Highway/US 278; and
- N. Main Street and Industrial Boulevard.

Minor projects include the following:

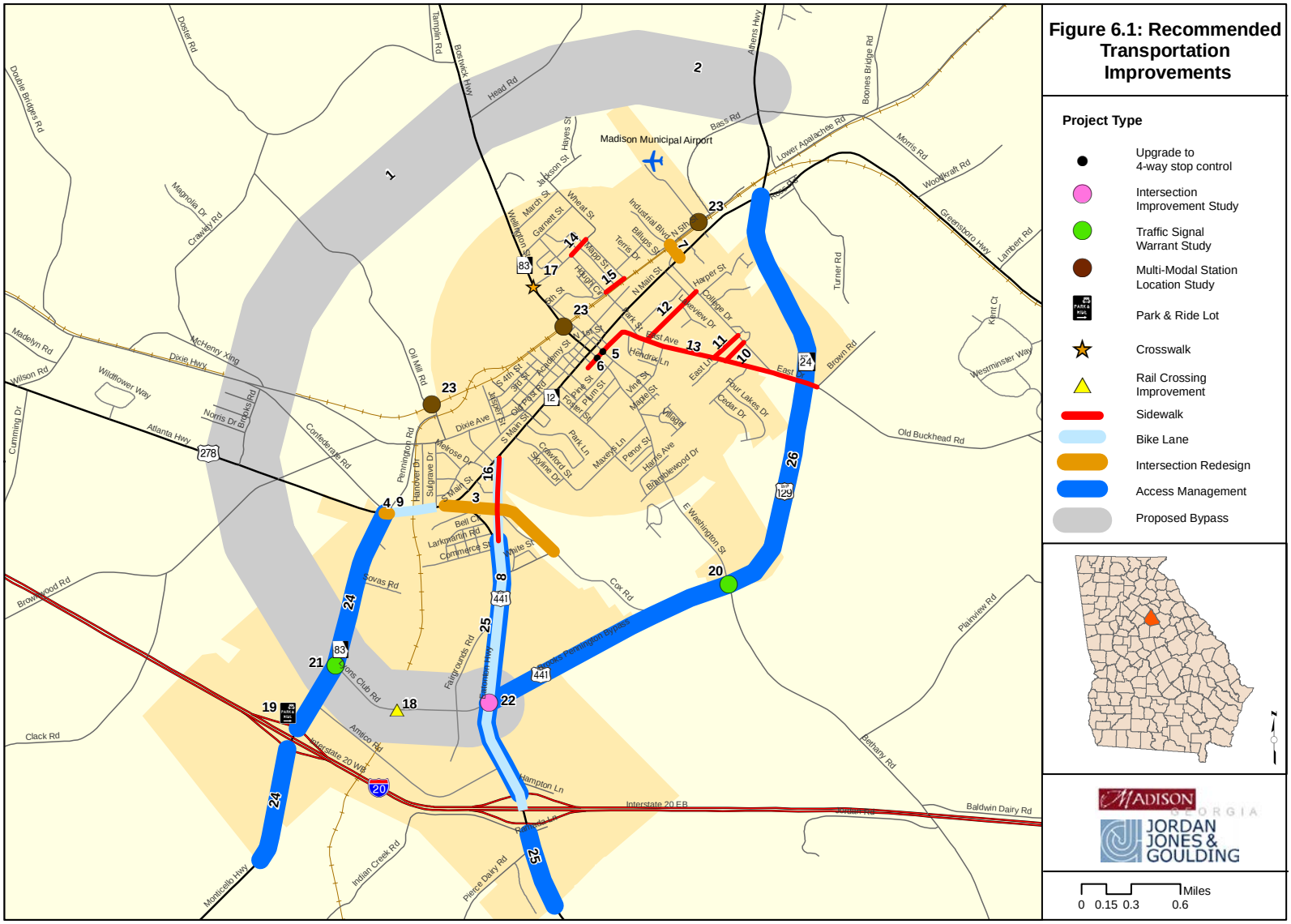
- Stop signs at Hancock Street and E. Jefferson and E. Washington streets;
- Sidewalks connecting the major gaps near schools, parks, activity centers, and downtown as well as crosswalks improving safe passage at significant crossings;
- Sidewalks connecting the major gaps along state routes;
- Sidewalks connecting the major gaps between the existing sidewalk system and multi-family housing, public housing, and existing neighborhoods;
- Crosswalk on Wellington Road/SR 83 N (Bostwick Highway) at Pearl Street;
- Bike lanes on major routes designated in the regional plan; and
- Transit for future commuter bus service to Atlanta.

While the Major Thoroughfare Plan sets a strong foundation, this current planning effort extends beyond the previous technical approach. This plan integrates more modern planning practices as well as places more emphasis on non-vehicular modes like walking, biking, and using Passenger Transport Vehicles (PTV), such as golf carts. It focuses on translating the document to be more public-friendly and easily understood.

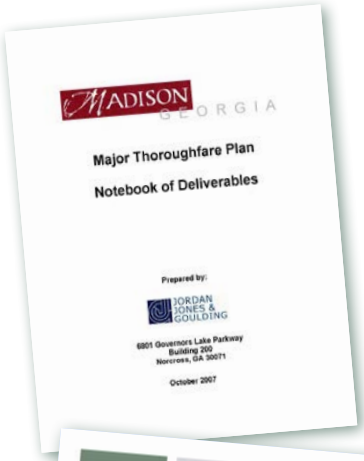
Other Relevant Plans

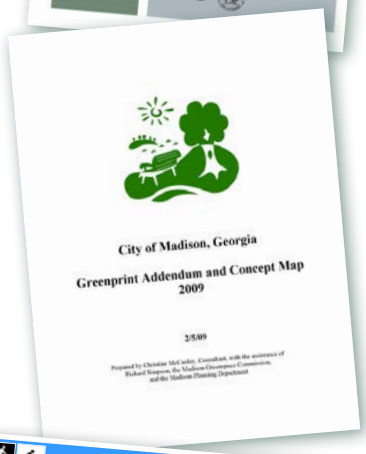
Since the adoption of the Major Thoroughfare Plan, other relevant planning efforts were conducted that inform this transportation plan update. These range from regional bike and pedestrian plans to hyper-local, urban redevelopment plans for parts of Madison. The following table summarizes these plans and highlights their relevance to this planning effort.

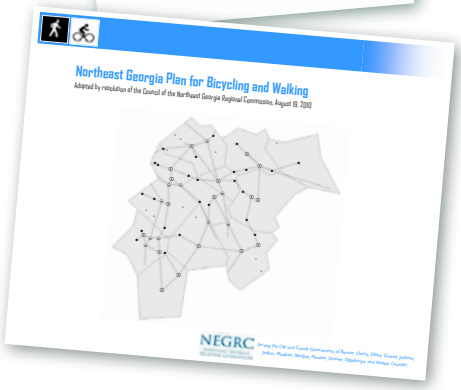
Major Thoroughfare Plan Concept Map



Previous Plans



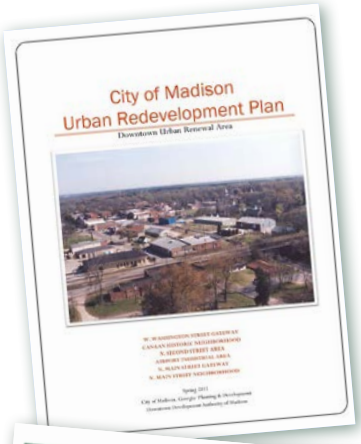




Plan + Year	Plan Horizon	Jurisdiction/ Agency	Geographic Scope
Major Thoroughfare Plan (2007)	Long-Range (20 years)	City of Madison	City of Madison and parts of unincorporated Morgan County outside city limits
Morgan County Multimodal Transportation Plan (2007)	Long-Range (to 2030)	Greene, Jasper, Morgan, Putnam; GDOT	Greene, Jasper, Morgan, Putnam
Madison Greenprint (2009)	Long-Range (undefined)	City of Madison; Madison-Morgan Conservancy	City of Madison
Northeast Georgia Plan for Bicycling and Walking (2010)	Long-Range (undefined)	Northeast Georgia Regional Commission (NEGRC)	Barrow, Clarke, Elbert, Greene, Jackson, Jasper, Madison, Morgan, Newton, Oconee, Oglethorpe, Walton

Description	Key Relevance
This city-wide transportation plan measures traffic flow for major streets and intersections, forecasts future flow as well as street and intersection capacity, makes recommendations for new streets, street and intersection improvements, pedestrian and bicycle facilities, and proposes policy and program recommendations.	• The current project is an update to the 2007 plan, which had a planning window of 20 years. • Proposed western bypass diverts truck traffic away from downtown. • See previous page for more details.
This plan acts as a part of the East Georgia Multi-County Transportation Study, along with three other counties. This long range transportation plan intends to address current and future transportation needs until 2030, coordinating and connecting abutting growth and transportation needs.	• A major recommedantion is the western bypass from SR 83 to US 441. • The plan also calls for operational improvements on Main Street to improve flow and safety. • It proposes widening SR 83 and Bethany Road to increase capacity. • To align with regional bike-ped planning, the plan recommends bike lanes and sidewalks on US 441, Main Street, and US 278.
The Madison Greenprint documents natural, historic, and cultural resources as well as devised a concept map of future opportunities for greenspace and trails. It complements the 2003 county-wide effort—the Morgan County Greenprint—but focuses soley on the city. The guide includes a greenway plan identifying seven trail opportunities. Largely, these trails skirt the edges of the city around its perimeter and are recreational in nature.	• Greenprint serves as the city's greenway plan. • The guide intends for the trails to be more recreational in nature rather than for transportation. • The proposed trails connect parks, passive greenspace, and historic resources rather than daily destinations.
This plan creates a regional vision for walking and biking with the goals of creating a multi-modal region, as well as promoting safety, connectivity, and quality of life. The plan proposes a regional bicycle network map. This network connects major destinations and town centers throughout the NEGRC's 12 counties. The network is categorized by three facility types: 1) shared-use path, 2) bike lane, and 3) paved shoulder. Additionally, the plan identifies best practices, planning tools, policy recommendations, program recommendations, and funding sources for local governments to implement the plan.	• Within Madison, the proposed network of bike lanes includes Main Street and Monticello Road/SR 83. • These proposed bike lanes connect to the broader network west on Atlanta Highway/US 278, east via US 278, north using US 441, and south on SR 83. • Paved shoulders are the proposed facility type for all of these regional connections, aside from US 441's proposed shared-use path.

Previous Plans



Plan	Year	Jurisdiction/ Agency	Geographic Scope
Urban Redevelopment Plan (2011)	Short-Term Work Strategy, Long-Term Vision (20 years)	City of Madison; Downtown Development Authority of Madison	Downtown Urban Renewal Area (DURA)
Connecting Morgan County: A Bicycle and Pedestrian Plan (2014)	Long-Range (undefined)	Morgan County; NEGRC	Morgan County
Madison-Morgan County: Tourism Product Development Resource Team Report (2018)	Short-Term Strategy and Long-Term Vision (Undefined)	Georgia Department of Economic Development: Tourism Product Development Team	City of Madison; Morgan County
City of Madison Comprehensive Plan (2022)	Short-Term Work Program (5 years) and Long-Range Objectives (20 years)	City of Madison	City of Madison

Description	Key Relevance
This master plan aims to revitalize a 350-acre area, referred to as the downtown urban redevelopment area (DURA), that experiences 50%+ poverty and blighted conditions. The plan establishes a clear vision for redevelopment, transportation, greenspace and other initiatives. Transportation improvements focus on improving accessibility, connectivity, and walkability. The plan also demonstrates the DURA's eligibility for state urban redevelopment area designation, allowing city access to several economic development tools and revitalization programs.	• A proposed extension of parallel streets of Terris Drive and Billups Street connects to Pearl Street. • A proposed system of streets south of N. Main Street connect to College Drive and Main Street. • The plan recommends sidewalks on at least one side of streets. • Clarke-Oconee-Morgan trail along the railroad tracks connects to other Madison proposed trails. • Proposed rail crossing at Burney Street and crosswalk across Main Street, northeast of College Drive improves pedestrian safety and connectivity.
This county-wide plan acts as a strategy to create connectivity for bicyclists and pedestrians throughout Morgan County. It envisions a network of complete streets and trails that emphasize the plan goals of transportation, safety, tourism, and healthy recreation.	• Recommended greenway facilities in Madison include Mile Branch, Horse Branch, Four Mile Branch, and South Sugar Creek. • Notable, proposed sidepaths are Dixie Highway to Rutledge, Lower Apalachee Road Rail Trail to Athens, and East Avenue and Buckhead Road.
This report focuses on methods to drive tourism and economic development for the City of Madison. The top recommendation is to implement and promote a trail program to connect greenspace, historic sites, and downtown. It recommends implementing the trails proposed in the Madison Greenprint but also creating more connections to downtown to leverage the trail system as an economic driver.	• The report recommends connecting proposed trail systems to downtown to spur economic development. • Constructing a "model mile" of the trail system garners support and shows progress. • Proposed trail system enhancements include wayfinding signage, a bikeshare program, and city-branded bike racks. • Recommended art and light displays make railroad underpass at the W. Washington Street gateway more welcoming to pedestrians and visitors.
Madison's comprehensive plan sets the vision and goals for how the community develops over time. Its chief purpose is to guide future land use decision-making, and the plan does so through establishing character areas. It also includes a community assessment to identify needs, challenges, "keepers," or community assets, and "fixers," or desired improvements. Transportation is a key topic in this assessment, and key themes are connectivity, walkability, and accessibility.	• Community assessment focuses on transportation. • Character areas and planned growth have implications for transportation investments. • Downtown Periphery character area encourages residential growth and infill, particularly in the DURA. • Modern Subdivisions Subarea includes established neighborhoods, but also currently rural/vacant land suitable for future single-family development. • Industrial growth is suitable for the Industrial Expansion character, and recommendations support this through future transportation investments.

Street Network

Streets

Madison's historic core has an efficient grid system of streets which offers multiple local route options. Rural thoroughfares connect to downtown by way of Main Street; however, there is limited street connectivity outside the downtown area, resulting in heavier than expected traffic.

Functional Classification

Functional classification is a Federal Highway Administration (FHWA) road designation system that categorizes roads according to traffic demand and flow, as well as access requirements to adjacent properties. For instance, the interstate functional class limits access in exchange for high vehicle speeds and high mobility; whereas, the collector functional class exhibits slower speeds and in turn, more access points to/from residences and businesses.

The FHWA functional classification system was designed for travel, emphasizing vehicle through-movement, which often makes it less suitable for local streets. Local streets prioritize access, connectivity, pedestrian and bicycle traffic, and safety over high-speed travel. They also serve diverse purposes, including social, commercial, and recreational activities, requiring context-sensitive solutions that consider local land use and community needs.

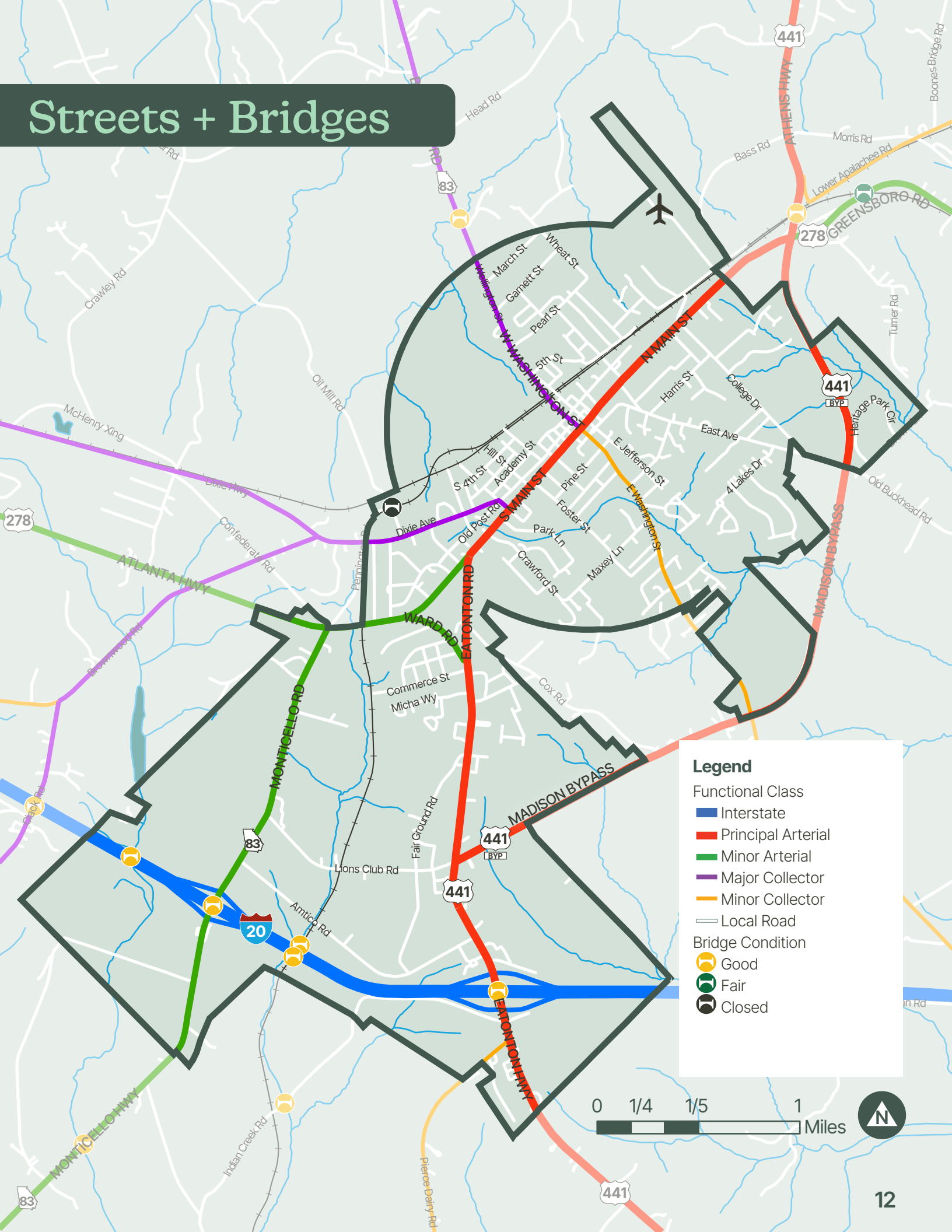
For these reasons, this plan explores alternative street classifications that are context-sensitive and multimodal. It also evaluates the need to reclassify certain streets to better reflect their character in the concept stage.

Functional Class	Description
Interstate	High vehicular mobility and speeds with very limited access; accomodate the longest trip lengths
Principal Arterial	High vehicular mobility with moderate speed and moderate access with long trip lengths
Minor Arterial	Interconnect and augment the higher level arterials; accomodate moderate trip lengths
Major Collector	Gathers traffic from local roads and funnels to arterials; trips are longer than minor collectors and provide more mobility
Minor Collector	Gathers traffic from local roads and funnels to arterials; trips are shorter than major collectors and provide more access
Local Road	Largest share of roadways, not suited for long-distance travel, provides the most direct access but discourages through-traffic

Bridges

Bridges are a critical part of the transportation system. The National Highway Performance Program and the FHWA periodically assess the condition of bridges throughout the country, considering physical and structural conditions. There are a total of five bridges within Madison's city limits, and all of them are rated in "good" condition and managed by GDOT. Three of these bridges are part of the interstate, spanning Little Indian Creek and a rail line. The other two bridges pass over I-20 at Madison's two interstate access points: Monticello Road/SR 83 and Eatonton Road/US 441. While maintenance is important, plan recommendations do not focus on these bridges because they are not in need of repair, and GDOT is responsible for their management.

Streets + Bridges



Connectivity

Connectivity is essential to disperse traffic flow, facilitate emergency vehicle access, provide redundant access routes to residences, businesses and community facilities, and enable walkability and bikeability.

Why is redundancy important?

Street grids improve connectivity by providing redundant routes. This redundancy distributes cars more evenly and thus alleviates traffic. This redundancy also offers alternative routes in case of street closures as well as a more intuitive system for visitors to navigate.

Intersection Density

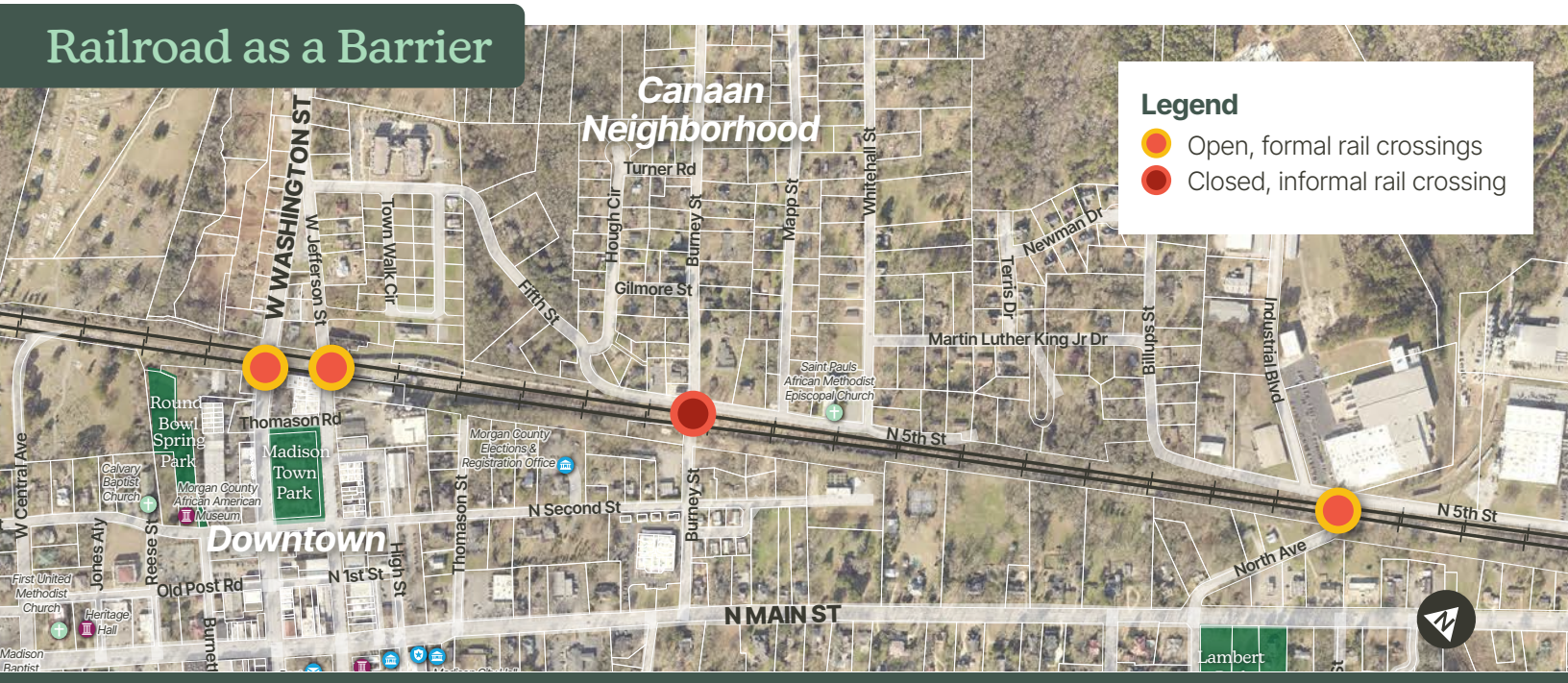
Intersection density is a good measure of street connectivity, as multiple intersections indicate multiple routes and connections. The intersection density heat map on the next page shows connectivity "hot spots," where there are high concentrations of intersections. The historic core of the city stands out as the most connected part of Madison with alternate parallel streets to disperse local traffic and small blocks producing frequent intersections. This historic core is punctuated by "cold spots" where more modern subdivisions have dead-end streets. The southern part of the city is more rural, so there are fewer intersections and less connectivity.

Railroad as a Barrier

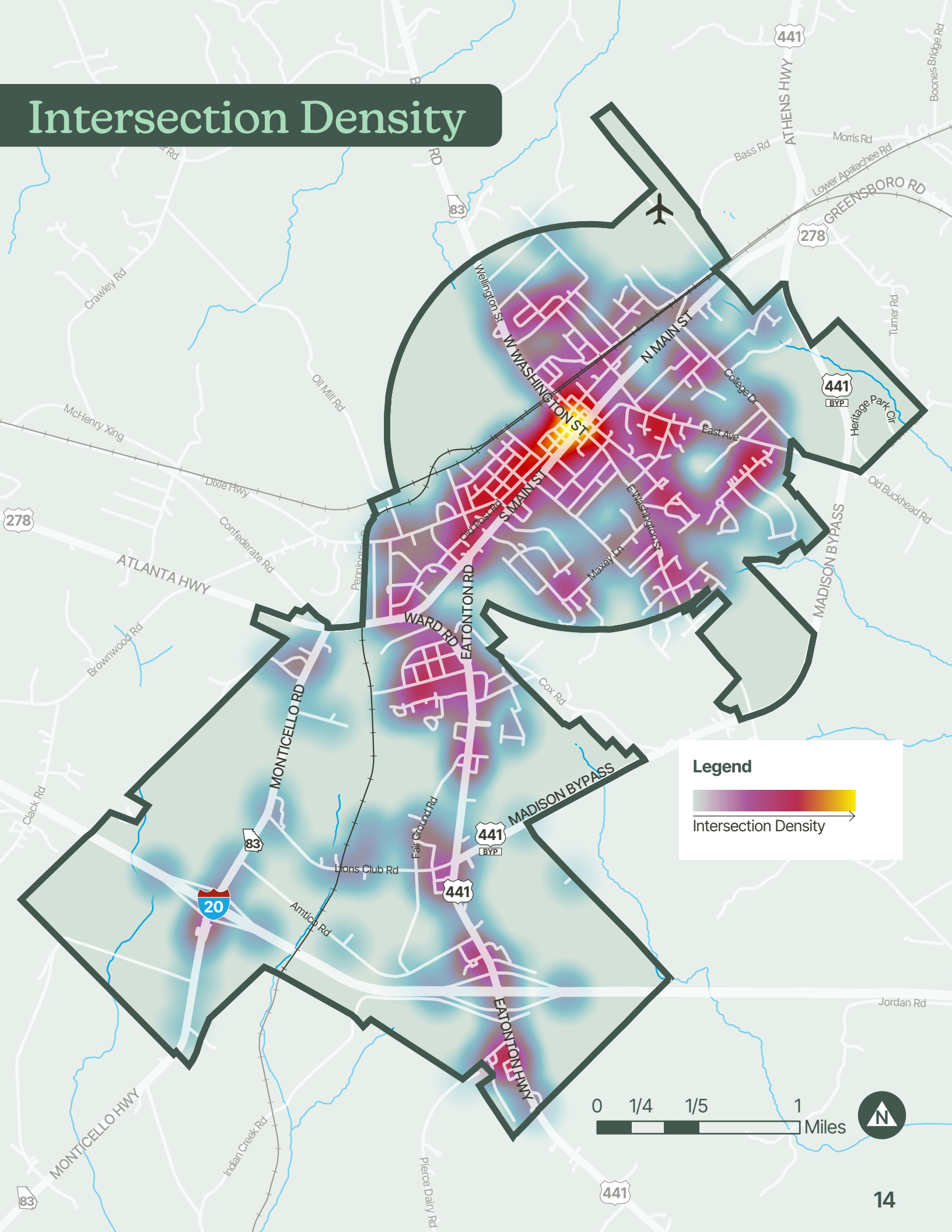
The intersection density map on the next page provides a high-level look at connectivity and therefore, misses more granular connectivity challenges. Specifically, the Canaan neighborhood appears relatively connected on the intersection density map, but is actually quite disconnected from the rest of the city due to the railroad.

