

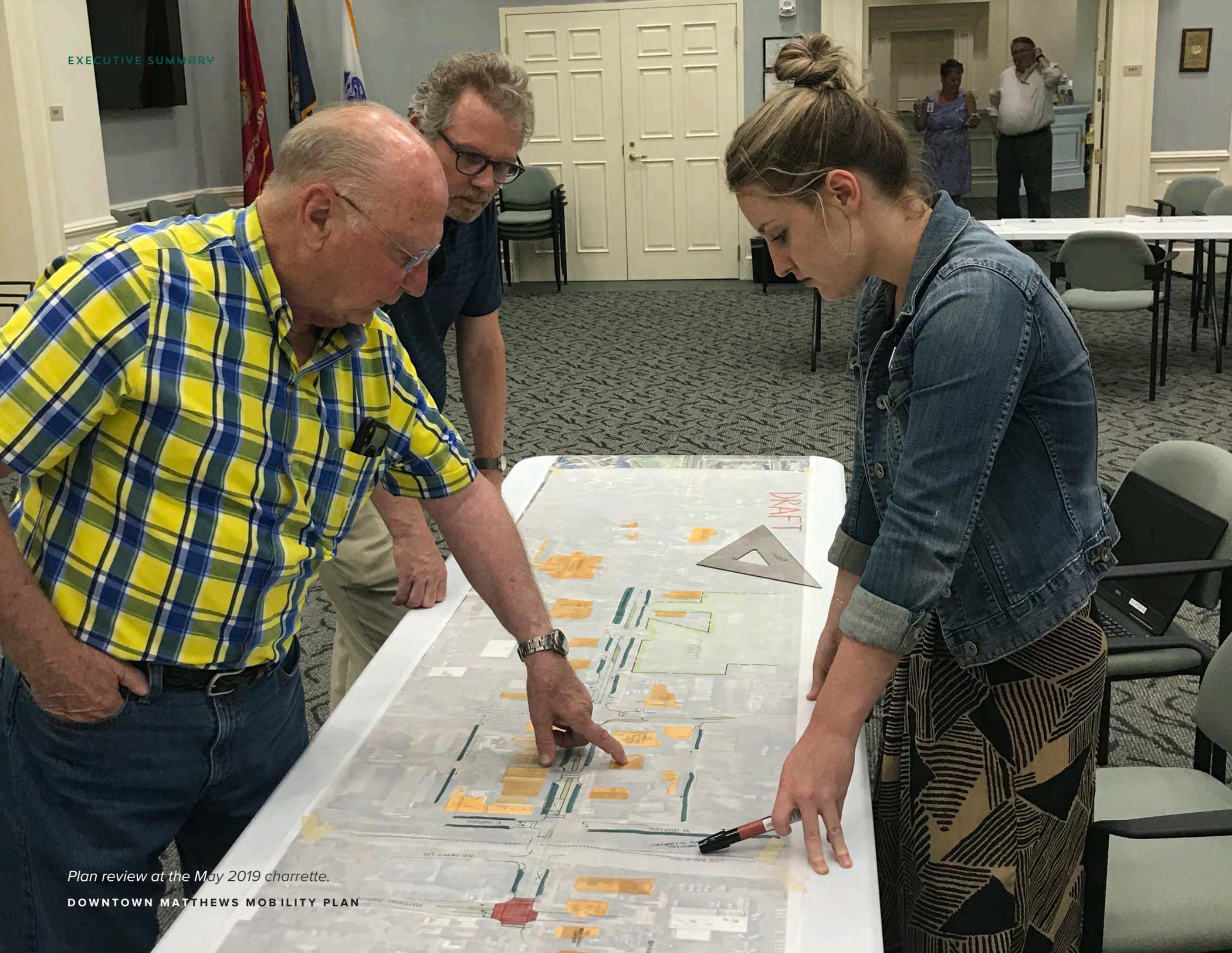
DOWNTOWN MATTHEWS MOBILITY PLAN

REPORT

*Prepared for: The Town of Matthews
February 2020*

Town of
Matthews
North Carolina





Plan review at the May 2019 charrette.

ACKNOWLEDGMENTS

THANK YOU MATTHEWS.

public participants

Thank you to the residents of Matthews for their participation in this planning process and their passion for improving the place they call home.

steering committee

Thank you to the engaged leaders of the Matthews community for their participation throughout the planning process and for their commitment to furthering the efforts of this plan.

Dana Stoogenke, Town of Matthews Public Works Department
Susan Habina Woolard, Town of Matthews Public Works Department
Jay Camp, Town of Matthews Planning Department
Corey King, Town of Matthews Parks, Recreation, & Cultural Resource Department

Lou Abernathy, Transportation Advisory Committee
Stuart Basham, NCDOT Representative
Jessica Blanchard, Principal, Matthews Elementary School
Dominique Boyd, NCDOT Representative
Curtis Bridges, Charlotte Regional Transportation Planning Organization
Rob Jacik, Business Owner
David Johnson, Business Owner
Christine Schroeder, Resident
Bill Stevens, Transportation Advisory Committee
John R. Urban, Town Commissioner
Larry Whitley, Planning Board
JD Yearwood, LPA

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EXECUTIVE
SUMMARY

EXECUTIVE SUMMARY

What is the Mobility Plan?

The Downtown Matthews Mobility Plan is a bold initiative to enhance the way we move people in Downtown Matthews. The plan will serve as a road map to create a modern, well-balanced transportation system that provides real mobility choices and creates great places where people want to spend their time and money. Real mobility choices mean that **people have the option to walk, bike, ride, or drive in a safe and comfortable environment.**

A photo simulation of what Cotton Gin Alley might look like with an upgrade to a shared street.



plan purpose

This plan is intended to accomplish the following goals:

- Evaluate the current and future multimodal needs of Downtown Matthews, including **walking, biking, driving, and transit**.
- Evaluate **pedestrian and bicycle infrastructure** and how it is connected to parking areas, downtown destinations, and surrounding neighborhoods.
- Evaluate of the current parking capacity and an analysis of **current and future parking needs** in downtown.
- Explore how **better connections** can be made **to surrounding residential neighborhoods** and retirement communities located near Downtown Matthews.

The plan will serve as a vision and action plan to create a balanced downtown transportation system that provides mobility choices and contributes to a place where people want to continue to invest time and money. Mobility choices mean that everyone has the option to walk, bike, ride transit, or drive in a safe and comfortable environment.

This project was funded by the Town of Matthews with funding from the North Carolina Department of Transportation (NCDOT) through the Charlotte Regional Transportation Planning Organization (CRTPO).

When implemented, **the mobility plan will create these key outcomes:**



Create safe streets for all ages, abilities, and modes of travel



Expand travel options for people traveling to, through, and around Downtown



Support growth in downtown investment and quality of life for residents and visitors



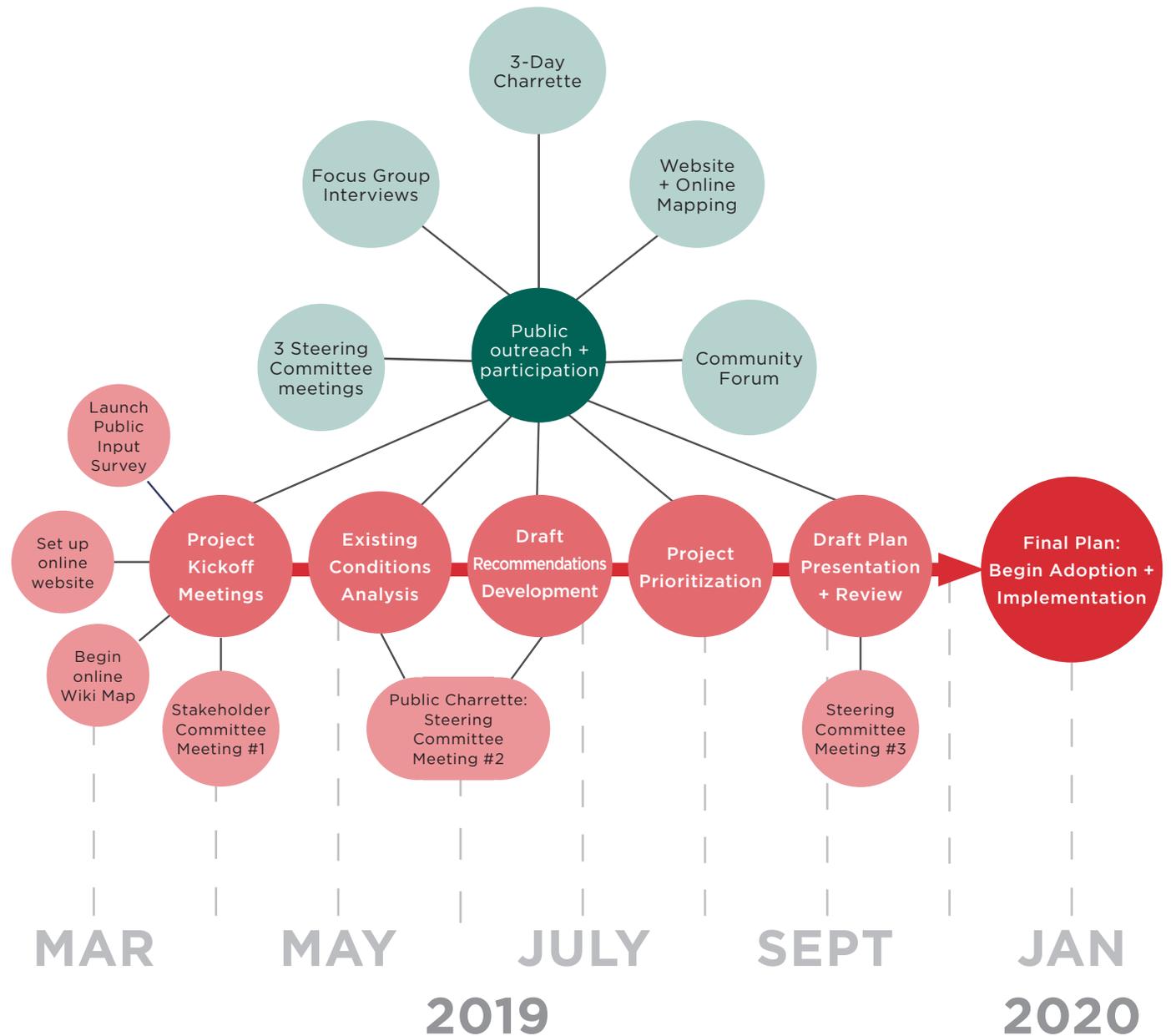
Provide predictable and reliable travel for all modes



A view of the bike racks and bus stop on Trade Street near the parking lot along the railroad tracks, looking south across Trade Street.

planning process timeline

The vision for mobility in Downtown is the community’s vision— one where all modes of travel are safe, convenient, and comfortable. The development of the vision was a collaborative effort that brought together residents, the business community, Matthews Elementary School, and regional—Charlotte Regional Transportation Planning Organization (CRTPO) and Charlotte Area Transit System (CATS)—and state partners—North Carolina Department of Transportation (NCDOT)—to create this mobility plan for Downtown. The visioning effort began in the Spring of 2019 with a steering committee kick off meeting, followed by a public design workshop (charrette) and stakeholder meetings held over three days; and the launch of the interactive online input map and project survey. During the early fall, the project steering committee met to provide guidance on the development of the priority projects to include in the plan. In the late fall, the complete mobility strategy was presented to the Town, and the input received at that meeting was used to refine and finalize the recommended actions to implement the plan.

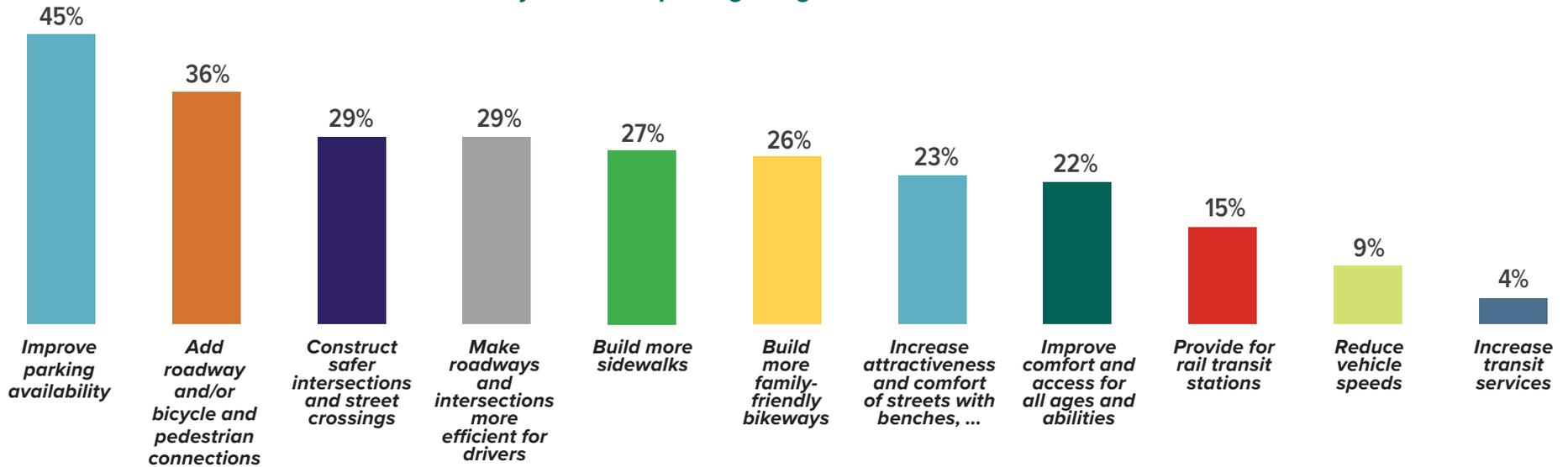


public input

Matthews engaged its citizens as stakeholders and partners throughout the planning process. The Downtown Matthews Mobility Plan was developed through a partnership with community residents and stakeholders, and builds off of the many previous planning efforts that the Town has completed in recent years. Throughout the process, hundreds of citizens participated directly in the process through stakeholder meetings, online survey and mapping exercises, and a three-day public planning and design workshop known as a “charrette.”

143 online map views
152 online map comments
598 survey responses
700+ facebook live views (charrette presentation)

What would you do to improve getting around Downtown Matthews?



Responses to one survey question reveals a preference for improving parking availability and adding roadway, bicycle, and pedestrian connections in Downtown Matthews.

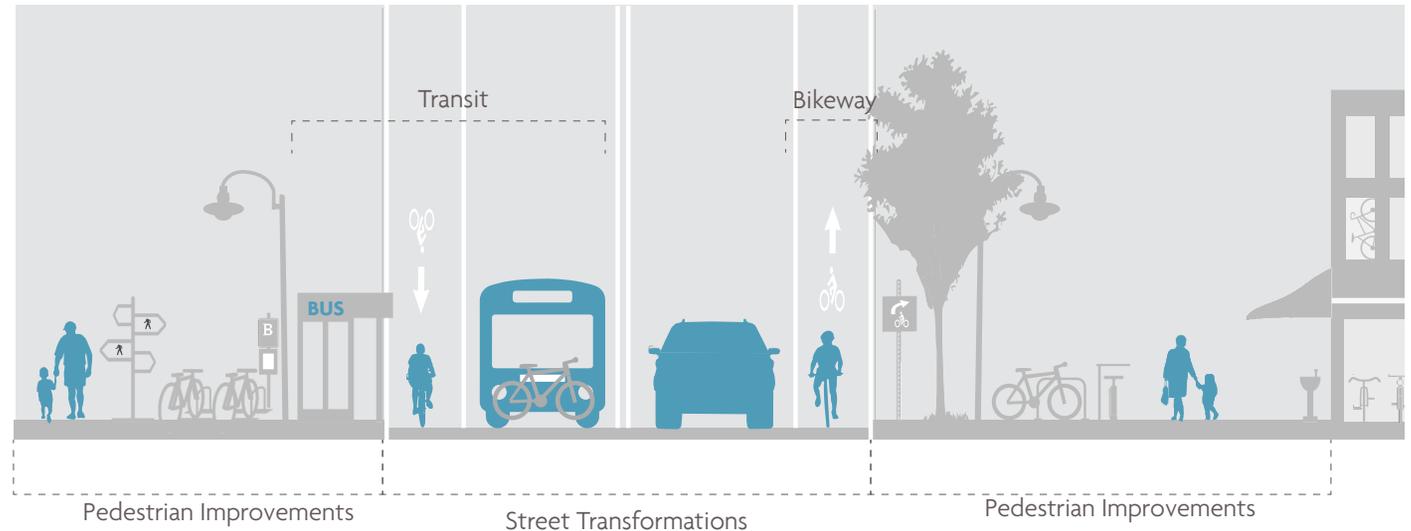
recommendations

This report provides a common action plan for Downtown Matthews that will expand mobility options, create streets designed for everyone, increase comfort to attract and sustain activity, and enhance the convenience of moving from place to place. The recommendations in this report are implementation-ready and intended to achieve the Plan’s mobility goals. These recommendations are organized into three types:

- **Projects**
- **Programs**
- **Policies**

Together, these recommendations propel Downtown Matthews toward the goal of creating a more vibrant, unique, and walkable place where residents and visitors enjoy spending their time.

It is intended for all projects, programs, and policies to be thoroughly analyzed and reconsidered individually, by topic or as a geographical group prior to implementation



PEDESTRIAN IMPROVEMENTS

- Sidewalks (for greenways and sidepaths, see Bikeways + Multi-Use Paths)
- Crossing improvements
- ADA-accessibility
- Placemaking



PARKING

- New on-street spaces
- Reconfiguration of existing spaces
- Surface lots
- Wayfinding



STREET TRANSFORMATIONS

- Lane reallocation
- Shared streets
- New Complete Street connections
- Traffic calming
- Intersection reconfigurations



TRANSIT

- Bus stop amenities
- Bus stop relocation
- Light rail connections



BIKEWAYS + MULTI-USE PATHS

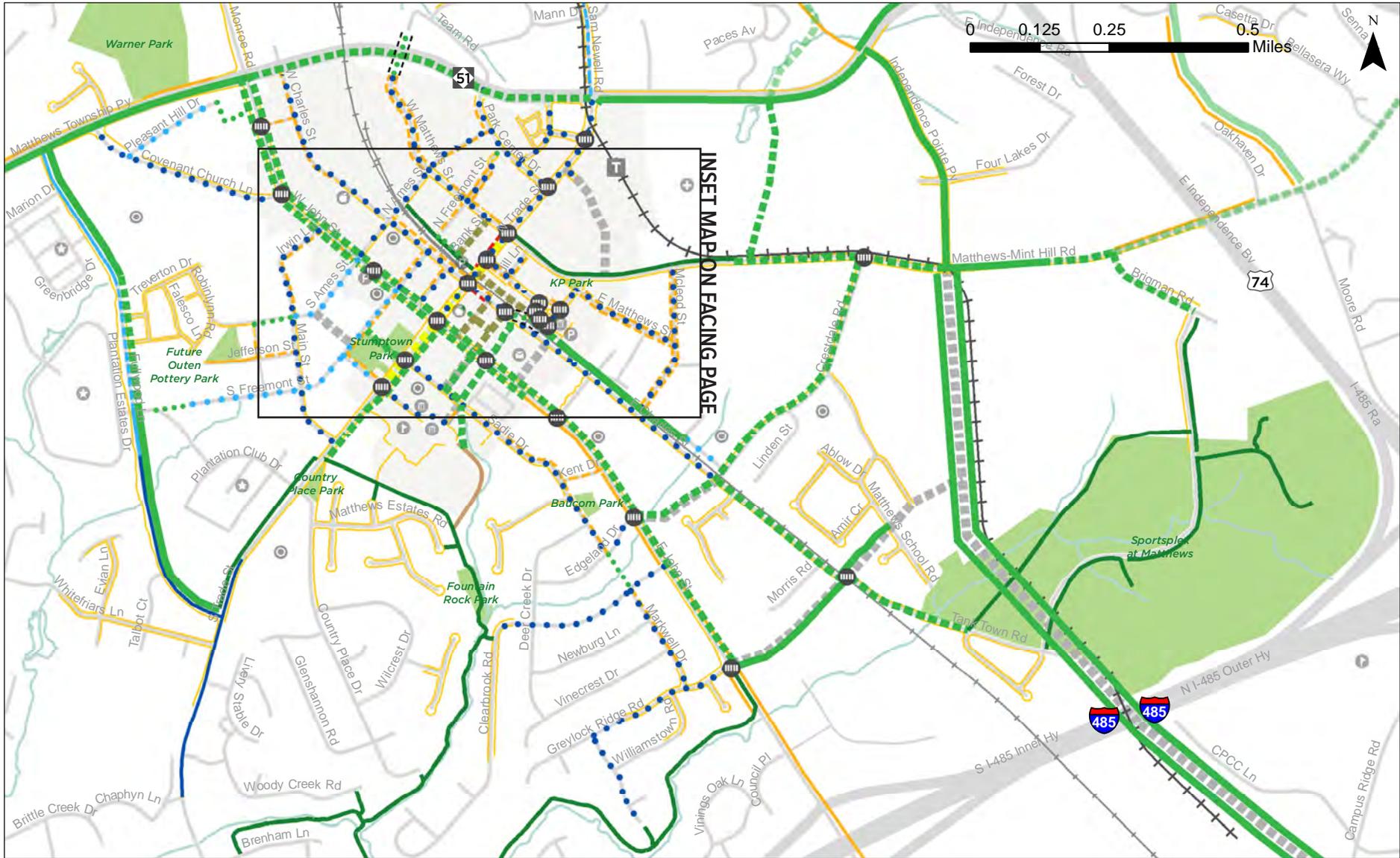
- On-street bike facilities
 - » Bike Lanes
 - » Shared Lane Markings
 - » Advisory Shoulders
- Multi-Use Paths
 - » Greenways
 - » Sidepaths



PROGRAMS + POLICIES

- Parking
- New Mobility Technology
- Wayfinding
- Transportation Demand Management

DOWNTOWN MOBILITY NETWORK MAP



Sidewalks + Access Issues	Multi-Use Paths	Bike Lanes	Shared Street Bike Facilities	Roadways	Future Silver Line
Existing Sidewalk	Existing (Natural surface)	Existing	Proposed Shared Lane Markings	New Complete Street	Downtown / Hospital
Funded-not constructed	Funded- not constructed	Funded	Proposed Advisory Shoulder	Lane Reallocation	Silver Line Proposed Alignment
Proposed Sidewalk	Proposed MUP	Proposed		Shared Street	
Fix ADA issues	Proposed Bike/Ped Connector			Crossing Improvement	
	Proposed Bike/Ped Tunnel				

downtown core conceptual plan

The projects in the downtown core include reconfiguring lanes along Trade Street, reorienting parking spaces and expanding the sidewalks along Trade; retrofitting on-street parking along side streets and alleys; and intersections improvements to shorten pedestrian crossing distances. The details of these projects, and others are outlined on the following pages.



priority projects

The Downtown Matthews Mobility Plan Stakeholder Committee identified top priority projects for implementation based on input gathered during the course of the Mobility Plan study. The Stakeholder Committee has put forward the following four projects for consideration by the Town Board of Commissioners for near-term funding and implementation.