Shown on the map below, the railroad poses a significant barrier to this neighborhood with only three formal rail crossings, two of which are within a block of one another. All three crossings have little to no pedestrian infrastructure, limiting pedestrian connectivity. Further limiting pedestrian connections, these rail crossings are also located at the very edges of the quadrant. To reach downtown, residents must either take a circuitous pedestrian route or risk crossing the tracks at a closed crossing at Burney Street. The map below depicts all three crossings.

Railroad as a Barrier



Intersection Density



Traffic Patterns

ADT

Generally, Madison's traffic levels are not high, but there are significant back-ups at key intersections. Local traffic contributes to these delays, but a key source is regional traffic moving through the city to other destinations. The map on the next page shows street volumes using average daily traffic (ADT) counts sourced from StreetLight Data. Two key intersections on Eatonton Road/US 441 exhibit the highest volumes in the city: at the Bypass and the Interstate. Other intersection delays are not as obvious when viewing ADT counts. Supplemented by community input and field observations, the following intersections also experience back-ups:

- Main Street and Jefferson Street
- Main Street and Washington Street
- Bypass and East Avenue/Old Buckhead Road, particularly at school drop-off and pick-up times

Depending on direction, the Bypass diverts between 6,000 and 6,700 vehicles away from downtown—particularly through traffic—but Main Street still experiences high volumes. ADT shows the highest Main Street volumes occur between Eatonton Road and its busy intersection with Washington Street. Because of these delays, cars spill over to parallel neighborhood streets like Academy Street and Old Post Road. These volumes on Main Street not only impact traffic flow on the street itself, but also, the safety and quality of life in nearby residential neighborhoods.

Freight Truck Traffic

US 441 (Eatonton Highway, Madison Bypass, and Athens Highway) and I-20 are both designated freight routes by the State of Georgia. These are the only designated routes in all of Morgan County, and they intersect in the city. Because of this, a significant amount of freight truck traffic (960 ADT) routes through downtown, despite the introduction of the Bypass. In theory, the Bypass should encourage trucks traveling on Eatonton Road/US 441 to avoid downtown. Largely, it succeeds based on truck counts shown on the facing map. Over 1,800 trucks use the bypass to continue along US 441; however, a significant amount of truck traffic use other routes, culminating in 960 average daily truck traffic counts on Main Street south of Washington Street. Once on Main Street, these trucks split off via W. Washington Street or continue north on Main Street, with counts of 560 and 370 respectively.

Truck traffic downtown causes major conflicts with pedestrians and other passenger vehicles. Disruptive noise and vibration, infrastructure deterioration, and congestion are other major concerns. As a two-lane road through a compact downtown, Main Street is ill-suited as a designated truck route.

Repeated city requests for designated alternate truck routes via tested county roads have not been successful to date.

Freight truck traveling north on Main Street

Car + Truck Volumes

LEGEND

Average Daily Traffic (ADT)

- 0-1,000
- 1,001-5,000
- 5,001-10,000
- 10,001-15,000
- 15,001-20,000

ADT: Truck Counts

City Limits

Airport

Railroad

Data from Streetlight, January 2022-April 2024

0 1/4 1/5 1 Miles

N

Safety

To evaluate the existing safety of the city's transportation system, this assessment reviewed two key data points: recent crashes and speed.

Crashes

The map to the right is a heat map of all reported crashes between 2018 and 2022 sourced from GDOT. Crash hotspots include the following areas, ordered by the highest frequency of crashes:

- Downtown core, near the primary intersection of Main Street and Washington Street
- The intersection of Eatonton Road/US 441 and the Bypass/Lions Club Road
- On-and-off ramps for I-20 on Eatonton Road/US 441 - the primary interstate access point
- "The Triangle"- intersection of Main Street and Eatonton Road

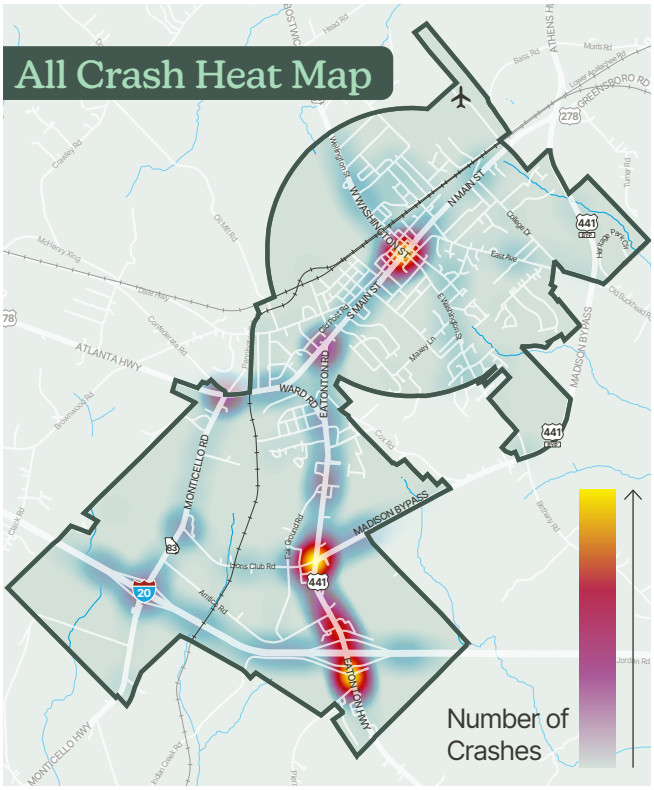
The map on the next page distinguishes these crashes by type and severity. Type of crash includes vehicle-only and pedestrian-involved incidents. In that timeframe, no bicyclist-involved crashes were reported within city limits; otherwise, the map would identify these as well. All pedestrian-involved crashes are shown on the map, distinguishing between two types: serious-to-fatal injury and minor-to-no injury incidents. For vehicle-only crashes, the map only depicts serious-injury-to-fatal incidents. Other vehicle incidents are captured in the crash heat map shown to the right.

Comparing the crash heat map with the more detailed point data reveals that certain intersections are particularly unsafe:

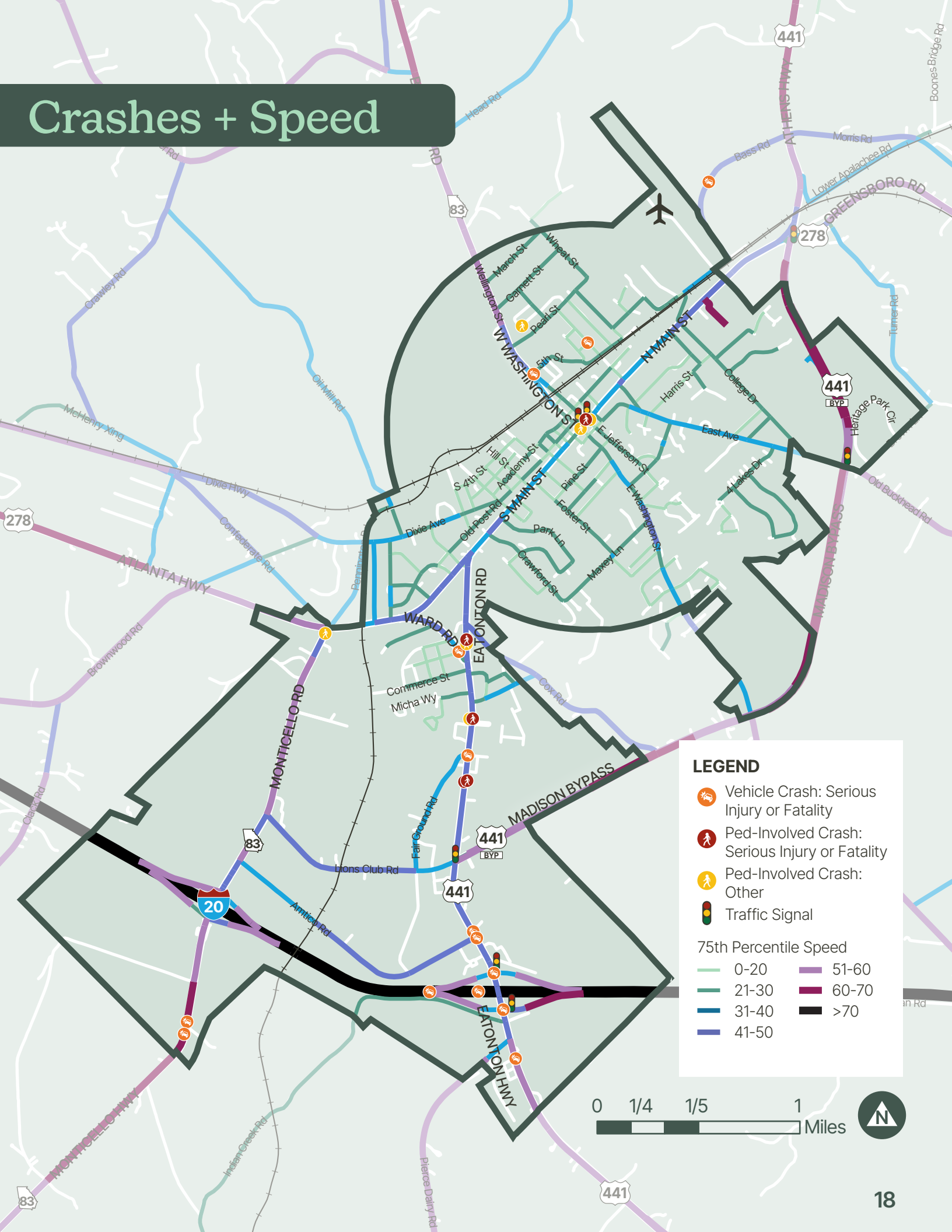
- Downtown core, near the primary intersection of Main Street and Washington Street
- On-and-off ramps for I-20, on Eatonton Road/US 441 - the primary interstate access point
- The southern point of "the Triangle" at the intersection of Ward Road and Eatonton Road/US 441

Speed

Shown on the facing page, the 75th percentile speed represents the actual speeding issues on a street in contrast to a typical average. The map indicates the minimum speed at which the high-speed drivers are traveling, providing a clear picture of the behavior of the fastest 25% of drivers. These drivers have a significant impact on the overall safety and driving experience on city streets, as they are more likely to be involved in accidents or near-miss incidents. By focusing on this speed metric, the city can identify targeted interventions where speeding is a real problem. There are speeding issues on major roads leading to downtown, including E. and W. Washington Street, N. and S. Main Street, Eatonton Road, Dixie Avenue, and East Avenue.



Crashes + Speed



Land Use and Future Growth

Character Areas

Land use has a direct impact on transportation systems, and it is important to consider where planned growth will occur when making transportation recommendations. To accommodate this growth, transportation infrastructure improvements should happen in tandem with new construction. Depicted on the next page, Madison uses character areas from its Comprehensive Plan to guide future land use decision-making. Distinct character areas focus on preservation and infill development while others welcome more growth and redevelopment. When devising recommendations, corridors within the latter type of character areas are ripe for capacity, multi-modal, and street network improvements to accommodate future development.

Industrial and Commercial Growth

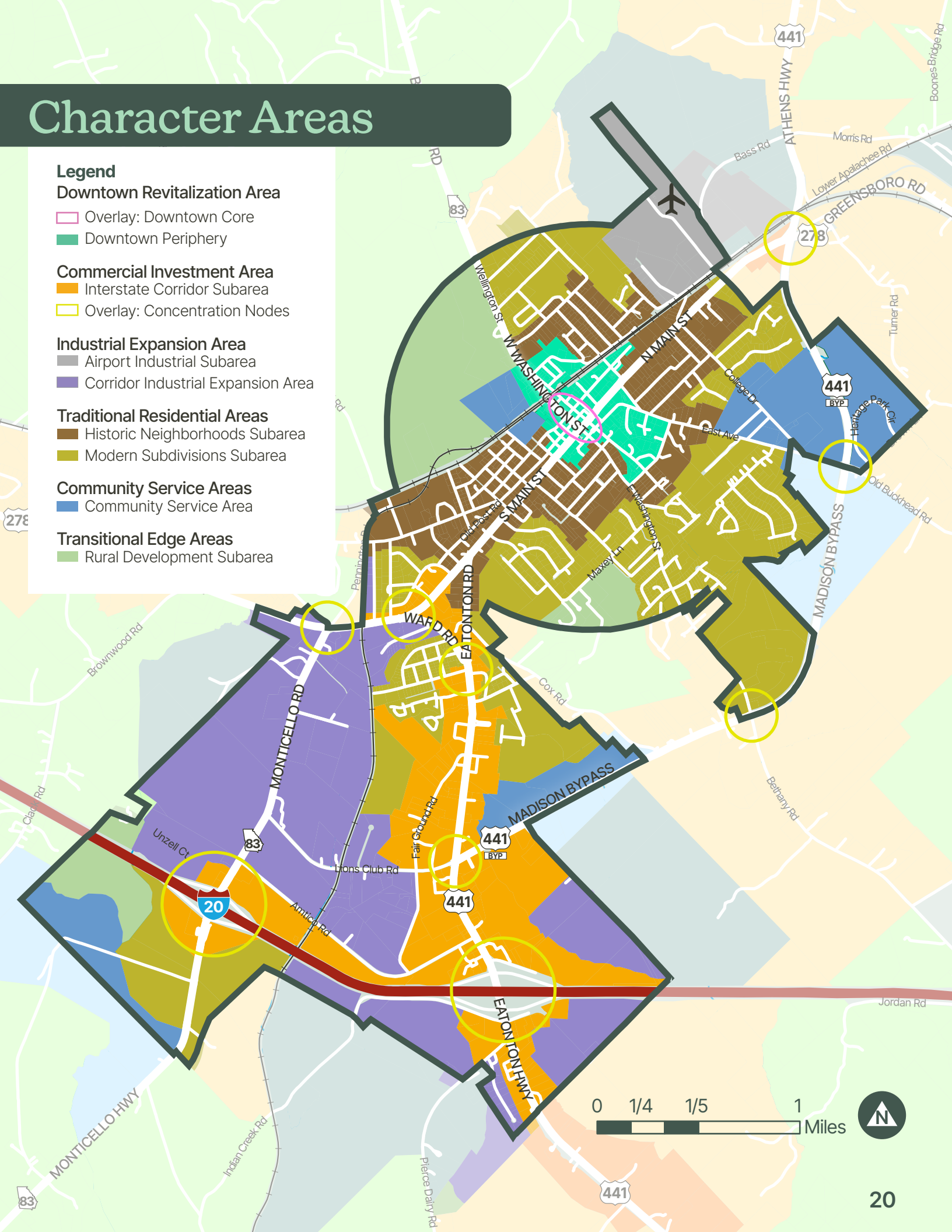
The Comprehensive Plan identifies specific character areas for more transformational growth, including the Industrial Expansion Character Areas and Commercial Investment Areas. Specifically, the plan channels industrial investment around key freight assets like the Airport, Monticello Road/SR 83, and I-20—which will likely add freight traffic. Furthermore, the plan also identifies properties adjacent to Eatonton Road/ US 441 and I-20 for additional commercial investment. Connectivity and retrofitting multi-modal improvements will be important as commercial areas redevelop.

Residential Growth

Residential growth adds pressure to transportation capacity as well as the need for new connected street networks. Most of Madison's residential areas are built-out and will only see infill development; however, the Comprehensive Plan identifies the Modern Subdivisions Subarea and the Downtown Periphery for moderate residential growth. Ensuring Madison's street design standards encourage connectivity and walkability will be paramount as this growth occurs.

Existing industrial land use on Aiport Industrial Boulevard; source: Google Street View 2023

Character Areas



Land Use and Future Growth

Existing Land Use

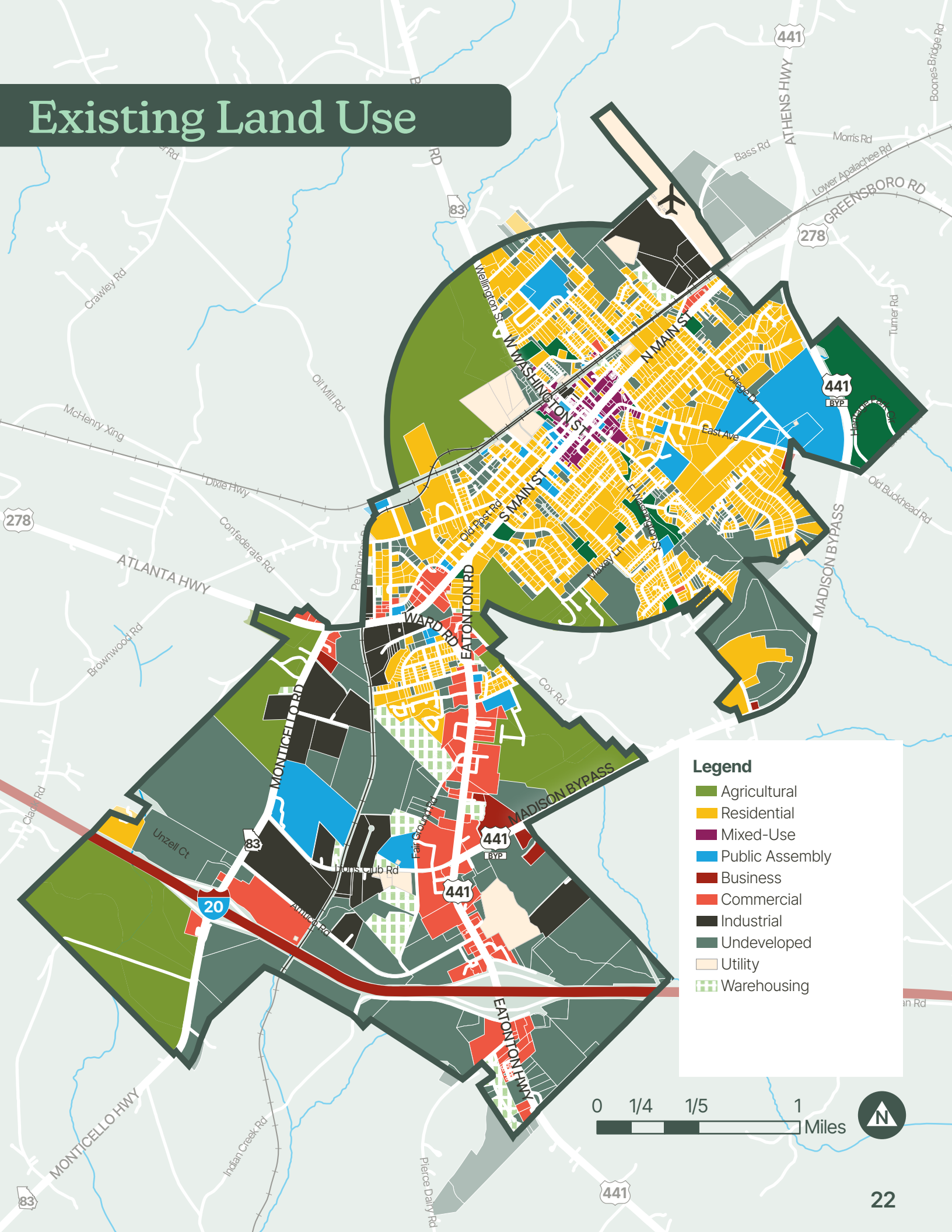
Existing land use lends insight to current transportation patterns and destinations as well as shows potential development opportunities. Specifically, the existing land use map on the next page shows some large pieces of undeveloped and remnant agricultural uses in the city periphery. It is likely that any future development with significant capacity and street network implications will occur on these sites.

Growth Outside Madison

Transportation improvements should also factor in development outside jurisdictional boundaries. Morgan County is experiencing modest residential growth northeast of Madison. This growth has already contributed to delays, particularly at intersections near city limits like the Bypass and Old Buckhead Road. Furthermore, there are plans for a Rivian Plant that will straddle Morgan, Walton, Jasper, and Newton counties. Approximately 16 miles from Madison, this 2,000-acre plant will add 7,500 jobs. While this is an economic boon for Morgan County, such oversized, singular developments like this pressurize housing markets and transportation systems in small cities like Madison.

Construction of a new residential subdivision in unincorporated Morgan County off Old Buckhead Road; source: Google Street View 2023

Existing Land Use



Community Facilities + Environmental Features

Community Facilities

Madison is home to rich cultural resources and community amenities. As shown on the map on the next page, many of these facilities cluster downtown. This hub attracts lively pedestrian activity but also compounds vehicular congestion. Outside of downtown, there are also key institutional facilities that impact the transportation system.

School and Recreation Cluster

The College Drive and East Avenue area is the nexus of education and recreation in Madison. Four of Madison's five schools are located on College Drive and East Avenue: Morgan County High School, Morgan County Middle School, Morgan County Elementary School, and Morgan County Primary School, as well as two more schools that are built along college Drive (see map). The nearby Morgan County Library supports this educational hub as well as the broader community. Furthermore, recreational amenities congregate here. It is the home of the Morgan County Aquatic Center and Soccer Complex. Just east of the bypass, the William "Bill" Wood Park offers several amenities on its 100 acres, including a picnic shelter, barbeque pavilion, three playgrounds, five baseball/softball fields, a soccer complex, a cross country trail, and a dog park. With this concentration of educational and recreational resources, people flock to this part of town, and thus, congestion and pedestrian safety is of concern.

Grocery Store

The only standalone grocery store within city limits is the Ingles on Eatonton Road/US 441. It is accessible by car; however, the area's lack of connectivity does not offer multiple routes to this grocery store. Coming from downtown, it is also difficult to access Ingles by foot, bike, or other non-vehicular means. While there are continuous sidewalks leading from downtown to Ingles, they require multiple crossings on a high-volume and high-speed road, often without a crosswalk. Similarly, biking or using a PTV from the downtown area is perilous. Because there are no alternative routes, bicyclists face dangerous conditions on US 441 or must break state law and ride on the sidewalk. PTV users are prohibited from using US 441. Access to food is a daily necessity and basic human right and yet getting to Ingles is an almost insurmountable challenge for people using non-vehicular modes of transportation.

Environmental Features

Waterways present both opportunities and challenges in transportation planning. Navigating creeks and floodplains can pose limitations on new streets and development yet also provide scenic routes for trails and community amenities.

State Waters

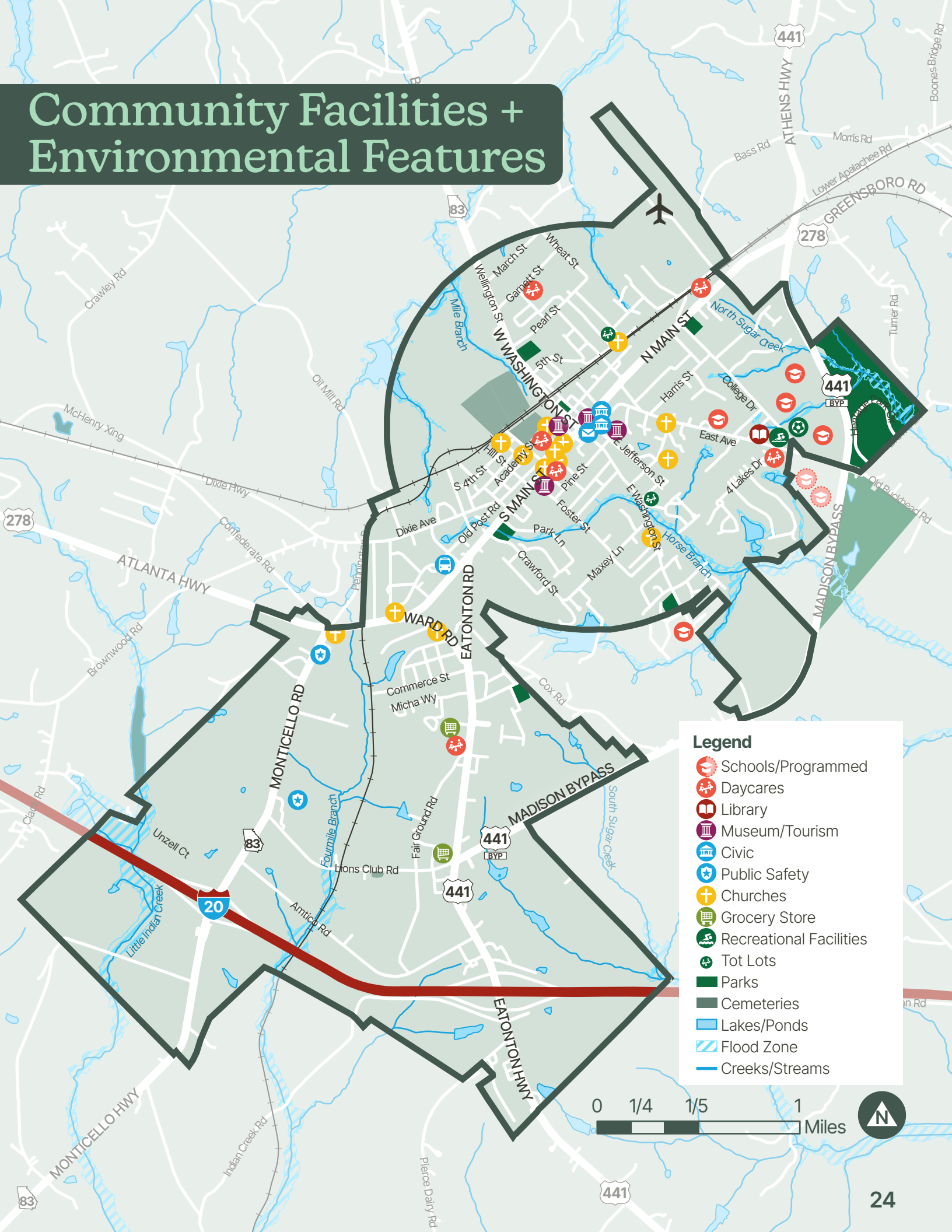
While there are no has no rivers within city limits, Madison does boast six state waters with tributaries: One Mile Branch, North Sugar Creek, Horse Branch, South Sugar Creek, Four Mile Branch, and Little Indian Creek. Horse Branch transects the city and is the most impaired waterway in Madison. As such, efforts have been made to preserve greenspace surrounding the tributary and enhance the undisturbed remnants as a natural amenity.

Trail planning often focuses on natural areas near streams due to federal and state mandates requiring buffers and floodplain regulations, which help preserve the continuous, linear corridors essential for trails. Also, they often connect to valuable habitat and scenic greenspace destinations. Madison has already leveraged this opportunity by developing a primitive trail along Horse Branch. Many other streams and tributaries offer additional trail opportunities.

Flood Zones

Flood zones, or floodplains, in Madison typically follow the paths of streams and tributaries. Many parks and preserves encompass these flood zones to protect this sensitive land as floodplains can render the land undevelopable. Greenspaces like the William "Bill" Wood Park and Hill Park contain floodplains that stem from North Sugar Creek and Horse Branch, respectively.

Community Facilities + Environmental Features



Bike, Pedestrian, + PTV Infrastructure

Existing Infrastructure

Sidewalks

There is good sidewalk coverage in Madison with sidewalks generally available on at least one side of collector and arterial streets. Importantly, sidewalks are present and generously buffered with trees and landscaping on major roads like Main Street, Washington Street, and Eatonton Road/US 441.

There are key areas where sidewalks need to be added or improved. For instance, continuous sidewalks are missing in the quieter, more residential areas surrounding downtown. Main Street congestion causes drivers to use these alternative parallel streets which creates more frequent conflict with pedestrians and vehicles in these neighborhoods. Outside downtown, the City has programmed construction of roughly five additional miles of sidewalks through four GDOT-funded transportation alternatives program (TAP) projects. Currently, critical pedestrian access to downtown is limited, as only one substandard sidewalk connects it to the northwest residential quadrant.

Bike Facilities

There are currently no separated and safe bicycle facilities. Despite this, there is still an active cyclist community of more experienced, confident riders that use the Antebellum Bike Route, which is an on-street, long-distance route for cyclists spanning about 180 miles. It showcases antebellum architecture and historic resources. Furthermore, Madison continues to draw Bicycle Ride Across Georgia (BRAG), an annual long-distance cycling event. While people do bike in Madison, the lack of separated bicycle facilities makes biking inaccessible to most riders who are averse to riding in the street with vehicle traffic.

PTV Facilities

PTVs, like golfcarts, are growing in popularity in Madison, but there are currently no off-street facilities for them. PTVs must share the road with vehicles, but they are prohibited on roads with posted speed limits over 35 mph (i.e., US 441). This limits PTV access to daily needs.

Transit

Morgan County offers on call, for pay microtransit service. The service does not venture outside Morgan County, aside from regularly scheduled trips to Covington and Athens. It is intended to provide access to local needs for county residents such as the grocery store, work, and healthcare.

Walksheds

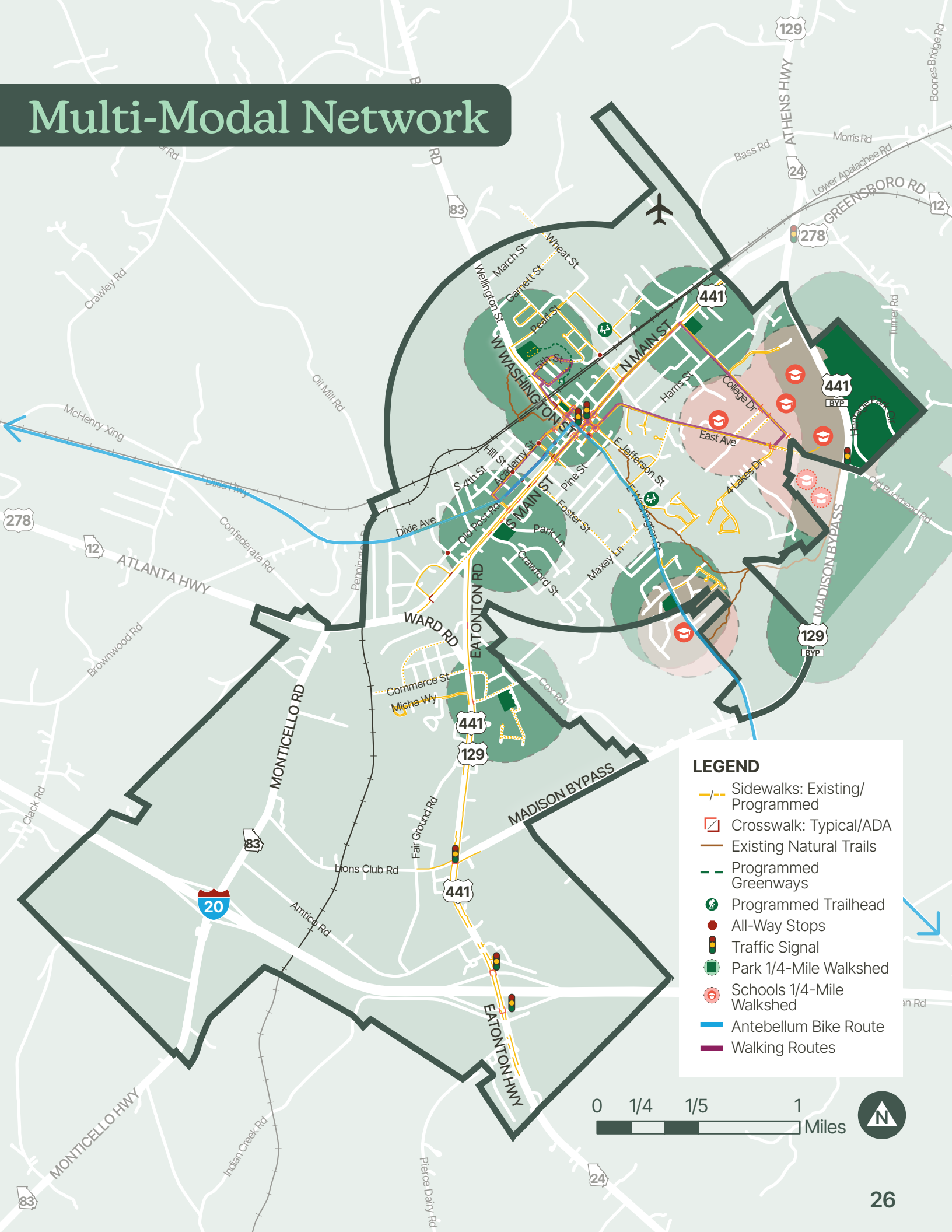
Children are considered vulnerable road users, so ensuring pedestrian safety and connectivity to their frequent destinations, like schools, is of utmost importance. There are sidewalks on at least one side of the major roads connecting to the school cluster around College Drive and East Avenue; however, there is intermittent sidewalk access on the local, more residential streets leading to these major streets. A number of programmed sidewalks will improve north-south sidewalk connectivity to these schools along Vine Street and College Avenue.

In Madison's case, schools are also located near key recreational amenities like the Aquatic Center and Dupree Track. These are destinations frequented by children, but also other Madisonians. Safe pedestrian access and walkability to parks and recreational amenities is important to promote an active, healthy community.

Most parks in Madison are in walkable areas. They typically have continuous sidewalk access, but dedicated crosswalks are needed for some. There are missing crosswalks in front of Gilbert Park, Hill Park, Walton Park, and Andrews Park. While these parks are in walkable areas, crosswalks are needed to improve access to these parks.

The county's regional park—the William "Bill" Wood Park—and the new Soccer Complex across Old Buckhead Road is in a more car-dependent area. It lies on the eastern side of the Bypass, making it difficult to access on foot with a long crossing distance on a high-volume road.

Multi-Modal Network



Bike, Pedestrian, + PTV Infrastructure

Pedestrian Level of Comfort

To highlight potential needs, a pedestrian Level of Comfort (LOC) Analysis scored varying levels of pedestrian comfort across the city. This analysis considered sidewalk presence with type of buffer between sidewalks and streets as well as road volume (ADT). Other factors influence a pedestrian's walking experience, so LOC is not an exhaustive tool. It acts as a high-level analysis designed to tease out key areas in need of pedestrian improvements, and additional consideration and community input complements LOC when determining priority pedestrian infrastructure needs and projects.

Ordered by increasing comfort levels, the following sidewalk categories were used:

- No sidewalk
- No buffer
- Buffer with landscape or hardscape
- Buffer with shade trees

The analysis compared these sidewalk categories to the following ranges of ADT counts. As volumes increased, comfort levels decreased:

- Less than 500
- 500-1,000
- 1,000-3,000
- 3,000-10,000
- Greater than 10,000

LOC ranged between one and five with one being the most comfortable and five being the least comfortable level. As anticipated, there is a clear divide between more comfortable pedestrian conditions in the northern part of the city in contrast to increasingly low levels of comfort to the south.

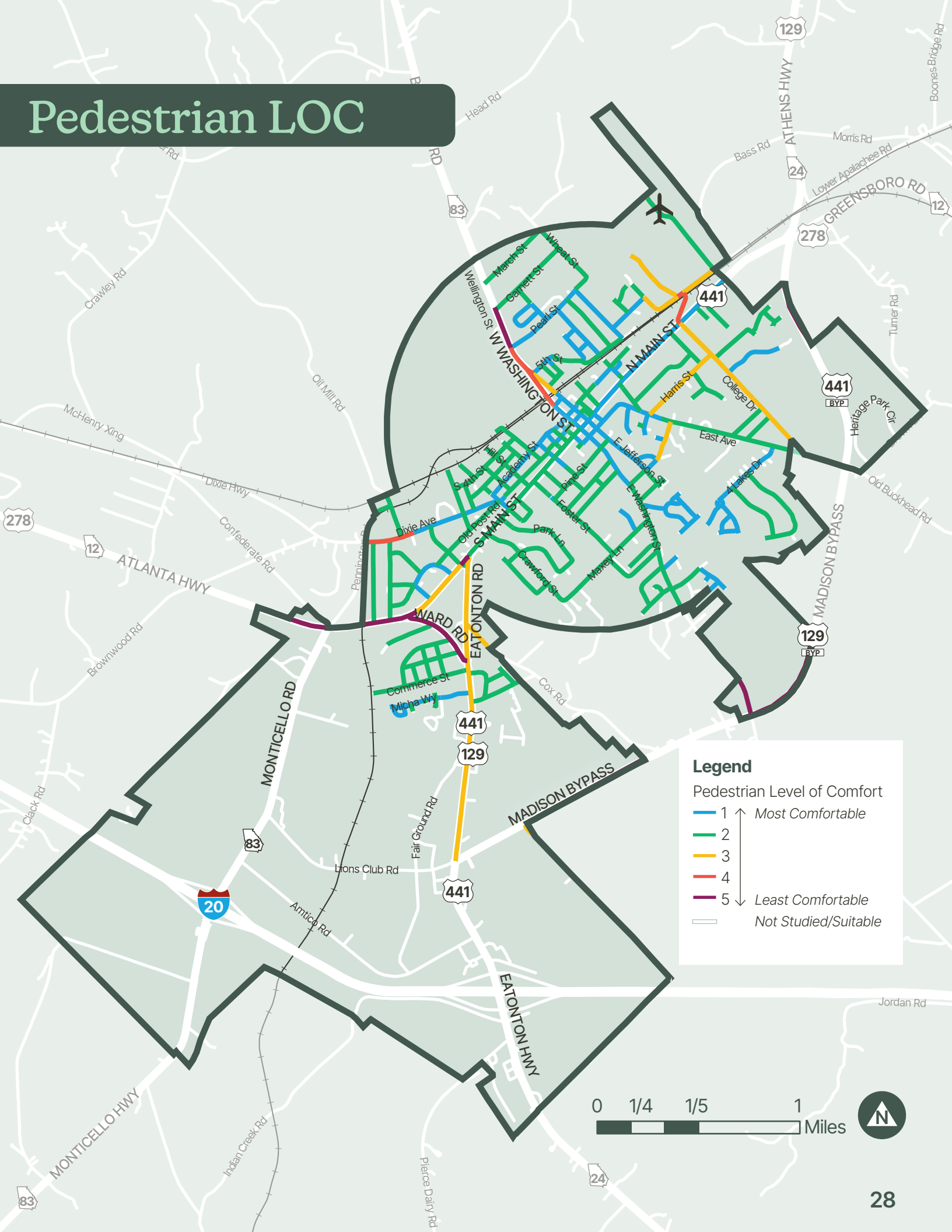
Downtown was designed to be walkable, enjoying high levels of comfort with low-volume streets and many with tree-lined, buffered sidewalks. While there is inconsistent sidewalk access in the residential historic district and the Canaan neighborhood, these streets score on the higher end of the pedestrian comfort spectrum because of their low vehicle volume.

At most crosswalks downtown,the City of Madison offers orange flags for pedestrians to carry for visibility.

Lower levels of comfort appear more often in the southern portion of the city where high volume commercial and industrial corridors that extend to the interstate are located.

However, some notable low levels of comfort do appear downtown. Washington Street leading northwest has a low level of comfort because of its high volume and intermittent access to sidewalks. The community has remarked that the passage under the rail bridge on Washington is perilous, as the sidewalk is substandard and lacks a buffer between the pedestrians and vehicular traffic. As a critical access point into downtown for a quarter of residents, this stretch of Washington Street warrants some level of intervention. While scoring in the middle range of LOC, College Drive's level of comfort score stands out as well, as it is home to most of the schools in the city. These and other instances of low LOC should be addressed more immediately for pedestrian safety and comfort.

Pedestrian LOC



Bike, Pedestrian, + PTV Infrastructure

Bicycle Level of Comfort

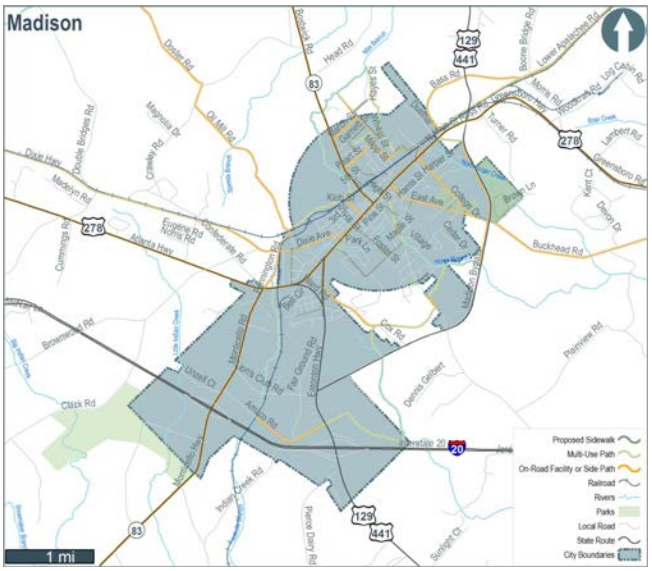
Similar to pedestrian LOC, the bike LOC analysis ranks streets on a one to five scale, but its analysis takes into account more roadway characteristics (particularly because there are no dedicated bike facilities in Madison). Typically, the type of bike facility—like a bike lane with painted buffer vs. grade-separated sidepaths—would factor heavily into the analysis. In Madison's case, bike LOC focused solely on roadway factors. Evaluation criteria include:

- Street functional class (see p.12)
- Vehicle volumes
- Number of travel lanes

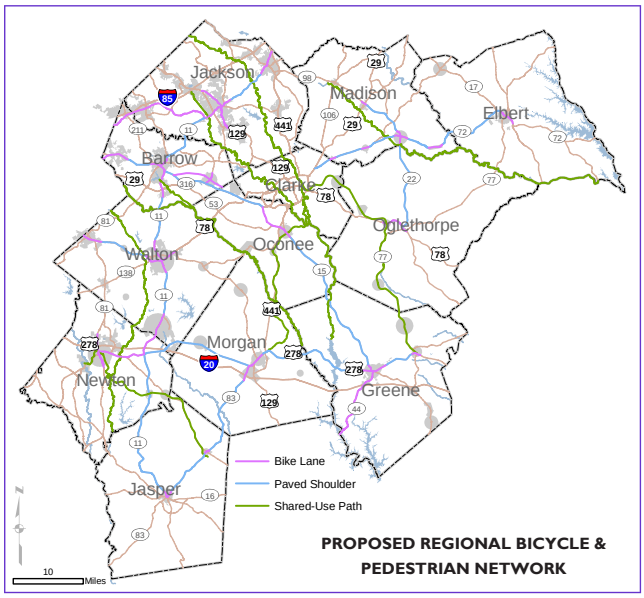
While the analyses are similar, the bike LOC results shown on the facing page differ from the pedestrian analysis in key ways. Tree-lined Main Street provides generally comfortable conditions for pedestrians, but bicyclists must navigate a busy arterial amongst vehicles. Regardless of infrastructure, local streets are usually the most comfortable for bicyclists, whereas pedestrian LOC varies slightly with sidewalk access. Two-lane roads like Amtico Road and Fairground Road score better than the pedestrian LOC as well. Otherwise, the analyses point out similar areas of discomfort.

Notably, planned or existing bike routes follow a number of uncomfortable streets. Previous plans have identified certain Madison streets as part of a larger county-level and even regional bike network. A key route includes Lower Apalachee Road just outside Madison's northern border traveling south via Bass Road to Main Street, then continuing onto either Atlanta Highway/US 278 or onto Monticello Road/SR 83. These plans call for dedicated bike facilities. Dixie Avenue is included in an existing on-road Antebellum Bike Route (see p.26-27) that travels from E. Washington Street to Dixie Avenue/Highway via Old Post Road. Both of these planned and existing routes score a three or higher on the bike LOC with the exception of Bass Road.

While still relatively comfortable for bicyclists, College Drive and East Avenue stand out with their scores of two amongst other level one streets, particularly because these are key routes to school. Combined with the results from the pedestrian analysis, College Drive should be a key focus area, particularly if the community values walking and biking to school.

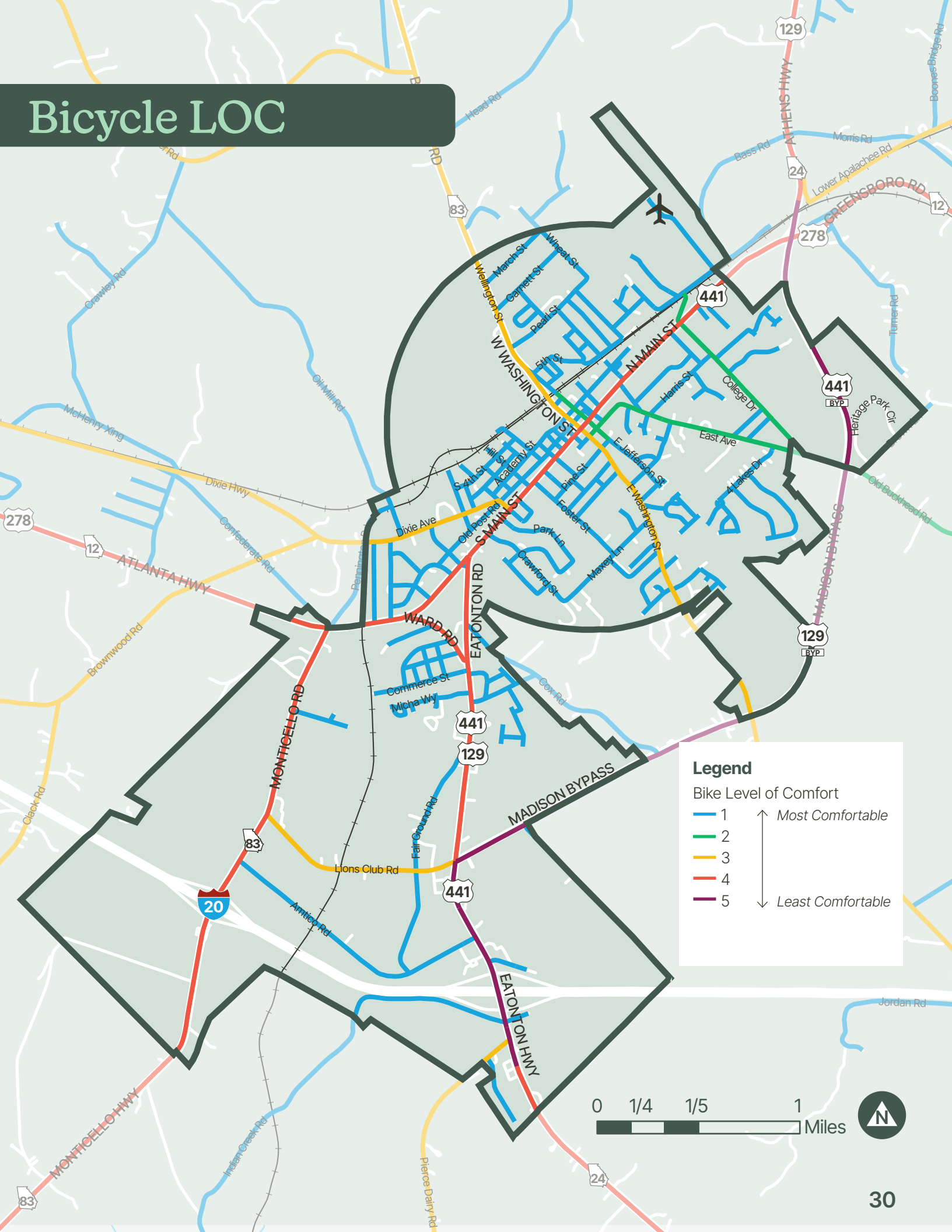


Connecting Morgan County: A Bike and Pedestrian Plan (2014)



Northeast Georgia Plan for Bicycling and Walking (2011)

Bicycle LOC


Legend
Bike Level of Comfort
1
2
3
4
5
Most Comfortable
Least Comfortable
0
1/4
1/5
1
Miles
N
W WASHINGTON ST
N MAIN ST
S MAIN ST
E Washington St
E Jefferson St
Wellington St
March St
Wheat St
Garnett St
Pearl St
5th St
Harris St
College Dr
East Ave
4 Lakes Dr
Heritage Park Cir
Pine St
Foster St
Park Ln
Crawford St
Maxey Ln
Academy St
S 4th St
Dixie Ave
Old Post Rd
WARD RD
EATONTON RD
EATONTON HWY
MONTICELLO RD
MONTICELLO HWY
MADISON BYPASS
ATLANTA HWY
ATHENS HWY
GREENSBORO RD
Commerce St
Micha Wy
Lions Club Rd
Fair Ground Rd
Antioch Rd
Cox Rd
Jordan Rd
Pierce Dairy Rd
Indian Creek Rd
Brownwood Rd
Confederate Rd
Dixie Hwy
McHenry Xing
Crawley Rd
Oil Mill Rd
Head Rd
Bass Rd
Morris Rd
Lower Apalachee Rd
Turner Rd
Old Buckhead Rd
Boones Bridge Rd
Clack Rd
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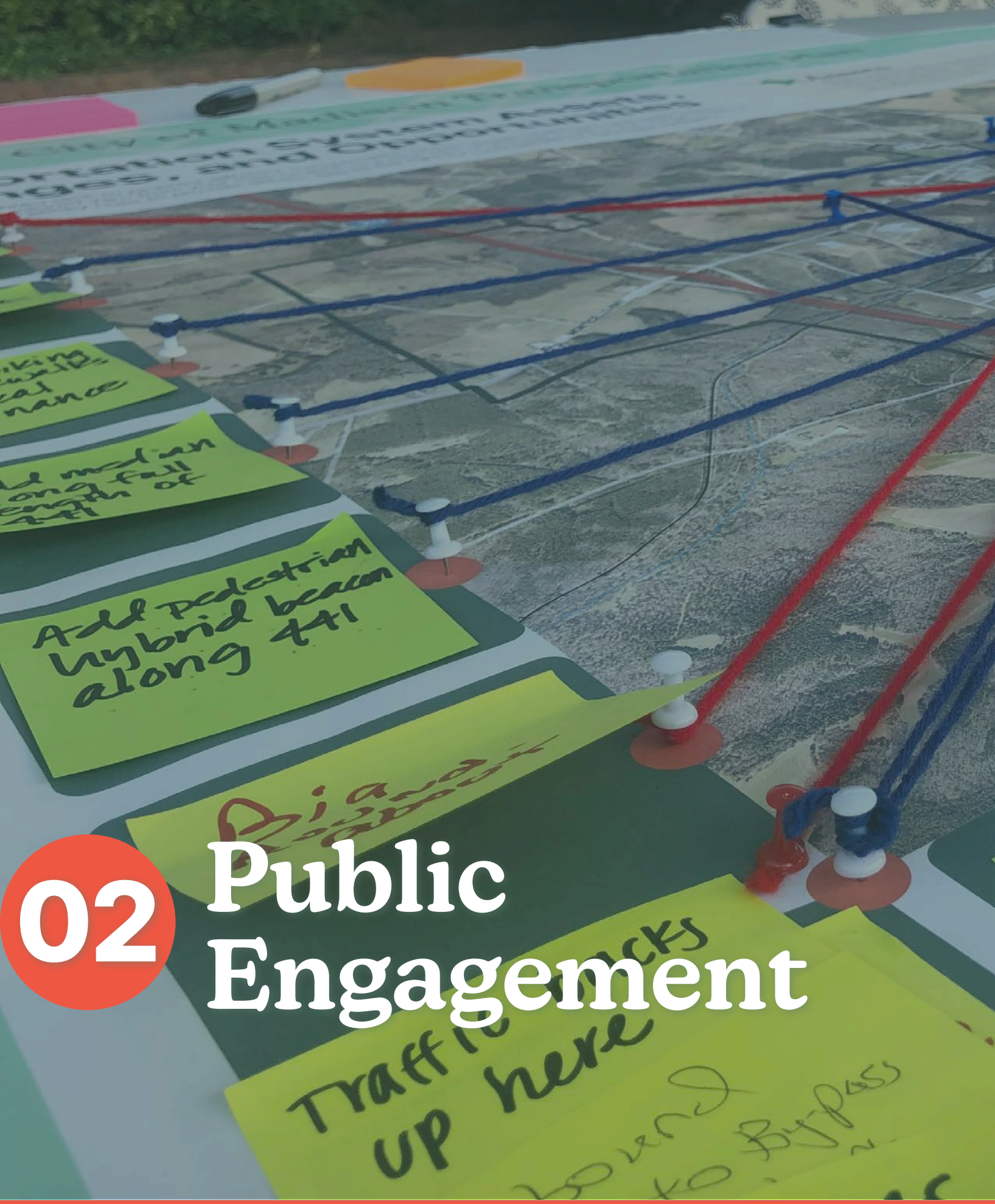
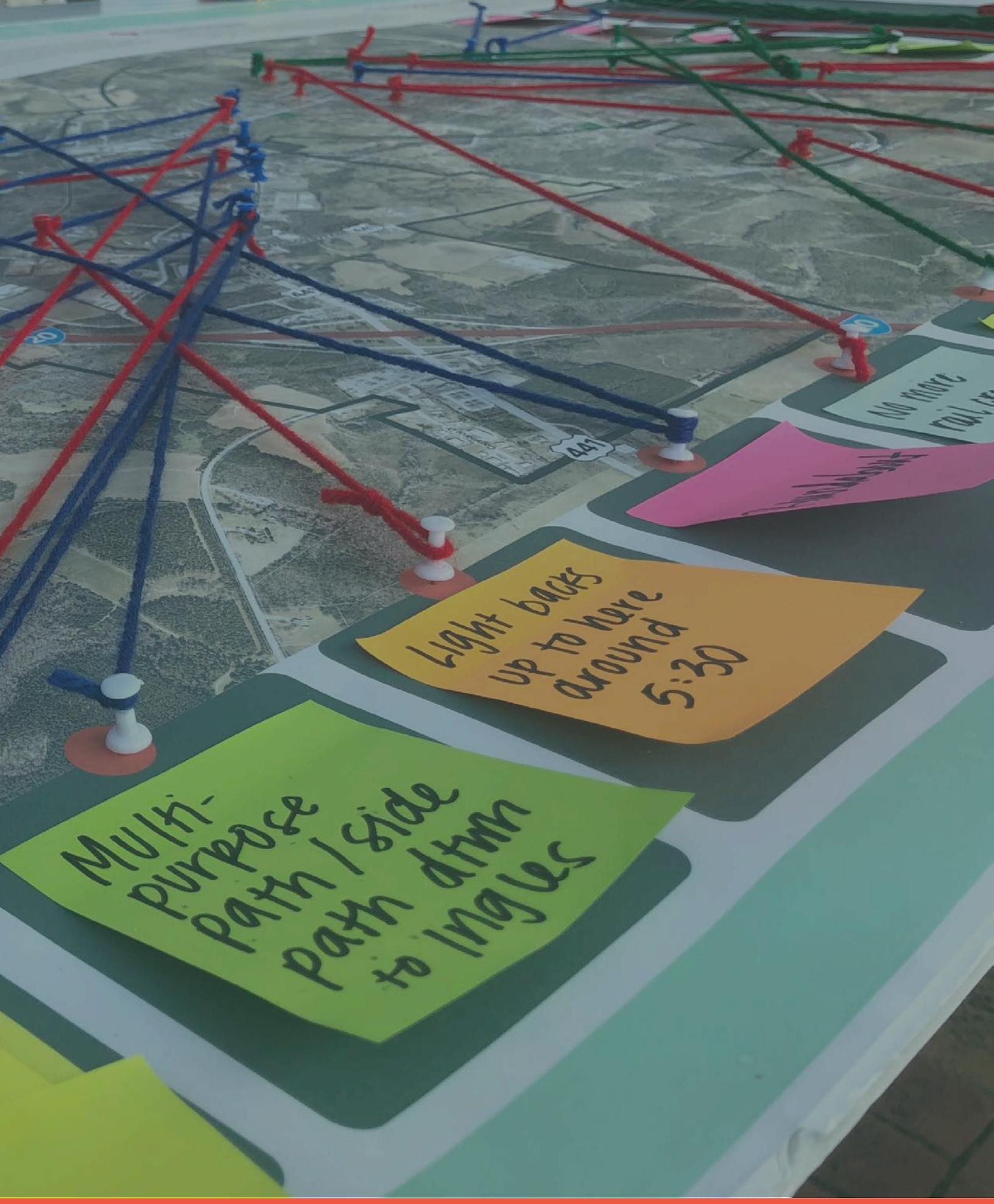
129 BYP