Trade Street Reconfiguration, from John Street to Charles Street

- Lane reconfiguration
- Parking reorientation
- Widened sidewalks
- Crossing improvements

Trade Street Reconfiguration, from Matthews Elementary School to John Street

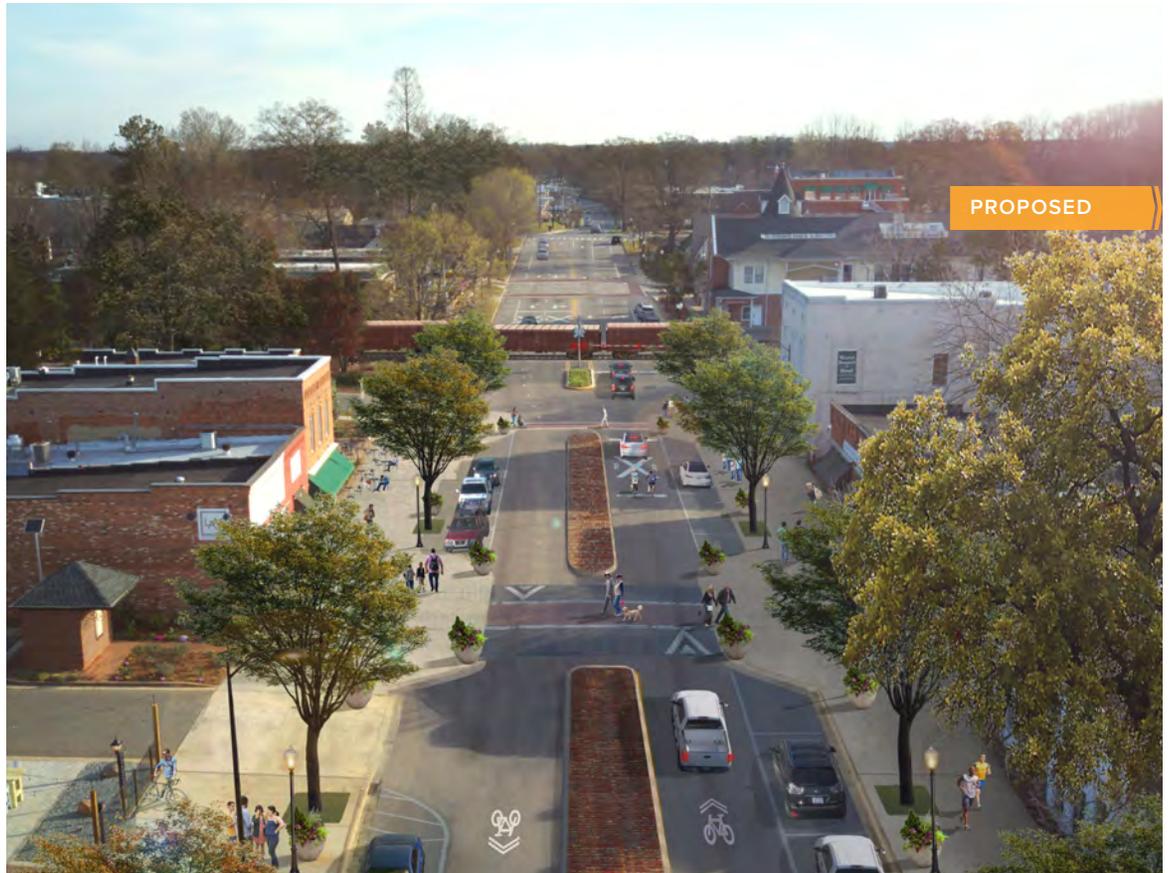
- Lane reconfiguration
- Parking reorientation
- Multi-use path
- Crossing improvements

Library Lane + Freemont Street Paired One-Way Streets, from John Street to Charles Street

- Two one-way conversions on Library Lane and Freemont Street, creating “one-way pair”
- 31 new parallel parking spaces
- Sidewalks along both roads

Heritage Lane Greenway, Alignment A, from Sadie Drive to John Street

- Multi-use path along southeast side of alley/driveway
- Formalize alley/driveway as public right-of-way, “Heritage Lane”





Mobility choices mean that people have the option to walk, bike, ride transit, or drive in a safe and comfortable environment.

INTRODUCTION + VISION

plan purpose

This plan is intended to accomplish the following goals:

- Evaluate the current and future multimodal needs of Downtown Matthews, including **walking, biking, driving, and transit**.
- Evaluate **pedestrian and bicycle infrastructure** and how it is connected to parking areas, downtown destinations, and surrounding neighborhoods.
- Evaluate of the current parking capacity and an analysis of **current and future parking needs** in downtown.
- Explore how **better connections** can be made **to surrounding residential neighborhoods** and retirement communities located near Downtown Matthews.

The plan will serve as a vision and action plan to create a balanced downtown transportation system that provides mobility choices and contributes to a place where people want to continue to invest time and money. Mobility choices mean that everyone has the option to walk, bike, ride transit, or drive in a safe and comfortable environment.

This project was funded by the Town of Matthews with funding from the North Carolina Department of Transportation (NCDOT) through the Charlotte Regional Transportation Planning Organization (CRPTO).

When implemented, **the mobility plan will create these key outcomes:**



Create safe streets for all ages, abilities, and modes of travel



Expand travel options for people traveling to, through, and around Downtown



Support growth in downtown investment and quality of life for residents and visitors



Provide predictable and reliable travel for all modes



A view of the bike racks and bus stop on Trade Street near the parking lot along the railroad tracks, looking south across Trade Street.

downtown matthews mobility plan study area

The study area for the Downtown Matthews Mobility Plan coincides with the “downtown overlay” district and is shown beige in the map at right. This area was the focus for analysis and recommendations, but the surrounding areas and facilities were also taken into account in order to develop appropriate mobility solutions that connect to surrounding neighborhoods and destinations.



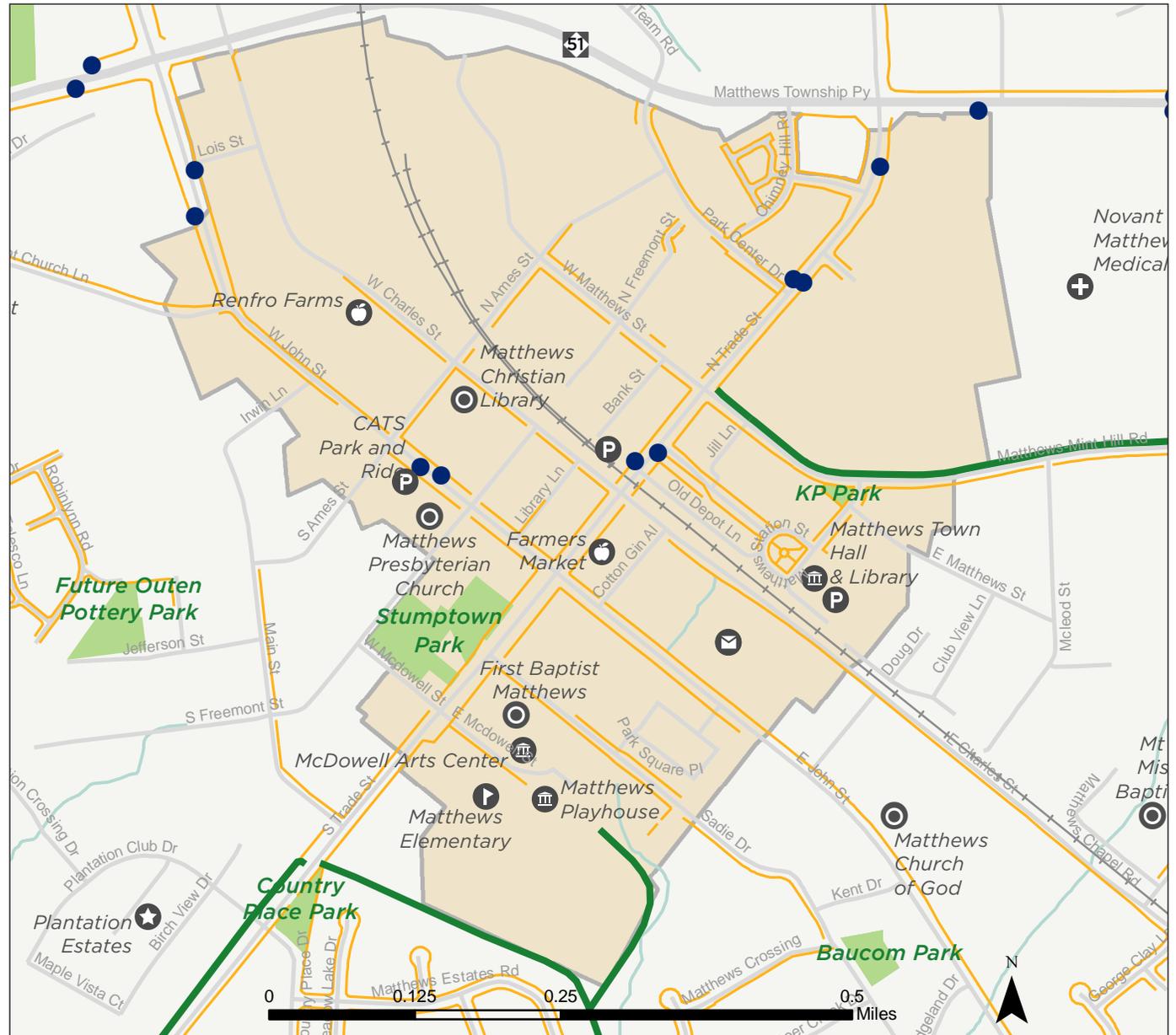
Downtown Overlay

Existing Facilities

- Bus Stops
- Sidewalks
- Bike Lanes
- Multi-Use Path & Greenways

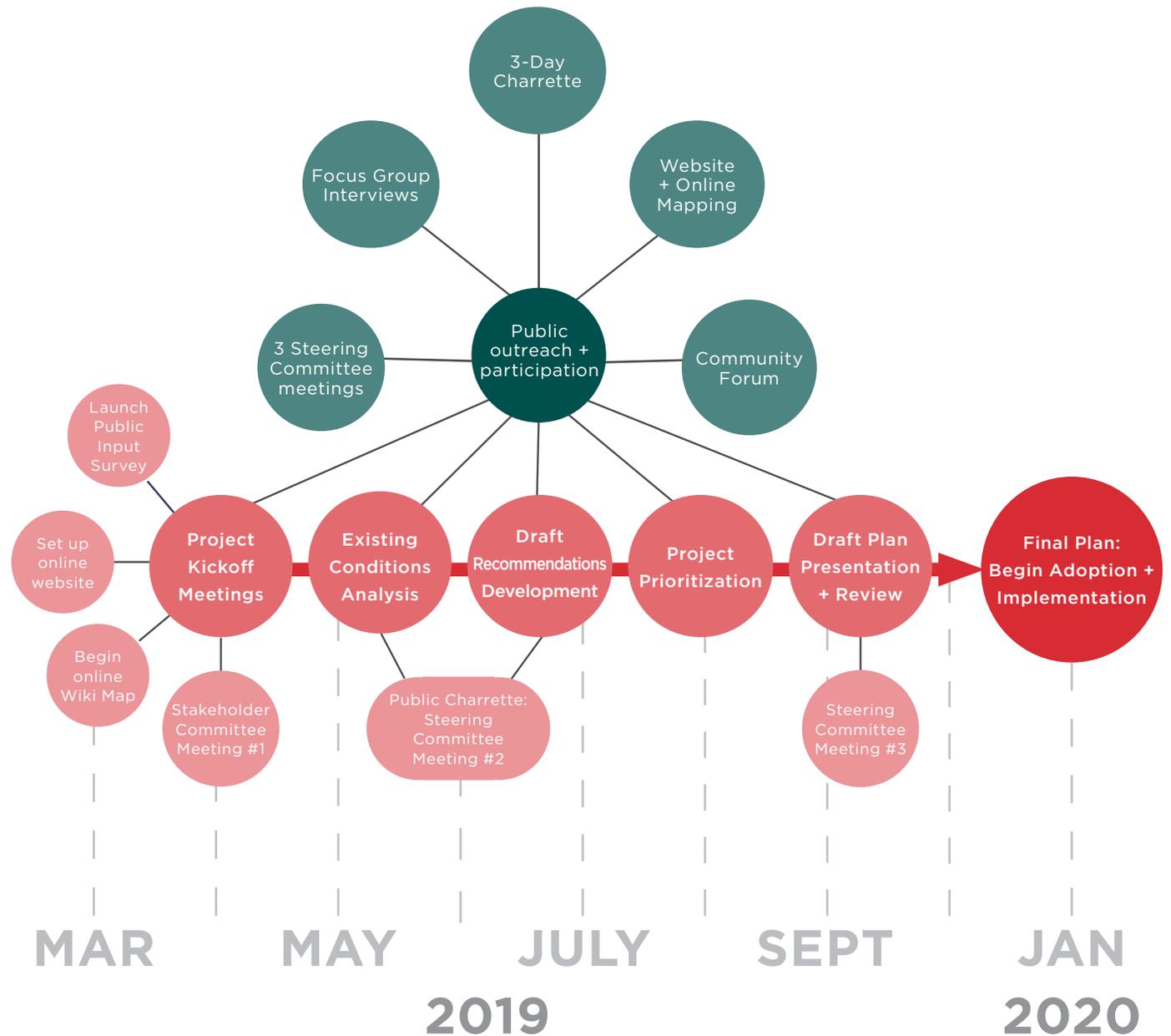
Key Destinations

- Retirement Community
- Community Building
- Farmers Market
- Hospital
- Park N Ride
- Post Office
- School
- Place of Worship



planning process timeline

The vision for mobility in Downtown is the community’s vision— one where all modes of travel are safe, convenient, and comfortable. The development of the vision was a collaborative effort that brought together residents, the business community, Matthews Elementary School, and regional—Charlotte Regional Transportation Planning Organization (CRTPO) and Charlotte Area Transit System (CATS)—and state partners—North Carolina Department of Transportation (NCDOT)—to create this mobility plan for Downtown. The visioning effort began in the Spring of 2019 with a steering committee kick off meeting, followed by a public design workshop (charrette) and stakeholder meetings held over three days; and the launch of the interactive online input map and project survey. During the early fall, the project steering committee met to provide guidance on the development of the priority projects to include in the plan. In the late fall, the complete mobility strategy was presented to the Town, and the input received at the meeting used to refine and finalize the recommended actions to implement the plan.



town vision

The project and process supports directly or indirectly all of the elements of the Town Vision statements adopted in 2019, and documented in the report *Our Town, Our Vision* (available through the Town of Matthews website), and especially the Vision Statements 1 through 6:

Vision 1. Well-Planned, Multi-Modal Transportation System

Vision 2. Vibrant, Pedestrian-Friendly Downtown

Vision 3. Walkable and Bikeable Community

Vision 4. Small Town Feeling and Identity

Vision 5. Expanded Park and Open Space System

Vision 6. Destination for Arts and Culture

Vision 7. Quality, Community Serving Schools

Vision 8. Properly Managed Growth and Development

Vision 9. A Diverse Community

Vision 10. Community Dedicated to Public Safety

Vision 11. Transparent Governance and Engagement

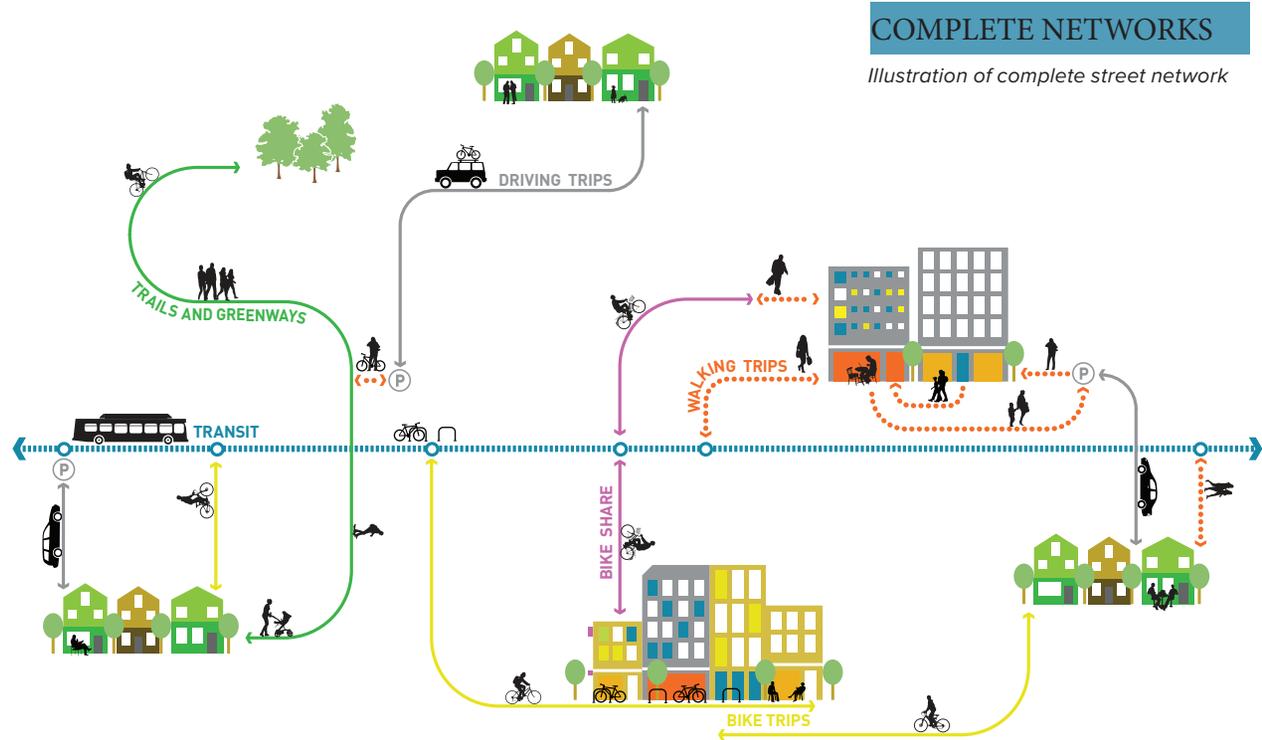
Vision 12. Healthy, Sustainable Environment

The long-term vision for streets in Downtown is to expand travel choices and improve quality of life for residents, workers, and visitors. (Concept for Cotton Gin Alley is depicted below. See Chapter 2 for more recommendations.)



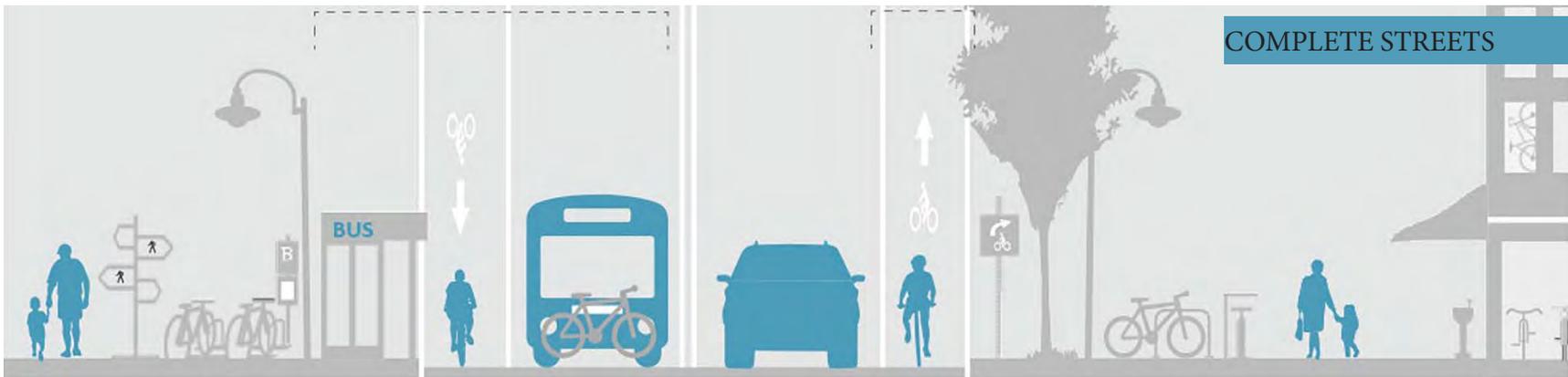
complete networks and streets

The vision for mobility in Downtown Matthews is for a transportation system that is safe, reliable, and complete for everyone. People traveling to, through, and around Downtown Matthews should have a variety of choices for all trips. To accomplish this vision, streets and networks will need to be balanced for all modes.



COMPLETE NETWORKS

Illustration of complete street network



COMPLETE STREETS

mobility choices

The goal for mobility in Downtown Matthews is to **move people and goods** efficiently and safely. People of all ages and abilities should be able to travel comfortably, safely, and conveniently in Downtown.

The range of modes includes people walking, bicycling, riding transit, driving, and new modes such as electric scooters. This puts emphasis on the efficient movement of people and goods (vs. movement of vehicles) and equitable allocation of street space. In an urban and walkable context such as Downtown Matthews, street space is limited and needs to be prioritized to accommodate a wide range of users and activities.

The **core questions for this plan**, shown at right, consider the completeness and conditions of the network for each mode, especially through the lens of the Mobility Plan's guiding visions for the plan, as described on previous pages.



Students and families cross John Street as they walk to town after school.



Are ALL streets pedestrian friendly, with ADA access?



Do greenways connect to popular destinations in town?



Are cycling options comfortable for ALL ages and abilities?



Are roadways safe for ALL users?



What local and regional transit services are available?



Is parking efficient + well-managed?



What new technologies and shared mobility options are being used?

public input

Public input in various forms shaped the visioning process, while coordination with concurrent projects in Matthews (including the Trade Street Streetscape Plan and the Matthews Station/Trade Street intersection project) ensures consistency with the recommendations and plans throughout Downtown Matthews.

Public input came from three different sources: public meetings, stakeholder and steering committee meetings, and online input in the form of a public survey and online map.

CONCURRENT PROJECTS

Downtown Matthews Mobility Plan

Matthews Trade Street Streetscape Study

Trade Street + Matthews Station Street Intersection Redesign
(moving to final design phase)

John Street Improvement Project (NCDOT Project)

Silver Line Light Rail Preliminary Design (2020 start)



The project team met with **stakeholder groups** during the 3-day charrette—including the police department, schools, and business owners—to better understand the town's mobility needs.



The project team also met with the **Steering Committee** throughout the project to gather input on the town's mobility needs, as well as to get feedback on the recommendations.

public meetings

The community was actively engaged from the beginning of the project, starting with the initial public meeting. Community members shared their stories, experiences, and desires for how to enhance their daily travel choices. Sixteen Steering Committee members convened in April 2019 for the first public meeting. This was followed by a three-day public planning workshop (also known as a charrette) held in May to gather public input on the plan's recommendations.



Matthews residents, business owners, and employees collaborate to shape the vision of the Downtown Matthews Mobility Plan

INPUT FROM THE 3-DAY CHARRETTE

Tuesday-Friday (MAY 28-31, 2019) Matthews Town Hall

Activities included:

- Observations, measurements, parking counts by consultants
- Coordination with/input from staff (Admin, Public Works, Planning, Police & Fire) and Trade Street streetscape consultant
- 4 Stakeholder group meetings
- Evening public meeting
- Facebook Live presentation with approximately 700 views
- Steering Committee in-process presentation
- Drop-in review from public
- Downtown business walk audit and listening session (July 2019)

Charrette Public Meeting 3-5 Year Wish List Projects:

- Sidewalk connectivity
- Crosswalks “that go somewhere”
- Enforcement on crosswalks
- Greenways into town
- Bike/pedestrian access on bridges (outside of downtown)
- Local shuttles (for seniors, disabled, and others)
- Upgraded bus stops
- Emergency call boxes
- Wayfinding for parking and parking app
- Shared parking
- Lyft/Uber drop-off

stakeholder + steering committee meetings

Three steering committee meetings held throughout the process provided an opportunity for technical and targeted input from a broad range of perspectives. Stakeholders convened during the 3-day charrette and brought a variety of voices to the table, including business owners, residents, neighborhood association groups, and agency partners.

STAKEHOLDER INPUT SUMMARY

During the charrette, staff invited local stakeholders and regional partners to attend stakeholder group meetings. Participants included representatives from Novant Health, the Chamber of Commerce, Police and Fire Departments, the Town Manager's office, CATS, developers, residents, elected officials, and business and property owners. The following is a summary of their input in order of the number of times a topic was mentioned:

What is your VISION FOR MOBILITY in Downtown Matthews in 5-10 years: How does downtown mobility look in 2025-30?

1. Better parking predictability
2. Bus Transit improvements (Express and Local)
3. Alternatives to traffic through downtown
4. Walkable/walk-up downtown station for Light Rail
5. Improved Intersections and crossings for pedestrians
6. John Street redesigned to be context appropriate
7. Slower traffic speeds
8. Improved sidewalks/pedestrian networks
9. Higher quality development, construction
10. Being able to bike to town: should feel comfortable
11. How to get to Sportsplex to/from downtown without driving: trolleys, shared use paths, etc
12. Tie-ups in front of businesses for dogs (ala Santa Cruz)

What are PROBLEM AREAS that you experience? Where are there GAPS in the transport network/systems?

1. Sidewalk gaps and sidewalk maintenance
2. Speeding
3. Trade Street streetscape and parking
4. Parking issues
5. Intersections/crossings uncomfortable for pedestrians
6. West John: 4 lanes undivided is a problem
7. Superstreet not appropriate for downtown
8. Problems with traffic circulation/access for drivers
9. Need education for pedestrians and motorists
10. Need more traffic enforcement downtown
11. Need more street lights
12. Walking to school; walking in area with kids
13. Lack of finish and polish in downtown
14. Planned Continuous Flow Intersection (CFI) at John/51 not appropriate
15. Quiet zone with railroad could make for more residential downtown

online input

The project website provided a central portal to receive updates and actively stay engaged throughout the project, with close to 1,400 unique visitors to the site. The website also housed project files throughout the process including an interactive online map. The interactive map was used to collect location-specific feedback about desired routes or needed improvements in the Downtown area.