02 Public Engagement


Light backs up to here around 5:30
Multi-purpose path / side path dtwn to Ingles

Process

Effective public and stakeholder engagement was vital to the success of this plan for two reasons. First and foremost, it informed the plan's trajectory by establishing plan goals as well as crowdsourcing transportation system assets, challenges, and opportunities. Second, engagement built support and momentum around the plan, laying the groundwork for sustained long-term implementation.

Approach

The plan's outreach approach aimed to creatively engage many different voices and perspectives. To do this, outreach efforts emphasized meeting the community where they are via in-person and technology-enabled methods. Specific outreach methods included:

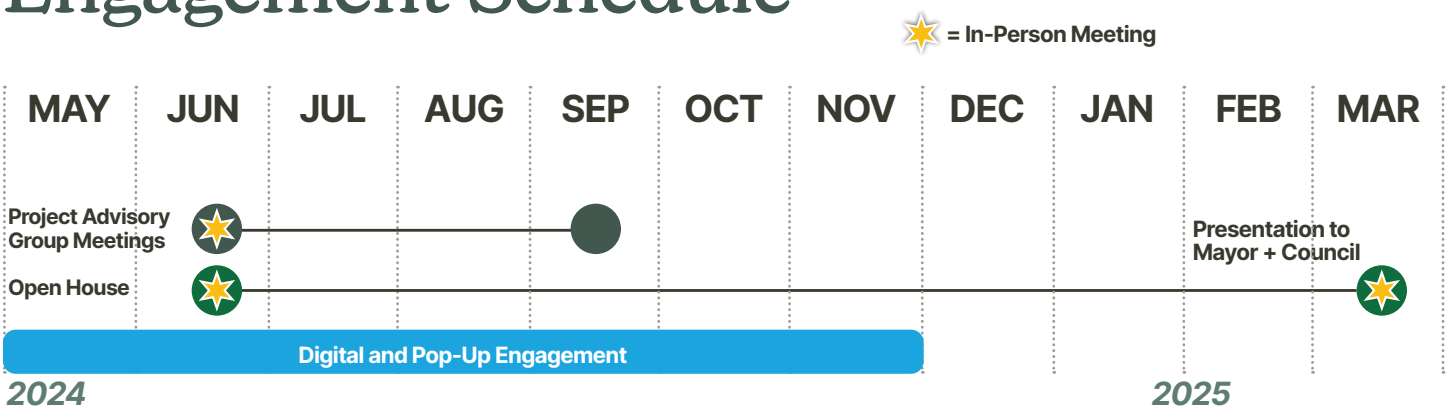
- Forming a project advisory group (PAG)
- Hosting a public open house at Town Park
- Creating an online mapping tool
- Making surveys available online and in paper form

Transportation Plan Goals

To lay the foundation for the plan, early engagement events informed a set of key plan goals:

- Consider accessibility and connectivity for all ages, abilities, and modes when making improvements to the transportation network
- Enable safe walking, biking, and carting to daily needs, like schools, parks, and the grocery store, as well as for recreation
- Improve pedestrian safety through additional infrastructure, better street design, and traffic control measures
- Ensure transportation improvements enhance or maintain the City of Madison's small-town character
- Reconnect isolated and disinvested communities by removing barriers and creating new connections
- Reduce traffic congestion at intersections and promote calmer, safer driving on neighborhood and downtown streets
- Re-route truck traffic away from downtown and neighborhoods to alleviate impacts to noise, safety, and the small-town experience
- Provide practical, buildable, and fundable solutions to address Madison's transportation challenges

Engagement Schedule



Methods + Results

Project Advisory Group (PAG)

The project team selected community leaders representing multifaceted community interests to form a PAG. Representatives included residents, community leaders, elected and appointed officials, downtown business owners, local developers, and emergency services.

This group provided guidance during two scheduled meetings: one at the outset of the project, and one at the midpoint. They also served as champions for the project's engagement, distributing project announcements and information within their own networks to maximize engagement reach, as well as spread awareness.

Meeting #1 Summary

On June 13th, the first PAG meeting was held in person at the Public Safety building on Main Street. The project team explained the project and PAG responsibilities as well as provided some initial findings from its preliminary analysis. The bulk of the meeting was dedicated to identifying plan goals as well as preliminary ideas from which key themes emerged.

The PAG clearly conveyed their belief that access, connectivity, and network are goals that are inextricably linked. Combined, they asserted that a plan that improves access, connectivity, and the overall network will promote equitable outcomes. Preliminary ideas focused primarily on safety and connectivity improvements, particularly for pedestrians.

Meeting #2 Summary

The second meeting was held virtually over zoom on September 4th. The project team updated the PAG on recent engagement activity and how this influenced the most recent set of plan goals. After this review and discussion, the team presented the preliminary concept plan, breaking it down into layers: greenways and bike routes, crossings and intersections, and sidewalk and street connections. In breakout groups, PAG members provided detailed feedback on the concept plan.

The PAG concurred that the plan goals reflected both recent community input and the PAG's discussion from the first meeting; however, some refinements were needed. In particular, they requested an additional goal emphasizing the need to connect disinvested, disconnected communities. This discussion informed final plan goals shown on the previous page. Additionally, the PAG expressed support for the concept plan and believed that the project team was heading in the right direction. They had a few minor edits or clarifications, and the project team incorporated these in the next iteration. Notably, there were some reservations about the bike routes, as some mentioned that routes—rather than protected bicycle facilities—did not adequately cater to all Madisonians.

Methods + Results

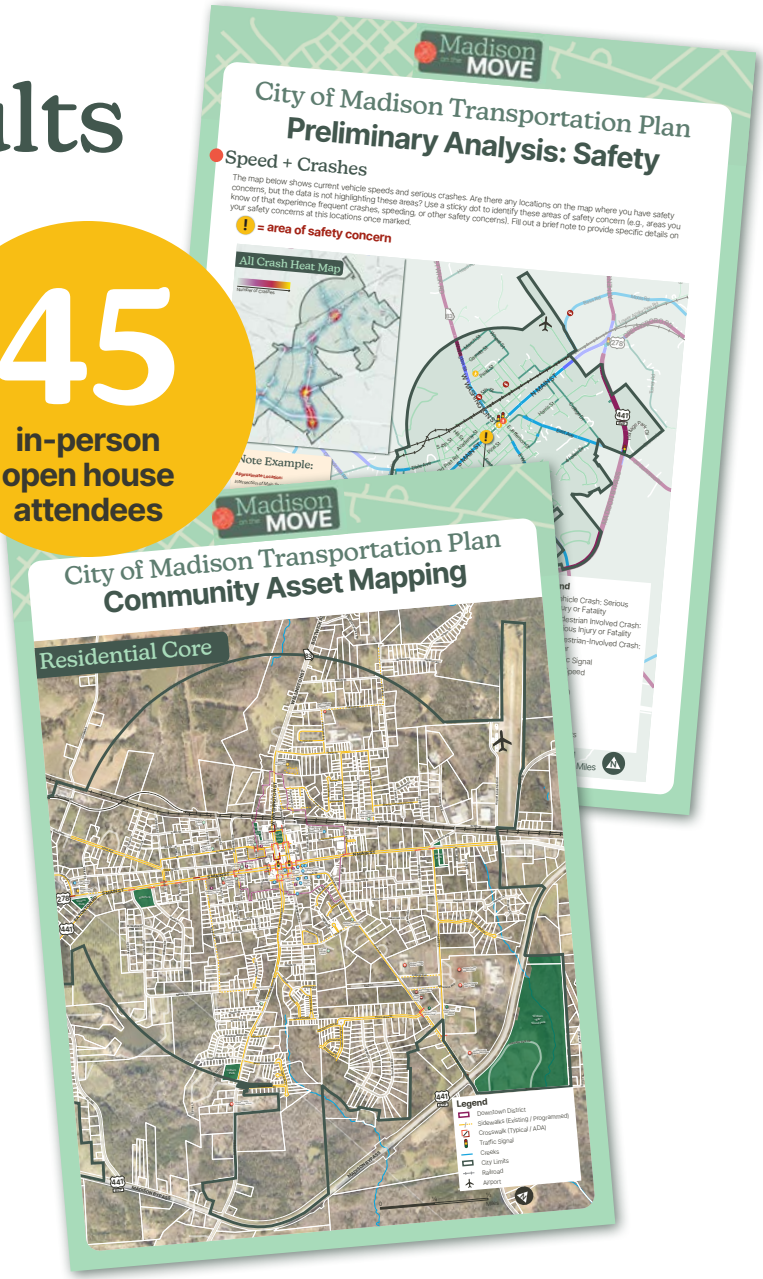
Public Open House

On June 13th after the first PAG meeting, the project team hosted a public open house at Town Park which approximately 45 people attended. The open house had three activity stations designed for attendees to complete at their own pace.

Station 1 introduced attendees to the project and displayed the preliminary analysis of transportation conditions in Madison. One map showed average speed, crashes, and other safety related data. The activity asked participants to highlight other areas of safety concern that the data did not capture. The results highlighted limited sight lines, dangerous crossings, cut-through traffic, and narrow sidewalks around town.

At Station 2, participants were asked to indicate their typical travel mode (drive, walk, bike, or use a PTV) and identify community assets and destinations that they frequent in three distinct parts of Madison. Along major corridors (Monticello Road/SR 83 and Eatonton Road/ US 441), many of the destinations are typically reached by car; however, it should be noted that a few people currently bike to Ingles on 441. In the residential core, walking and biking are a more popular form of travel. PTVs also are used to access destinations around the residential core. Similarly, walking and biking were more common downtown.

45
in-person open house attendees



Participants at Station 1

Participants at Station 2

Methods + Results

Station 3 asked attendees to identify specific locations of transportation system assets, challenges, and opportunities. There was a total of 32 pinned locations. Of these, there were 4 distinct assets, 13 distinct challenges, and 15 distinct opportunities. The majority of assets were related to walking trails and pedestrian infrastructure. Challenges were predominantly related to congestion at specific intersections and its effects on local streets. Opportunities varied, but many were related to potential pedestrian and bike infrastructure including crosswalks, traffic calming, medians, bump outs, and greenways.

Key Themes

- **People want to be able to safely access daily services (grocery store, school, etc.) using means other than a car (e.g., walking, bike, or PTV). While some already do, it is very unsafe.**
- **Traffic backs up at every traffic signal in town during peak hours, particularly when school starts and lets out.**
- **Typically safe, non-vehicular routes parallel to Main Street are experiencing speeding thru traffic.**
- **Attendees emphasized rerouting trucks away from downtown because they currently pose concerns related to safety, noise, and vibration.**
- **Parking downtown is of concern related to both type and quantity. Attendees mentioned that angled parking affects sight lines at intersections, and others stressed that there is not enough parking, particularly near Town Park where several events take place in the park and in nearby event venues.**

Surveys

Online engagement via surveys occurred throughout the planning process. The planning team kicked off public engagement through the online release of Survey I and II. The final touchpoint was an online survey asking for comments on the concept plan when released. Where possible, physical copies of surveys or activities were provided.

Survey I - Introductory Questionnaire

Released concurrently with Survey II, Survey I was designed to capture high-level input on plan priorities, transportation system assets and challenges, and needed safety improvements for bicyclists, pedestrians, and PTVs. This survey also asked for demographic information that the planning team compared to the city's own demographics to reveal any gaps in outreach efforts. To address these gaps, PAG members and city staff distributed physical copies of Survey I at pop-ups and other community gathering spaces to better reach the African American community as well as younger families. Overall, the survey received 133 responses. A summary of the results is shown on the next page.

Survey I Summary

133
online and paper survey I responses

Top Assets

1. I am able to access I-20 easily to reach other destinations.
2. Downtown is well-connected through its street grid.
3. I can walk to many destinations safely.

Top Needed Bicyclist/ Pedestrian Improvements

1. Sidewalk gaps should be filled.
2. Madison should create a multi-use trail system.
3. More and safer crossings should be installed, particularly near community resources like schools and daycares.

Top Challenges

1. Truck traffic is noisy and makes me feel unsafe.
2. There is too much traffic congestion.
3. Cars and trucks speed through the community.

Top Needed PTV Improvements

1. There should be a paved trail system for PTVs and other users.
2. PTV owners need to be made more aware of, and ticketed for, violating state and local safety regulations like using seatbelts.
3. I would like dedicated routes to places I go everyday like the grocery store, library, and post office.

Children walking/ biking around town:

- Most respondents no longer have school-aged children but like the idea of children walking/ biking around town.
- Parents generally would let their children walk/bike if changes were made.

General Comments:

Madison is wonderful, small town community. Unfortunately, one of the greatest aspects is diminished due to speeding cars and high truck traffic and noise...

I would love to feel more comfortable with my children getting around town on their own when they get older but feel that the transportation challenges are the major concern...

Methods + Results

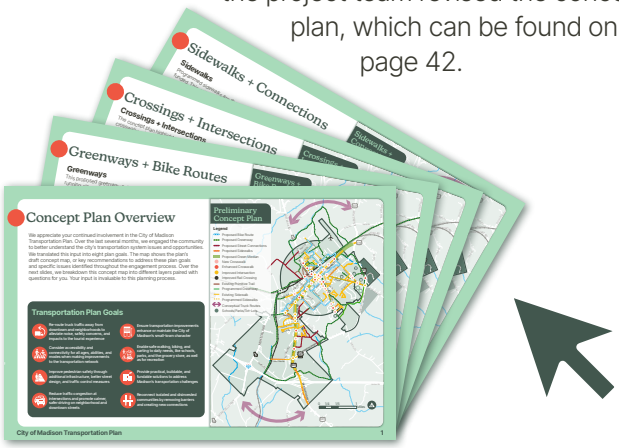
45
survey III responses

Survey II - Mapping Tool

Mimicking the in-person exercise from the Open House, Survey II was a mapping tool for Madisonians to pinpoint transportation system assets, challenges, and opportunities virtually. This tool was paired with the high-level Survey I, offering a more granular way for respondents to comment on problem areas and propose ideas. By design, it mirrored Station #3 of the public open house, offering both a virtual and in-person opportunity to map comments. Together, these mapping activities recorded 177 pinned locations, with 37 from the open house and 140 from the online mapping tool. The majority of input points concentrated in the downtown and surrounding residential core. Outside this area, respondents identified several challenges along Eatonton Road. Comments identified 13 assets, 143 challenges, and 21 opportunities. Assets ranged from recreational amenities, trails, parking areas, and existing traffic calming devices. Challenges varied widely, but many identified missing sidewalks or those in poor condition, dangerous intersections and crosswalks, and speeding and cut through traffic.

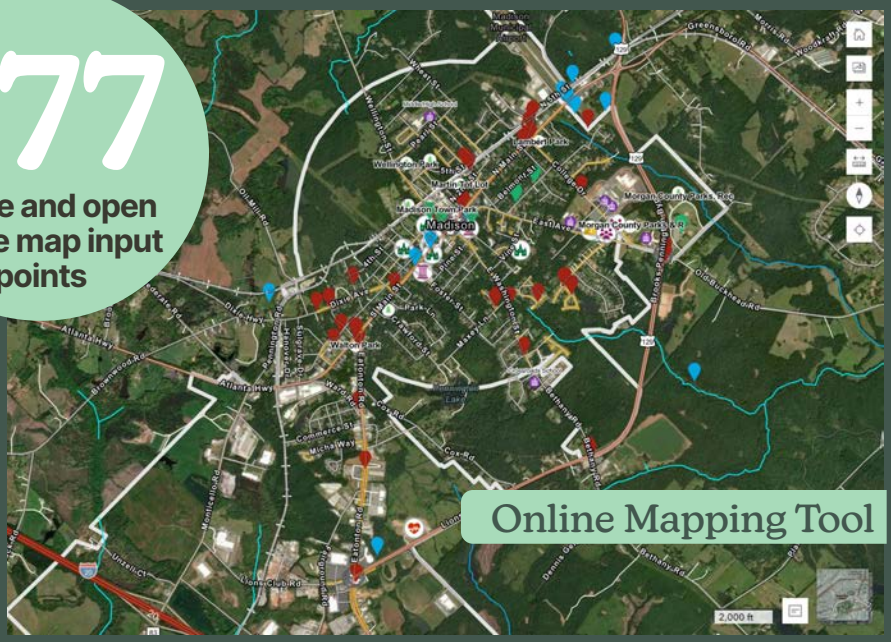
Survey III - Draft Concept Plan Review

Toward the end of the planning process, Survey III allowed community members to review and comment on the draft concept plan. This map frames out the transportation plan's recommendations. 45 people completed the survey, and the majority of the respondents (75%) believed that the concept plan addressed their transportation concerns mostly (47%) or fully (39%). With this input, the project team revised the concept plan, which can be found on page 42.



Online + In-Person Mapping

177
online and open house map input points



13 Assets

143 Challenges

21 Opportunities

03 Concept Plan

Concept Plan Overview

The concept plan prioritizes safety, accessibility, and connectivity while preserving the city's small-town charm. By addressing challenges like intrusive truck traffic, pedestrian safety, and community isolation, the city aims to create a cohesive, inclusive network that supports residents and visitors, fosters economic growth, and enhances quality of life. Both the concept plan and additional recommendations address the plan goals which are expounded upon below. The following sections present specific projects proposed to meet these goals.

Prioritizing Accessibility and Connectivity

Transportation upgrades must address the diverse needs of all users, regardless of age, ability, or mode of travel. Whether for pedestrians, cyclists, drivers, or transit riders, a well-connected network ensures everyone can move freely and efficiently, promoting inclusivity and equity throughout the city.

Supporting Active Transportation

Enabling safe, accessible routes for walking, biking, and small vehicles allows residents to meet daily needs and enjoy recreation without relying on cars. This approach promotes healthier lifestyles, reduces environmental impact, and strengthens neighborhood connections by making schools, parks, and other amenities more reachable.

Strengthening Pedestrian Safety

A safer pedestrian experience depends on targeted enhancements such as clearly marked crosswalks, expanded sidewalks, and thoughtfully designed intersections. Paired with traffic calming measures, these improvements help create streets where walking is both enjoyable and secure for everyone.

Preserving Madison's Unique Character

Transportation solutions should align with the City of Madison's distinctive small-town charm. Thoughtful planning can integrate modern infrastructure without compromising the city's inviting atmosphere, ensuring that progress enhances rather than erodes its identity.

Reconnecting Communities

Removing barriers that isolate neighborhoods and creating new pathways to connect them is essential to fostering a more unified city. These initiatives strengthen social and economic ties, provide access to opportunities, and help bridge gaps between historically disinvested communities and the broader urban fabric.

Managing Congestion and Promoting Safer Streets

Efforts to reduce intersection congestion and promote safer driving habits are essential to maintaining smooth traffic flow and protecting community spaces. Smart traffic management and roadway design ensure that streets are functional, calming, and safer for all users, especially in residential and downtown areas.

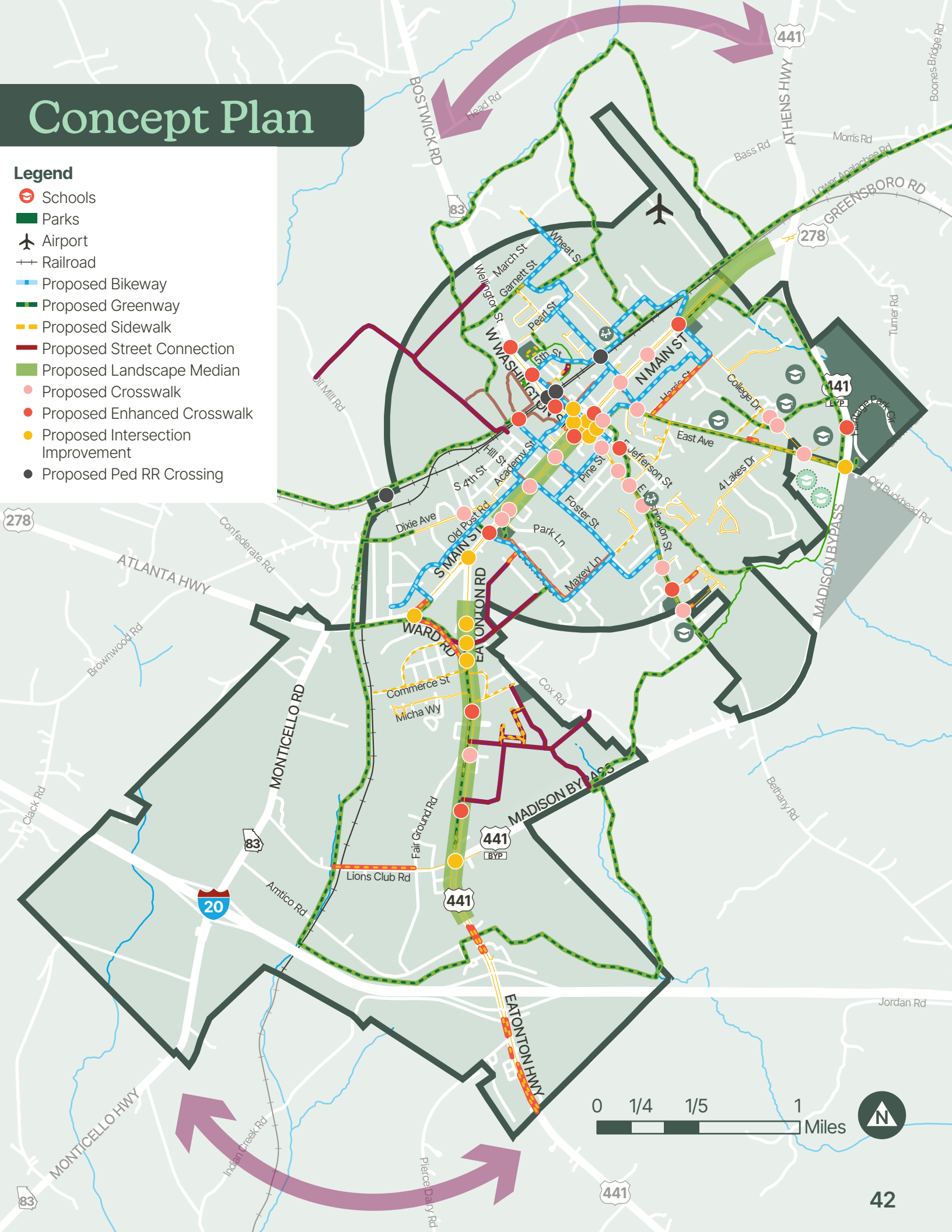
Redirecting Truck Traffic

Rerouting truck traffic away from downtown and residential areas reduces noise, improves safety, and enhances quality of life while preserving the charm and accessibility of tourist destinations.