The project team combined online input with input received at public meetings to build consensus around the implementation actions that will guide work towards the mobility vision for Downtown Matthews. In total, **almost 150 people left comments on the online map, nearly 600 people responded to the online survey, and approximately 700 views of the Facebook Live presentation were recorded.**

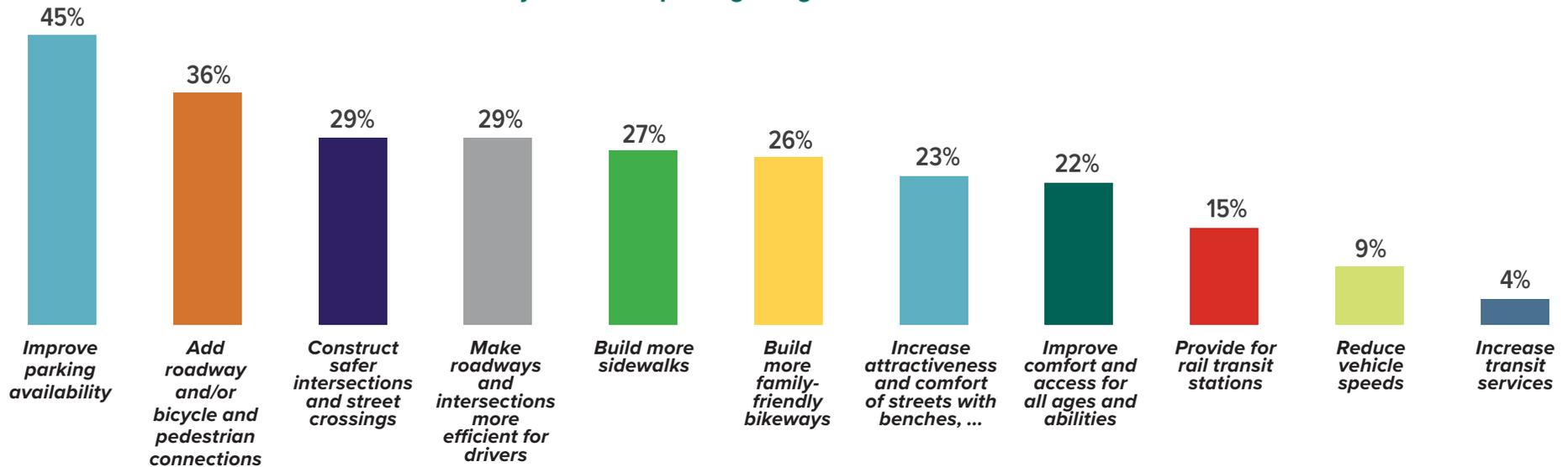
143 online map views

152 online map comments

598 survey responses

700+ facebook live views (charrette presentation)

What would you do to improve getting around Downtown Matthews?



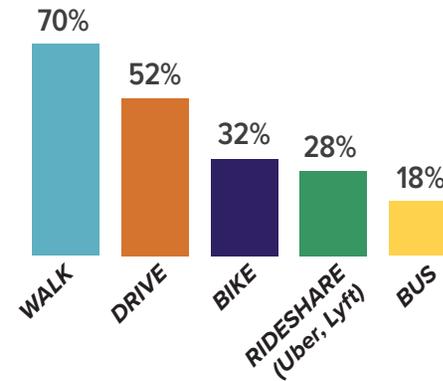
Responses to one survey question reveals a preference for improving parking availability and adding roadway, bicycle, and pedestrian connections in Downtown Matthews.

online input, continued

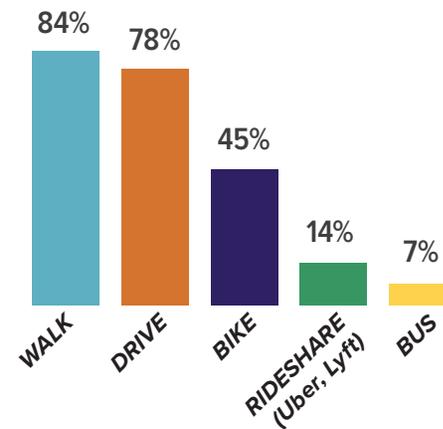
ONLINE PUBLIC INPUT SURVEY

The project team used an online survey to gain insight into the current travel trends of those traveling in Downtown Matthews. These trends are summarized in the graphics on this page and the previous. A full version of the survey responses are available as an appendix to this document.

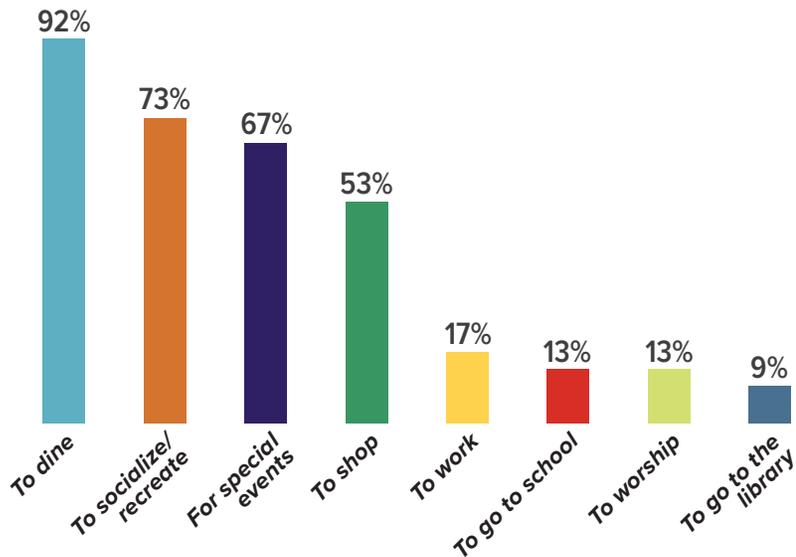
How do you typically move to/from + around Downtown Matthews (now)?



How do you want to move to/from + around Downtown Matthews (future)?



Why do people come to Downtown Matthews?



Responses to three survey questions reveals why people travel to Downtown Matthews, how they currently travel there, and how they would prefer to travel in the future.

The following are a sampling of the comments we heard throughout the public input process, including the online survey and map as well as the various public meetings and charrette.

“Crosswalks could be more visible”

“It would be nice just to ride through town safely”

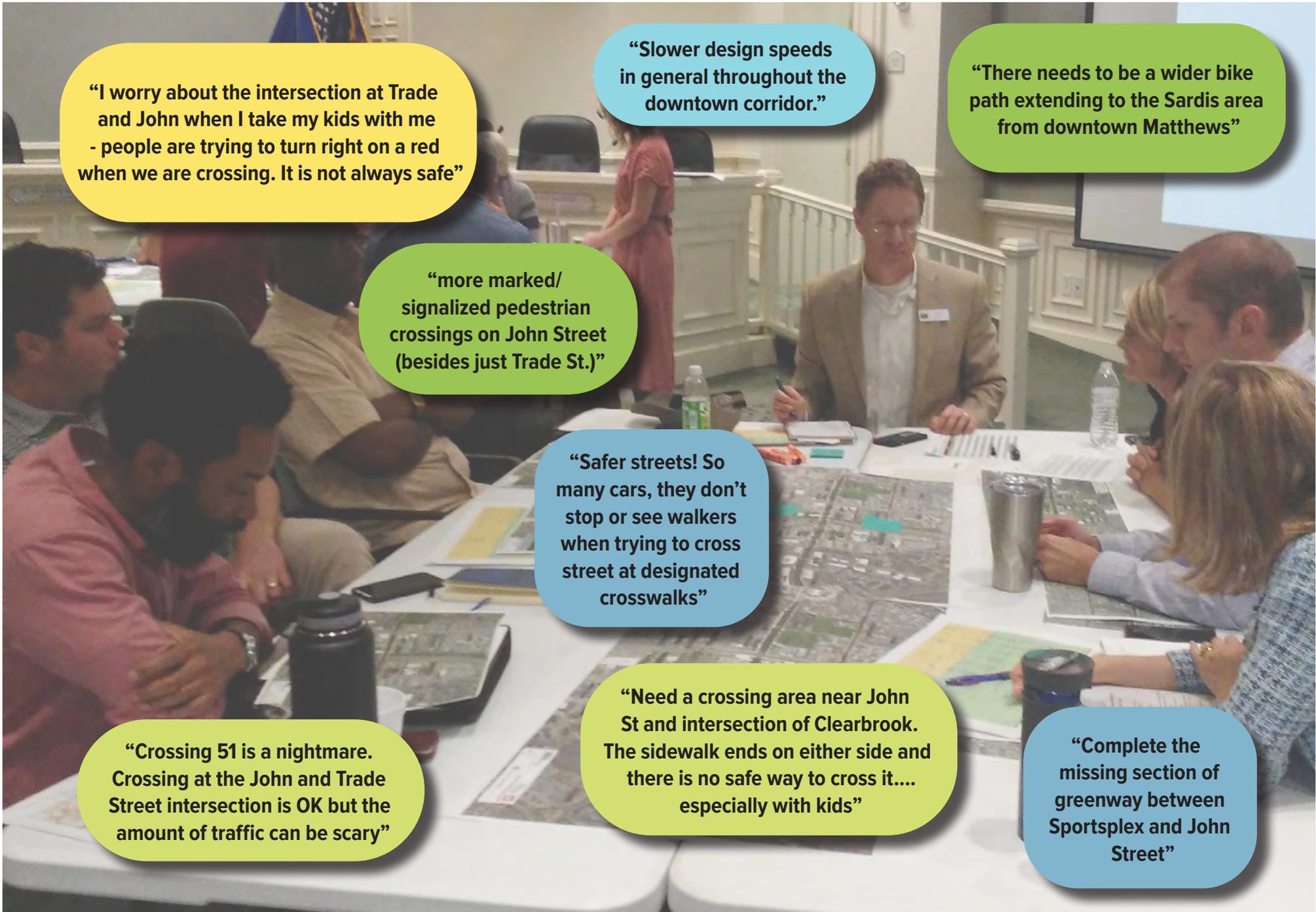
“It’d be nice to dine or socialize but there’s nowhere to park”

“I see people almost get hit all of the time trying to walk across the street to catch the bus”

“More sidewalks on more streets near downtown, better enforcement of crosswalk laws pertaining to motorists”

“more sidewalks, sidewalks on E. Charles”

“I know bikes aren’t supposed to be on sidewalks, but I will not have my kids riding in the bike lane on the road. It would be awesome if sidewalks were more like they are in front of the retirement home on Trade so that you can walk and ride on them”



“I worry about the intersection at Trade and John when I take my kids with me - people are trying to turn right on a red when we are crossing. It is not always safe”

“Slower design speeds in general throughout the downtown corridor.”

“There needs to be a wider bike path extending to the Sardis area from downtown Matthews”

“more marked/ signalized pedestrian crossings on John Street (besides just Trade St.)”

“Safer streets! So many cars, they don’t stop or see walkers when trying to cross street at designated crosswalks”

“Crossing 51 is a nightmare. Crossing at the John and Trade Street intersection is OK but the amount of traffic can be scary”

“Need a crossing area near John St and intersection of Clearbrook. The sidewalk ends on either side and there is no safe way to cross it.... especially with kids”

“Complete the missing section of greenway between Sportsplex and John Street”

online public input map

The use of an online interactive online map expanded the opportunities for people to shape development of the mobility plan. Using the interactive map, people were able to provide input about routes or desired improvements at specific locations. Public input on the online map included comments related to walking, bicycling, transit, driving, and parking.

The map on the facing page depicts a summary of the most-mentioned projects from the online public input map, as well as any project needs mentioned in the other public input formats (survey, public meetings, stakeholder meetings, and steering committee).

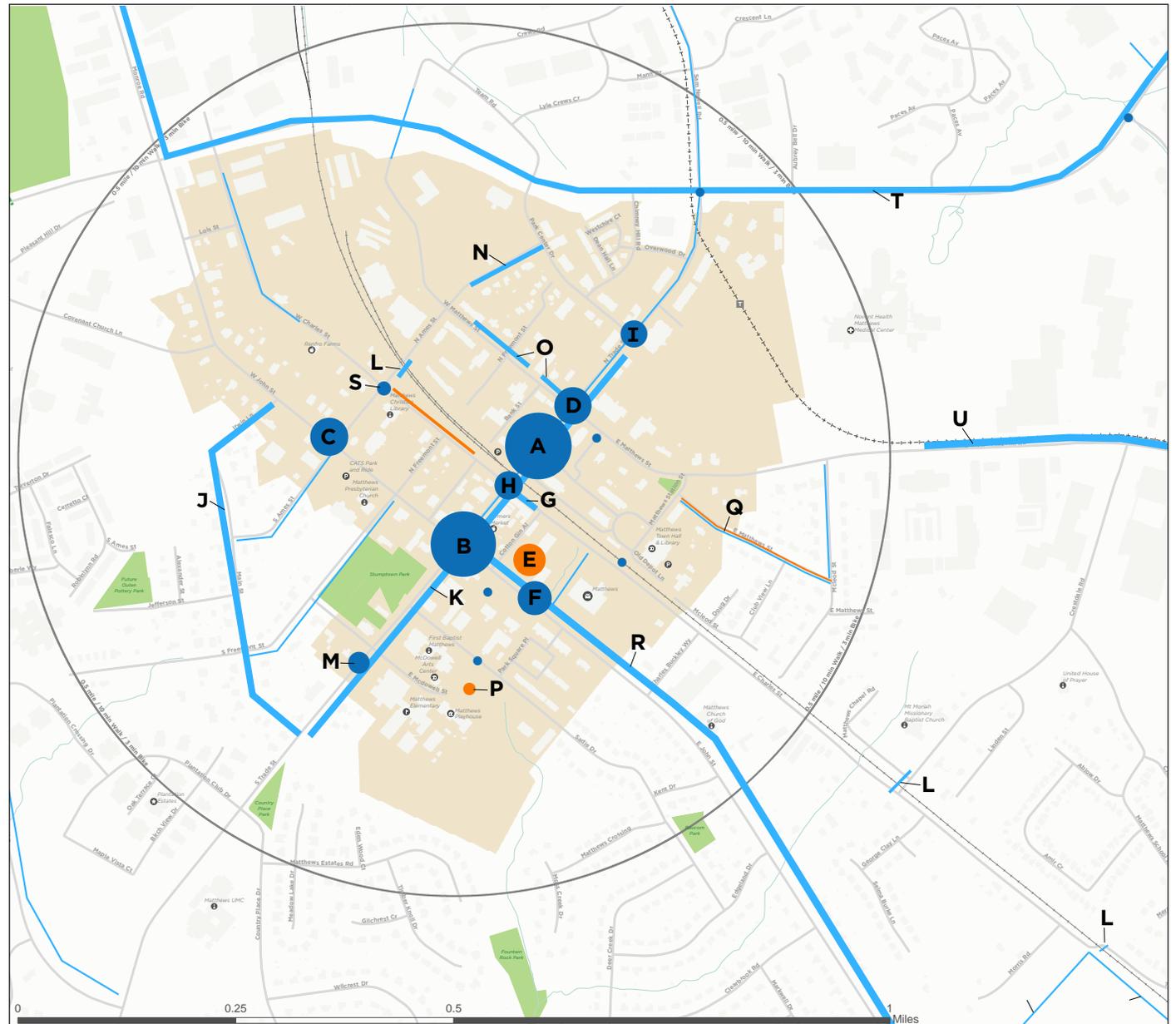
PUBLIC INPUT MOST-MENTIONED PROJECTS:

- A.** Improve Pedestrian crossing at **MATTHEWS STATION ST** (project is in the preliminary design phase and being considered for town funding)
- B.** Intersection of **TRADE ST + JOHN ST**: Improve pedestrian crossing, signal timing, and gas station driveways
- C.** Add pedestrian crossings across and along **W JOHN STREET** (@ Covenant Church, Ames, Freemont, Library)
- D.** Add pedestrian crossing signals at **TRADE ST + MATTHEWS ST**
- E.** Increase/formalize parking around **FARMER'S MARKET**
- F.** Add pedestrian crossings across **E JOHN ST** (@ Cotton Gin, Stream/Post Office, Kent)
- G.** Complete sidewalks along **CHARLES ST** at **TRADE ST** intersection
- H.** Improve crossing at **CHARLES ST + TRADE ST**
- I.** Improve pedestrian crossing at **TRADE ST + PARK CENTER DR**
- J.** Complete sidewalks along **MAIN ST** + add traffic calming elements
- K.** **TRADE ST** (Main to Park Center): Improve vehicular/parking/pedestrians space balance
- L.** Improve pedestrian **RAILROAD CROSSINGS** (@ Ames, Crestdale, + Charles)
- M.** Improve pedestrian crossings at **TRADE ST + MCDOWELL ST**
- N.** Complete sidewalks along **N AMES ST**; improve roadway
- O.** Add pedestrian facilities + traffic calming along **W MATTHEWS ST**
- P.** Increase parking availability near **PLAYHOUSE** and **ELEMENTARY SCHOOL**
- Q.** Add sidewalks along **E MATTHEWS ST** (+ on-street parking)
- R.** Improve pedestrian facilities along **E JOHN ST**
- S.** Clear overgrowth and improve sight lines at **CHARLES ST + AMES ST**
- T.** Add bicycle + pedestrian facilities along **MATTHEWS TOWNSHIP PKWY (HWY 51)**
- U.** Extend bicycle + pedestrian facilities along **MATTHEWS-MINT HILL RD**

public input summary: most-mentioned projects

-  Intersection Improvement Needed*
-  Route Improvement Needed*
-  Parking Improvement Needed*

*The size/width of the symbol correlates to the relative number of related comments received from all sources of public input.



For a full list of publicly-mentioned projects, see map and list in the Appendix of Chapter 4

Town of
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2



Photo simulation of corridor improvements along Trade Street

MOBILITY RECOMMENDATIONS

introduction

This chapter provides a mobility master plan for Downtown Matthews that will expand mobility options, create streets designed for everyone, increase comfort to attract and sustain activity, and enhance the convenience of moving from place to place. These recommendations are implementation-ready and intended to achieve the Plan's mobility goals. Recommendations in this chapter are organized into three sections:

- **Projects**
- **Programs**
- **Policies**

Together, these recommendations propel Downtown Matthews toward the goal of creating a more vibrant, unique, and walkable place where residents and visitors enjoy spending their time.



A view of existing conditions along Trade Street near Matthews Station Street, looking northeast.

how are we going to create the town we want to be?

This plan represents a comprehensive strategy that when implemented will help the Town grow while becoming more safe, healthy, connected, welcoming, and action-oriented.

To accomplish these goals, a series of projects, policies, and programs have been developed to create a transportation system that is more predictable, reliable, and future ready. The details of the projects, policies, and programs are in this Mobility Recommendations chapter, and they are organized into an implementation schedule in the following Action Plan chapter of this plan.

PROJECTS

Identify the **physical changes** to streets that create the transportation system and networks envisioned for Downtown.

POLICIES

Support **decision-making** about funding, projects, and programs.

PROGRAMS

Provide **incentives and support** for people to travel using more options.

ACTION PLAN

Organizes the projects, policies, and programs into a sequential **implementation** plan to guide actions and investments overtime.



Create safe streets for all ages, abilities, and modes of travel



Expand travel options for people traveling to, through, and around Downtown



Support growth in downtown investment and quality of life for residents and visitors



Provide predictable and reliable travel for all modes

PROJECTS

The network of mobility projects identifies physical improvements to corridors and localized spots across Downtown Matthews. Projects are intended to fill gaps in the existing pedestrian, bicycle, and roadway networks; leverage existing facilities; improve safety, comfort, and convenience of streets; and expand travel and parking options for all road users.

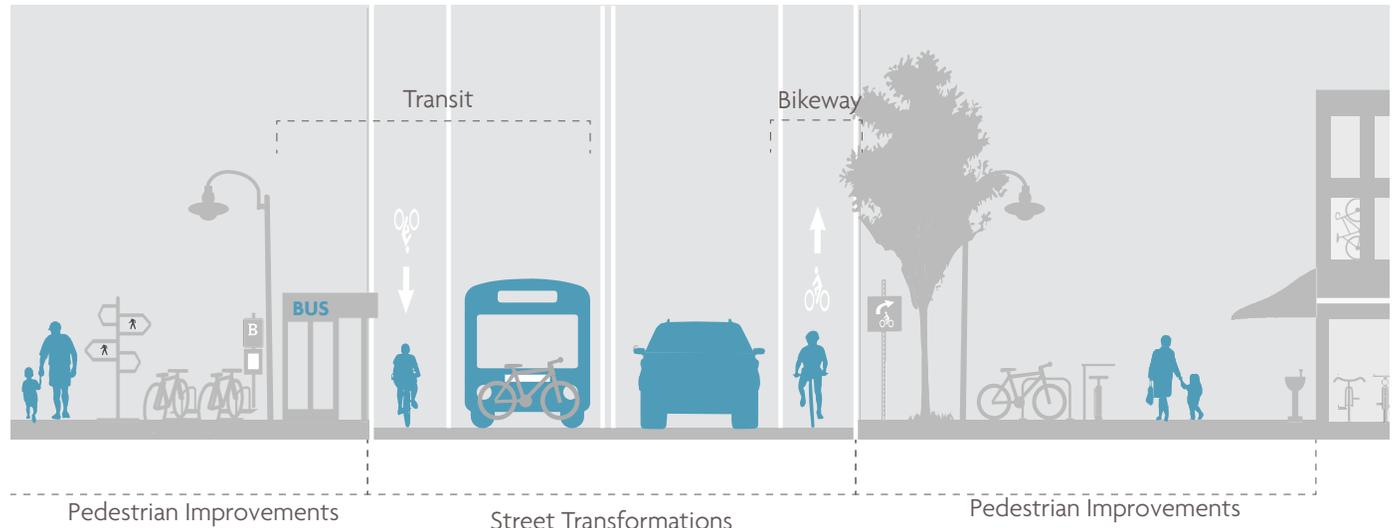
The guiding principles that shaped these projects are:

1. Increase pedestrian accessibility and mobility to and around downtown
2. Expand roadway connectivity around downtown
3. Improve parking access and availability

Many of the projects outlined on the following pages address more than one of these issues. Projects can include one or more of the following components:

- **Parking**
- **Street Transformations**
- **Pedestrian Improvements**
- **Bikeways + Multi-Use Paths**
- **Transit**

The projects and individual project components are summarized and mapped on the following pages. A complete project list is available at the end of the chapter, starting on page 75.