Delivering Practical Solutions

Madison's transportation challenges require solutions that are not only effective but also realistic and financially viable. By focusing on projects that can be implemented efficiently and sustainably, the city can address pressing issues while maximizing the impact of its investments.

Concept Plan



Pedestrian Infrastructure

The concept plan highlights key improvements to enhance pedestrian safety and connectivity along corridors and in neighborhoods. By filling sidewalk gaps, upgrading crosswalks and adding ped signals for better visibility, the plan promotes walkability, active transportation, and a higher quality of life in Madison.

Sidewalks

- Close sidewalk gaps in residential neighborhoods to enhance pedestrian safety and connectivity.
- Focus on filling gaps on primary corridors and connecting neighborhoods to those corridors.
- Continue assessments for ADA compliance, ensuring curb ramps, accessible signals, slopes, bumps, and sidewalk widths meet current standards.
- Identify sidewalk areas without street trees to plan for the addition of new tree plantings.
- Ensure sidewalks are designed with a minimum width of 5 feet, ideally 6 feet or wider, with a tree-planted buffer between the sidewalk and the street.

Crosswalks

- Utilize high-visibility retroreflective pavement markings for crosswalks.
- Install crosswalks on all sides of street intersections where sidewalks are present.
- Utilize signage at intersections where there is no traffic control and at midblock crossings.
- Convert one or two-way stops to all-way stops at neighborhood intersections
- Install mid-block crossings at key pedestrian crossing locations and where the distance between intersections is excessive; utilize median refuges where possible
- Prioritize permitting and construction of pedestrian crossings at railroads to safely connect neighborhoods
- Install curb bulbouts and spot medians where possible to shorten crossing distances
- Utilize the ***FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations***

Pedestrian Signals

At enhanced crosswalks and key intersections, pedestrian signals will promote visibility and safety.

Pedestrian Signal Heads at Signalized Intersections

- Install pedestrian signal heads at all signalized intersections where sidewalks are present.
- Provide adequate crossing times for persons with disabilities.

Rapid Flashing Beacons and Pedestrian Hybrid Beacons

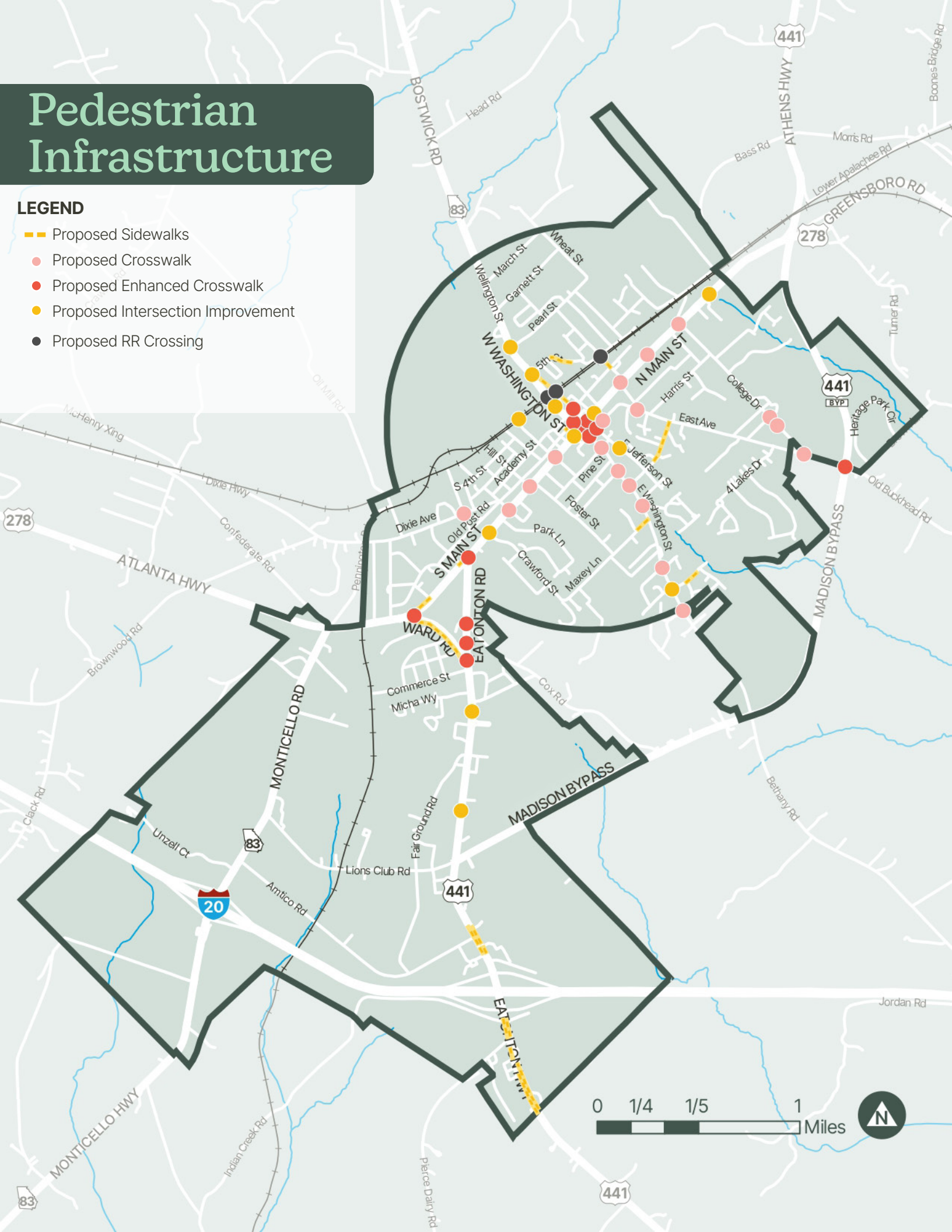
- Implement rapid flashing beacons at mid-block crossings and uncontrolled intersections to improve crossing safety.
- Install pedestrian hybrid beacons at multi-lane and high-traffic areas to create safe, controlled crossings.

Key Projects

Key pedestrian infrastructure projects include:

- **Canaan Sidewalks**: Fill in sidewalk gaps in this community to facilitate connections to downtown, enhancing local mobility and accessibility. Permit pedestrian railroad crossings to reconnect the neighborhood.
- **East Avenue/Washington Street Connection**: Close sidewalk gaps in neighborhoods to create safe, continuous routes to schools.
- **Ward Road Sidewalk**: Add a sidewalk on Ward Road to link Eatonton Road and S. Main Street, providing a safe, walkable route in an area with limited pedestrian infrastructure.
- **New Crosswalks**: Upgrade crosswalks to improve visibility and safety, ensuring safer pedestrian crossings in high-traffic areas.

Pedestrian Infrastructure



Greenways and Bikeways

Greenways

Developing a network of multimodal greenways and sidewalks will connect the city for various modes of travel—walking, running, biking, skating, and personal transport vehicles (PTVs)—supporting daily trips to school, work, shopping, and social activities. Additionally, it will provide a valuable amenity for residents to enjoy outdoor time in nature, foster social connections, and promote exercise. This plan is not a replacement for the Greenprint Plan but complements it by prioritizing routes and facilities that enhance transportation connectivity.

Bike Routes/Boulevards

Establishing a bike route involves installing wayfinding signage and, potentially, pavement markings to indicate the route and guide riders on where to turn. Providing maps to highlight safe cycling paths is also essential. Additional measures can be implemented to create a bike boulevard, such as:

- Installing speed cushions and other traffic calming features to reduce vehicle speeds.
- Using intersection diversions to restrict vehicle traffic while maintaining access for bicycles.
- Adjusting traffic controls at intersections to prioritize bike travel, such as reversing stop sign directions or adding all-way stops.

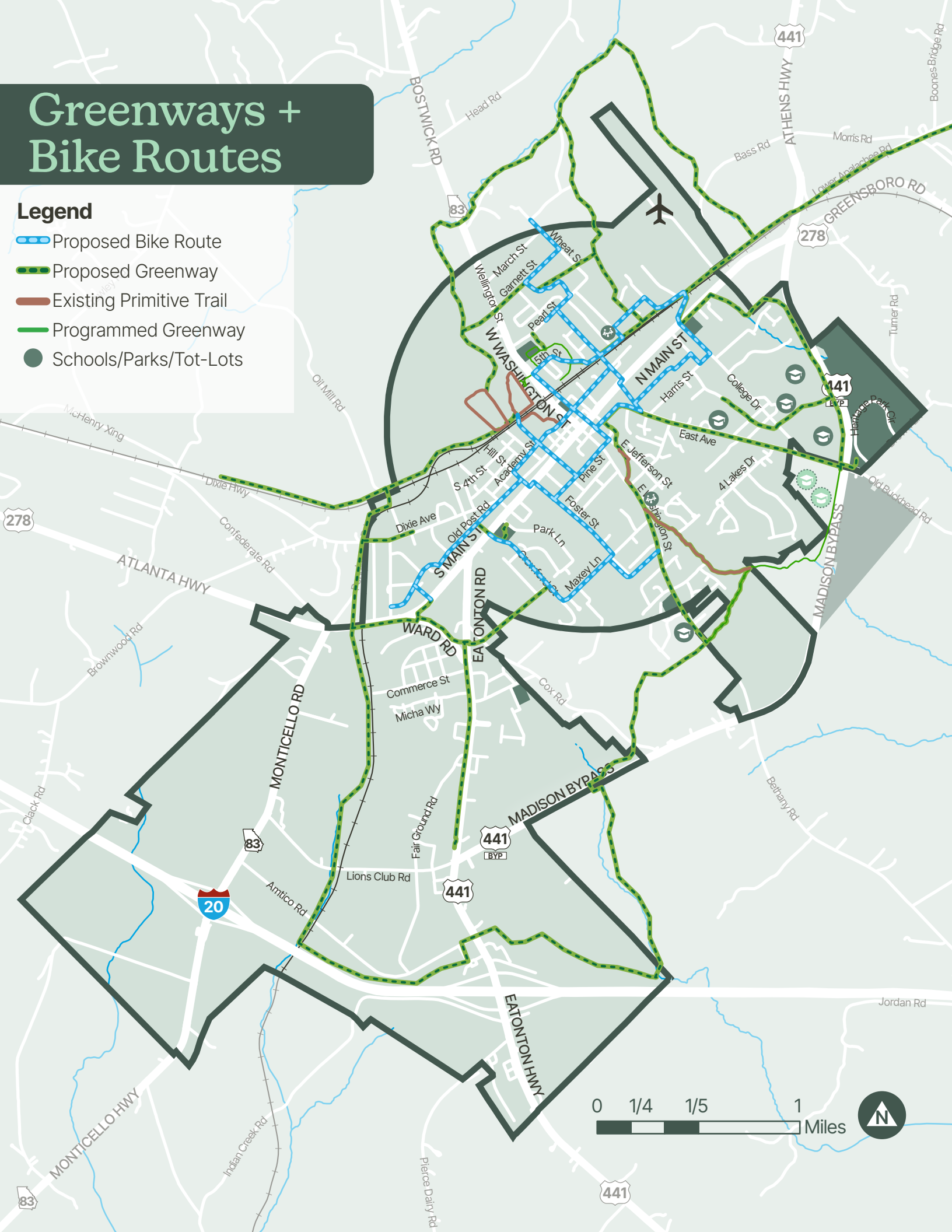
Key Projects

Key projects include:

- **Establish Bike Routes**: Add signage and street markings to create safer, navigable bike routes, promoting active transportation and reducing vehicle congestion.
- **Schools to Downtown Connections**: Provide safe, direct routes for students and families via sidepaths along East Avenue and E. Washington Street, connecting local schools to downtown. A sidepath is a greenway that follows a street ROW.
- **Eatonton Road Sidepath**: Create a dedicated trail connecting grocery stores to neighborhoods to enhance safety for bicyclists, pedestrians, and PTVs.
- **Fill Out Greenway Network**: Incrementally complete the trail system to improve access to key daily destinations as well as natural spaces, offering separated facilities for bicyclists, pedestrians, and PTVs.
- **Rail-to-Trail to Athens**: Transform abandoned rail corridor into a trail, boosting regional connectivity, recreation, and local economic growth.

These projects will significantly enhance Madison's livability by developing a robust multui-modal network, enabling residents and visitors to opt for non-vehicular modes of transportation.

Bicycle Boulevard (NACTO)


Greenways + Bike Routes
Legend
Proposed Bike Route
Proposed Greenway
Existing Primitive Trail
Programmed Greenway
Schools/Parks/Tot-Lots
BOSTWICK RD
Head Rd
ATHENS HWY
441
Boones Bridge Rd
Morris Rd
Bass Rd
Lower Apalachee Rd
GREENSBORO RD
278
83
Wheat St
March St
Garnett St
Wellington St
Pearl St
5th St
W WASHINGTON ST
N MAIN ST
Harris St
College Dr
East Ave
Heritage Park Cir
Turner Rd
Old Buckhead Rd
Oil Mill Rd
McHenry Xing
Dixie Hwy
Hill St
Academy St
S 4th St
Pine St
E Jefferson St
E Washington St
4 Lakes Dr
Dixie Ave
Old Post Rd
S MAIN ST
Park Ln
Foster St
Maxey Ln
Confederate Ct
Confederate Rd
ATLANTA HWY
MADISON BYPASS
WARD RD
EATONTON RD
Commerce St
Micha Wy
Cox Rd
Brownwood Rd
MONTICELLO RD
Clack Rd
Fair Ground Rd
Bethany Rd
Lions Club Rd
Amtico Rd
20
Jordan Rd
EATONTON HWY
MONTICELLO HWY
Indian Creek Rd
Pierce Dairy Rd
0
1/4
1/5
1
Miles
N

Complete Streets

Adopting Complete Streets design principles will make Madison's transportation network safer and more inclusive for all users. By prioritizing multimodal infrastructure, this approach supports mobility, sustainability, and quality of life, encouraging active transportation and efficient travel while also creating vibrant public spaces.

Street Typologies

Shifting from conventional functional classifications to context-sensitive typologies will help Madison adopt a human-centered, Complete Streets approach that integrates mobility with land use and design.

- **Boulevards**: Serve as grand, multimodal corridors accommodating higher traffic volumes while prioritizing pedestrian and cyclist safety through wide sidewalks, landscaped medians, and sidepaths or protected bike lanes.
- **Avenues**: Function as medium-capacity streets that balance mobility with placemaking, featuring mixed-use development and vibrant public spaces.
- **Streets**: Prioritize local access and community interaction, with slower vehicle speeds, shared spaces, and enhanced walkability.

Using these typologies also facilitates the adoption of resources like the ***ITE/CNU Walkable Urban Thoroughfares Manual,*** which provides guidance for designing streets that promote walkability and align with Madison's vision for a connected and livable city.

Connectivity

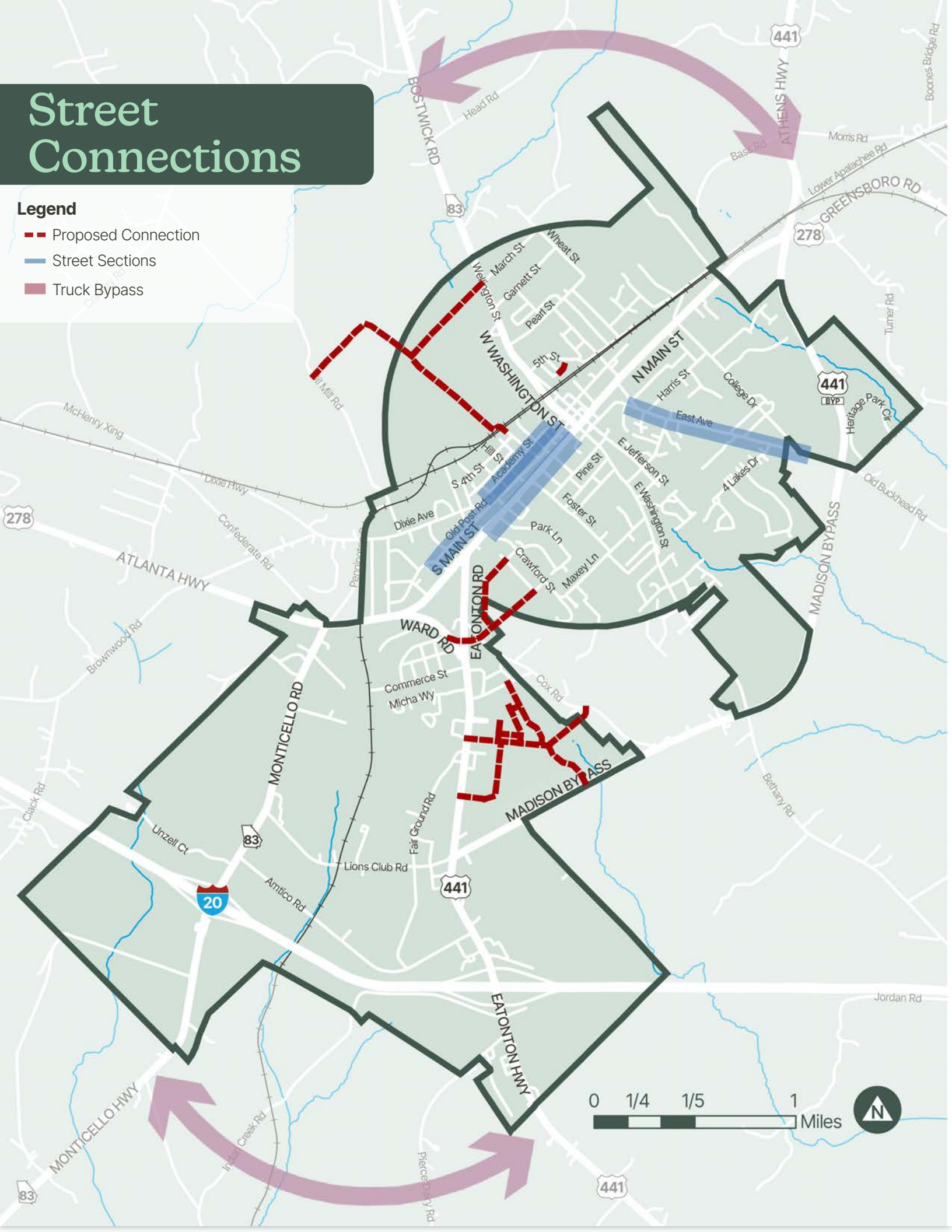
Improving street connectivity in Madison will close gaps in the transportation network, shorten travel distances, and enhance access. Additional connections will provide alternative routes for vehicles, emergency responders, cyclists, and pedestrians, and reduce truck traffic in walkable areas.

Key Projects

Proposed street connections and complete street enhancements include:

- **Old Post Road**: Convert to one-way with street parking on the northern end and a bike boulevard on the southern end to improve safety, bike connectivity, and local access.
- **Academy Street**: Switch to one-way with street parking to reduce conflicts and enhance functionality.
- **Main Street**: Convert the paved continuous two-way turn lane to a green landscaped median to calm traffic, improve safety for people walking, and beautify the area.
- **East Avenue**: Construct a multimodal sidepath with street trees and landscaping to improve pedestrian and cyclist access along this important connection to schools, neighborhoods and parks.
- **Northern Truck Bypass**: Divert truck traffic and through vehicle traffic from the Downtown and historic neighborhoods by connecting SR 83 to Athens Hwy/US 441.
- **Southern Truck Bypass**: Link Monticello Road/SR 83 to Eatonton Road/US 441 to alleviate southern truck traffic and protect local roads.
- **New Neighborhood Street Connectivity**: The red dashed lines indicate new streets and avenues planned to be integrated with future residential and mixed-use development, extending Madison's historic street pattern.

Street Connections



Traffic Capacity

This section examines the impact of the recommended transportation projects on future traffic demand and capacity within Madison's street network. The analysis focuses on the influence of proposed street connections and intersection improvements, which are particularly significant for distributing traffic flow and mitigating congestion.

To assess the traffic impact of proposed projects and forecast future demand, traffic data highlighted in the existing conditions section were used, including fine-grained intersection traffic counts, and historic AADT traffic count data from GDOT from the past 10 to 15 years. A least squares linear progression model was developed to project traffic growth and flow for each corridor for the 20-year project window to 2045.

Volume over Capacity Ratio (V/C)

The Volume over Capacity Ratio (V/C) is a useful planning-level metric for evaluating the ability of roadways to accommodate traffic flow, measured as Annual Average Daily Traffic (AADT) divided by roadway capacity. V/C ratios of 0.0 to 0.8 indicate that there is general roadway capacity to handle the average daily traffic demand. Levels of 0.8 to 1.0 are starting to reach the end of that capacity, and levels greater than 1.0 indicate greater traffic demand than capacity supply.

Level of Service (LOS)

Level of Service (LOS) assesses intersection performance based on delay, rated from A (best) to F (worst). For Madison, peak-hour traffic occurs on most corridors on Fridays from 3:30-4:30 PM.

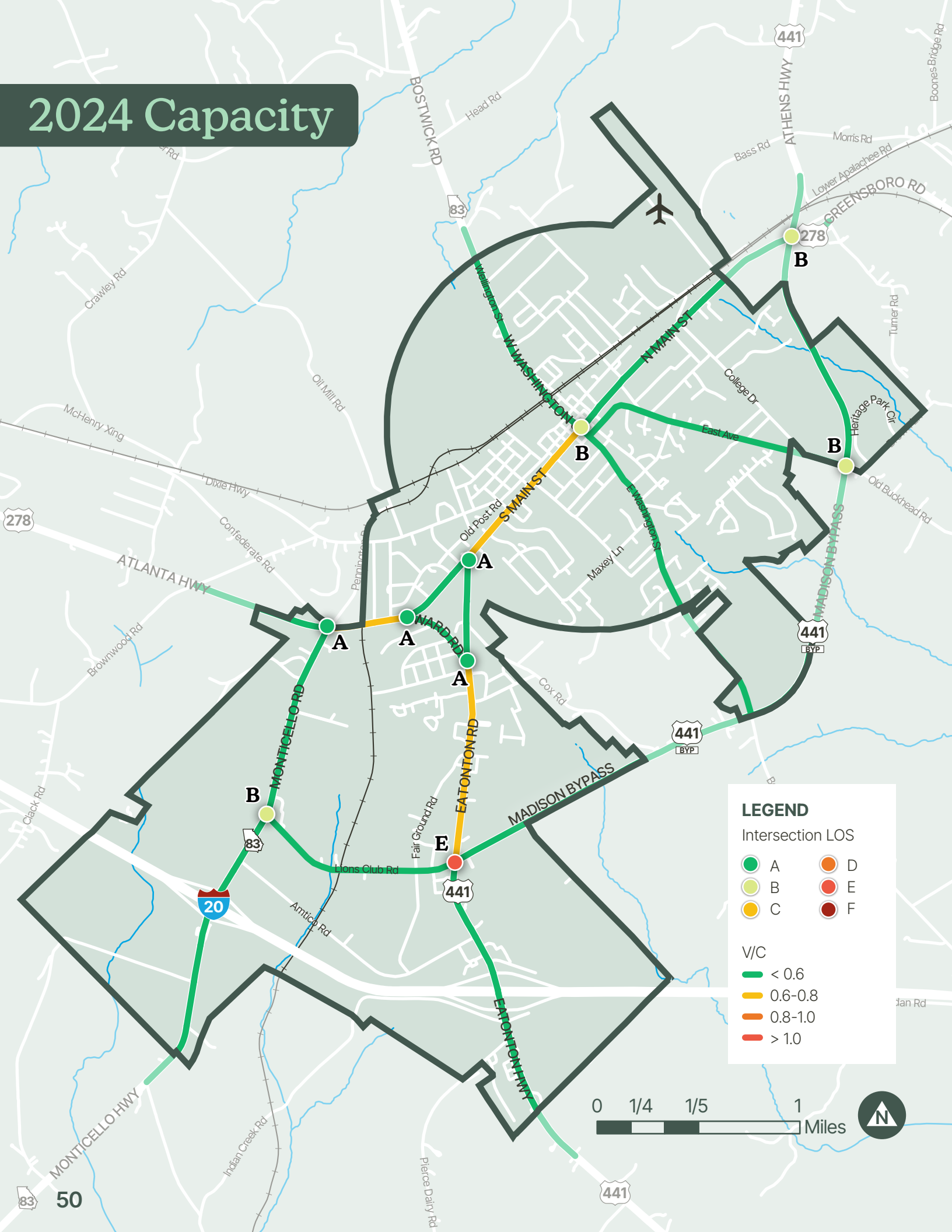
- **LOS A-C**: Represents from free-flow to light traffic conditions, with minimal delays. This range is typically considered acceptable in suburban and rural areas where driver convenience is prioritized.
- **LOS D**: Indicates moderate congestion and delays but is generally acceptable in urban and neighborhood contexts where other factors, such as walkability or land use density are a priority in street design.
- **LOS E**: Characterized by significant delays and reduced efficiency, particularly during peak traffic times. At this stage, intersections are approaching their operational limit.
- **LOS F**: Reflects failing conditions with excessive delays and unreliable operations during peak times.

Capacity Analysis Scenarios

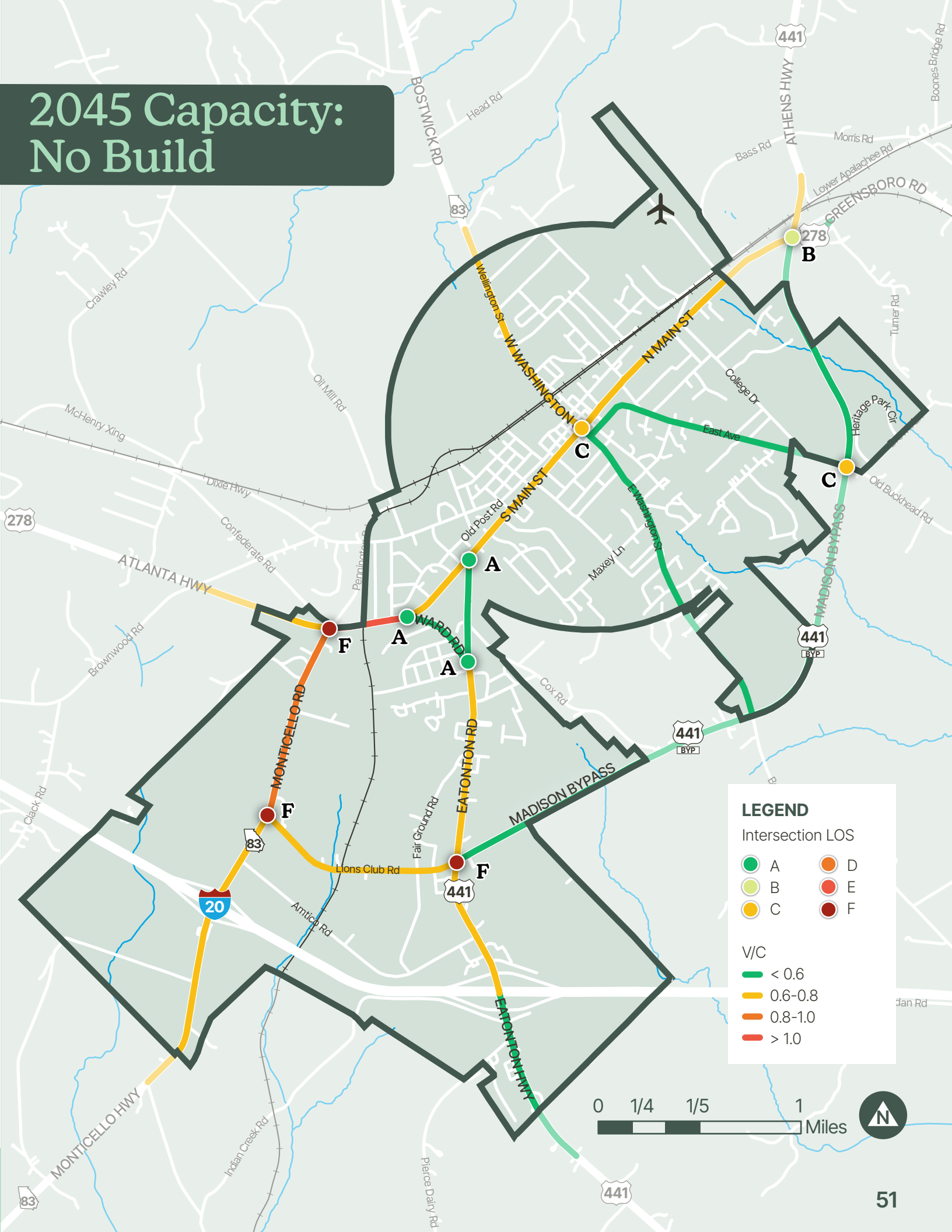
The following maps illustrate three traffic modeling scenarios:

- **2024 Current Capacity:** The 2024 analysis indicates the city's street network currently has sufficient capacity for average and peak traffic. However, the intersection at the Bypass and Eatonton Road shows an LOS of E, signaling significant congestion during peak periods. Specific issues include delays for eastbound traffic on Lions Club Road and westbound left turns on the Bypass.
- **2045 Capacity – No Build:** The no-build scenario demonstrates the challenges the current network as-is will face with much higer 2045 traffic levels. Increased traffic on Hwy 83/Washington Street, including higher truck volumes, will strain key corridors such as Washington Street, S. Main Street, Atlanta Highway, and Monticello Road. Intersections at Monticello Road and Atlanta Highway, and Monticello Road and Lions Club Road, will degrade to LOS F. The Bypass can manage the additional traffic volume, but the intersection at Eatonton Road and the Bypass worsens from LOS E to F.
- **2045 Capacity – Build:** Implementing the recommended street and intersection improvements will significantly enhance traffic flow and capacity across the network. The northern bypass will redirect through-traffic and reduce truck volumes on Washington Street, Main Street, and the triangle streets, instead channeling them to Athens Highway, the Bypass, and Eatonton Road toward I-20. Proposed intersection upgrades at the Bypass and Eatonton Road, Monticello Road and Lions Club Road, and Monticello Road and Atlanta Highway will improve LOS at these critical points, alleviating delays and congestion.

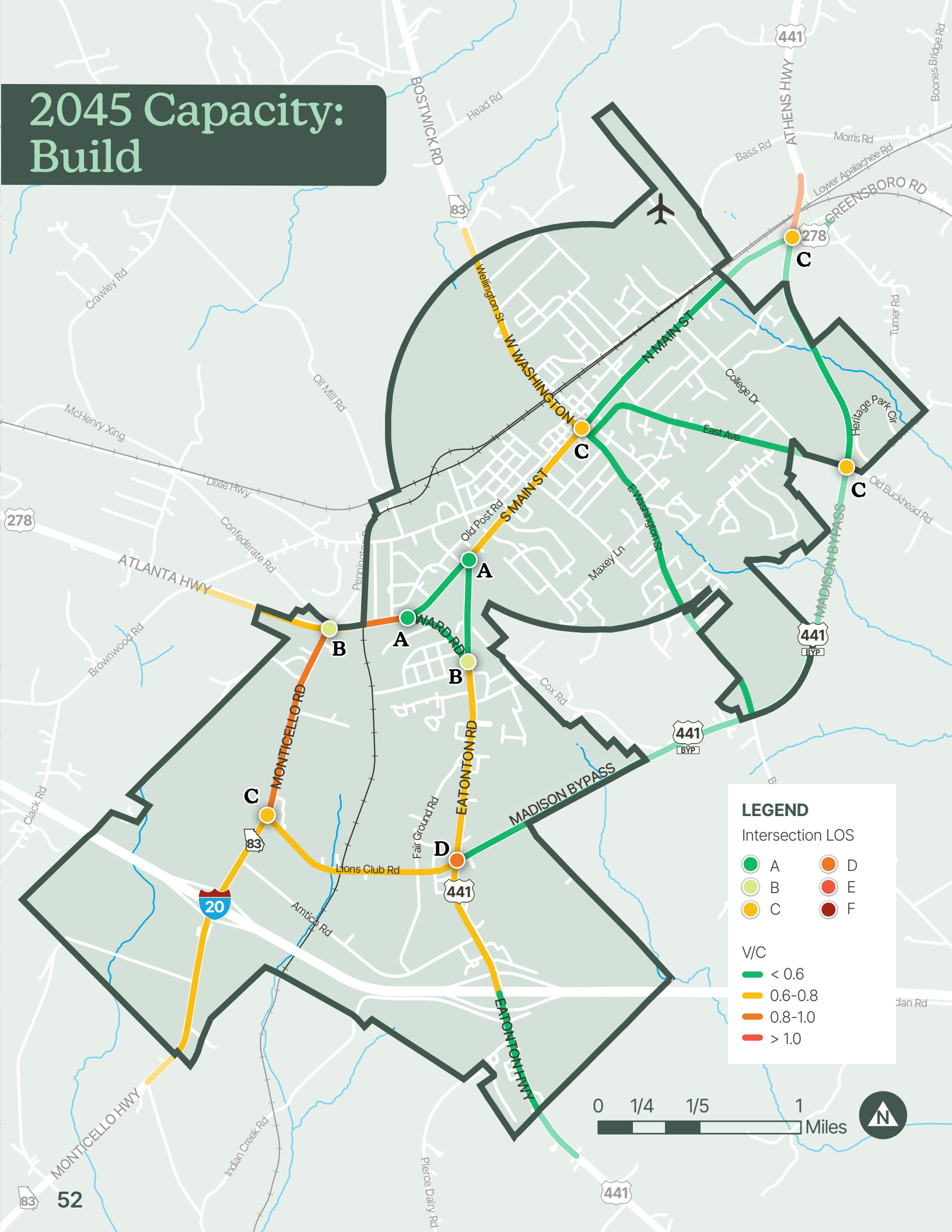
2024 Capacity



2045 Capacity: No Build



2045 Capacity: Build



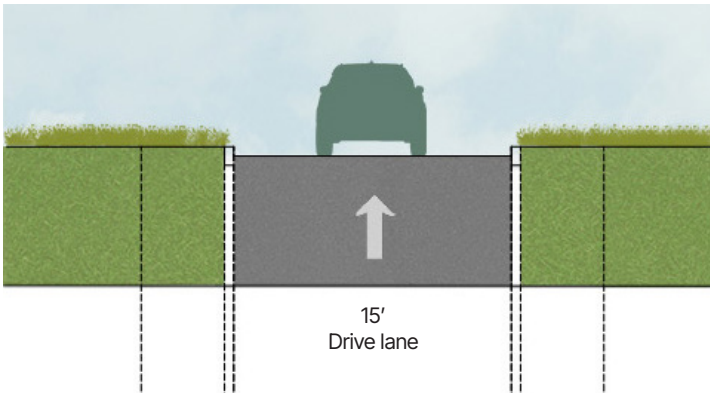
Typical Street Sections

Typical Street Sections for New Streets and Retrofits

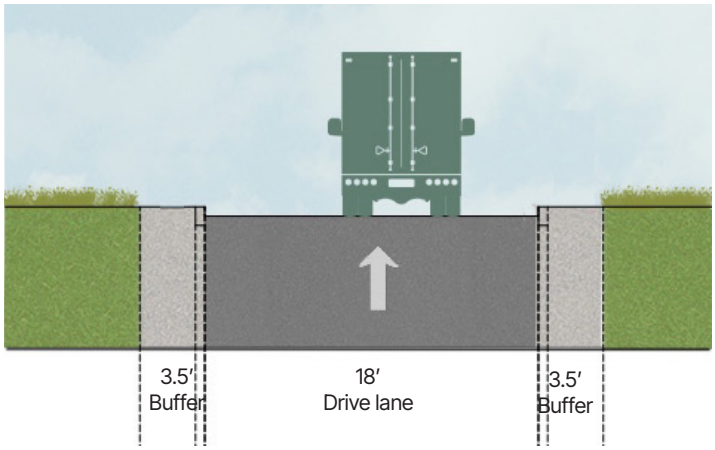
Retrofitting Madison's roads based on updated classifications like alley, street, avenue, and boulevard, instead of traditional classifications is crucial for creating a safer and more context-sensitive transportation system.

These classifications help create infrastructure that meets local needs, promoting pedestrian safety and lively, walkable areas. This strategy also boosts economic growth, expands transportation choices, and aligns with modern planning principles to support the city's growth and prepare for the future.

Residential Alley

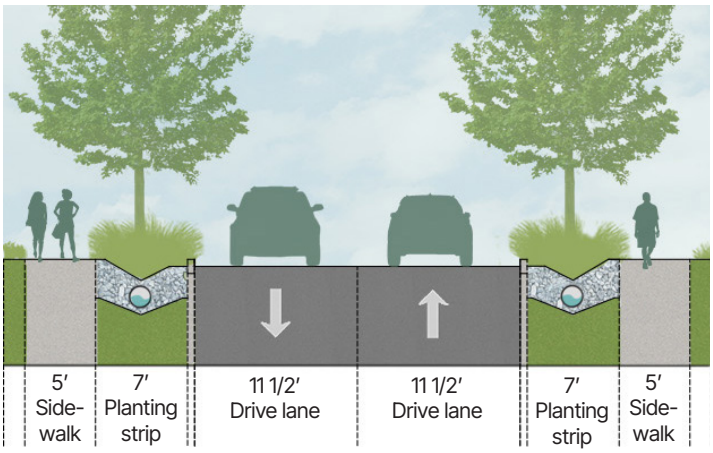


Commercial Alley

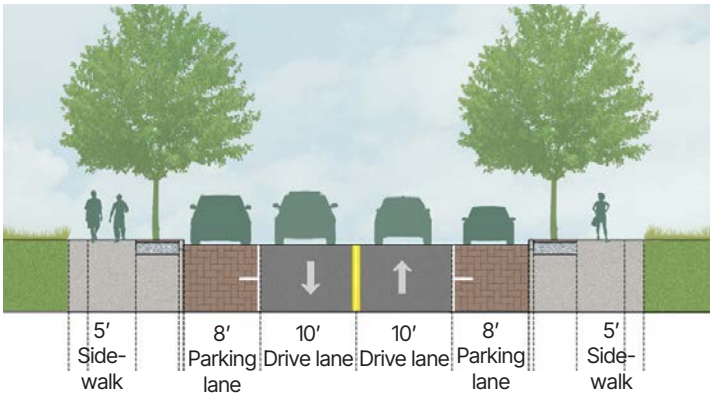


For **residential alleys**, it is recommended to include a 15-foot drive lane with grass on both sides to promote more greenery and per surfaces for stormwater filtration. For **commercial alleys**, 31/2-foot sidewalks are sufficient to support pedestrians, reflecting the lower pedestrian traffic volumes typical of such areas.

Residential Street



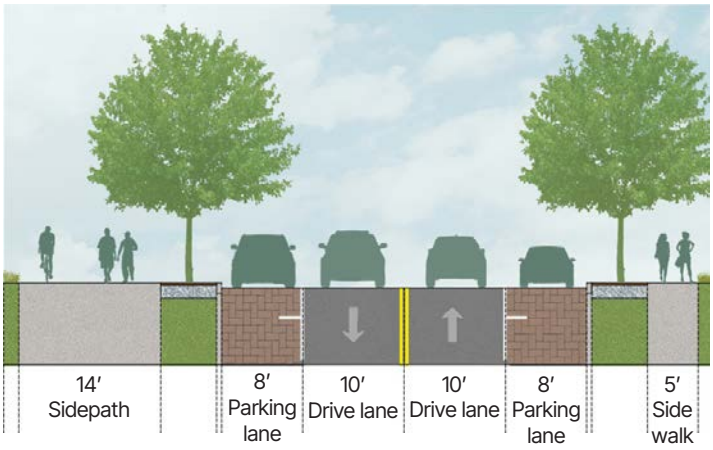
Commercial Street



Residential streets should feature at least 5-foot wide sidewalks on both sides of the road, complemented by 7-foot planting strips to create a safer separation between pedestrians and vehicles. The planting strips should incorporate street trees and should also function as a stormwater collection to manage runoff, also known as green infrastructure. For **commercial streets**, it is recommended to incorporate 8-foot on-street parking lanes on both sides, with 5-foot wide sidewalks protected by 5-foot planting strips.

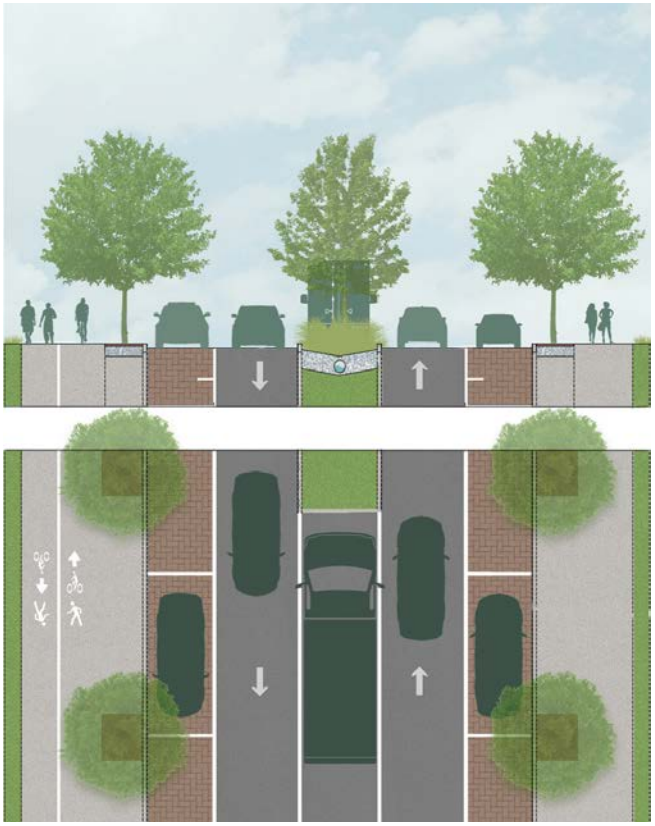
Typical Street Sections

Residential Avenue

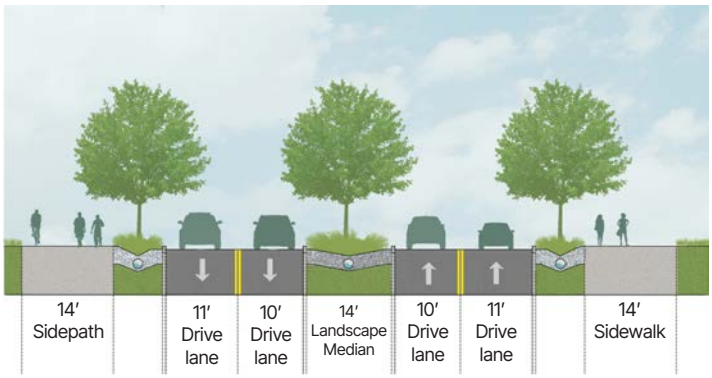


Residential avenues should be equipped with 8-foot on-street parking lanes and 6-foot tree buffers to ensure a sufficient buffer between vehicular and pedestrian traffic. To enhance circulation, a combination of a 5-foot sidewalk and a 14-foot sidepath should be provided. For **commercial avenues**, a landscape median is proposed in addition to on-street parking and pedestrian/cycling infrastructure, which also helps to manage stormwater effectively through integrated drainage systems.

Commercial Avenue

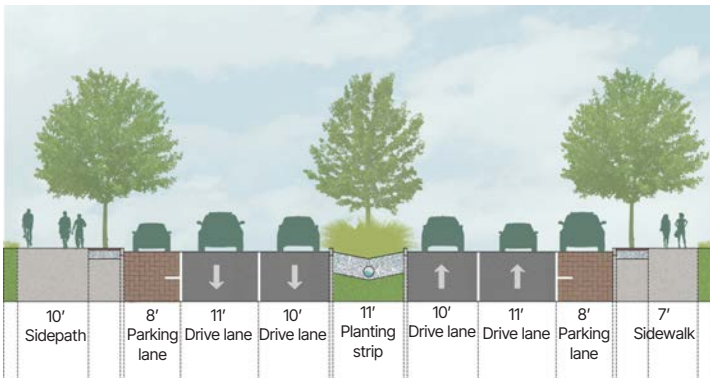


Residential Boulevard



For **residential boulevards**, a 14-foot landscape median and planting strips on the sides are essential to improve pedestrian and cycling conditions by offering safe, attractive, and comfortable spaces for non-vehicular traffic.

Commercial Boulevard



For commercial boulevards, the same amenities as those for commercial avenues are proposed, including on-street parking, pedestrian paths, and cycling infrastructure.

Street Retrofit Sections

Street Retrofits

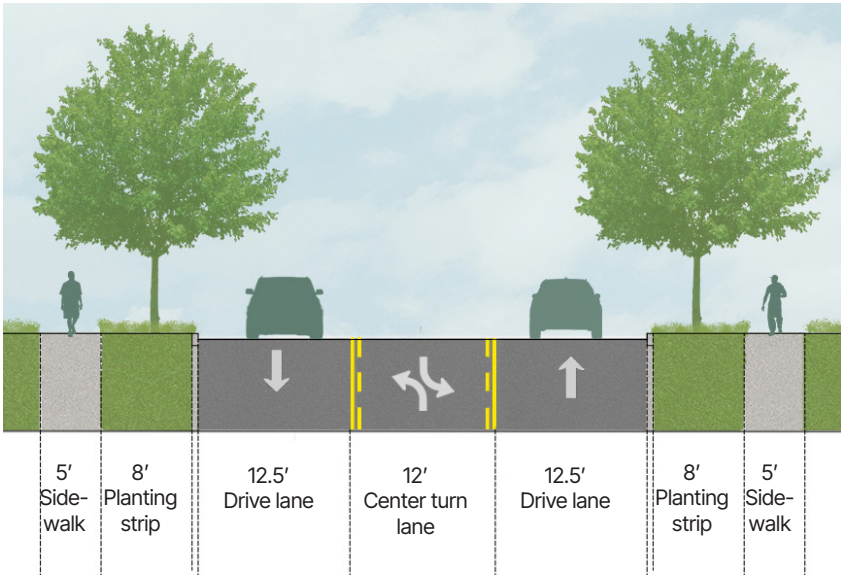
Retrofitting Madison's streets is vital to creating a more inclusive and versatile transportation network. Applying typical street section design elements to existing streets requires flexibility and creativity to address varying conditions while incorporating multimodal infrastructure like bike lanes, sidewalks, and multi-use paths. These enhancements will improve safety, accessibility, and connectivity throughout the city.

Shown in the previous section, new streets, built by the city or private development, should follow Complete Streets principles with multimodal elements, context-sensitive designs, and green infrastructure. Private developments should align with these standards, ensuring durable and sustainable designs that integrate seamlessly into the existing network.

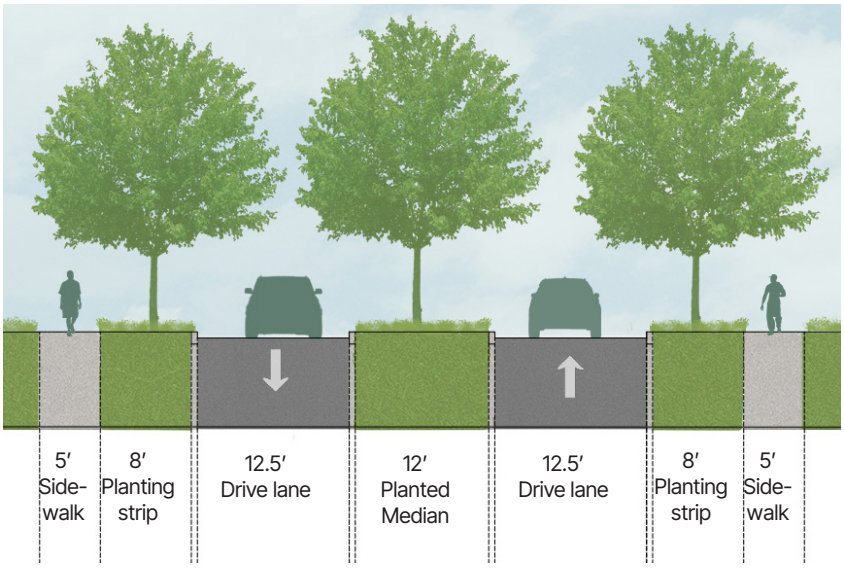
Improvements to current streets may include lane reductions, pedestrian-friendly intersections, and tree-lined buffers. Adding green infrastructure like rain gardens and using on-street parking as protective barriers will further enhance functionality, safety, and aesthetics. Together, these strategies will create a safer, more accessible transportation system for Madison.

Main Street

Existing



Proposed

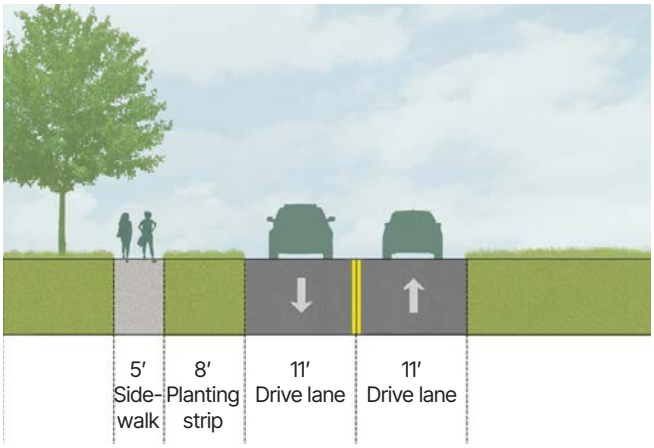


This retrofit involves transforming the continuous two-way turn lane into a landscaped median. This will enhance the overall safety and aesthetic quality of the street by signaling to vehicles that they are entering downtown, calming traffic, and separating lanes for increased safety.

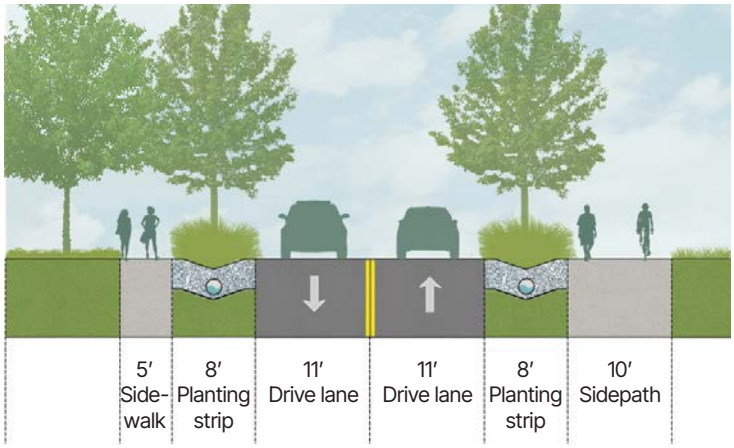
Street Retrofit Sections

East Avenue - Segment 1

Existing



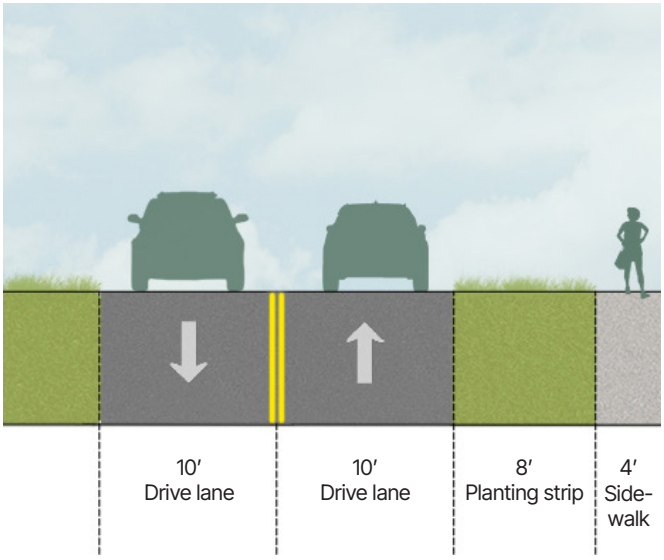
Proposed



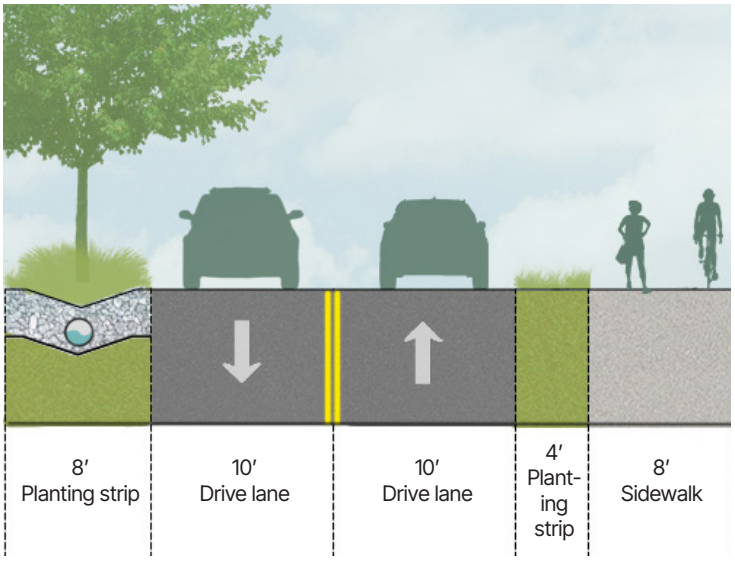
Segment 1 follows East Avenue from the Bypass to College Avenue. The proposed design includes a 10-foot sidepath, separated from vehicular traffic by an 8-foot tree-lined buffer to further protect pedestrians as well as integrate green infrastructure for stormwater management. On the opposite side, an additional tree buffer provides similar benefits for the existing sidewalk.