PEDESTRIAN IMPROVEMENTS

- Sidewalks (for greenways and sidepaths, see Bikeways + Multi-Use Paths)
- Crossing improvements
- ADA-accessibility
- Placemaking



STREET TRANSFORMATIONS

- Lane reallocation
- Shared streets
- New Complete Street connections
- Traffic calming
- Intersection reconfigurations



BIKEWAYS + MULTI-USE PATHS

- On-street bike facilities
 - » Bike Lanes
 - » Shared Lane Markings
 - » Advisory Shoulders
- Multi-Use Paths
 - » Greenways
 - » Sidepaths



PARKING

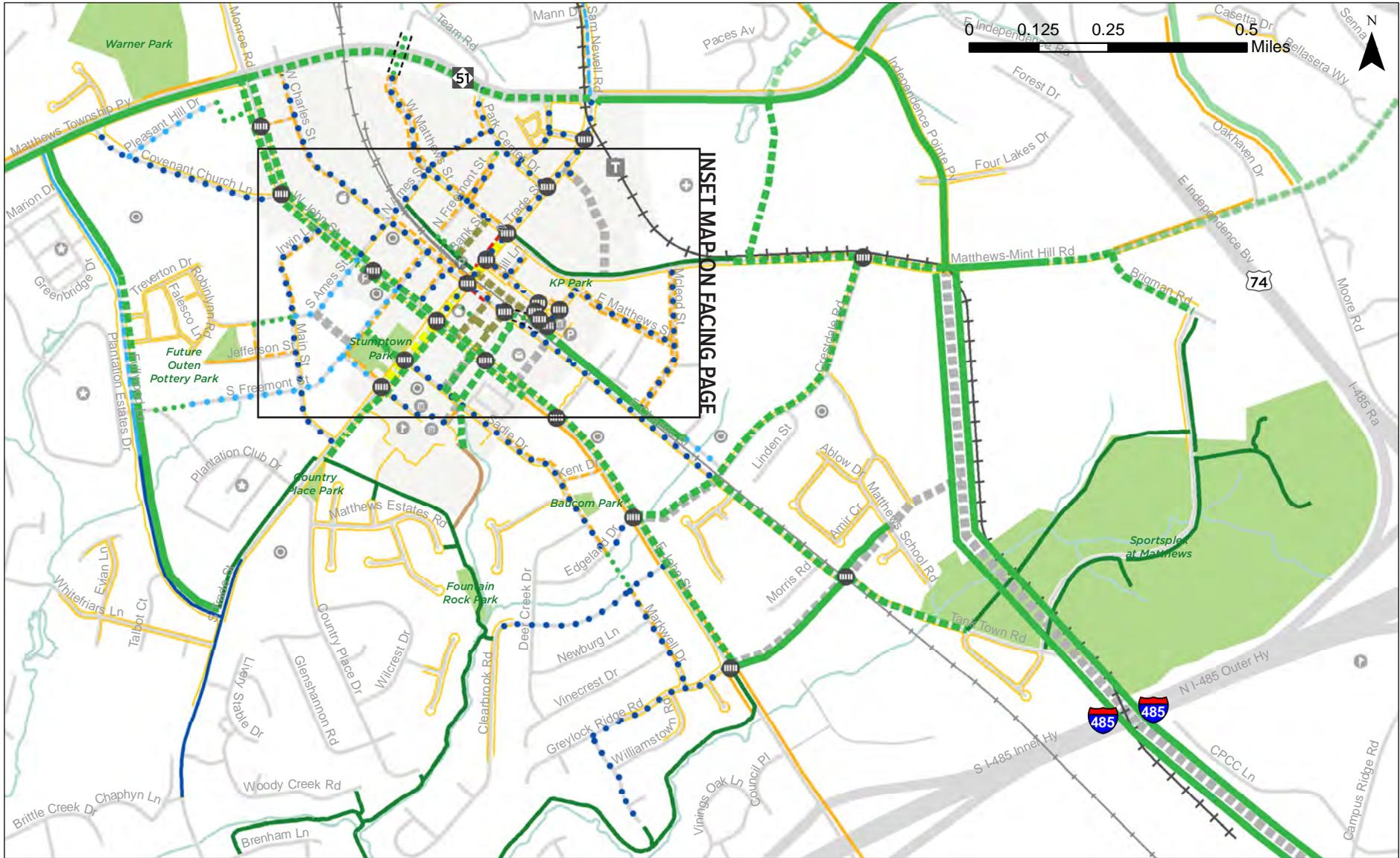
- New on-street spaces
- Reconfiguration of existing spaces
- Surface lots
- Wayfinding



TRANSIT

- Bus stop amenities
- Bus stop relocation
- Light rail connections

DOWNTOWN MOBILITY NETWORK MAP



Sidewalks + Access Issues

- Existing Sidewalk
- - - Funded-not constructed
- - - - - Proposed Sidewalk
- - - Fix ADA issues

Multi-Use Paths

- Existing (Natural surface)
- - - Funded- not constructed
- - - - - Proposed MUP
- · - · - Proposed Bike/Ped Connector
- · - · - · - Proposed Bike/Ped Tunnel

Bike Lanes

- Existing
- - - Funded
- - - - - Proposed

Shared Street Bike Facilities

- · · Proposed Shared Lane Markings
- · · - - Proposed Advisory Shoulder

Roadways

- - - - - New Complete Street
- - - Lane Reallocation
- - - Shared Street
- Crossing Improvement

Future Silver Line

- T Downtown / Hospital
- + - + - Silver Line Proposed Alignment

downtown core conceptual plan

In addition to the network map, the conceptual plan displayed below was developed to provide a visual overview of the many interconnected projects in the core of Downtown Matthews—defined approximately as within a quarter-mile walk of Trade Street between Matthews Elementary School and Park Center Drive. The projects in the downtown core include

reconfiguring lanes along Trade Street, reorienting parking spaces and expanding the sidewalks along Trade; retrofitting on-street parking along side streets and alleys; and intersections improvements to shorten pedestrian crossing distances. The details of these projects, and others are outlined on the following pages.



trade street reconfiguration

Trade Street operates as the town’s “Main Street” with shops, restaurants, and offices attracting traffic of all kinds, including cars, buses, walkers, and bicyclists. The existing cross section varies throughout the downtown district, shifting between three and four lanes along the corridor. These lane changes make for challenging operations for motor vehicles and pedestrians alike.

The plan concept outlined on these pages and the following pages reimagine Trade Street with a consistent 3-lane cross-section throughout that will simplify the road to be more legible to motor vehicles while also providing more predictable and safer crossings for pedestrians.



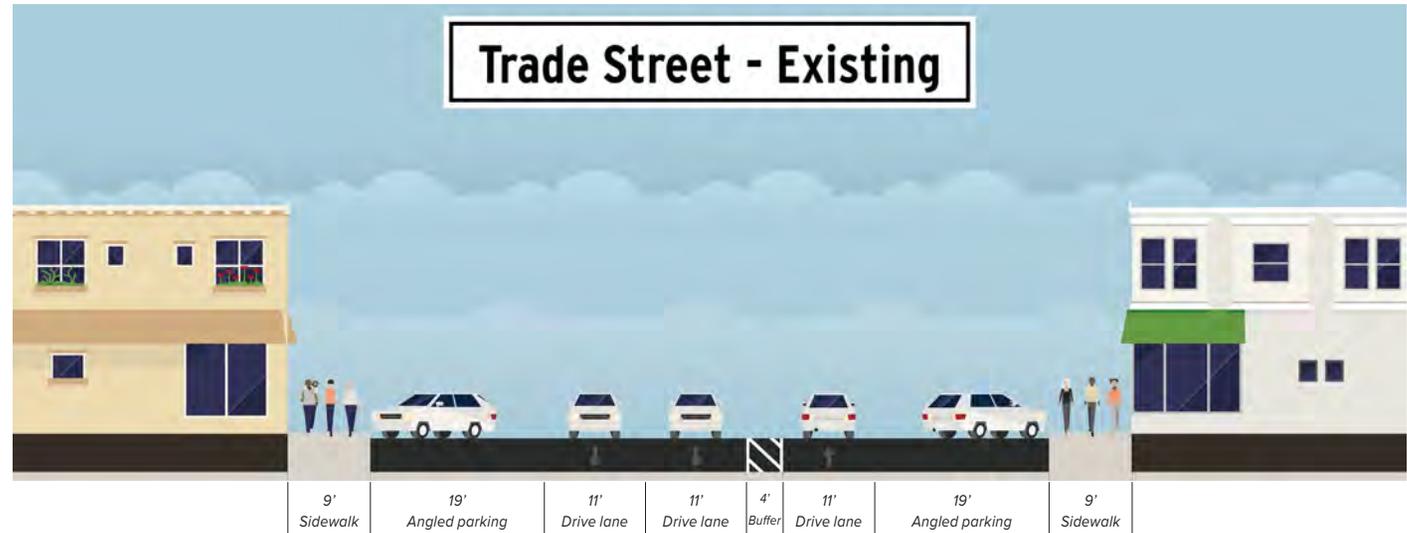
Match Line See Graphic Above

Match Line See Graphic Below

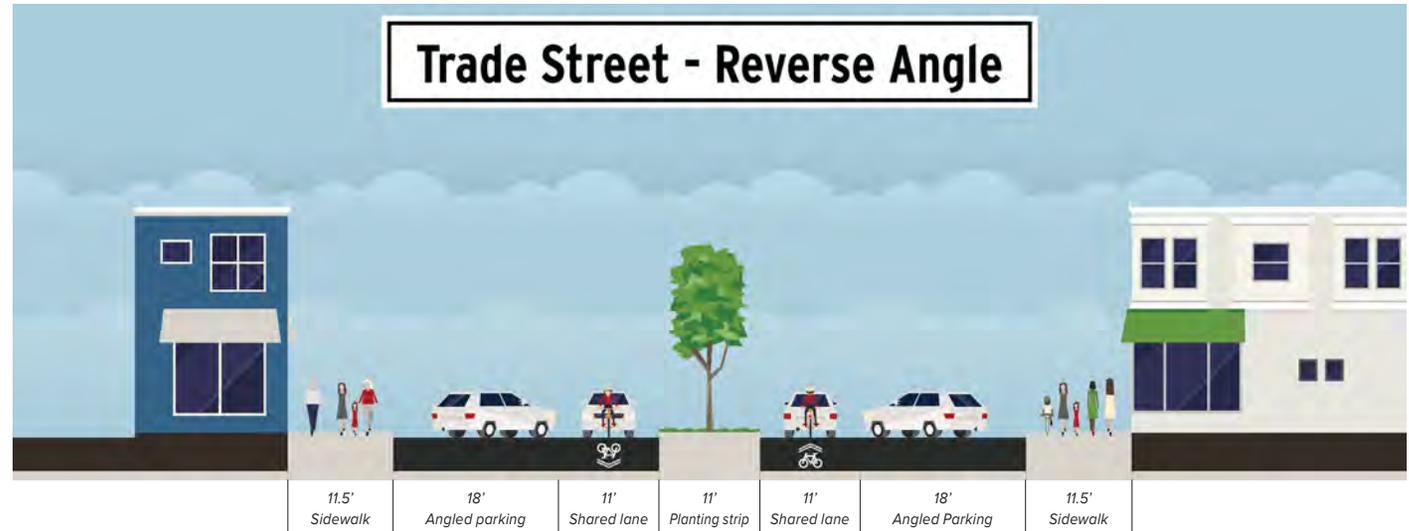
trade street reconfiguration options

Improving parking availability and access in Downtown Matthews is a key area of concern for Matthews residents and stakeholders. Comprehensive parking recommendations are addressed later in this chapter (page 53). This page and the facing page highlight potential parking changes along Trade Street.

Different roadway configurations along Trade Street were explored in order to balance the competing needs of increasing parking access and availability; reducing traffic conflicts and circulation; and improving the pedestrian environment along the corridor. The cross-section at right depicts the dimensions of Trade Street between John Street and Charles Street as they exist now with angled parking. On the facing page, the same section is shown if the parking was reconfigured with reverse angle or parallel parking.

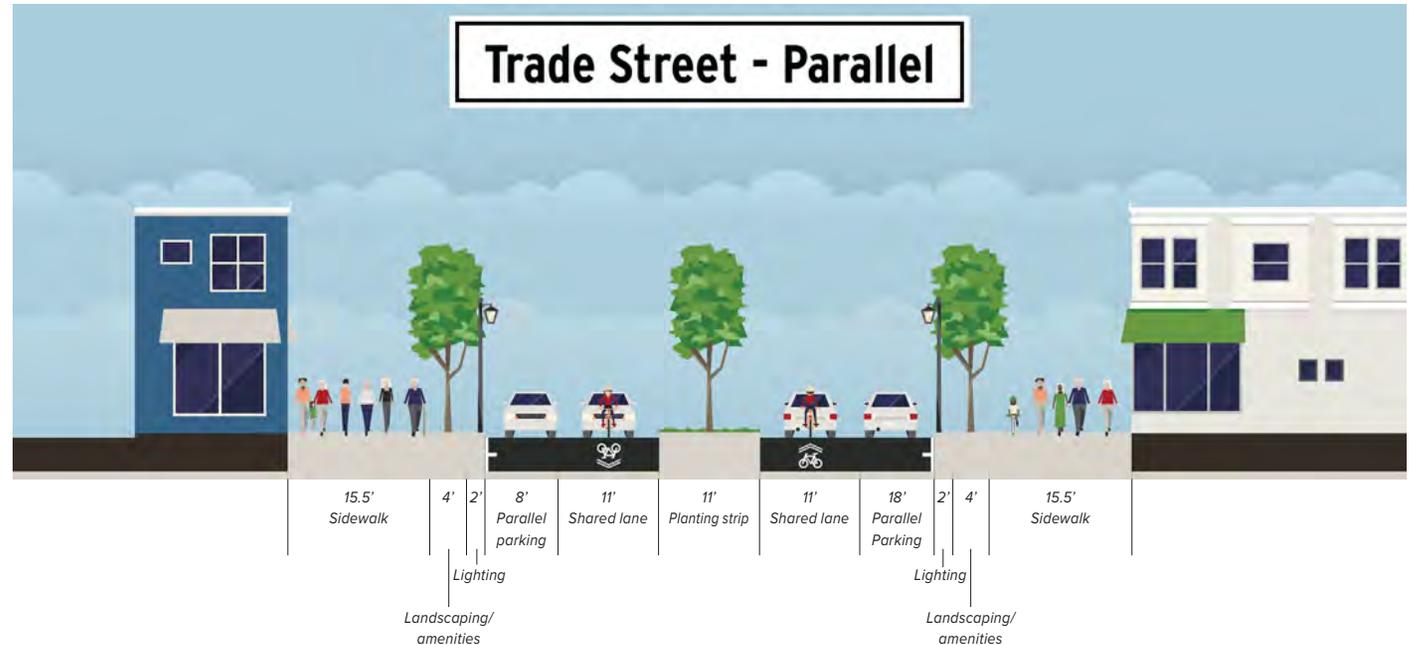


The reverse angle configuration, while reducing traffic conflicts, would not improve the pedestrian space enough to justify the cost of moving the curb line.



The parallel parking configuration reduces traffic conflicts and expands the pedestrian space by 6 feet on both sides for circulation, additional streetscape elements including landscaping and seating, and sidewalk uses such as outdoor dining and sidewalk retail.

The parallel parking configuration would reduce the number of parking spaces on Trade Street itself, but this reduction would be balanced by an increase in on-street parking along Charles Street and the many urban lanes and alleys just off of Trade Street, as described in the “strategic additions to parking supply on-street” on page 64.



trade street pedestrian space

Reducing the overall width of the Trade Street corridor, through the lane realignment and by reorienting the parking spaces (see following pages), will provide:

- Shorter crossing distances for pedestrians;
- Wider sidewalks in front of the stores and restaurants that can be utilized as outdoor seating, space for landscaping and lighting, and sidewalk retail;
- A more welcoming and vibrant pedestrian environment that enhances the “Downtown” feel of Matthews.

The raised median along Trade Street will provide a pedestrian refuge as people cross the street. This median will be built at a low profile in order to not disrupt the town’s popular parades and will not impede emergency vehicles.



PROPOSED



Flush curb on Union Street in Olean, NY.

Medians are mountable for emergency vehicles and street festivals (see image above for precedent).

Raised crosswalk shifts to accommodate sidewalk bump-outs.

Left turn lane maintained at Trade/John intersection.

CASE STUDY: CARMEL, IN

roundabouts and road-diets

The City of Carmel is internationally known for its roundabout network. Since the early 1990's, the City has worked to replace both signalized and stop sign intersections with roundabouts. Carmel is now home to over 100 roundabouts. The main driving factors for the use of roundabouts is safety, aesthetics, ease of use for bicyclists and pedestrians, cost savings, and environmental benefits.

The City of Carmel is working to improve the main north-south thoroughfare, Range Line Drive, that goes through the heart of downtown Carmel, to slow traffic down; create a safer environment for pedestrians and cyclists; and ultimately have a more functional and beautiful corridor. The project includes a reduction from two lanes in each direction with a center turn lane to just one travel lane in each direction and a landscaped median. Traffic signals will be eliminated in the project corridor and roundabouts will be added at main intersections. The project also entails mid-block pedestrian crosswalks, raised crosswalks at the roundabouts, a cycle track on one side of the road, and a 8-foot multi-use path on both sides. The City of Carmel has dedicated \$13.5 million funded by the City's local improvement bonds that were approved by the Carmel City Council in 2016.

innovation in bike parking

BIKE THERE, BORROW A CHAIR

In an effort to make it easier for people to bike to events, the City offers free chairs for attendees to borrow if they bike to the event. This program is utilized for larger outdoor City events like the summer Gazebo Concerts and Jazz on the Monon.

CARMEL ARTS AND DESIGN DISTRICT

Adding to the unique aesthetic character of the Carmel Arts and Design District that is located along Main Street, the City of Carmel installed a unique bike rack, shaped like a car, in a standard size parking space. It can accommodate 10 bicycles. Additionally, the Carmel Arts and Design District provides 20 bike racks for cyclists to utilize.

BICYCLE PARKING ORDINANCES

The City of Carmel requires new commercial and retail development or improvement to have short-term bike parking. While long-term bicycle parking is only encouraged, buildings in compliance with the long-term bicycle parking standards may reduce the number of automobile parking spaces required up to 5%.



The unique bike rack in the Carmel Arts and Design District.

BIKE CORRALS

The City of Carmel also utilizes a bike corral for large city events like Carmel Fest and the Farmers Market. Riders can check and secure their bike for free while attending the events.

CASE STUDY: ALPHARETTA, GA

investing in downtown

The City of Alpharetta has made a dedicated effort to create a vibrant downtown for people to live, work and play. Displaying a strong sense of place, Alpharetta aimed to make Downtown a focal point for citizens and visitors, authentic to its small-town scale and history. Downtown Alpharetta demonstrates a variety of traditional Main Street design elements to create a pedestrian-oriented environment, including buildings built to or close to the sidewalk, with entrances to the street and large public open spaces. To guide future development in Downtown Alpharetta, the City approved the Alpharetta Downtown Design Guidelines in 2017, which includes both standards and recommendations for site design, streetscape design, material selections, exterior lighting, signage, and building design consistent with the design of the traditional Main Street in the United States built during the 19th century.

Alpharetta City Center is a 26-acre mixed-use development that aimed to expand and revitalize the downtown historic district, as well as emphasize walking and biking as a travel option to destinations in Downtown Alpharetta. In 2015, the City opened a new City Hall, a new Fulton County Library, the 5-acre Brook Street Park, the 1-acre Town Green and a downtown parking deck. City Center also features street-level restaurants, retail, offices and residential luxury apartments and single-family homes. The Alpharetta Center City vision began in the early 2000's when it received a Livable Centers Initiative grant from the Atlanta Regional Commission to develop a plan for the future of its downtown.

investing in bike routes and multi-use paths

The City of Alpharetta, with input from Bike Alpharetta, adopted four City Bike Routes connecting riders to destinations including parks, schools, and retail. All routes connect to downtown Alpharetta and utilize roadways with wide shoulders or bike lanes for safe travel. The City provided “Share the Road” wayfinding signs that are color coded for each route and number of miles. The four routes total over 71 miles of bike routing in Alpharetta. With the redevelopment of Downtown Alpharetta, the City also incorporated a wayfinding and signage program for the municipal developments including City Hall, a parking deck, parks and town green.

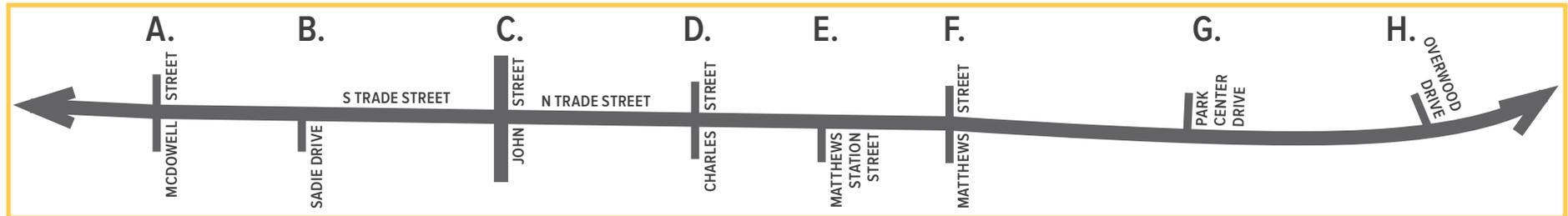
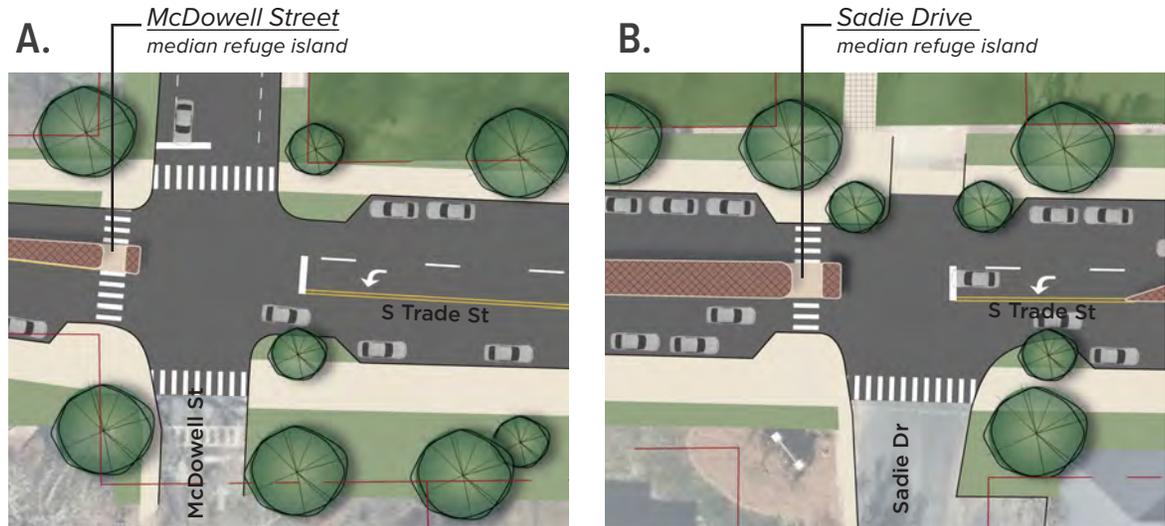
The City has also invested in the Alpha Loop—a long-term, transformative project for Alpharetta that entails a three-mile inner loop and a five-mile outer loop of 12- to 16-foot wide multi-use paths to link Downtown Alpharetta, Avalon and the Northwinds area. The hope is to also connect trail users to trails in Roswell, GA, and Forsyth County. The inner and outer loops are also connected, creating greater connectivity and opportunities for users to walk and bike to major destinations, jobs, events, and activities in Alpharetta. This project is a public/private partnership with bond funding from the City as well as private developments constructing portions of the loop. Amenities along the Alpha Loop include bicycle service areas, seating, park spaces, and public art. As of March 2018, 1.8 miles of the total 8.5 miles were complete or under construction and 1.5 miles were undergoing design and engineering.



The Bike Alpharetta brochure depicting the four City Bike Routes.

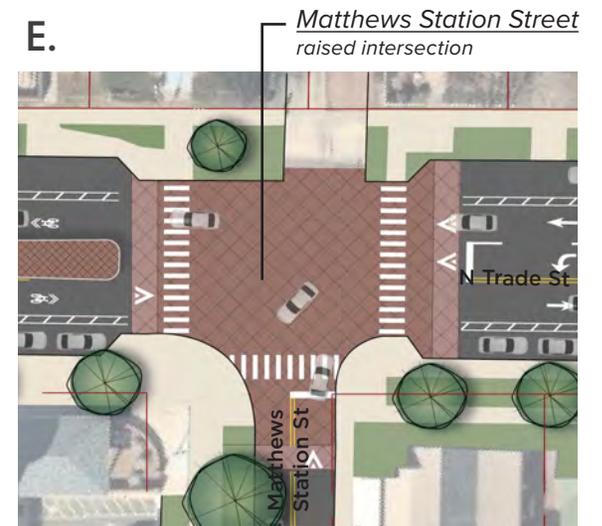
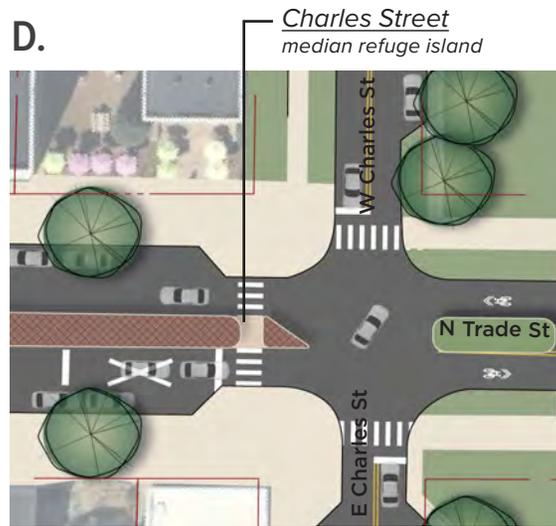
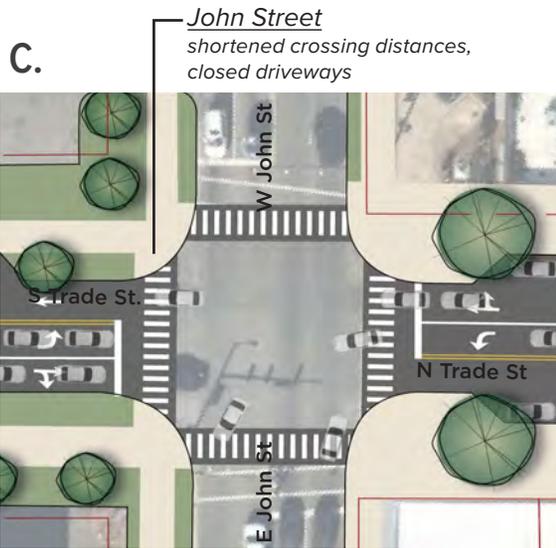
trade street intersections

The intersections along Trade Street will be upgraded to provide shorter crossing distances for pedestrians and marked crosswalks at all intersections, including raised crossings and intersections. The following graphics depict the crossing upgrades and intersection improvements along Trade Street from McDowell Street to Overwood Drive. See the reference diagram and table below for specifics on the intersection treatments for each crossroad.



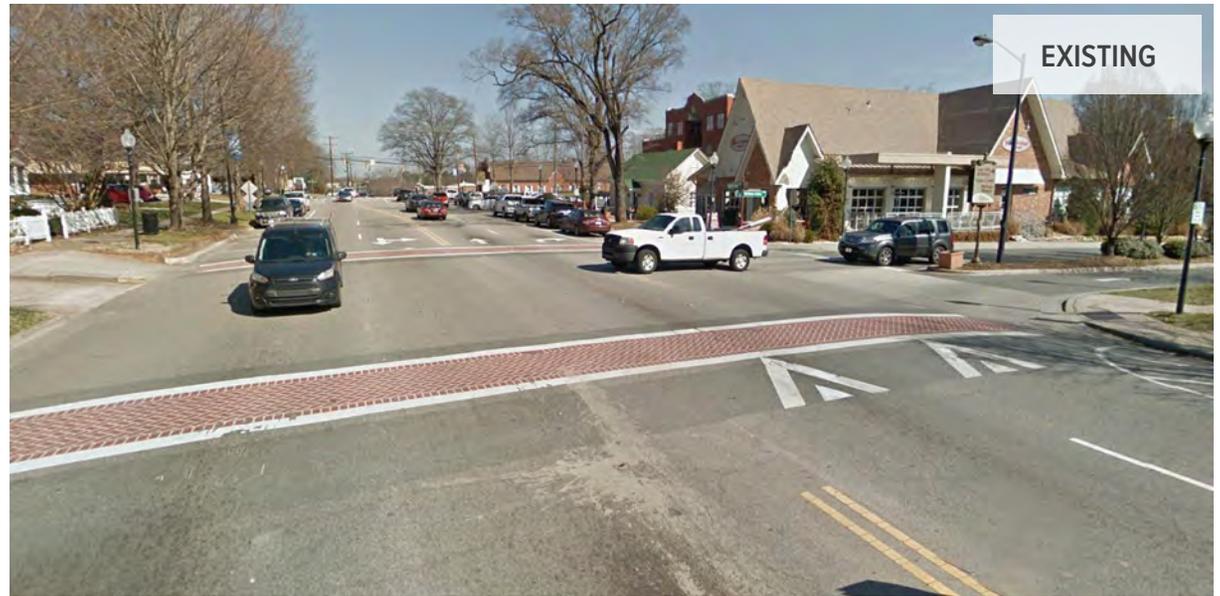
CROSSROAD	EXISTING CONDITIONS	RECOMMENDED CROSSING UPGRADES
A. McDowell Street	Crosswalk	Add Median Refuge Island
B. Sadie Drive	Crosswalk	Add Median Refuge Island
C. John Street	Traffic Light	Add Leading Pedestrian Interval (LPI), Shorten Crossing Distances with Lane Reductions and Curb Bulb-outs
D. Charles Street	Crosswalk	Add Median Refuge Island
E. Matthews Station Street*	Raised Crosswalks	Reconfigure as Raised Intersection
F. Matthews Street	Crosswalk	Add Pedestrian Signals with LPI, Shorten Crossing Distances with Curb Bulb-outs
G. Park Center Drive	Crosswalk	Add Median Refuge Island
H. Overwood Drive	--	Add High Visibility Crosswalk and Median Refuge Island

*Project is underway concurrent with this Mobility Plan study



trade street at matthews station street

The intersection at Trade Street and Matthews Station Street is currently being redesigned as a raised intersection that will help make the pedestrian crossings more visible and slow vehicles at this busy intersection. The intersection design will include curb bulb-outs at Matthews Station Street that will reduce the crossing distance for pedestrians. The design also anticipates the future lane reconfiguration along Trade Street, as described on pages 24-25, so that the intersection will not have to be reconstructed when travel lanes and traffic patterns along Trade Street are changed. The photo-simulations on this page show the existing conditions and the future raised-intersection condition. The graphic on the facing page shows how the raised intersection will look after Trade Street is upgraded to a 3-lane configuration.





PROPOSED-LONG TERM

Road diet is accomplished without needing to reconstruct curbs from the original raised intersection.

Wide medians are mountable for emergency vehicles and street festivals.

Matthews Station Street realignment creates space for buffered sidewalk.

street connectivity: options for downtown circulation

TRAVEL DEMAND MODEL

By creating a more micro-level sub area model, the Town can better evaluate and quantify the need for major capacity enhancement projects.

The Town of Matthews plans to create and evaluate a sub-area travel demand model to better understand the traffic implications of new street network and modes that are not accounted for in the regional travel demand model, as well as to understand the effects of the trends in land use patterns and new development that have been implemented in Matthews. The sub-area model will include both major new roadway projects (including Independence Pointe Parkway) as well as minor network connections that are part of this plan's recommendations (see map at right). It will also include the new CATS Silver Line as a high-ridership transit corridor. Finally, it will include socioeconomic and land use data reflective of the Town's commitment to mixed-use growth, which brings trip origins and destinations into closer proximity with each other.

ROADWAY PROJECTS

The map on the facing page identifies new roadway project recommendations. These include new roadway connections, one-way conversions, shared street upgrades, lane reallocations, roadway realignments, traffic calming, and on-street parking projects. There are six new roadway connections identified to provide more network capacity. These are presented as options, as not all of these need to be implemented in order to improve network capacity. The findings from the sub-area demand model can help identify which project(s) should be prioritized. All of the roadway projects are specified below according to project type:

New roadway connections

- College Street between Ames Street and Freemont Street
- Alexander Caroline Drive between Trade Street and Matthews-Mint Hill Road
- Heritage Lane between Sadie Drive and Charles Street
- Postmasters Lane between John Street and Charles Street
- Crestdale Road extension between John Street and Charles Street
- Greylock Ridge Road extension between John Street and planned Independence Pointe Parkway

Shared Street Upgrades

- Bank Street
- Old Depot Lane
- Cotton Gin Alley

One-way conversions

- Library Lane between John Street and Charles Street
- Freemont Street between John Street and Charles Street

Lane reallocations

- Trade Street between McDowell Street and Matthews Street

Roadway realignments

- Jill Lane between Matthews Station Street and Matthews Street
- Matthews Station Street between Trade Street and Jill Lane

Traffic Calming

- Irwin Lane
- Main Street
- Charles Street

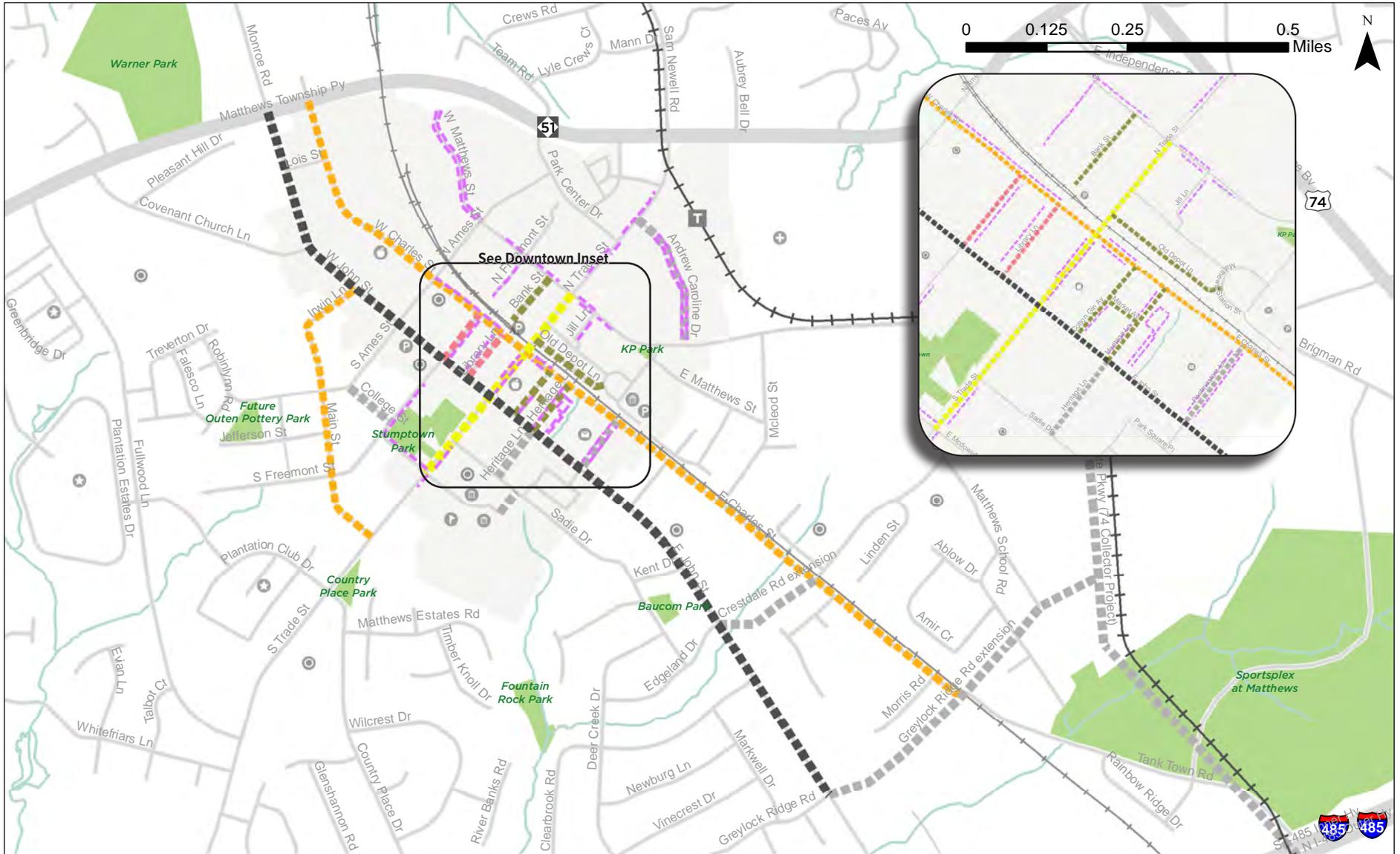
On-street parking

- Trade Street- reorient all parking to be parallel, add new parallel parking north of Matthews Street
- S Freemont Street and W McDowell Street- add parallel parking near

Stumptown Park frontage when the park is completed

- Library Lane- add new parallel parking
- Freemont Street between John Street and Charles- reorient parking to be parallel (and add sidewalks)
- Jill Lane- add new parallel spaces
- Matthews Street- add new parallel spaces in multiple places between northern terminus and Matthews Station Street
- Convert N Freemont Street between railroad tracks and Matthews Street into a public parking lot
- Create a new parking lot or deck on empty lot between John Street and Charles Street near new Heritage Lane
- Add new parallel parking on new street connections, including Heritage Lane between John Street and Charles Street, Postmasters Lane, Andrew Caroline Drive

ROADWAY NETWORK MAP



Roadways

- ■ ■ New Complete Street
- ■ ■ Further Traffic Study
- ■ ■ Shared Street
- ■ ■ Lane Reallocation

Parking

- ■ ■ Roadway Realignment
- ■ ■ Traffic Calming
- ■ ■ Add/Reorient Spaces
- ■ ■ One-way Conversion

Future Silver Line

- Downtown / Hospital
- +— Silver Line Proposed

shared street network

Many of the side streets surrounding downtown can be enhanced as shared streets to provide pedestrian and bicycle connectivity while still providing roadway network connectivity that will help distribute traffic off of Trade Street. Shared streets are slow-speed, low-volume streets where pedestrians, bicyclists, and motorists all share the roadway space. Please refer to the Downtown Streetscape Improvement Plan of 2016 (pages 37 and 40, respectively) for design details for two types of shared streets, woonerfs and urban lanes.

The conceptual plan at right depicts the enhanced shared streets network, which includes:

- Cotton Gin Alley
- Heritage Lane (new)
- Library Lane
- N Freemont Street
- Bank Street
- Old Depot Lane
- Jill Lane



John street as a complete street

Concurrent with this mobility study, NCDOT has been advancing plans to widen East John Street to four lanes from Trade Street to Wesley Chapel-Stouts Road in Indian Trail. Details of this project are available on the Town’s website at <https://www.ncdot.gov/projects/east-john-old-monroe/Pages/default.aspx>. The current design calls for two travel lanes in each direction, a raised median with left turn lane pockets, and standard 5-foot sidewalks on both sides (a 10-foot sidepath is planned for the south side starting near Charles Buckley Way, heading south).

At the time of this report, the section from I-485 to Wesley Chapel-Stouts Road

is scheduled to be widened beginning in 2021, while the section from Trade Street to I-485 has been postponed until 2027.

The delay on the northern section will allow a sub-area travel demand analysis that is recommended on page 34 to be completed and the results of which to inform any changes to the currently proposed design for John Street north of I-485. Given that this section traverses Downtown Matthews, it is critical that any John Street project supports the context of Downtown.

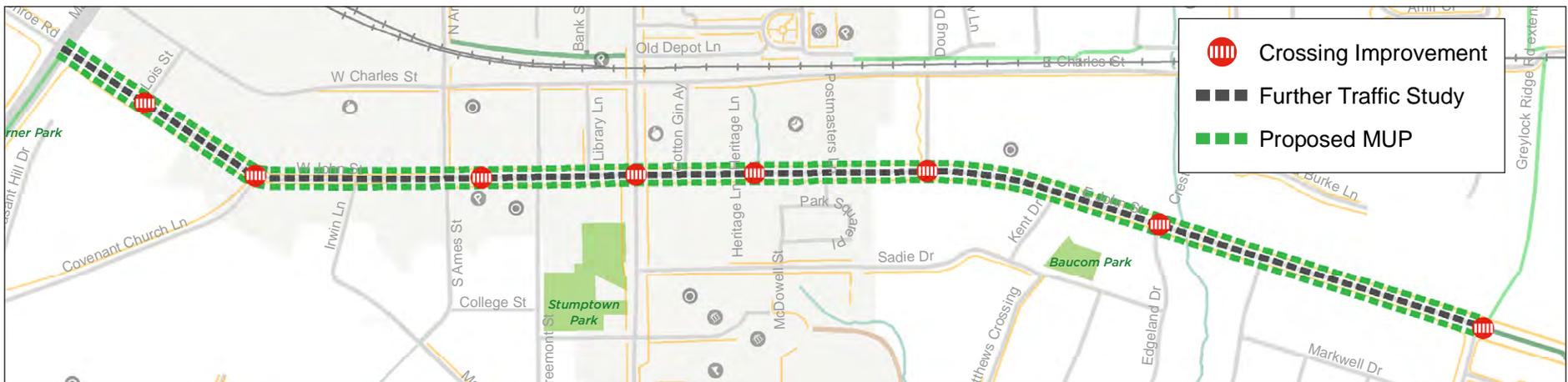
When this analysis and reevaluation occurs, the refined design for John Street from Matthews Township Parkway to I-485 should incorporate Complete Street elements, as called for in NCDOT’s recently approved [Complete Streets Policy](#). As a downtown street, it is critical

that this corridor be made as walkable as possible and support all modes of travel. The John Street design should include appropriate bicycle and pedestrian facilities, such as multi-use paths (MUP) instead of sidewalks. See the Pedestrian Network Map and Bicycle Network Map on pages 39 and 45, respectively, for corresponding recommendations.

Additionally, the design should include enhanced pedestrian crossings along the corridor. Currently, the only marked crossing along the John Street corridor is at the Trade Street intersection, and public input gathered during this project described this intersection as uncomfortable and unsafe. The redesign of John Street should balance the needs of pedestrians crossing the street with the vehicular traffic demands. Curb

bulb-outs, median refuge islands, and reduced lane widths should be employed where possible to reduce the crossing distance required of pedestrians. Leading pedestrian intervals should also be implemented to provide prioritized pedestrian crossing times.

Additional marked crosswalks should be included in any future John Street designs. The map below indicates locations where improved crossings are recommended. The study and future roadway network improvements can also inform the design for the number of lanes and turn lanes needed on the corridor. See page 48 for details on improving access to the bus stop located on John Street.



improving pedestrian mobility and access

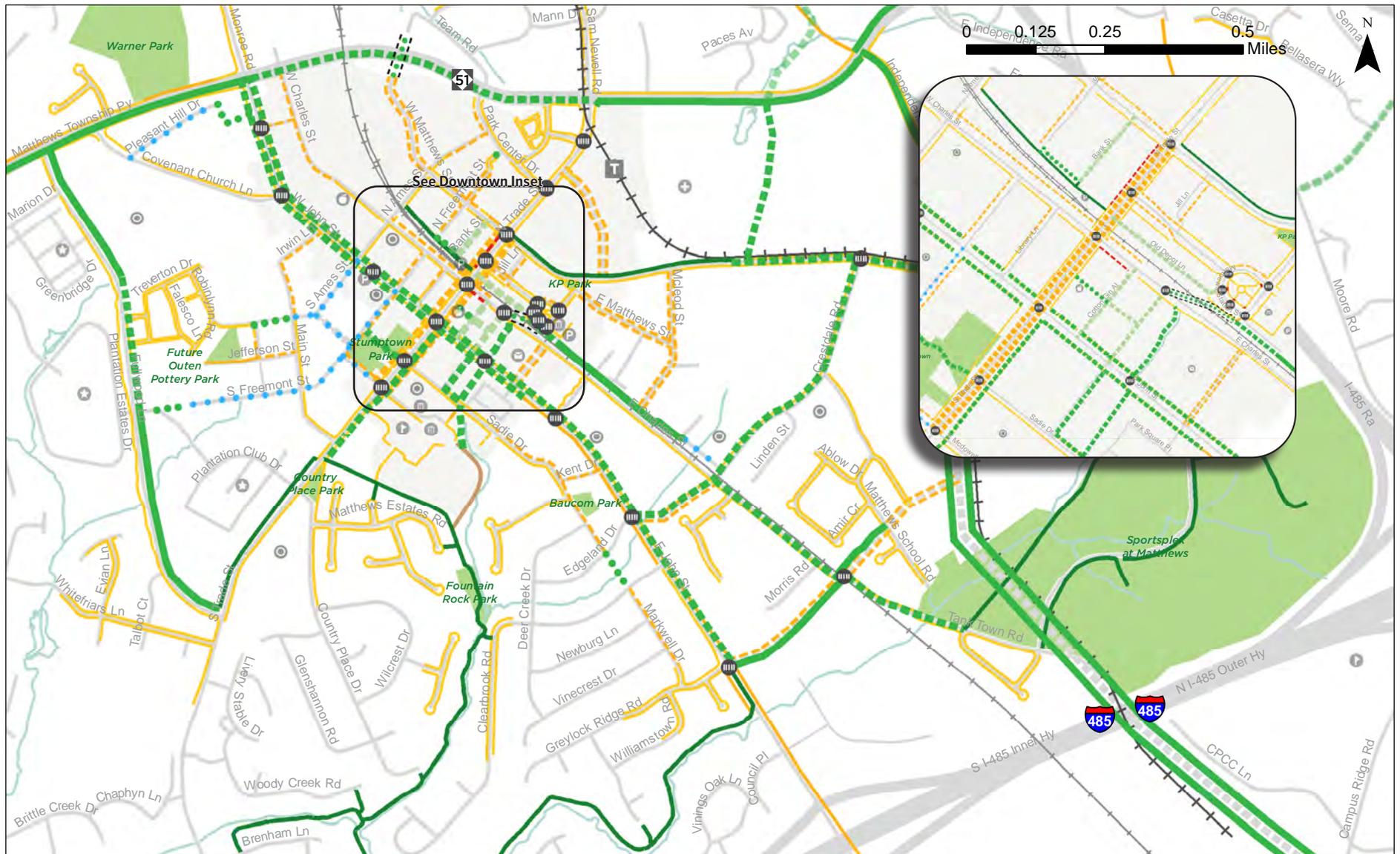
Making Downtown Matthews more accessible and comfortable for pedestrians is a top priority for Matthews constituents. The project team developed a comprehensive pedestrian network (see map on facing page) based on field observations, analysis, staff and public input, and previous plans. This network includes variety of pedestrian facilities, ranging from wider sidewalks along Trade Street in the downtown core, to multi-use path and advisory shoulders that connect to surrounding neighborhoods. This network of proposed projects will enhance the walking experience to make traveling on foot the easy choice to and around Downtown Matthews. The multi-use path network will also facilitate bicycling between Downtown Matthews and many of the surrounding destinations, including the Sportsplex to the southeast. Finally, **shared streets will provide additional pedestrian connections throughout Downtown Matthews.**



PROPOSED COTTON GIN ALLEY

This photo-simulation envisions Cotton Gin Alley as an urban lane with flexible shared space for walkers, bicyclists, and slow motor vehicles, and which can be closed to through traffic for occasional events.

PEDESTRIAN NETWORK MAP



Sidewalks + Access Issues

- Existing Sidewalk
- Funded-not constructed
- Proposed Sidewalk
- Fix ADA issues

Multi-Use Paths

- Existing (Natural surface)
- Funded- not constructed
- Proposed MUP
- Proposed Bike/Ped Connector
- Proposed Bike/Ped Tunnel

Shared Pedestrian Facilities

- Proposed Shared Street
- Proposed Advisory Shoulder

Future Silver Line

- T Downtown / Hospital
- Silver Line Proposed Alignment

multi-use path connections

At right is a depiction of two alternative alignments for a multi-use path connection from the existing natural surface path behind Matthews Elementary School to Town Hall via a proposed multi-use path tunnel under the railroad tracks. This concept was developed in order to improve pedestrian connectivity between these two key destinations, to provide alternatives to using high traffic volume streets, as well as to connect to the planned Crestdale Heritage Trail that will terminate just behind Town Hall.

Photo-simulations of these two alignments and the tunnel beneath the railroad are detailed on the following pages.

- Alignment A
- Alignment B
- Existing Natural Surface Greenway
- Future Heritage Trail connection
- Tunnel Connection Under Railroad
- Shared Lane Markings



ALIGNMENT A

Alignment A shows a multi-use path that follows the driveway between the First Baptist Youth Center and the Former BB&T building, from Sadie Drive to John Street.



ALIGNMENT B

Alignment B is a multi-use path connection on the other side of the Youth Center, connecting around Mac's Speed Shop parking lot.



railroad underpass for pedestrians

This project will provide a critical pedestrian connection between the Matthews Town Hall and Library, and the many shops and restaurants on Matthews Station Street and John Street. It will ultimately connect the existing greenway behind Matthews Elementary School and the planned Crestdale Heritage Trail near McLeod Circle via the multi-use path connections described on the previous pages.





The diagram above shows an aerial view of a proposed tunnel alignment between Charles Street and Old Depot Ln.



bike facilities

The map on the facing page depicts the recommended downtown bicycle network. Shared street facilities, such as shared-lane markings and advisory shoulders (see page 46), will help indicate to bicyclists and motorists where to anticipate bicycle travel on low-speed streets. On higher-speed corridors, such as John Street, facilities that are separated from motor vehicle traffic—multi-use paths—are recommended. Bike lanes are recommended on Fullwood Lane to fill the existing gap.

The Matthews Unified Development Ordinance already specifies that multi-use paths should be designed to a 10-foot wide standard, and that bike lanes should have a minimum width of 4-feet, not including the gutter pan. Wider bicycle lanes are desirable in certain situations such as on higher speed arterials (45 mph+) where use of a wider bicycle lane would increase separation between passing vehicles and bicyclists. The preferred minimum width for a standard bike lane is 6.5 feet. Further design guidance on bicycle lanes is available in the Small Town and Rural Multimodal Networks guide, available at https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf.



An example of **Shared Lane Markings**, as would be applicable to N Ames Street or Irwin Lane and Main Street.