East Avenue - Segment 2

Existing



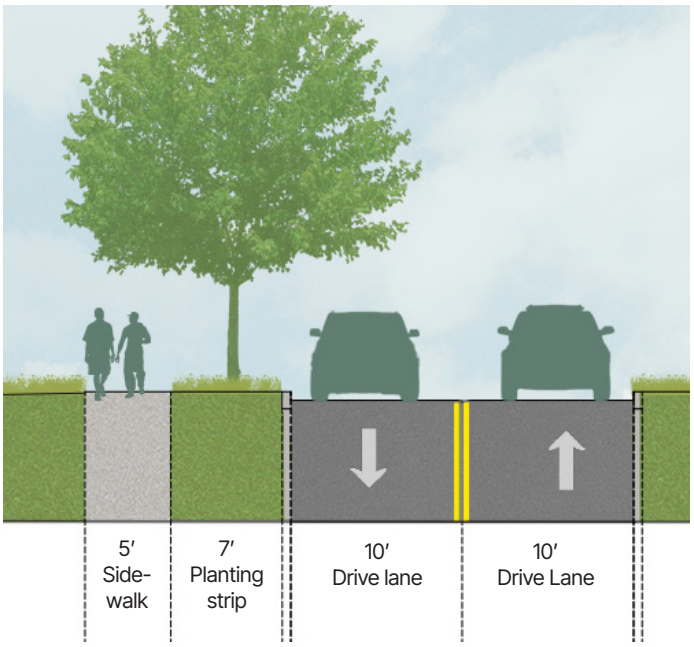
Proposed



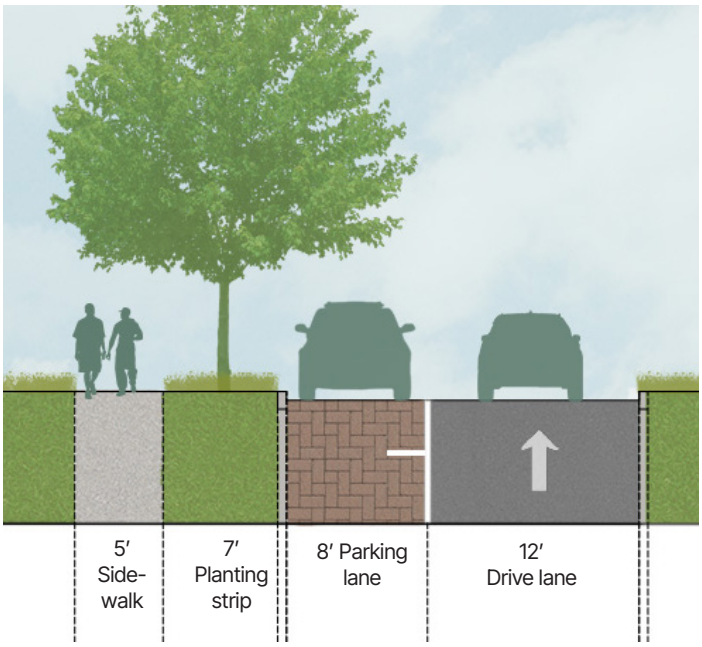
Between College Avenue and the Courthouse Square, the East Avenue (and Hancock Street) design widens the sidewalk from 4-feet to 8-feet, dedicating more space for pedestrians and bicyclists. A tree buffer on the left side of the street provides opportunity for green infrastructure.

Old Post Road - North End

Existing



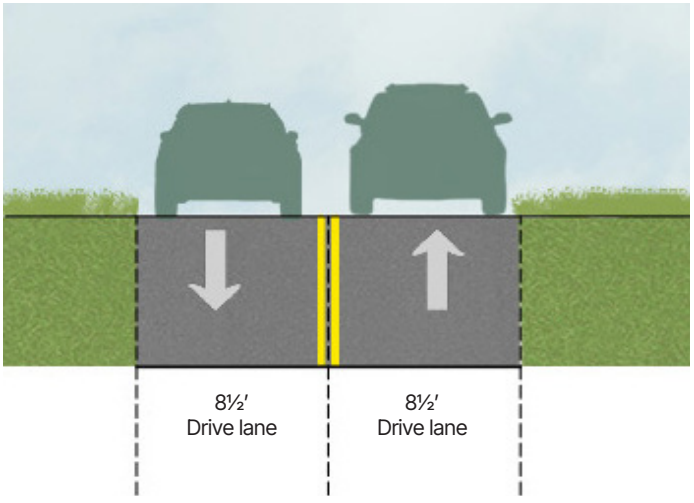
Proposed



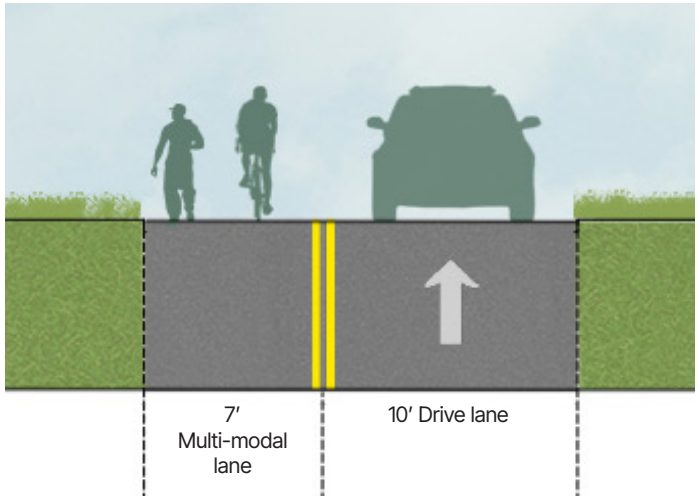
From W Central Avenue to Washington Street, Old Post Road's retrofited design converts the two-way street into a one-way with street parking. This will increase parking availability and promote traffic calming.

Old Post Road - South End

Existing



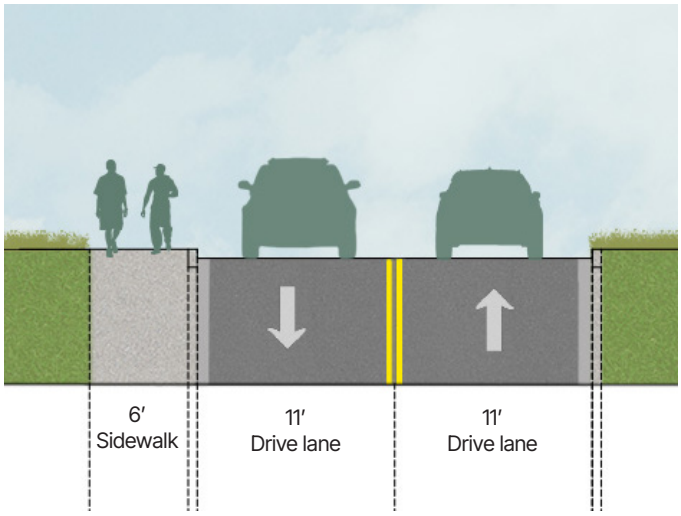
Proposed



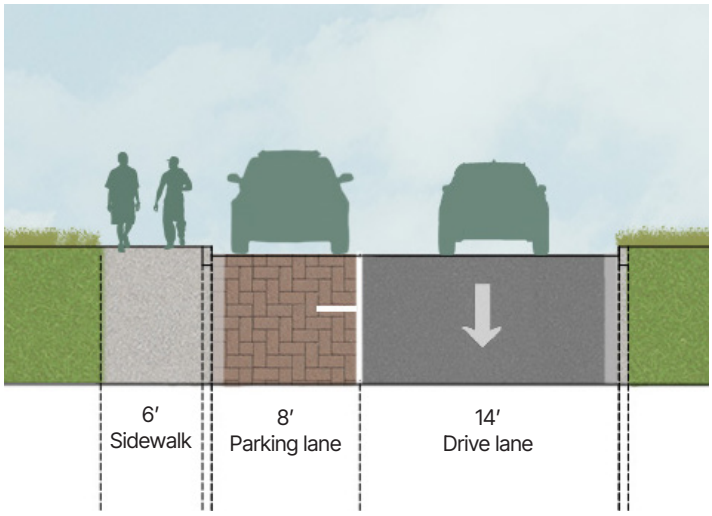
For Old Post Road from Cornwall Drive to W Central Avenue, the proposed retrofit introduces a bike boulevard by removing one drive lane and replacing it with a 7-foot multi-modal lane. This is meant to calm traffic by reducing vehicle speeds and provide a safe corridor for residents to walk and bike.

Academy Street

Existing



Proposed



Academy Street's retrofit transforms the two-way street into a one-way street with on-street parking. This will increase parking availability and promote traffic calming.

Intersections

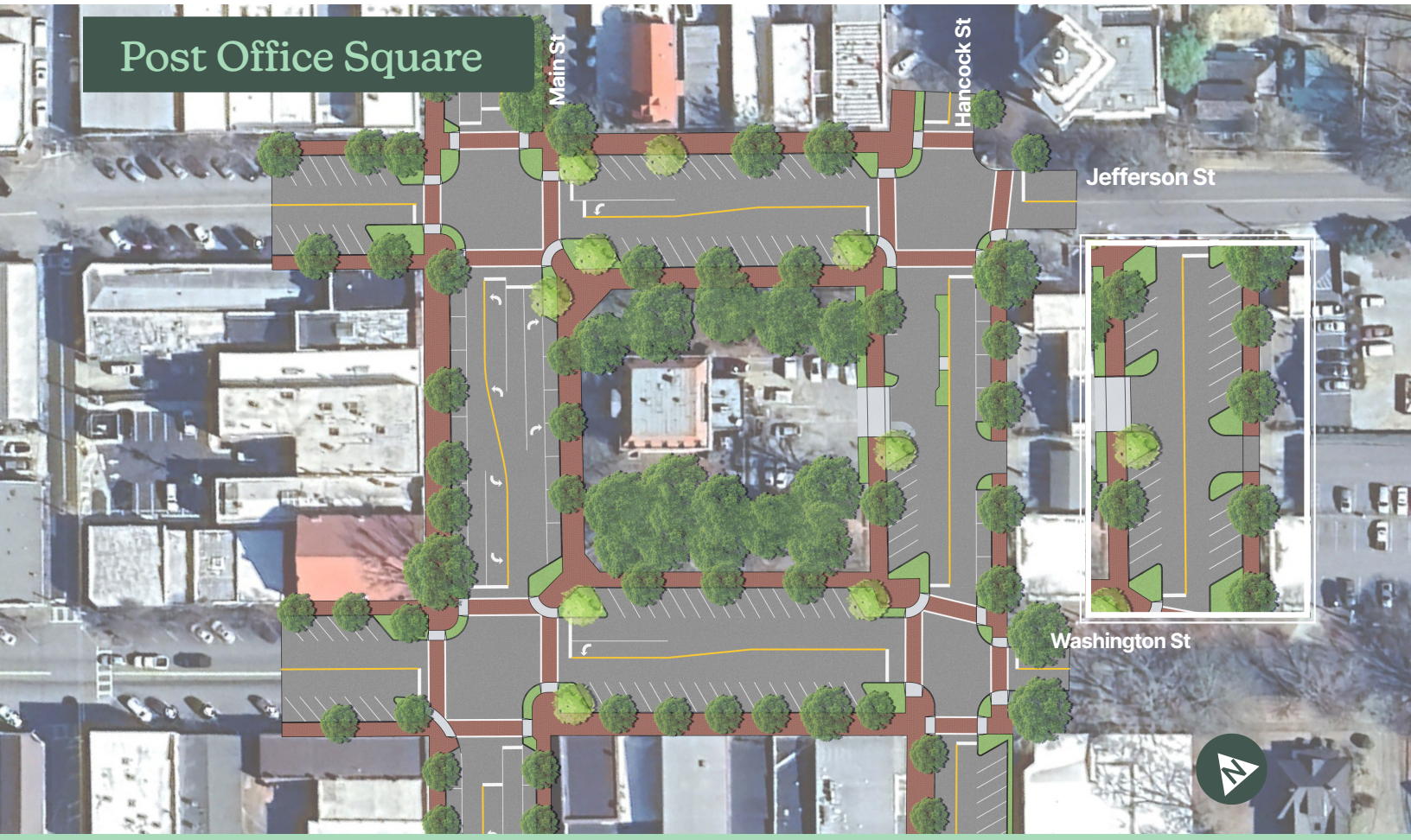
Better intersection design is essential for promoting safety, efficiency, and accessibility within the city's transportation network. By integrating features like high visibility pedestrian crosswalks, bulbouts, median refuges, and smaller curb radii, improved intersections promote traffic calming and provide a welcoming environment for all users of the roadway.

Key strategies include:

- Reduce crossing distances at intersections to improve pedestrian safety.
- Incorporate pedestrian refuge islands for safer crossings.
- Optimize traffic signals and implement signal coordination across multiple intersections.
- Modify parking layouts to enhance pedestrian visibility.
- Consider all-way stops at low to moderate traffic intersections for increased safety.

Key Projects

- **Courthouse Square** intersection and lane retrofit
- **S. Main/Eatonton Triangle** intersection reconfiguration
- **Madison Bypass and Eatonton Road**: Add a second westbound left-turn lane (Bypass) and a second eastbound through lane (Lions Club Road).
- **Monticello Road and Lions Club Road**: Build a signalized intersection with a southbound left-turn lane (Monticello) and westbound left-turn lane (Lions Club Road). An initial phase could install turn lanes before adding traffic signals. Alternatively, construct a single-lane roundabout.
- **Atlanta Highway and Monticello Road**: Construct a signalized intersection with a westbound left-turn lane (Atlanta Highway) or opt for a single-lane roundabout.



Intersections

Post Office Square: Enhancing the Heart of Madison

Located at the heart of madison, the Post Office Square intersection and lane retrofit project will improve safety and traffic efficiency. Features of the plan include:

- Reduce pedestrian crossing distances by straightening crosswalks and extending curb bulb-outs at all intersections.
- Add left turn lanes on Jefferson Street and Washington Street at Main Street to reduce traffic conflicts and queuing.
- Adjust parking layouts to enhance pedestrian visibility.
- Stamped concrete crosswalks.

An alternate layout is shown in the highlight window that includes incorporating angle parking on both sides of the street by relocating the postal drop-off box.

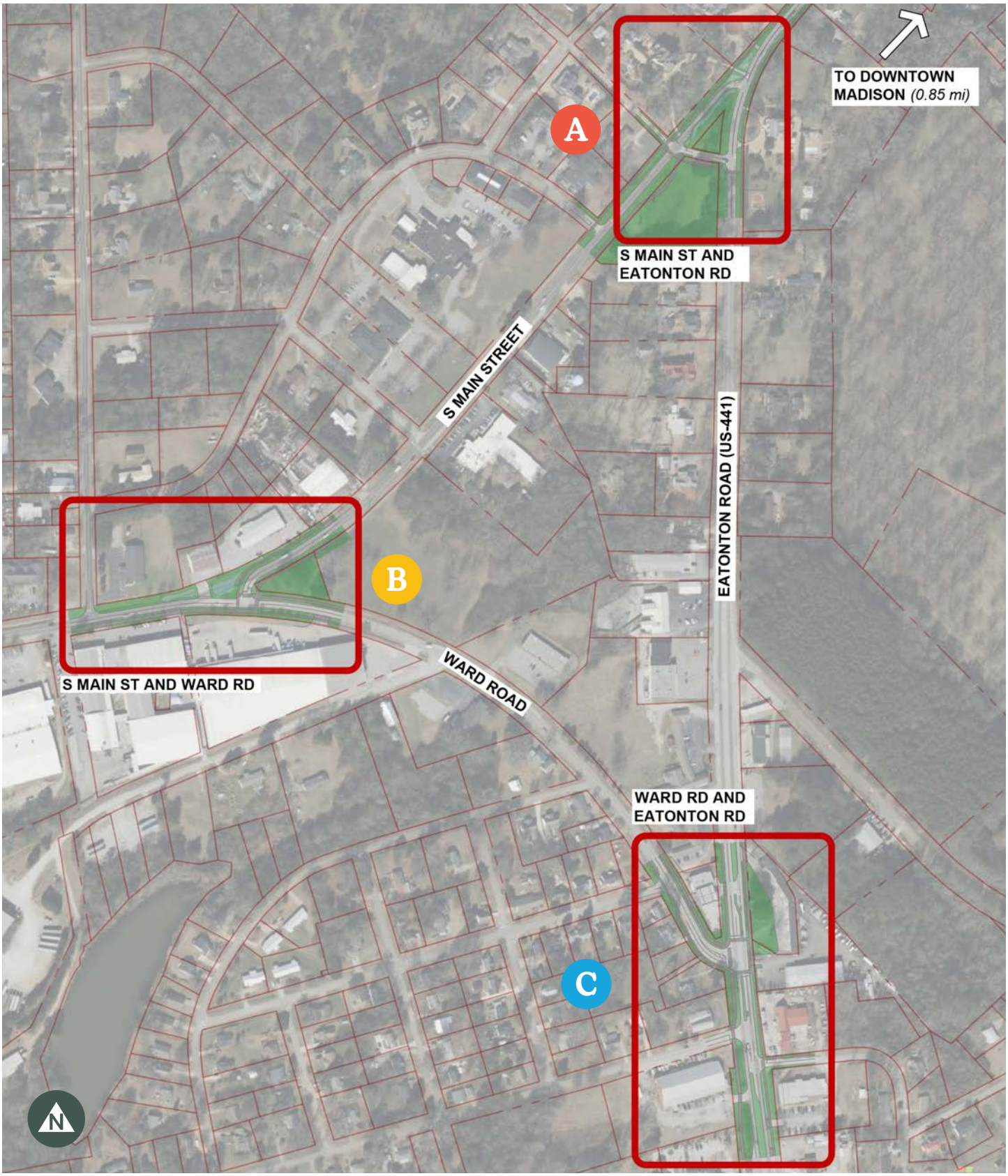
S. Main/Eatonton Triangle

The triangle formed by the intersections of South Main Street, Eatonton Road, and Atlanta Highway has long been a focus for potential improvements due to significant safety concerns. High crash rates, including many with serious injuries and pedestrian crashes, are prevalent at the two intersections on Eatonton Road, largely attributed to awkward intersection angles, limited sight distance, high vehicle speeds, and insufficient gaps for safe road entry during peak times. From a pedestrian perspective, the corridor lacks safe and welcoming crossing locations, despite evident demand from residents seeking to access the grocery stores further along the road. Additionally, this area serves as a key gateway to the historic downtown, further emphasizing the need for thoughtful and comprehensive improvements.

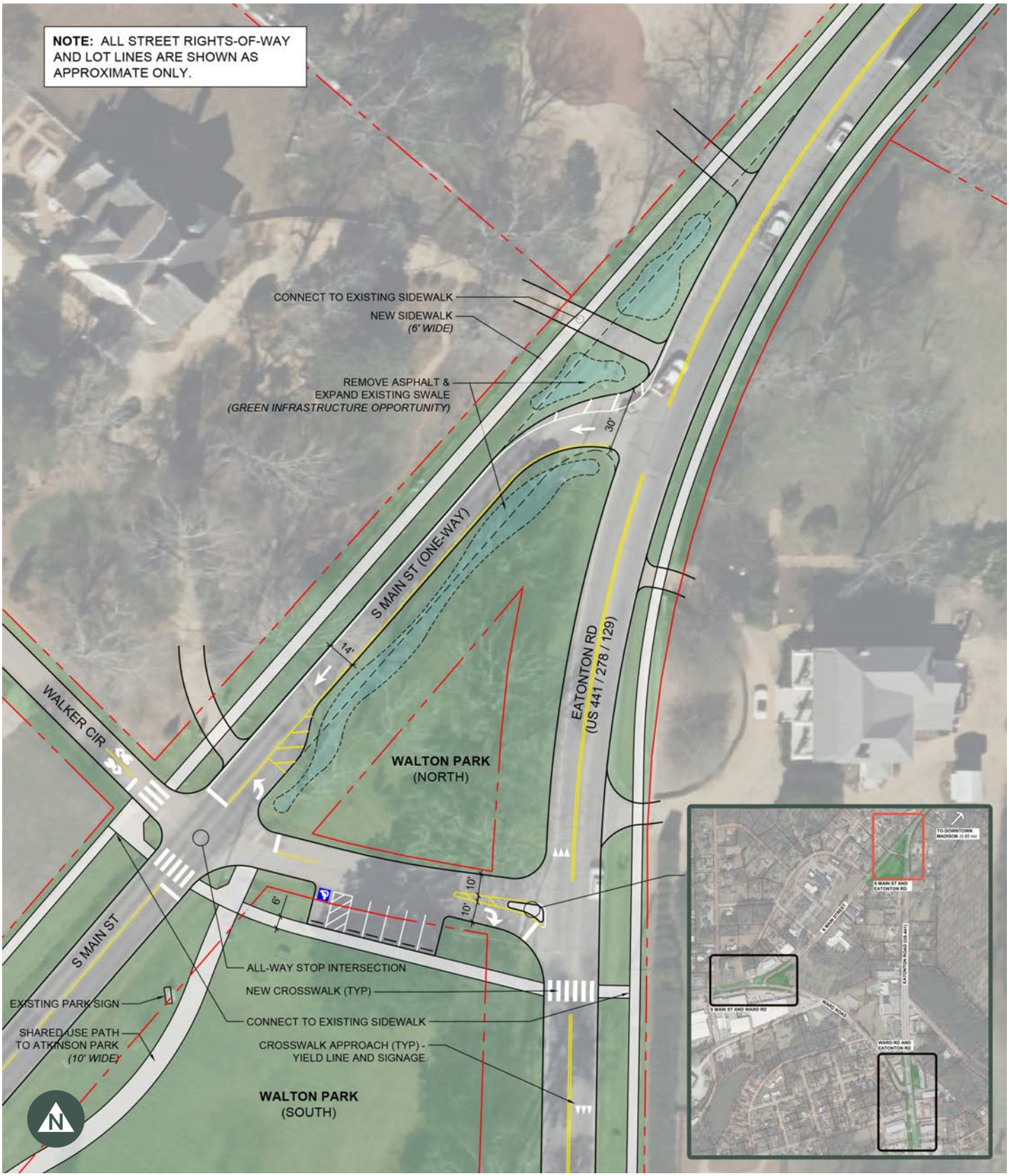
This schematic design aims to address these challenges by creating safer intersections that facilitate efficient traffic flow, as well as safe and inviting pedestrian crossing locations. Additionally, it aligns with potential redevelopment efforts to enhance this gateway to downtown. Key features of the design include:

- Realigning the intersection of Atlanta Highway and Ward Road to establish a direct connection with the intersection at Eatonton Road.
- Signalizing the intersection of Ward Road and Eatonton Road, complete with turn lanes for smoother and safer traffic management.
- Creating safe and inviting pedestrian facilities, incorporating sidewalks and crosswalks with short crossing distances at key intersections.
- Developing a greenway sidepath to connect neighborhoods to the north with destinations along the Eatonton Road corridor to enable all modes of travel.
- Providing space to connect, expand, and enhance the three parks within the triangle for greater recreational and community value.
- Consolidating commercial driveways along Eatonton Road to improve safety and enable signalized access.

S. Main/Eatonton Triangle Plan Overview

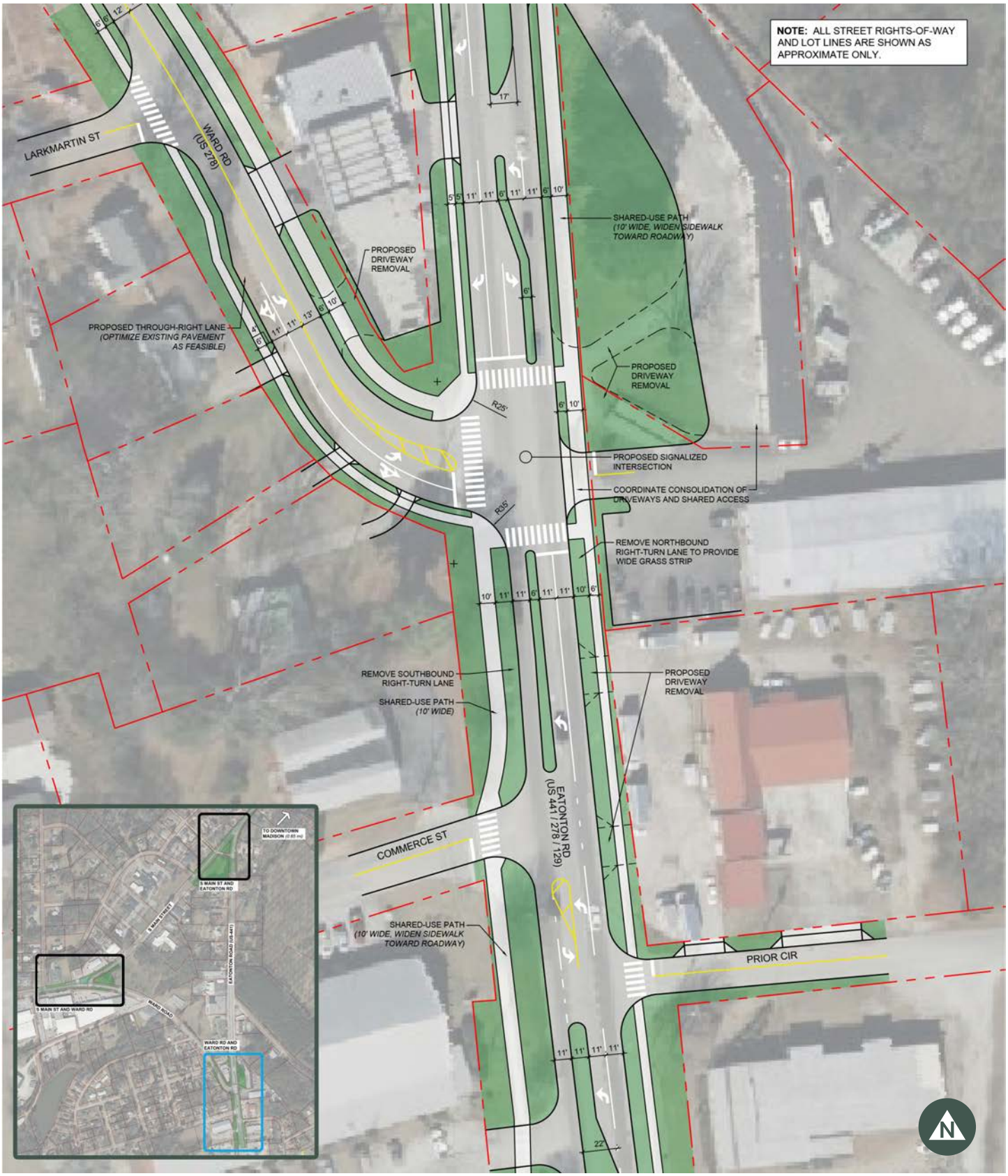


A Eatonton Road and Ward Road



B Ward Road and S. Main Street

C Main Street and Eatonton Road



Tactical Approaches

Tactical and quick-build methods offer cost-effective, flexible solutions for testing and implementing street improvements in Madison. These approaches use temporary materials and designs to quickly address transportation challenges, allowing for public feedback and adjustments before permanent changes are made. Tactical methods, such as modular installations and street paint, empower communities to envision safer, more functional streets with minimal upfront investment. They are especially effective in Madison, where fostering safety, accessibility, and community identity are top priorities.