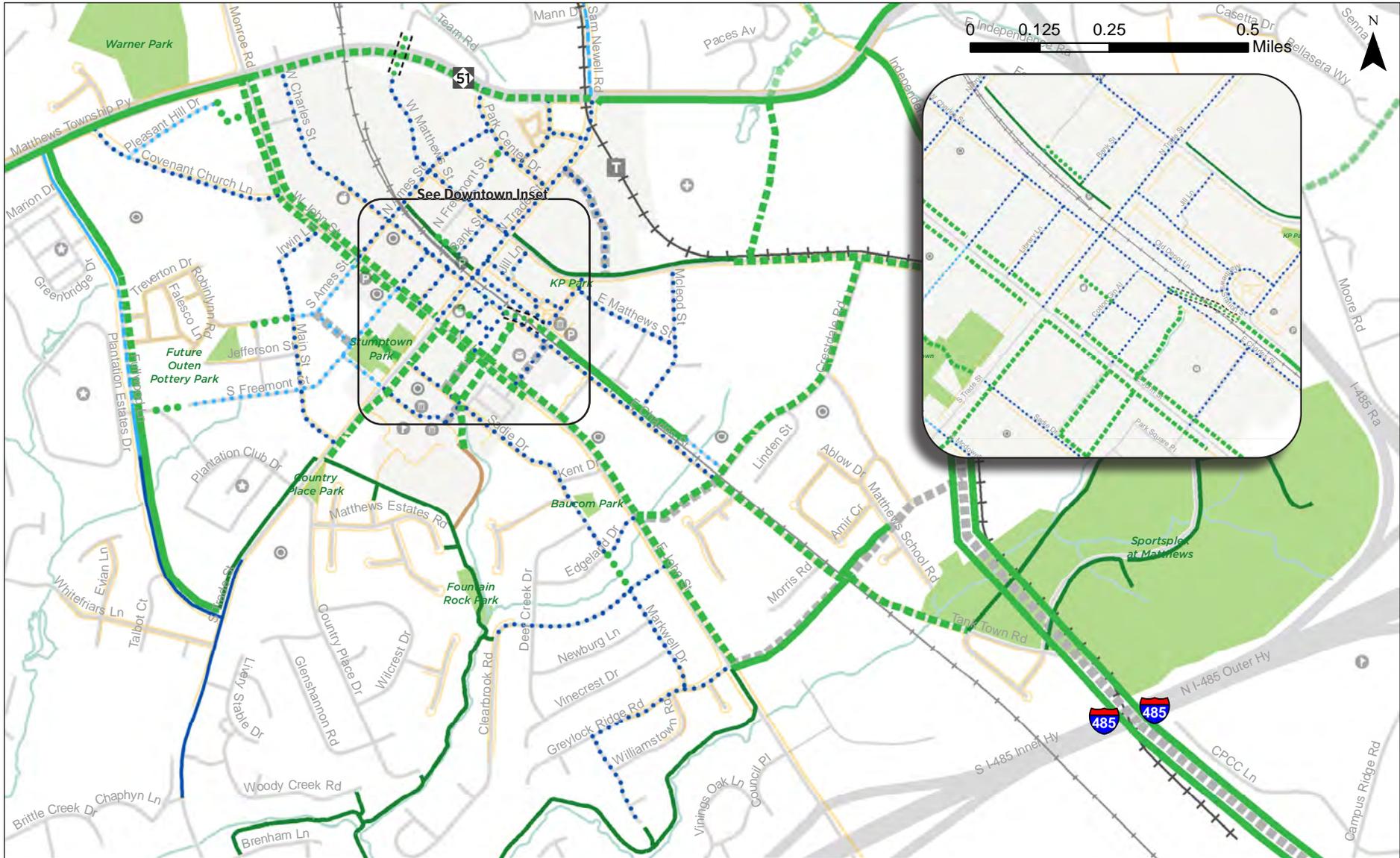


An example of a **Multi-use Path** along a road, also known as a sidepath, as would be applicable to John Street.



Existing **Bike Lane**, as is in place on Fullwood Lane. This lane should be continued the full extent of the road. When Fullwood Lane is restriped, the space between the double yellow lines should be removed and reallocated to provide bike lanes that meet the preferred minimum width of 6.5 feet.

BICYCLE NETWORK MAP



- | Bike Lanes | Shared Street Bike Facilities | Multi-Use Paths | Sidewalks | Future Silver Line |
|------------|-------------------------------|-----------------------------|-----------|--------------------------------|
| Existing | Proposed Shared Lane Markings | Existing (Natural surface) | Existing | Downtown / Hospital |
| Funded | Proposed Advisory Shoulder | Funded- not constructed | Funded | Silver Line Proposed Alignment |
| Proposed | | Proposed MUP | | |
| | | Proposed Bike/Ped Connector | | |
| | | Proposed Bike/Ped Tunnel | | |

advisory shoulders

Advisory shoulders create dedicated, usable space for pedestrians and bicyclists on a street whose right-of-way may be otherwise too narrow for sidewalks or other separated facility. The center lane functions as a two-way travel lane; vehicles may enter the advisory shoulders when no pedestrians or bicyclists are present and to pass oncoming traffic. The shoulders can be paved in contrasting materials and have dashed white lines along the edge.

This treatment is cost-efficient and can fill gaps between important destinations in a community. Advisory shoulders may be a good interim treatment for neighborhood streets where sidewalk installation is not likely in the near term, for example:

- S Ames Street
- S Freemont Street
- Pleasant Hill Drive
- McLeod Street

In cases where the paved surface may be too narrow to accommodate two advisory shoulder, such as Ames Street and Freemont Street—which are approximately 16 feet wide—a single advisory shoulder on one side can be painted. For further design guidance on advisory shoulders, refer to the Small Town and Rural Multimodal Networks guide, available at https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf. This report is a design resource and idea book to help small towns and rural communities support safe, accessible, comfortable, and active travel for people of all ages and abilities.



Example of advisory shoulder in Hanover, NH.



Similar applicable conditions on S Freemont Street.

bike/ped connectors

In addition to multi-use paths, the Bicycle Network Map on page 45 (and the Pedestrian Network Map on page 39) shows proposed bicycle/ pedestrian connectors (bike/ped connectors)—short, paved segments that connect bicycle and/ or pedestrian facilities across short distances. Bike/ped connectors provide residential areas with direct pedestrian and bicycle access to parks, trails, greenspaces, and other recreational areas. They most often serve as small path connections to and from the larger bicycle and pedestrian network, typically having their own rights-of-way and easements. Additionally, these smaller paths can be used to provide bicycle and pedestrian connections between dead-end streets, cul-de-sacs, and access to nearby destinations not provided by the street network.

Key locations for bike/ped connectors include:

- between S Freemont Street and Plantation Crossing Drive
- between S Ames Street and Robinlynn Road,
- between Pleasant Hill Drive and John Street via the Aldi parking lot,
- between N Freemont Street and Park Center Drive, and
- between Sadie Drive and Markwell Drive.

These connectors will provide critical links in the bicycle and pedestrian network that can shorten travel distances to key destinations and connecting pedestrians and cyclists on lower volume streets and facilities.

Qualities of well-designed bike/ped connectors include:

- Pedestrian connectors should remain open to the public.
- Path pavement shall be at least 8’ wide to accommodate emergency and maintenance vehicles, meet ADA requirements and be considered suitable for multi-use.
- Path widths should be designed to be less than 8’ wide only when necessary to protect large mature native trees over 18” in caliper, wetlands or other ecologically sensitive areas.
- Paths should slightly meander whenever possible.



Formalizing this path between Alexander Street and Robinlynn Road as a bike/ped connector and extending it north to Main Street can provide a critical connection between Fullwood Lane into downtown Matthews via quiet streets.



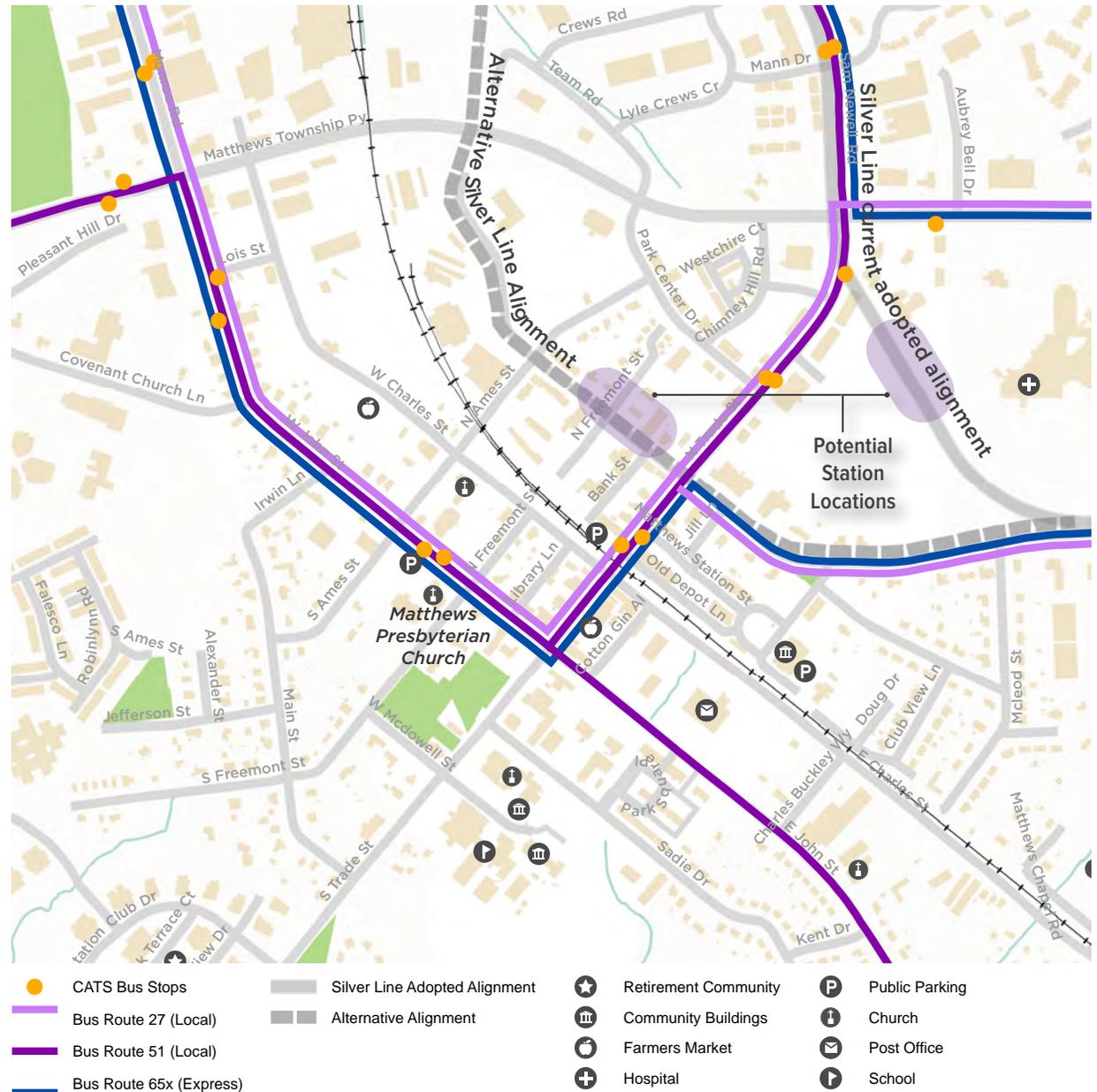
An example of a short bicycle/pedestrian connector.

near-term transit service

Matthews is currently served by two local bus routes, routes 27 and 51, and one express route, 65x. Their current routes follow John Street, Trade Street, and Matthews-Mint Hill Road, as depicted in the map at right.

In the near term, the pedestrian access to the express bus stop and the Park n Ride lot located in the parking lot of Matthews Presbyterian Church needs to be improved. It is recommended that a high-visibility crossing of W John Street be installed in order to better facilitate pedestrian access to the in-bound bus stop on the north side of W John Street. The Town of Matthews and Charlotte Area Transit System (CATS) should also study options for moving the park-n-ride out of downtown (Matthews United Methodist Church or another location further south).

Another near term change to consider is to move the bus stop location that is currently at the corner of Trade Street and Matthews Station Street, and move it to the next block to Moe’s Barbecue in order to improve the visibility for cars turning left out of Matthews Station Street.

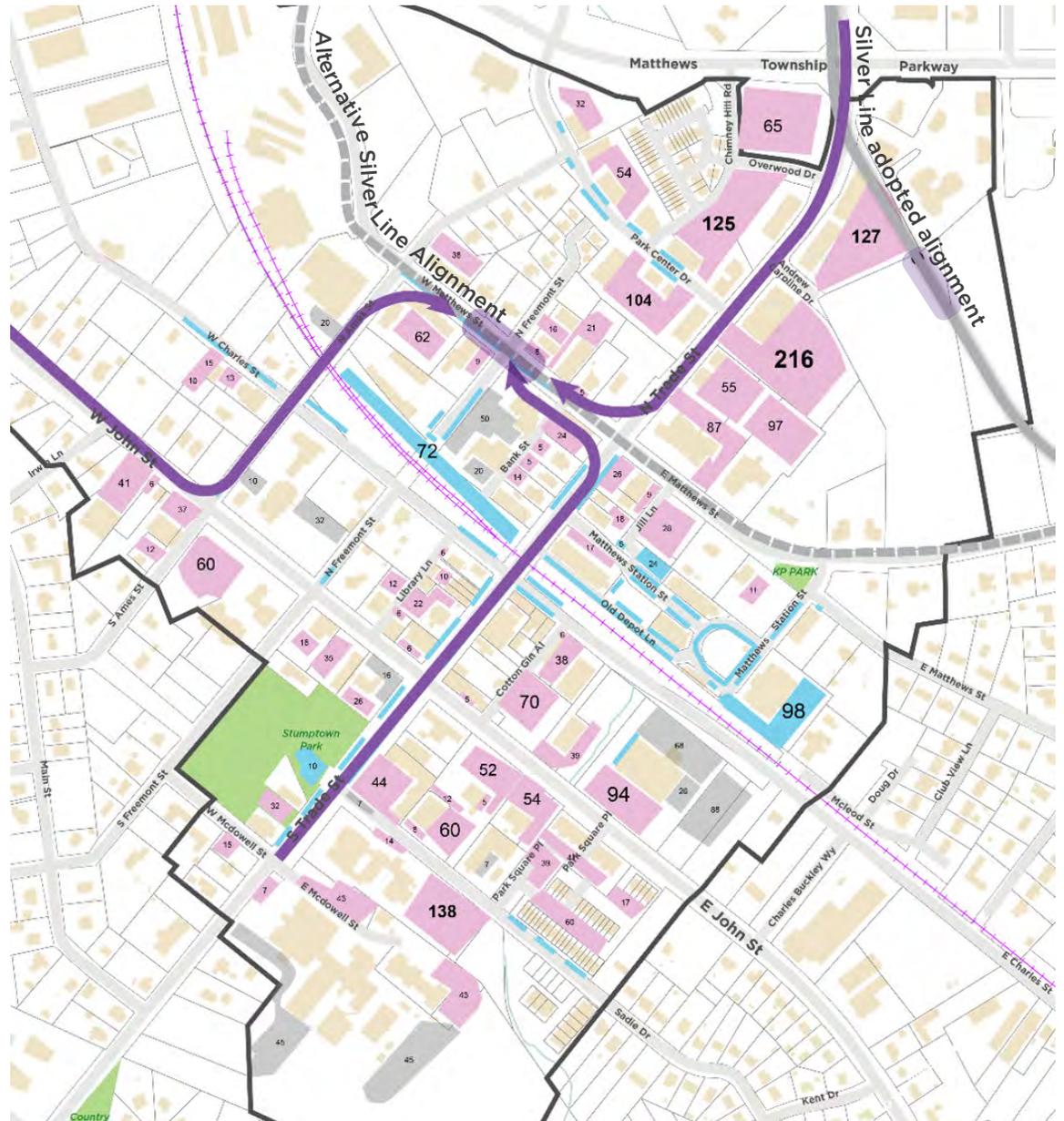


future transit service

Depending on where a transit station is located in the future, the Town of Matthews should consider studying the potential to move the 65x express bus route and stop, which is currently located along John Street near the Matthews Presbyterian Church, to be co-located with the future transit station in order to create a single mobility hub. The bus routes can potentially be routed off of John Street, as depicted in the graphic with purple lines, to reduce traffic back ups at Trade and John.

The alignment for the future “Silver Line” light rail service from downtown Charlotte to the Central Piedmont Community College (CPCC) Levine campus in south Matthews is adopted. Two potential alignments for the Silver Line are depicted in the map at right (solid and dashed grey lines), along with two possible station locations (purple ovals). There are pros and cons to both of these station locations that will have to be considered and weighed as the Silver Line design gets further along, but it will be important to identify a Downtown Matthews location for a transit station that will be able to serve commuters heading into Charlotte, as well as the those coming into Matthews and its growing number of businesses.

With a Matthews Street alignment and station, the transit station could be designed as a walk-up station without a major commuter parking lot. If the alignment and station is near the hospital, then the station could include parking provisions to serve commuters, hospital, and surrounding development workers, patrons, and downtown visitors. Both locations should be considered as mobility hubs serving bus transit as well as other mobility services, including shared ride pick up/drop-off, and shared mobility services, such as car-share, bike-share, and others. See the following pages for details on mobility hubs.

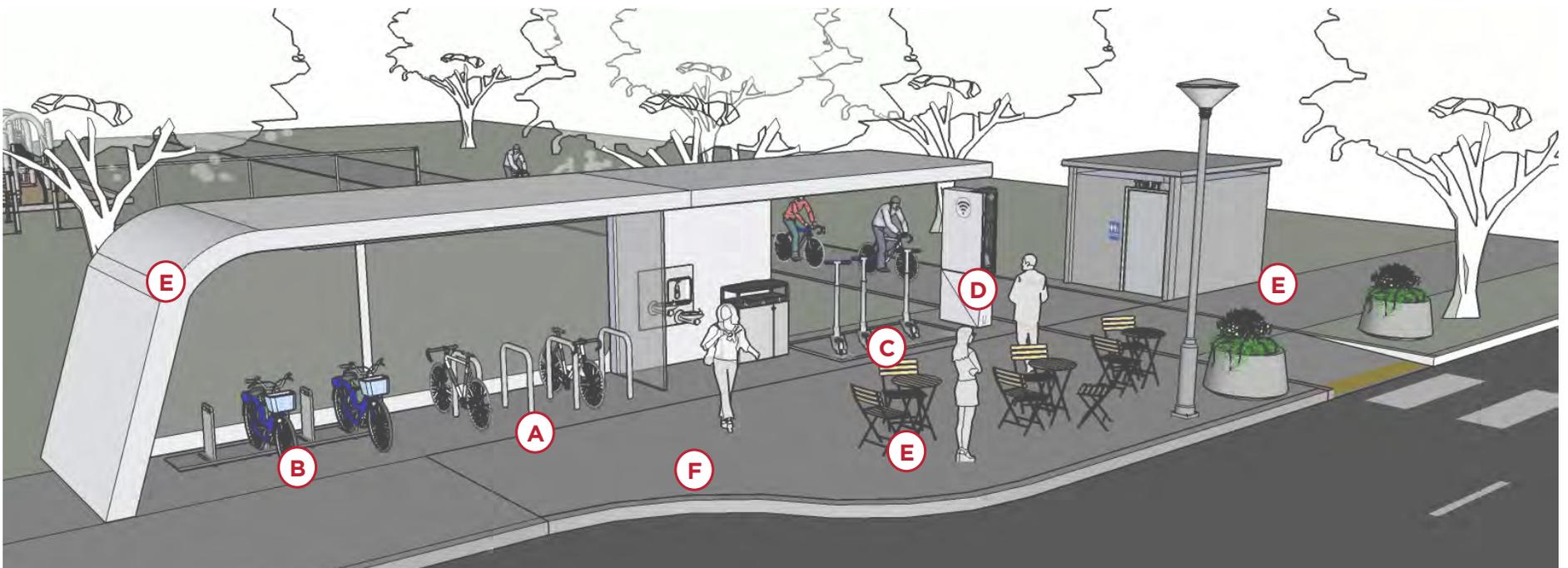


mobility hub for matthews

Mobile technology has already expanded transportation options with private sector services such as ridesource/share, car share, bikeshare, and scootershare. Mobility hubs—next generation transit stops or park-n-rides—provide a central

location for a variety of transport related services and amenities and strategic vehicle storage spaces. Key elements can be mixed and matched to create a mobility hub that’s customized for the location. In addition to transit pick-up/drop-off and parking and access to shared mobility services, mobility hubs may include waiting areas, restrooms,

remote package pick-up kiosks, micro/convenience retail or mobile retail, placemaking, public art, and green infrastructure. The Town should establish mobility hub elements around the future regional transit station in downtown for local mobility connections. The concepts below show some mobility hub elements that may be appropriate for Matthews.



Mobility Hub for a Walk-up Station: Elements could include (F) a bus stop, on-street parking/loading zone for ride share and/or parking for car share; (E) pedestrian-support infrastructure: water fountain, trash receptacle, shade structure, seating, public restroom; (D) wifi-hub/electronic ticketing/wayfinding kiosk/charging station for electric bikes or scooters, or mobile repair stand for bikes; (A, B, C) bike/bikeshare and scooter-share parking. Such a hub could also include electric car parking. Some or all of these elements at this scale would be appropriate in Downtown.



Mobility Hub for a Park-n-Ride Station: Elements could include all of the features from the Walk-up Station (pedestrian-support infrastructure: bike/scooter parking, water fountain, trash receptacle, shade structure, seating, public restroom; and a wifi-hub/electronic ticketing/wayfinding kiosk/charging station for electric bikes or scooters, and mobile repair stand for bikes.), plus the following: (A) parking structure with accessible spaces reserved for priority vehicle types (carshare, carpool, guaranteed ride home, microtransit vehicles, and electric vehicles); (B) retail space for businesses that support trip-chaining, such as bike shops, grocery/convenience stores, or coffee shops; bus stops; (C) expanded long-term bicycle storage facilities; (D) showers and lockers for bicyclists integrated into infill development. Such a concept could be implemented as a retrofit of existing or future parking lots in cooperation with private development.

PROGRAMS

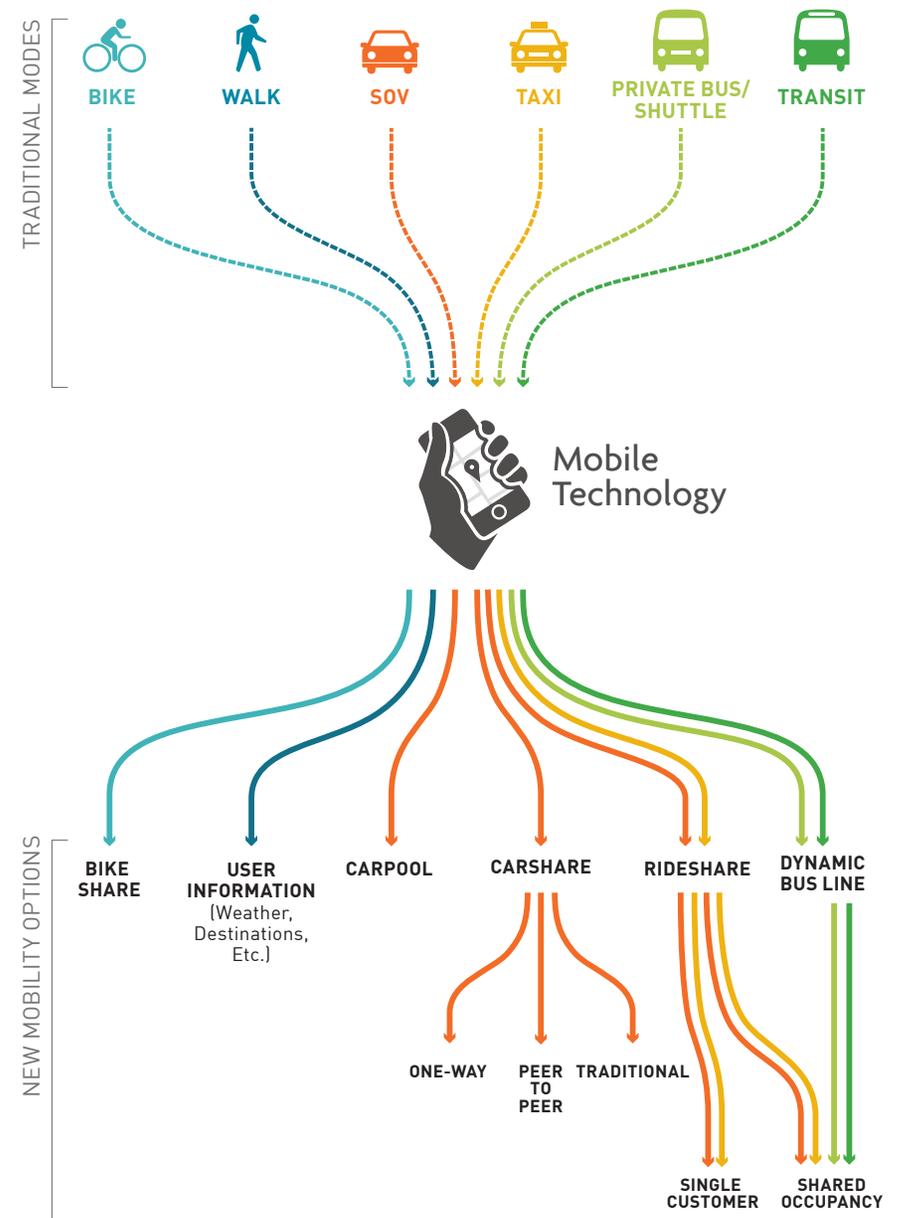
Programs support changes in travel behavior, choices, and demand. These changes can be accomplished by focusing on education, encouragement, enforcement, and evaluation programs. Successful programs help expand travel choices, reduce transportation costs for consumers, improve access to jobs, businesses, and services, improve travel safety, and help measure successful achievement of mobility outcomes.

The recommended programs described in this section include:

- Parking
- New Mobility Technology
- Wayfinding
- Transportation Demand Management



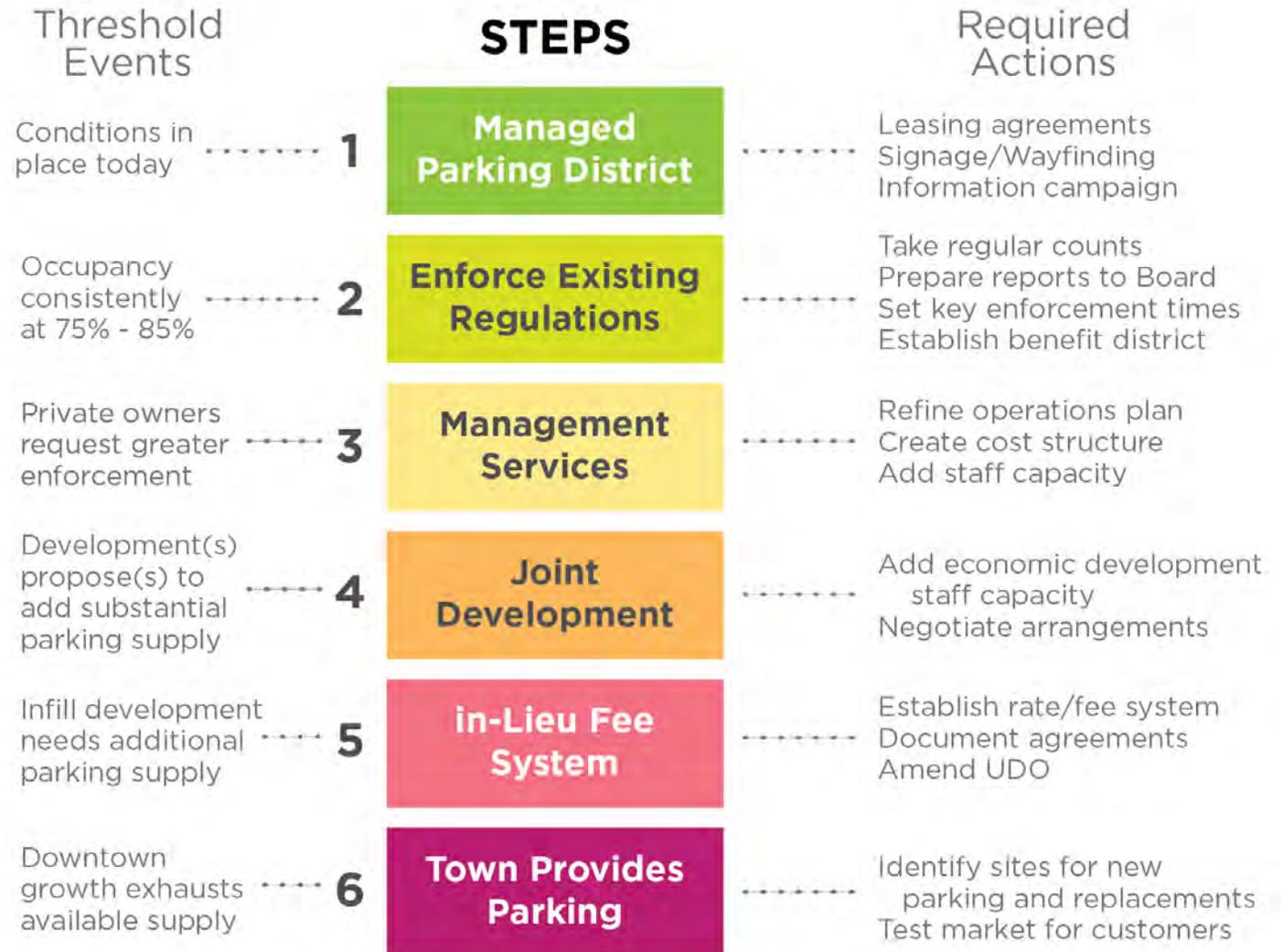
Example image of pedestrian-scale/parking wayfinding signage. (See page 67 for more details.)



parking

It is important for Matthews to employ new development review and parking management approaches to ensure that downtown’s continued growth can meet its travel and parking demand. **Much of downtown’s parking addition will come through private development.** The study’s recommendations provide public management strategies for the private and public parking supply, and are based on six key steps as described below.

The figure to the right gives a snapshot of the of steps to achieve a management-based framework where the Town takes better advantage of existing parking. Doing this will require the Town to enforce current regulations on parking (i.e., the approximately 180 spaces that are subject to time limits), as not doing this makes these spaces completely free to use for long periods of time if a customer desires—in turn adding to perceptions of a parking shortage and frustration among users and business owners. But once the Town begins enforcing these regulations on desirable spaces, it will need to add to the supply of other spaces so that visitors can make rational choices—take a valuable parking spot but accept the tradeoffs on its use, or take a less valuable or desirable space but have fewer restrictions.



RECOMMENDATION 1A ESTABLISH A PARKING MONITORING AND REPORTING SCHEDULE

As a preliminary recommendation, the Town will need to update its parking data to understand when proposed management thresholds are met and when to apply them. The Downtown Matthews Mobility Plan recommends a regular review of utilization along with ongoing parking enforcement responsibilities to be able to periodically adjust its management schedule. This is detailed in the table, right.

Overall, this data collection and updating effort is concise and easily managed. One person can take each ‘round’ or interval of utilization counts in typically less than one hour, allowing updates to be taken in a single day and within the course of a regular workday.

The study recommends that **counts be taken regularly** to reflect seasonal changes, track the change in parking behavior due to changing land uses and other activities, and to strengthen an overall understanding of historic trends.

The following basic guidance, similar to that used for counting vehicle traffic during typical traffic studies, should be considered for performing parking utilization counts:

- Typical weekdays should be selected from Tuesday through Thursday. Avoid Mondays and Fridays as these tend to be out-of-ordinary days in employee attendance, appointment schedules, and other drivers of parking demand.
- Review opening times and consider extending counts to reflect them. For example, the study did not count 8 AM to 10 AM on Saturday as few downtown establishments are open in those hours, but also did not count past 8 PM.
- Although the study focused on typical non-event days, the Town should consider taking counts on major event days as well to understand how the same parking facilities are used during periods of high demand.

In addition to taking these counts, Town staff should also **prepare reports for Council to explain parking trends and provide formal recommendations for how regulations might be updated**. A key component of a performance-based system as described in Recommendation 1 is to use utilization targets as the basis for regulation—not simply locations perceived to have high use or where groups or individuals have petitioned the Town for a form of regulation.

As discussed in the table below, regulations should be revisited at least twice per year, meaning that staff should prepare reports to the Town Council on a similar basis.

Suggested Monitoring and Reporting Schedule

Facility Type	Collect Utilization	Revisit Regulations
On-Street Parking	Every 3 months	Every 6 months
Off-Street Parking Lots	Every 3 months	Every 6 months
Off-Street Parking Garages (if added in the future)	Every 6 months	Every 12 months

RECOMMENDATION 1B

ADOPT PERFORMANCE STANDARDS FOR APPLYING PARKING REGULATIONS

This recommendation involves two main steps. First, the Town of Matthews should adopt and implement a performance-based parking program. Performance-based management adjusts rates and regulations to make it as easy as possible to find a parking space, and treats high-demand spaces as the most valuable in the parking supply, setting time limits and/or prices accordingly. Second, the Town should add to its supply through **‘virtual public’ parking** made available through arrangements with private property owners.

The two primary stages of regulation—time limits and price—should each take effect when downtown facilities reach an appropriate level of use, as described the table at right. It is important to note that consistent availability, not additional revenue, is the central goal.

It is also important to note that taking a performance-based approach to parking management is not intended to move toward restrictions on use or increases in pricing (once prices have been introduced). The “right price” is always the lowest price that will achieve an availability target. Adjusting rates over time—up where demand is higher and down where demand is lower—will allow Matthews to better distribute parking demand across its downtown and make more efficient use of existing spaces.

In general, the Town should treat its on-street spaces as its most valuable, as these provide critical customer access to retail businesses in a manner that is convenient and desirable; off-street parking should provide a cheaper, long-term option for visitors who still want convenience but wish to stay for longer periods.

Additional recommendations detailed in the following subsections provide more detail on this program.

Thresholds for Applying Regulations

Facility Type	Proposed Time Limit Threshold	Proposed Pricing Threshold
On-Street Parking	Utilization on an entire block surpasses 75% for at least 6 hours per day	Utilization on an entire block surpasses 85% for at least 6 hours per day
Off-Street Parking Lots	Utilization surpasses 75% for at least 8 hours per day	Utilization surpasses 85% for at least 8 hours per day
Off-Street Parking Garages (if added in the future)	No threshold: time limits not used	Utilization in public spaces surpasses 85% for at least 8 hours per day

RECOMMENDATION 1C

CREATE A SHARED PARKING PROGRAM

Recommendations 1A and 1B update the Town’s policies and standard operating procedures to prepare it to introduce a downtown managed parking district, but the establishment of that district is a key step. **Shared parking programs maximize use of existing parking facilities, reduce the overall need for additional parking, help reduce congestion, facilitate more walkable, safe, and active downtowns, and ensure more efficient use of public dollars.** Better use of existing and available facilities is crucial to ongoing downtown success and growth.

The Town should create and pilot a shared parking program based on a two-tiered approach: a first tier in which the Town uses its knowledge and regularly updated parking count information to help offer or ‘broker’ shared parking agreements between private developments, and a second tier in which the Town or other entity manages private parking as “public” parking.

For the first tier, the Town would help development applicants and existing businesses searching for additional parking to find sharing agreements. Some private property owners may wish to share all or a portion of their parking, but would prefer to share with other private entities, such as a specific employer or business, and have a third-party operator manage their parking. To support private-to-private agreements, the Town could proactively offer ongoing technical assistance to both parties.

Potential elements include:

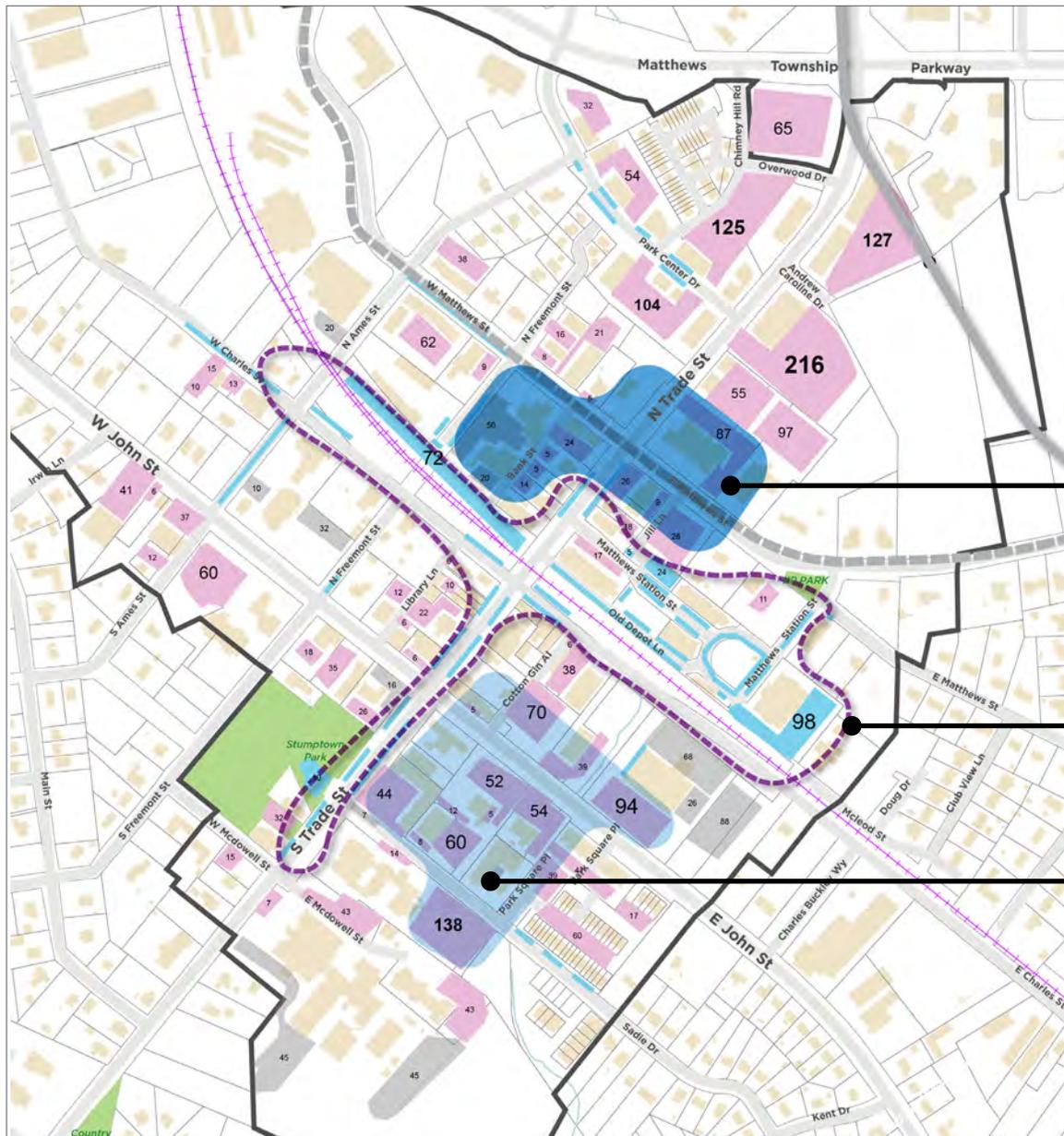
- Parking database, connecting parties to each other
- Educational materials about benefits of shared parking
- Sample language and agreements
- Cost and revenue sharing information

For the second tier, especially as downtown continues to develop, the Town or another entity (such as a parking or development authority) could take an additional step and **lease (or purchase) underutilized parking from private owners**, making this available to the public similarly to the Town-owned lots and garages. Under such an approach:

- The Town or other entity would directly lease parking from a private facility for use as public parking.
- The entire facility, or portion of the facility, would be open for public use. Public use could be restricted to certain hours/days, depending on tenant needs.

To incentivize participation, the Town or other entity would collect revenue during the public hours. Any net revenue could also be shared as part of the agreement.

Ongoing data collection should be required to facilitate performance-based management of the downtown system.



Recommendation 1C Shared Parking District Zones

The Mobility Plan recommends that the Town partner with private parking owners through a leasing agreement or other such cooperative agreement where certain spaces can be made available as ‘virtual public’ town parking. Based on the demonstrated patterns of demand in (see maps in Chapter 4), these appear as two different priority zones.

Priority Zone 1 is located generally north of the current public parking supply, centered on the corner of Trade and Matthews Streets. Several facilities in this area do not see occupancy levels of more than 60 percent throughout the day, and some are relatively large.

Most of downtown’s current public parking is located close to the CSX railroad corridor, primarily on the north side. Parking in this area is consistently the most heavily used in downtown, pointing to a desire for more public supply.

Priority Zone 2 is located south of the current public parking supply, centered on John Street and the commercial and church parking lots between Trade Street and Park Square Place. There are more large lots in this area than in Priority Zone 1, with several only used for short increments of the week (especially church lots).

Recommendation 1C Shared Parking Funding Models

The Plan’s recommendation of a shared parking program is intended as a first step prior to financing and constructing new, non-leased parking supply. The funding models shown here are based on a Town-developed parking lot concept being explored at the time of the Mobility Plan’s creation and the funding amount that would be used to construct it. They reallocate that same amount of funding to leasing arrangements (assumed at ten years for planning purposes) and calculate potential lease rates that are based on known land values or tax liability for the properties.

Charles Street Surface Lot Town Concept	
Total Proposed Investment	\$482,000.00
Proposed Number of Spaces Under Lot Construction	38
Cost per space	\$12,684.21
Annual amount per space divided over 10 years	\$1,268.42
Total Parking Space Yield (indefinite length)	38

The Town lot concept could add 38 spaces at approximately \$12,700 per space. Although these would be available to the public on an indefinite basis, they are in one fixed location and do not currently address critical short-term demand for additional parking availability.

‘Virtual Public’ Spaces Leasing Option: Payment Structure from Land Value	
Total Proposed Investment	\$482,000.00
Average Land Cost Per Acre (Priority Zone 1)*	\$600,000.00
Average Land Cost Per Parking Space (Priority Zone 1)**	\$4,820.94
Annual Parking Space Lease Payment (10-year installment)	\$482.09
Total Parking Space Yield (10-year period)	100

If the Town pursued leasing and offered a price structure based on the share of property land value that is taken up by the parking spaces being leased, it could potentially add over twice the amount of the surface lot. Although this is assumed for only a ten-year period and not an indefinite basis, this would allow the Town to work with CATS to finalize details on Silver Line stations and pursue further supporting parking strategies at that time—as well as allow the Town to lease other spaces, should demand patterns shift.

‘Virtual Public’ Spaces Leasing Option: Payment Structure from Property Taxes	
Total Proposed Investment	\$482,000.00
Parcel Property Tax Liability (Priority Zone 1, latest year available)*	\$142,064.91
Total Number of Eligible Spaces (Priority Zone 1)***	357
Average Annual Lease Amount Per Parking Space (Priority Zone 1)	\$397.94
Total Parking Space Yield (10-year period)	121

With a pricing model based on the property tax levies for parcels with leased parking and an associated per-space value, the Town could potentially add over three times the amount of parking as on the Charles Street Lot. This is also assumed on a ten-year basis, although it offers a direct link between an immediate cost for property owners and the revenue that leasing parking would offer to offset that cost.

* Based on most recent available Mecklenburg County property tax records.

** A parking space is assumed to be 350 square feet, accounting for the actual vehicle storage space as well as circulation and access to it.

*** Only lots with 10 or more spaces were included in these calculations. Priority Zone 1 also includes several parking lots with fewer than this number of spaces; these were not included in this analysis.

RECOMMENDATION 2 TIME LIMITS ENFORCEMENT

Observed parking utilization in the downtown core is often very high (and full in some locations). This includes on-street parking along Matthews Station Street and North Trade Street. The study recommends that the Town **resume enforcement of its time limits**, allowing adjustment of the time limit period to the maximum length of time allowed to suit business needs. This time should not be less than two hours or greater than four hours, and the Town may wish to try different time limits to determine which works most effectively to manage demand. In other words, this may not be the two- or three-hour time limit set today.

If utilization levels remain at current levels even with time limits being enforced, the Plan recommends moving toward pricing (based on the performance system outlined in Recommendation 1A), using pay station meters to allow payment for an entire group of spaces at once. Local governments or parking authorities that use pay stations typically install one of these stations per uninterrupted block-face, meaning that each group of parking spaces separated by a driveway or cross street can have one meter.

Pay station meters can also be used for off-street locations as a lower-cost way of managing payment, and this may be considered for the Matthews Station area if the Town observes continued patterns of high use there.

In locations where pricing is applied, no time limits are necessary and may be eliminated. This is to allow price to function as an effective provider of parking availability and allowing customers wishing to pay for use of downtown's most valuable spaces to do so. It is also intended to help mitigate the imposition of price, which typically generates concern among stakeholders (especially businesses).

On-street parking in the core of downtown has a higher level of demand than parking in surrounding locations. Time limits or pricing should reflect this, and this means that on-street pricing on North Trade Street should be higher than pricing rates in other on- or off-street parking areas surrounding the downtown core.

This also involves providing staff the administrative authority to set parking prices up to a certain amount, and the study recommends beginning this level at \$1.00 per hour, which allows staff to make rate changes based on observed demand. Staff will receive Board approval to adjust rates, but it will not require a full change to Town ordinance.

PARALLEL RECOMMENDATION BRING CUSTOMER FRIENDLINESS TO ENFORCEMENT

With regulation comes an added need for enforcement. Today, the Town only enforces parking for public safety violations, such as vehicles abandoned in a space, blocking of driveway access or fire hydrants, or other similar circumstances. With no time limits or prices, there is no system for enforcement and citation of basic parking use.

It is important to **take an 'ambassador-focused' approach to parking enforcement** when beginning this program. Customers, and especially businesses, are already likely to have concerns about the impact of parking regulation on their access and the willingness of users to come downtown.

Specific actions for the Town could include:

- Adopt specific guidelines for downtown parking enforcement, articulating that the primary goal is to meet the adopted parking availability targets.
- Evaluate enforcement zone boundaries, ensuring they align with performance-based pricing zones.
- During roll-out of the performance-based program, implement a grace period in which warnings are issued instead of citations. Prepare promotional materials that explain proper parking, give directions to longer-term free parking without regulation, and advise customers of all options for getting downtown.
- Update guidelines for enforcement officers that formally prioritize an Ambassador approach in which officers also provide mobility information to the public.
- Review citation data when parking utilization counts are underway and identify key trends.

RECOMMENDATION 3

OFFER EXTENDED MANAGEMENT SERVICES

The purpose of this recommendation is to create an environment where the Town is viewed as the primary manager of parking in downtown, regardless of the ownership of a given parking facility, with an ability to apply and adjust regulations to achieve better use of underutilized facilities while preserving availability in the most desirable spaces.

The purpose of Recommendations 1A, 1B, and 2 is to create a system in which parking customers have an incentive to choose parking that may not be the most convenient or desirable for their destinations, especially if that preferred parking is also highly desirable to many other customers. Recommendation 1B adds parking into the public supply through strategic arrangements with private owners, but other private owners may wish to opt into such a system if it can provide them with revenue and gives them the ability to better manage their own parking spaces.

The Town should allow interested property or business owners to contract with it for management services, which may involve making a portion of the private parking on each owner's parking facility available to the public.

RECOMMENDATION 4

ESTABLISH JOINT DEVELOPMENT FRAMEWORK

With such a system of centralized management in place, the Town can treat any new development that is added to downtown as an opportunity to partner on parking.

Downtown's current parking challenges come partly from the nature of its privately-managed parking—there is too much of it distributed among many small facilities, leading parking customers to prefer the publicly-managed spaces that have no restrictions on which users may park there. Taking a stronger management role can help to make the more desirable spaces more available to the general public, but it also builds the Town's organizational capacity to treat parking more systematically and gives it a greater potential role in discussions on how development is to be reviewed and approved.

The Town should treat all new developments, especially in the two priority tiers for shared parking identified in Recommendation 1C, as opportunities to seek a partnership with private developers to add parking that is available to the public. This may be achieved through the Town taking on all parking construction and leasing a portion back to the developer or property owner responsible for the development's main land uses, or through the Town sharing costs of parking construction but adding a portion of the parking facility for public, Town-managed use. Additionally, the Town should **require new downtown development to provide publicly available on-street parking on street frontages.**

RECOMMENDATION 5 IN-LIEU FEE PROGRAM

The complement to strategic approaches to adding new parking with development is allowing development to take advantage of the Town’s managed supply. This recommendation proposes creating a policy and program supporting developer payment of fees in lieu of providing parking. Such programs are in use in other North Carolina communities and throughout the United States, and they are used for a variety of purposes: to support economic development while reducing development costs, to generate revenue for local governments or parking authorities responsible for adding public supply, or to manage the footprint of parking in downtowns and urban districts by reducing how many discrete parking facilities are built in favor of a more concentrated supply.

This step would be a prerequisite to the Town taking on more direct additions of its own parking, especially those not directly tied to a development project. It would establish a basis for any subsequent development to have options for how it meets its parking requirements.