Bulbouts are a practical tactical measure that narrows the roadway at intersections by extending the sidewalk into the parking lane. These installations reduce crossing distances for pedestrians, calm traffic by visually tightening the road, and increase visibility for both pedestrians and drivers. Madison could pilot bulbouts using temporary materials like paint, planters, or modular curbs at intersections near schools and commercial areas to enhance pedestrian safety.

Traffic circles, small roundabouts placed at intersections, are another quick-build tool to improve traffic flow and reduce collision risks. These can be tested in residential neighborhoods using traffic cones, barrels, or temporary signage to guide drivers. By replacing stop signs with traffic circles, Madison can lower speeds and create safer, more efficient intersections while evaluating the long-term benefits.

Chicanes, or intentional road curves created by alternating curb extensions, encourage slower speeds and discourage reckless driving. These can be introduced using planters, barricades, or painted markings on straight residential roads where speeding is a concern. Madison could deploy chicanes in neighborhoods with high pedestrian activity to promote safer streets and reduce cut-through traffic.

Crosswalks and mid-block crossings enhance pedestrian safety by clearly designating areas for crossing. Tactical methods, such as high-visibility paint or temporary signage, can be used to pilot these crossings in areas with frequent pedestrian activity. Adding pedestrian refuge islands in the center of wider roads can further improve safety and accessibility for all users.

Creative street paint and art can be used to transform Madison's streets into vibrant, pedestrian-friendly spaces. Colorful crosswalks, curb extensions, or intersection murals not only calm traffic but also add character and community pride to urban areas. Partnering with local artists or schools can make these projects a community-driven effort, fostering a sense of ownership and engagement.

City of Seattle

City of Birmingham

Green Infrastructure

Low Impact Development (LID) is an approach to managing stormwater runoff widely used in urban planning, landscaping, and stormwater management to build more resilient, sustainable, and livable communities. It encompasses a variety of common practices such as rain gardens, swales, permeable pavements, and buffer strips. These techniques are implemented in urban and suburban areas to mimic natural hydrological processes. Instead of relying solely on traditional stormwater infrastructure like pipes, culverts, and detention basins, LID uses decentralized, site-specific techniques to manage water at its source. LID offers advantages encompassing the full spectrum of the "triple bottom line" of sustainable development: economic, social, and environmental benefits.

Economic Benefits

- **Cost Savings**: Lowers the need for expensive stormwater infrastructure such as pipes and detention basins.
- **Increased Property Value**: Green infrastructure and natural aesthetics improve neighborhood appeal and property values.
- **Lower Maintenance Costs**: Requires less maintenance compared to traditional stormwater systems in the long term.

Social Benefits

- **Improved Community Aesthetics**: Adds green spaces and enhances urban landscapes, making areas more livable.
- **Recreational Opportunities**: Creates spaces for outdoor activities and community engagement, such as parks and greenways.
- **Health Benefits**: Improves air quality, reduces noise pollution, and provides shade, contributing to better public health.

Environmental Benefits

- **Improved Water Quality**: Reduces pollutants in stormwater runoff by filtering water through vegetation, soil, and other natural systems.
- **Groundwater Recharge**: Enhances infiltration of stormwater, replenishing underground aquifers.
- **Erosion Control**: Slows down runoff velocity, reducing soil erosion and sediment transport.
- **Habitat Protection**: Preserves and restores natural ecosystems, supporting biodiversity.
- **Urban Heat Island Mitigation**: Increases vegetation cover and reduces heat absorption from impervious surfaces.
- **Flood Mitigation**: Reduces the frequency and severity of flooding by managing runoff close to its source.
- **Climate Adaptation**: Builds resilience to climate change by mimicking natural hydrological processes.
- **Carbon Sequestration**: Plant-based LID techniques, like rain gardens, absorb carbon dioxide and contribute to carbon reduction.

Green Infrastructure

LID has some characteristics that make it particularly important for the City of Madison with its strong historic character.

LID practices, such as rain gardens, green roofs, and permeable pavements, blend seamlessly with historic landscapes, maintaining the town's visual and architectural charm. Traditional stormwater infrastructure like concrete channels or detention basins might clash with the historic character.

Older towns often have aging stormwater systems that struggle to handle modern runoff volumes. LID reduces strain on these systems, helping protect historic streets, buildings, and underground utilities from flooding or water damage.

LID aligns with the stewardship ethos of historic towns, promoting long-term environmental health while safeguarding cultural heritage. It reflects a commitment to sustainability that resonates with community values and the preservation of local history.

Climate change poses significant risks to historic towns, such as more frequent and intense storms. LID helps mitigate these impacts by managing runoff effectively and reducing urban heat islands, protecting the town's historic character from environmental degradation.

Implementing LID practices provides opportunities for community involvement and education about the benefits of sustainable practices and how they complement historic preservation efforts.

Sustainable Stormwater Solutions

The existing provision of the Madison Code of Ordinances incentivizes LID by adhering to the "Manual for Erosion and Sediment Control in Georgia" (Blue Book) as the local standard for stormwater management. The blue book includes guidance for the implementation of numerous LID practices, including bioretention, bioswales, vegetated filter strips, and others. This standard confers flexible versatility in the usage of LID practices while also providing specific, detailed guidance for the design of those practices.

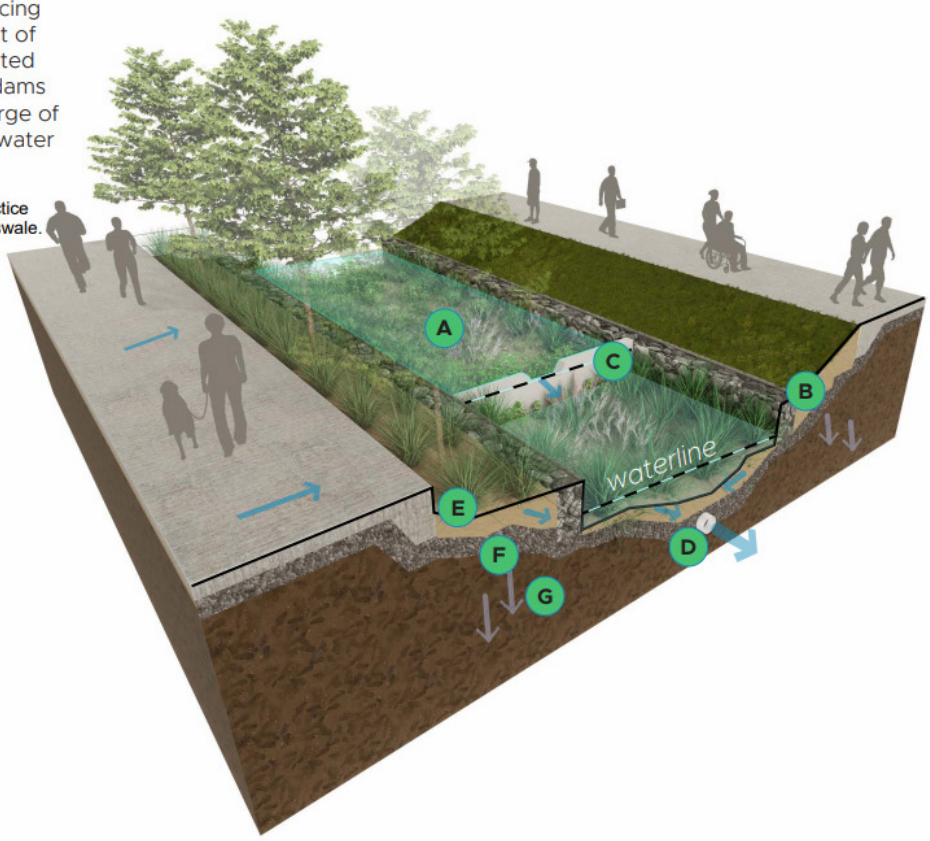
Green Infrastructure

BMP (and Blue Book reference)	*Res Street*	*Comm Street*	*Res Ave*	*Comm Ave*	*Res Blvd*	*Comm Blvd*	*Res Alley*	*Comm Alley*
4.2 Bioretention	X	X	X		X	X		
4.3 Bioslope					X	X		
4.8 Dry Enhanced Swale / Wet Enhanced Swale	X	X	X		X	X	X	
4.9 Grass channel	X		X		X	X	X	
4.12 Infiltration Practices	X	X	X		X	X	X	
4.15 Permeable Paver System	X	X	X	X		X	X	X
4.16 Pervious Concrete	X	X	X	X		X	X	X
4.17 Porous asphalt	X	X	X	X		X	X	X
4.20 Regenerative Stormwater Conveyance	Site-specific application where roadways intersect with stream channels.							
4.24 Stormwater Planters/Tree Boxes	X	X	X	X	X	X	X	
4.29 Vegetated Filter Strip					X	X	X	

BIOSWALE

Bioswales are channels designed to convey stormwater runoff and improve water quality by reducing suspended solids. They consist of a drainage course with vegetated slopes. Weirs serve as check dams to slow water and allow recharge of groundwater while improving water quality.

This corresponds with blue book lid practice 4.8 dry enhanced swale/wet enhanced swale.



- A filtering vegetation/ detention area
- B gabion wall
- C weir
- D perforated under-drain
- E 50/50 soil mix
- F #57 stone TBD per civil
- G undisturbed subgrade

04 Ordinance Review + Recommendations


278
GREENSBORO
AUGUSTA
441
ATHENS
COMMERCE
83
BOSTWICK
MONROE
129
WATKINSVILLE
GAINESVILLE
TJ BISHOP'S
MEN'S SHOP

Policies and Regulations

Overview

Updating existing policies and regulations, as well as creating new ones, is essential to support the implementation of this transportation plan's goals in city-led decisions. The following are recommendations for revising city policies and regulations:

Complete Streets Ordinance

- Incorporate design proposals identified in this plan for new developments, ensuring wide sidewalks with tree-lined buffers, crosswalks, bulbouts and other features.
- Incorporate form-based codes for application along corridors and

Zoning

- Incorporate design concepts identified in this plan for new developments, ensuring wide sidewalks with tree-lined buffers, crosswalks, bulbouts and other features.
- Incorporate form-based codes for application along corridors and planned nodes to guide the design of mixed-use developments with a focus on walkability.
- Integrate traffic-calming measures into new development projects.
- Require pedestrian-scale lighting in new neighborhoods and mixed-use developments
- Push parking to rear-lot locations to preserve or create a walkable streetscape.
- Reduce or elminated parking requirements in mixed-use development

Subdivision

- Specify connectivity requirements via block dimensions or other means
- Enable green infrastructure requirements such as permeable surfaces and stormwater management in new subdivisions.
- Require greenway/trail interconnectivity among developments.
- Revise street and sidewalk standards and requirements for subdivisions; udpate cross sections
- Reference new street typologies and established urban street design standards.

Transportation-Related Ordinances and Policies

- Evaluate and update designated speed limits.
- Develop policies for integrating shared mobility services like e-bikes.
- Establish traffic Calming policy to provide process for community-led traffic calming implementation, approved calming measures, and applcation standards.

Street Design Standards

- Establish new street typology and related standards based on type and context.
- Implement green infrastructure standards for ROW applications.
- Update access management requirements.
- Specify traffic impact analysis requirements.

ADA Transition Plan, Phase 2

- Develop maps and a database to catalog all locations lacking ADA-compliant infrastructure, along with implementation timelines and budget estimates.

Programs

Overview

Initiate a **Bike/Ped Committee** to advocate for improving non-motorized transportation options within the city. Comprised of residents, planners, and community leaders, the committee would focus on enhancing the safety, accessibility, and sustainability of biking and pedestrian pathways. Through advocacy, policy development, and community engagement, the committee would work to create a more pedestrian-friendly and bike-friendly environment. The commiittee could assist or lead many of the following programs.

Safe Routes to School is a program designed to ensure the safety and accessibility of walking and biking routes for students commuting to and from school. This initiative focuses on creating infrastructure improvements, education, and community outreach to reduce traffic congestion, prevent accidents, and promote healthy, sustainable modes of travel for young learners.

- Partner with local schools to create designated safe walking and biking paths with crossing guards.
- Increase public awareness through safety campaigns targeting drivers and pedestrians about school zone protocols.
- Include bike and pedestrian infrastructure improvements in school area construction projects.

The Walking School Bus is a community-based initiative where groups of children, guided by a volunteer adult or guardian, walk to and from school along safe, pre-planned routes. This program aims to increase physical activity, foster community involvement, and improve student safety while reducing the reliance on vehicles for school commutes.

- Expand the program by adding more routes and increasing community involvement through volunteer recruitment.
- Provide educational sessions for volunteers to promote safety, leadership, and route planning.
- Collaborate with local organizations to secure funding for resources like safety equipment and maps.

Source: United Way of Greater Milwaukee & Waukesha County

Programs

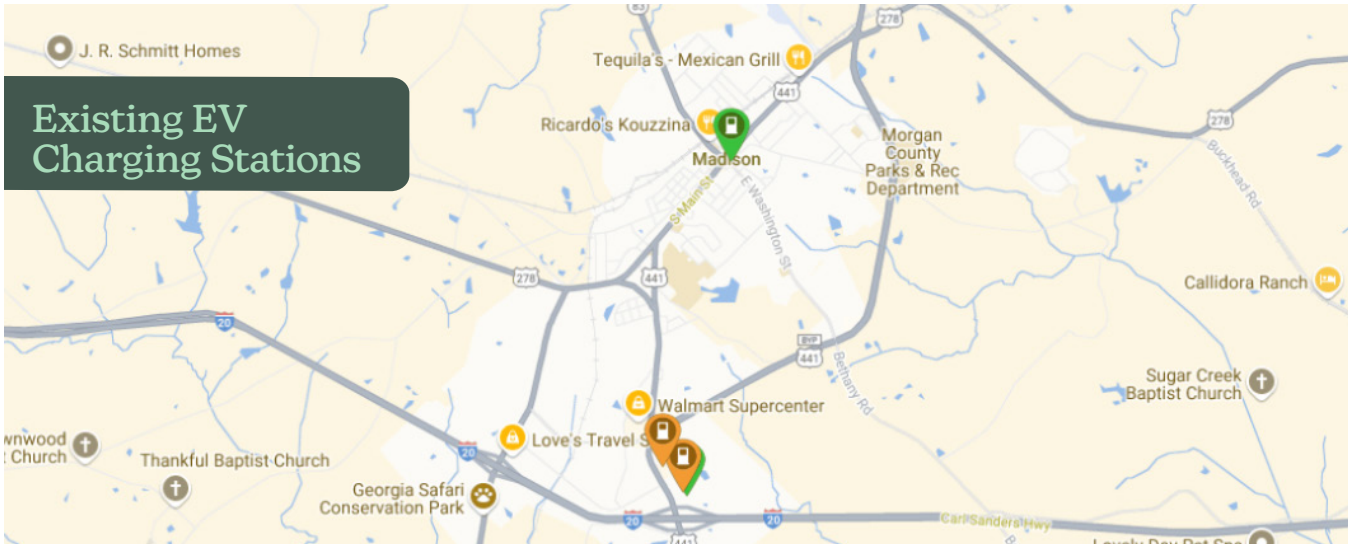
Organized Bike Rides and Walking Societies offer regular, community-led events that promote active, recreational transportation. Madison currently boasts historical walking tours, and additional programs like these provide opportunities for residents to explore the city's pathways, socialize, and promote healthy lifestyles through group cycling and walking activities. They aim to build a stronger, more connected community through shared experiences.

- Organize themed bike rides or walking tours focusing on historical or cultural landmarks in the city, in addition to existing programs.
- Offer incentives for participants who engage in regular events, such as discounts for local businesses or entry into prize drawings.
- Establish partnerships with local bike shops to provide maintenance workshops and gear rentals during events.

The Safe Streets Initiative or Vision Zero is a comprehensive program focused on eliminating traffic-related injuries and fatalities. Madison can apply for an SS4A (Safe Streets for All) grant to fund a Safety Action Plan or Vision Zero Plan. This initiative focuses on eliminating traffic deaths and serious injuries through a combination of engineering, education, and enforcement. It aims to create a citywide network of safe streets by implementing traffic-calming measures, pedestrian-focused infrastructure, and fostering community collaboration.

Develop an EV Charging Plan to support the expansion of electric vehicle (EV) infrastructure throughout the city. By developing a comprehensive network of charging stations, the plan would aim to reduce emissions, promote sustainable transportation, and encourage widespread EV adoption. This initiative wwould work in partnership with businesses, residents, and city planners to ensure accessible, reliable EV charging across the city.

- Organize themed bike rides or walking tours focusing on historical or cultural landmarks in the city.
- Install EV charging stations in high-traffic areas such as public parking lots, shopping centers, and transit hubs.
- Develop incentives for local businesses and residential areas to install EV charging stations.
- Create a mobile app or online platform for real-time EV charging station availability and user feedback.



05 Implementation

Overview

Implementing the concept plan will require long-term planning, design, and construction, partnerships and programs, as well as consistent progress. The following section outlines key projects to realize the vision set forth in the concept plan. Quick and early wins are imperative to build momentum for more long-term projects. The following projects address the five key areas of the concept plan and other recommendations:

1. Pedestrian Infrastructure
2. Greenways and Bikeways
3. Complete Streets
4. Intersections
5. Policy and Programs

This chapter provides city and community leaders with guidance on these key initiatives and identifies cost estimate ranges, phase, responsible parties and partnerships, and potential funding sources.

Cost Estimate Ranges

Transportation projects range from inexpensive, tactical efforts that can be led by staff to complex construction projects that require design expertise by outside consultants and partners. Examples of less expensive projects include revising ordinances, forming committees, and tactical interventions. Infrastructure projects—like roundabouts, greenways, and bypasses—tend to be the most costly and time-intensive projects. For this implementation matrix, cost estimate ranges are divided into six categories, listed in the chart to the right.

Phasing Time Ranges

While implementing a transportation plan is a long-term effort, there are several actions that city leaders can undertake straightway. The implementation matrix breaks out the phasing time ranges into four categories listed in the chart to the right.

Implementation Matrix Reference Charts

Cost Estimate Ranges	
$	Description
$	$0 to $50,000
$$	$50,000 to $200,000
$$$	$200,000 to $1,000,000
$$$$	$1,000,000 to $5,000,000
$$$$$	$5,000,000 +

Phasing Time Ranges	
Timeframe	Description
Near-Term	0 - 3 years
Mid-Term	3 - 7 years
Long-Term	7+ years

Implementation Matrix

1 Pedestrian Infrastructure

ID	Project Description	Cost Estimate	Phase/ Timeline	Responsible Parties	Possible Funding Sources
PI.1	**New Crosswalks:** Typical and enhanced crosswalk improvements	$$$	Near-Term	City of Madison Planning & Development and Public Works	TSPLOST, General Fund
PI.2	**Canaan Sidewalks:** Within neighborhood and connecting to downtown	$$$$ (20% Local)	Near-Term	City of Madison Planning & Development and Public Works	GDOT TAP, TSPLOST, General Fund
PI.3	**Railroad Crossing to Canaan:** Bike and pedestrian crossing over railroad tracks	$$$$$	Long-Term	City of Madison Planning & Development; Norfolk Southern, CSX	TSPLOST, General Fund
PI.4	**East Avenue/ Washington Street Connections:** closing sidewalks gaps in neighborhoods to provide safe routes to schools	$$$$$ (20% Local)	Mid-Term	City of Madison Planning & Development and Public Works	GDOT TAP, TSPLOST, General Fund
PI.5	**Ward Road:** Sidewalk to provide pedestrian connection between Eatonton Road + S. Main Street	$$	Mid-Term	City of Madison Planning & Development and Public Works	GDOT, TPLOST, General Fund
PI.6	**Beqcon Heights:** Within neighborhood and connection to the corridor	$$$$	Mid-Term	City of Madison Planning & Development and Public Works	GDOT TAP, TSPLOST, General Fund

Implementation Matrix

2 Greenways + Bikeways

ID	Project Description	Cost Estimate	Phase/ Timeline	Responsible Parties	Possible Funding Sources
GB.1	**Bike Routes:** With signage and street markings	$$	Near-Term	City of Madison Planning & Development and Public Works	TSPLOST, General Fund
GB.2	**Schools to Downtown Connections:** East Avenue* + E. Washington Street sidepaths	$$$$ (20% Local)	Mid-Term	City of Madison Planning & Development and Public Works	GDOT TAP, TSPLOST, General Fund
GB.3	**Eatonton Road Sidepath:** Trail for bike/ped connection between Ingles + downtown	$$$$	Mid-Term	City of Madison Planning & Development and Public Works	GDOT, TSPLOST, General Fund
GB.4	**Horse Branch Trail:** Build out full trail system incrementally	$$$$ (20% Local)	Mid-Term	City of Madison Planning & Development and Public Works	GDOT TAP, TSPLOST, General Fund
GB.5	**Gateway Connectivity:** Build out full trail system incrementally	$$$$ (20% Local)	Short-Term	City of Madison Planning & Development and Public Works	GDOT TAP, TSPLOST, General Fund
GB.6	**Rail-to-Trail to Athens:** With signage and street markings	$$$$$	Long-Term	City of Madison Planning & Development and Public Works	GDOT, TSPLOST, General Fund

** See also Complete Streets matrix for East Avenue sidepath*

Implementation Matrix

3 Complete Streets

ID	Project Description	Cost Estimate	Phase/ Timeline	Responsible Parties	Possible Funding Sources
CS.1	**Old Post Road :** Conversion to one-way with street parking and bike boulevard	$$$	Mid-Term	City of Madison Planning & Development and Public Works	TSPLOST, General Fund
CS.2	**First Street & Academy Street:** Conversion to one-way with street parking	$$	Near-Term	City of Madison Planning & Development and Public Works	TSPLOST, General Fund
CS.3	**Main Street:** Convert CTWTL to green planting median	$$$$	Long-Term	City of Madison Planning & Development and Public Works	GDOT, TSPLOST, General Fund
CS.4	**East Avenue:** East Avenue* sidepath and sidewalk widening	$$$$	Mid-Term	City of Madison Planning & Development and Public Works	GDOT, TSPLOST, General Fund
CS.5	**Burnett Street:** Conversion to one-way with on-street parking	$$	Near-Term	City of Madison Planning & Development and Public Works	Grant Funds
CS.6	**ADA Parking:** Evaluate and adress ADA parking in downtown	$$	Near-Term	City of Madison Planning & Development and Public Works	Grant Funds

** See also Greenways + Bikeways matrix for East Avenue sidepath*

Implementation Matrix

3 Complete Streets (continued)

ID	Project Description	Cost Estimate	Phase/ Timeline	Responsible Parties	Possible Funding Sources
CS.7	**Northern Truck Bypass:** SR 83 to Athens Hwy/ US 441	$$$$$	Long-Term	City of Madison Planning & Development and Public Works, Morgan County	GDOT, Morgan County, General Fund
CS.8	**Southern Truck Bypass:** Monticello Road/SR 83 to Eatonton Road/US 441	$$$$$	Long-Term	City of Madison Planning & Development and Public Works, Morgan County	GDOT, Morgan County, General Fund
CS.9	**New Development Neighborhood Street Grid**	$$$$	Long-Term (Ongoing)	City of Madison Planning & Development and Public Works, Developers	Private Development
CS.10	**Northern Truck Route :** SR 83 to Athens Highway/US 441	$$$	Mid-Term	City of Madison Planning & Development and Public Works, Morgan County	

Implementation Matrix

4 Intersections

ID	Project Description	Cost Estimate	Phase/ Timeline	Responsible Parties	Possible Funding Sources
I.1	**Post Office Square:** Realignment and bulbouts to reduce crossing distances	$$$	Near-Term	City of Madison Planning & Development and Public Works, GDOT	General Fund
I.2	**Eatonton Road + Triangle:** Intersection realignment	$$$$$	Long-Term	City of Madison Planning & Development and Public Works, GDOT	GDOT, General Fund
I.3	**Eatonton Road Roundabout:** Roundabout at Eatonton Road	$$$$	Long-Term	City of Madison Planning & Development and Public Works, GDOT	GDOT, General Fund
I.4	**Downtown Bulbouts:** Install bulbouts at 5 intersections throughout downtown	$$$$	Long-Term (ongoing)	City of Madison Planning & Development and Public Works	Grants, TPLOST, General Fund

Implementation Matrix

5 Policies and Programs

ID	Project Description	Cost Estimate	Phase/ Timeline	Responsible Parties	Possible Funding Sources
PO.1	**Adopt a Complete Steets Ordinance**	$	Near-Term	City of Madison Planning & Development and Public Works	General Fund, Staff Time
PO.2	**Bike/Ped Committee:** Establish a citzen group under GCC for bike/ped advocacy + community engagement	$	Near-Term	City of Madison Planning & Development and Public Works	General Fund, Staff Time
PO.3	**Modify Zoning + Subdivision Regulations:** Comprehensive review of ordinances	$$	Mid-Term	City of Madison Planning & Development and Public Works	General Fund, Staff Time
PO.4	**New Street Design Standards:** Establish design standards for transportation facilities	$$	Mid-Term	City of Madison Planning & Development and Public Works	General Fund, Staff Time
PO.5	**Establish Bike/Ped Programs:** Safe Routes to School and other programs	$$	Near-Term	City of Madison Planning & Development and Public Works	GDOT, General Fund, Staff Time
PO.6	**ADA Plan:** Update ADA Plan	$	Near-Term	City of Madison Planning & Development and Public Works	General Fund, Staff Time

** See also Greenways + Bikeways matrix for East Avenue sidepath*


Madison
on the
MOVE