CASE STUDY: DULUTH, GA

innovation parking solution

The City of Duluth markets downtown parking as “Park the Loop.” Residents and visitors have access to 1,000 free parking spaces circling four distinct blocks that is walkable and no time limits. The City parking lots even have a designated pick-up zone for taxis and rideshare companies like Lyft and Uber.

investing in pedestrian facilities

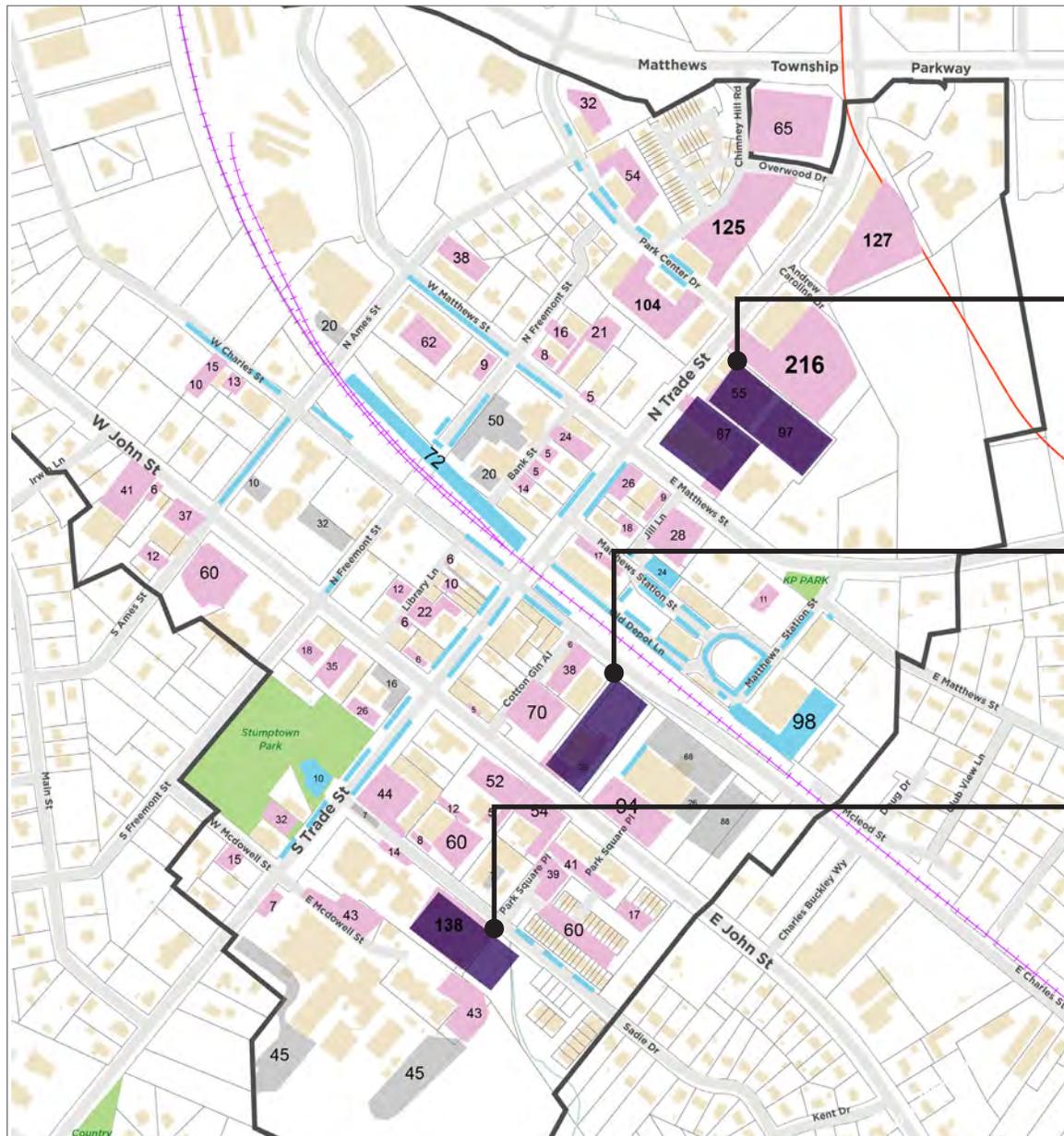
Historic Downtown Duluth is home to a well-connected sidewalk network that allows residents and visitors to explore local shops and restaurants. The City has made a dedicated effort to increase connectivity to downtown with the addition of sidewalks as well as improve pedestrian safety with new crossing and intersection treatments. A major funding source for pedestrian infrastructure projects is the SPLOST – Special Purpose Local Option Sales Tax. This is an optional 1% sales tax levied by the County to fund projects like transportation, parks, libraries, road maintenance, parking. County and City officials agreed to share SPLOST proceeds. Duluth dedicates 68% of its SPLOST share to transportation, which includes building sidewalks and bikeways.

creating public spaces

Parsons Alley is a pedestrian-friendly destination that is the result of long-term planning by the City of Duluth for an arts and entertainment district that expands on an already vibrant downtown. Completed in 2018, it features over 30,000 SF of restaurant and shop space and builds upon the success of Duluth’s Village Green. The development team worked closely with the City to ensure the design honors the City’s local character, history and timeless main street architecture. The development is located at the former site of the Duluth City Hall. Some the historic buildings have been preserved as a part of the development.

*Parsons Alley,
Duluth, GA*





Recommendation 6 Strategic Potential Additions of New Parking Supply Off-Street

The northeast corner of Trade and Matthews Streets features office buildings and supporting parking on large parcels that may be suitable for construction of a parking garage. Any site location should follow Town zoning and plan recommendations for providing active, leasable space along street frontages.

A combination of two parcels between Charles and John Streets, one of which is currently Town-owned, could serve a large area of the downtown core's parking needs; however, the railroad tracks separate these parcels from the area of highest parking demand found along Matthews Station Street. Any parking facility concepts should follow other Mobility Plan recommendations.

The current church parking lot along Sadie Drive is currently already used for certain public functions; the dimension of the site would allow a larger structure that could be used to support economic development in the southern half of downtown. This site is not in the first priority zone for parking sharing and does not serve immediate needs for more public parking.

Parking Facilities

- Public (owned/maintained by the Town)
- Private (owned/maintained by a non-Town entity)
- Initially counted in inventory but removed from the study due to lack of public access

RECOMMENDATION 6A

STRATEGIC ADDITIONS TO PARKING SUPPLY
OFF-STREET

After the Town has successfully established a culture of Town management of a broad parking supply (both public and private inventory), if additional downtown growth continues to drive parking demand such that observed parking utilization trends remain high, the Town may consider adding new parking supply without a specific development partnership. **It is important to note that this is the last major step in the Town's transition to a more centrally-managed parking district**, and key areas of parking need may be satisfied through earlier steps. However, if the Town reaches this point, it should consider consolidated locations for new parking as ways to reposition other downtown sites for redevelopment (and reduce the overall amount of off-street surface parking downtown).

The figure on the previous page identifies locations that may be logical focus areas for strategic additions to off-street parking supply. These have been identified strictly on their site dimensions, their location relative to current areas of downtown economic activity, and the potential they offer for joint development of parking and active land uses. The Town should use this as guidance for potential locations but not treat each one of these sites as plan recommendations. Since high levels of parking activity are in very close proximity to active land uses such as restaurants and offices, the optimal location for potential added parking may shift along with new development patterns into the future, and must be evaluated carefully before any site decisions are made. **In the meantime, the Town should also incrementally increase on-street parking supply in downtown through constructing new parking spaces, driveway closure or consolidation, and/or new development requirements. A map and table on pages 64 and 65 show new on-street parking opportunities in downtown.**

CASE STUDY: FUQUAY-VARINA, NC
a 'main street community'

In 2007, the Town of Fuquay-Varina was selected to participate in the North Carolina Main Street Program, which promotes downtown revitalization and economic development in the context of historic preservation. The program is administered under the Town's Economic Development Department and has a dedicated Downtown Development Manager. The Town of Fuquay-Varina is also a nationally accredited Main Street Community, which provides a distinct seal of achievement for demonstrating the ability to celebrate local community character, preserve local history and produce significant economic returns.

economic development + transportation investment

In 2014, the Town of Fuquay-Varina adopted the Town's first economic development strategy "to build a foundation to create, implement and accomplish economic development goals and objectives to ensure Fuquay-Varina's marketplace is sustainable for long-term growth." One of the six initiatives identified and endorsed by the Town in this strategy, is investment in roadways, as well as multi-modal access and facilities and connectivity.

Another key part of this economic development strategy impacting the pedestrian environment was the Infill Downtown Development initiative, which identifies the recruitment of new infill mixed-use development throughout both the Fuquay and the Varina downtown districts to encourage and promote concentrated, pedestrian-oriented uses. Since the adoption of the economic strategy, the town has worked to identify and assemble a 3.5-acre downtown site suitable for attracting a mixed-use developer.

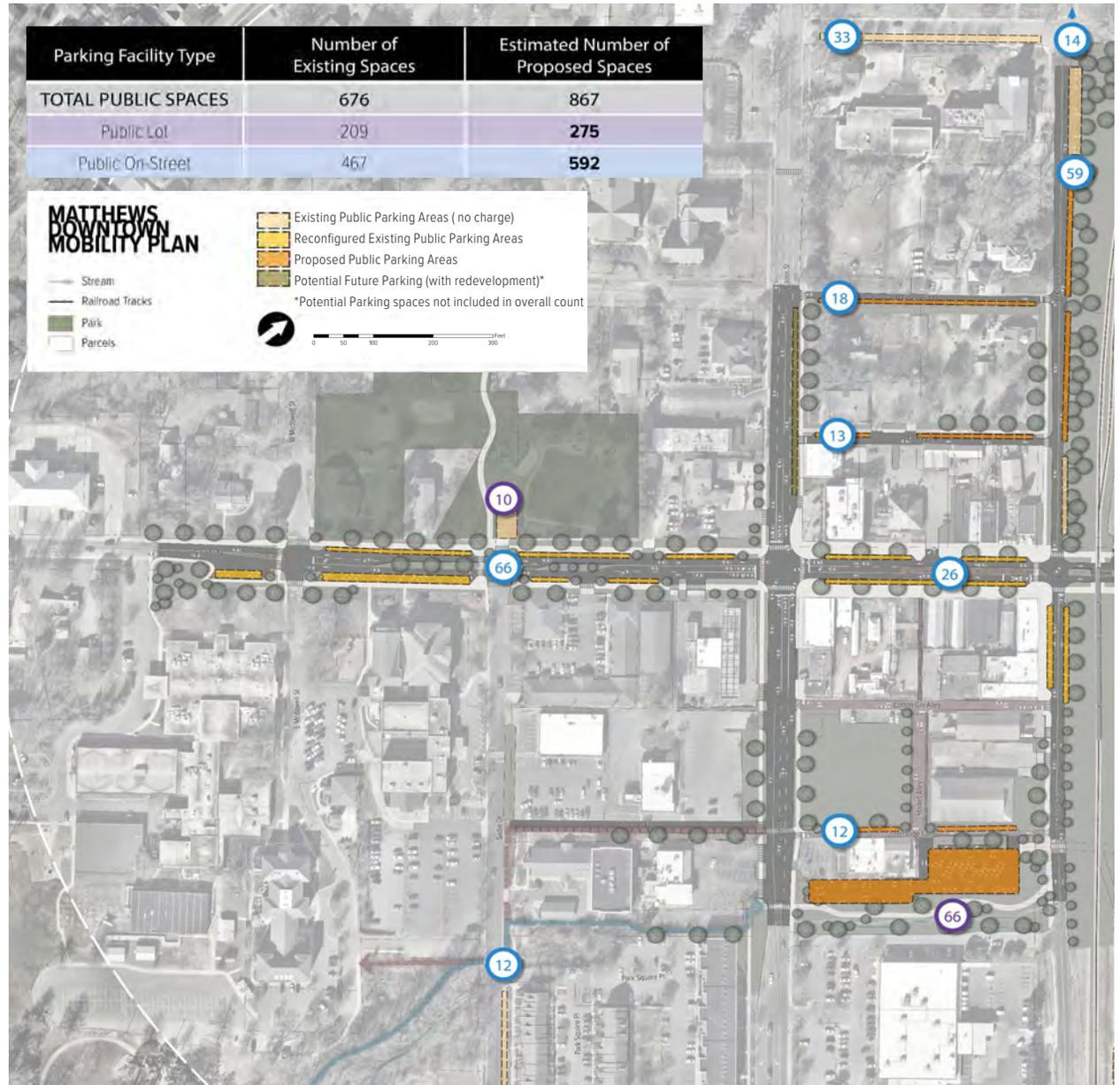


'Dinner on Depot', an anticipated yearly event, is a ticketed event that includes delicious food, live entertainment, and live auction all under the lights on Depot Street to celebrate the Historic Downtown

RECOMMENDATION 6B STRATEGIC ADDITIONS TO PARKING SUPPLY ON-STREET

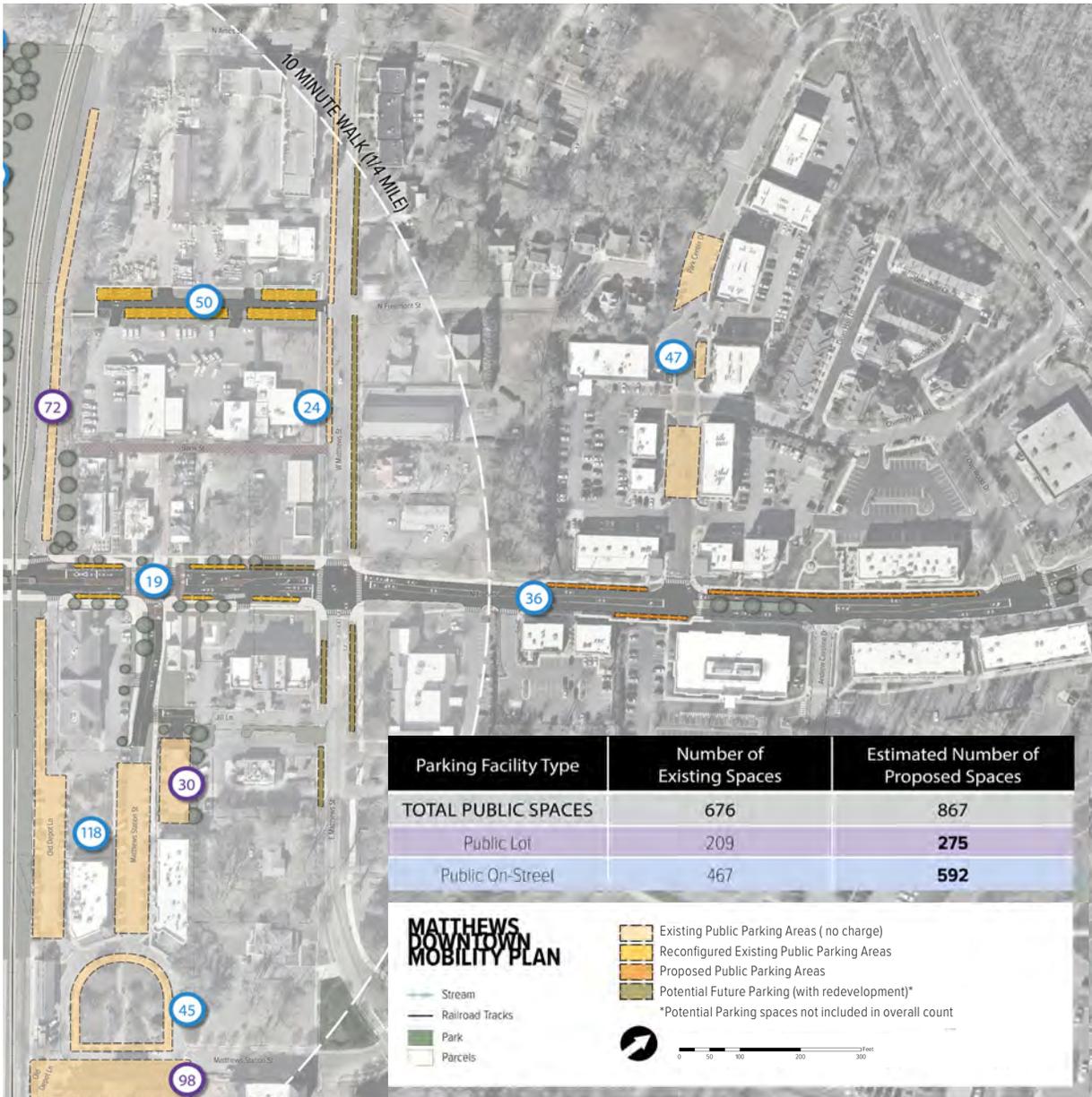
In addition to the off-street parking supply additions described on the previous page, there are opportunities to add on-street spaces as well. The graphics at right and on the facing page depict the on-street parking opportunities that the Town should explore when opportunities present themselves as streets are repaved or redeveloped.

Currently, there are 676 parking spaces in Downtown Matthews, including public and private spaces. With the projects that are proposed in this plan, approximately 867 spaces will be made available.



Match Line See Graphic on Facing Page

Match Line See Graphic on Facing Page



new mobility technology

Technology is transforming almost every aspect of transportation. For example, electric vehicles are beginning to change the landscape of gas stations while bike- and scooter-share services are changing the choices for how people make short trips in downtown contexts. The Town of Matthews should take advantage of new mobility technology available now while proactively planning for emerging technology.

Technology should be used to accomplish the following goals:

- Expand travel choices in Downtown, and to Downtown, for all users
- Reduce the number of driving trips
- Improve street safety for everyone
- Improve the predictability and reliability of traveling in Downtown Matthews
- Quickly gather metrics to assess and improve services
- Proactively prepare for new technology and its use Downtown by implementing tests and pilot projects



Electric vehicles are already being deployed for on-demand ride services. Here the “Downtownner” connects riders from point-to-point in Tampa, Florida.

Going forward, the Town should focus policies and street design strategies on the following transportation and technology topics:

- **Street Safety** - Focus on systems, services, and street design that use technology to decrease the number and the severity of crashes.
- **Curbside Management** - Focus on creating flexible and efficient use of curbside drop-off and pick-up activity to maximize the efficient movement of people and goods and promote street life.
- **New Mobility Systems** - Focus on policy and management of mobility services (e.g., bike share services) that equitably provide mobility options for everyone. The Town’s focus should also be on collection and sharing of data to improve mobility services and support decision-making about mobility systems.
- **Autonomous Vehicles** - Focus on operations and policy that increase safety and decrease congestion.

In the downtown area, there is increasing demand for use of the curb for parking, drop-off/pick-ups, and deliveries. As ride sharing services, such as Lyft and Uber, continue to grow in popularity, particularly those serving the growing restaurant scene in Matthews, there will be pressure to find dedicated locations along Trade Street, or a sidestreet like Charles Street, for safe and convenient drop off/pick up locations, which may translate into pressure to convert on some existing on-street parking space in certain blocks. Some cities have begun to develop best practices for identifying rideshare pick-up and drop-off locations, with Fort Lauderdale and Washington, DC, as two leaders. For details on their efforts, see the article *Cities and airports look to develop best practices for rideshare pick-ups and drop-offs* at <https://www.ssti.us/2017/12/cities-and-airports-look-to-develop-best-practices-for-rideshare-pick-ups-and-drop-offs/>.

As demand for ride-sharing to restaurants is typically off-peak (in the evening) the **conversion of 1-2 on-street parking spaces into drop-off/pick-up spaces** may not be as critical to the overall parking supply but can be used as a temporary measure in peak times. Signage will be important as will increased education for others who might be using these zones (e.g., delivery trucks). In the future, these can be required with new commercial development.

The Town should also conduct a feasibility study for a downtown circulator bus or trolley to reduce in-town vehicle trips. Davidson, North Carolina, has conducted a pilot project for a circulator service that the Town of Matthews may look to for lessons to be drawn from their experience. Utilizing an electric, autonomous vehicle for this type of service should be considered.

wayfinding + navigational assistance

Wayfinding is a system of signs that provides navigational assistance to people who walk, bike, drive, and use transit. This system includes information about destinations, travel distances, and other information about places in Downtown Matthews.

Wayfinding in and around Downtown Matthews has largely been focused on providing wayfinding to people who drive. The recommendation for Downtown Matthews is to develop a coherent and comprehensive wayfinding system that incorporates more pedestrian and bicycle-scale wayfinding, and that helps connect people to parking.

With the proposed performance-based program in the Parking Recommendation 1, signage and wayfinding will be especially important to communicating pricing, regulations, and parking availability. Coordination between major parking owners, including the Town, the churches, and other major destinations, should be a priority. At a minimum, the Town should work with these major partners to ensure that signage provides consistent information and functionality.

With a majority of off-street parking spaces in Downtown Matthews being on private properties, the full impact of a wayfinding program will be limited without private sector participation. Signage and wayfinding make up a core component of communicating the performance-based management program. For example, street signage should be used to display pricing tiers and level of availability for multiple parking options so that drivers can make an informed parking decision. Existing locations that allow public parking, such as the Town Hall lot, already feature parking signage. However, users appear to see this as insufficient to overcome the distance from downtown destinations, as many of these spaces are not highly used, even during peak demand periods. This points to a need to **continue investing in sidewalks, streetscapes, and other elements of the built environment that allow users to perceive all parking in downtown as seamlessly connected.**

Long term, the Town may consider partnerships with technology providers, such as smartphone application vendors, to provide information on parking supply and availability. This is not recommended as a near-term solution, however, as the relatively small parking inventory and the



Example images of parking availability Smartphone app interfaces.

costs associated with maintaining this type of information technology program may not be cost-effective in the near term. Nonetheless, as technology-based solutions become more affordable, the Town should consider them.



Example image of pedestrian-scale/parking wayfinding signage.

WAYFINDING PRINCIPLES

1. CONNECT PLACES

Facilitate travel between destinations and provide guidance to new destinations.

2. KEEP INFORMATION SIMPLE

Present information simply, using clear fonts and simple designs, so that it can be understood quickly.

3. MAINTAIN MOTION

Be legible and visible for people moving so that they can read the signage without stopping.

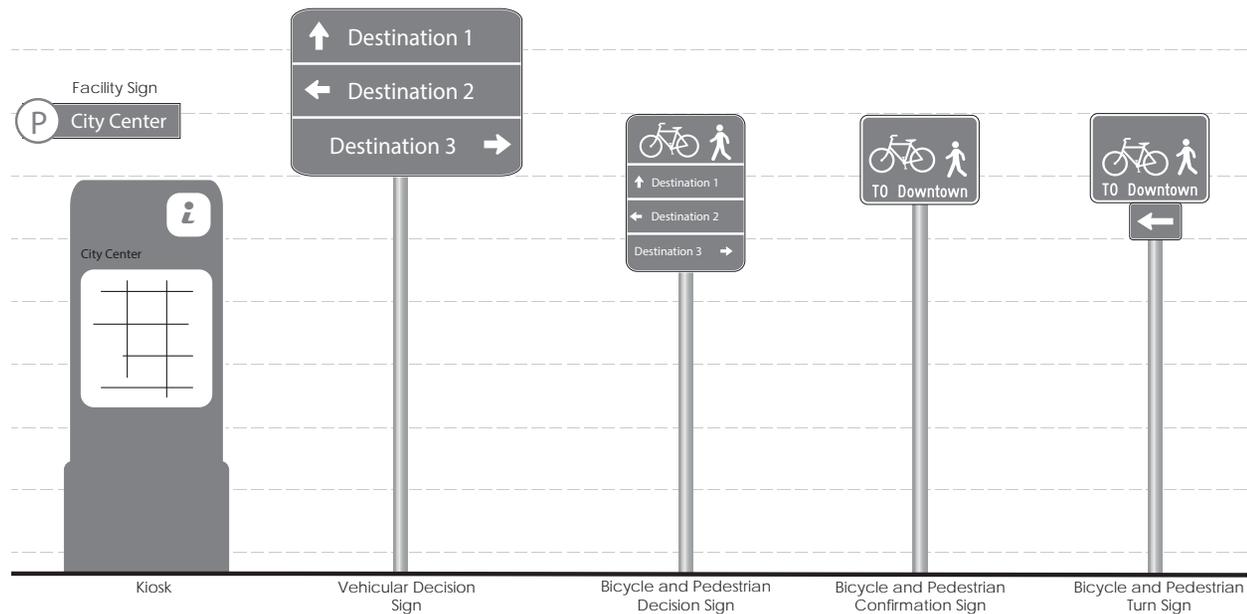
4. BE PREDICTABLE

Standardize the placement and design of signs so that patterns are established and the signage becomes predictable.

5. PROMOTE ACTIVE TRAVEL

Encourage increased rates of active transportation by helping people to realize they can use the bikeway and pedestrian network to access the places they want to go.

WAYFINDING FUNDAMENTAL NAVIGATIONAL ELEMENTS (MUTCD COMPLIANT)



FUNDAMENTAL WAYFINDING ELEMENTS

Fundamental wayfinding elements consist of **decision signs**, **confirmation signs**, and **turn signs**. These signs are intended to be implemented for both motorists and active transportation users. For signs applied on-street, they must conform with MUTCD requirements. Signage elements should include distance to destination information, including mileage for people driving, walking, and biking. Estimated travel time for walking and/or biking can also be displayed on the active transportation signs.

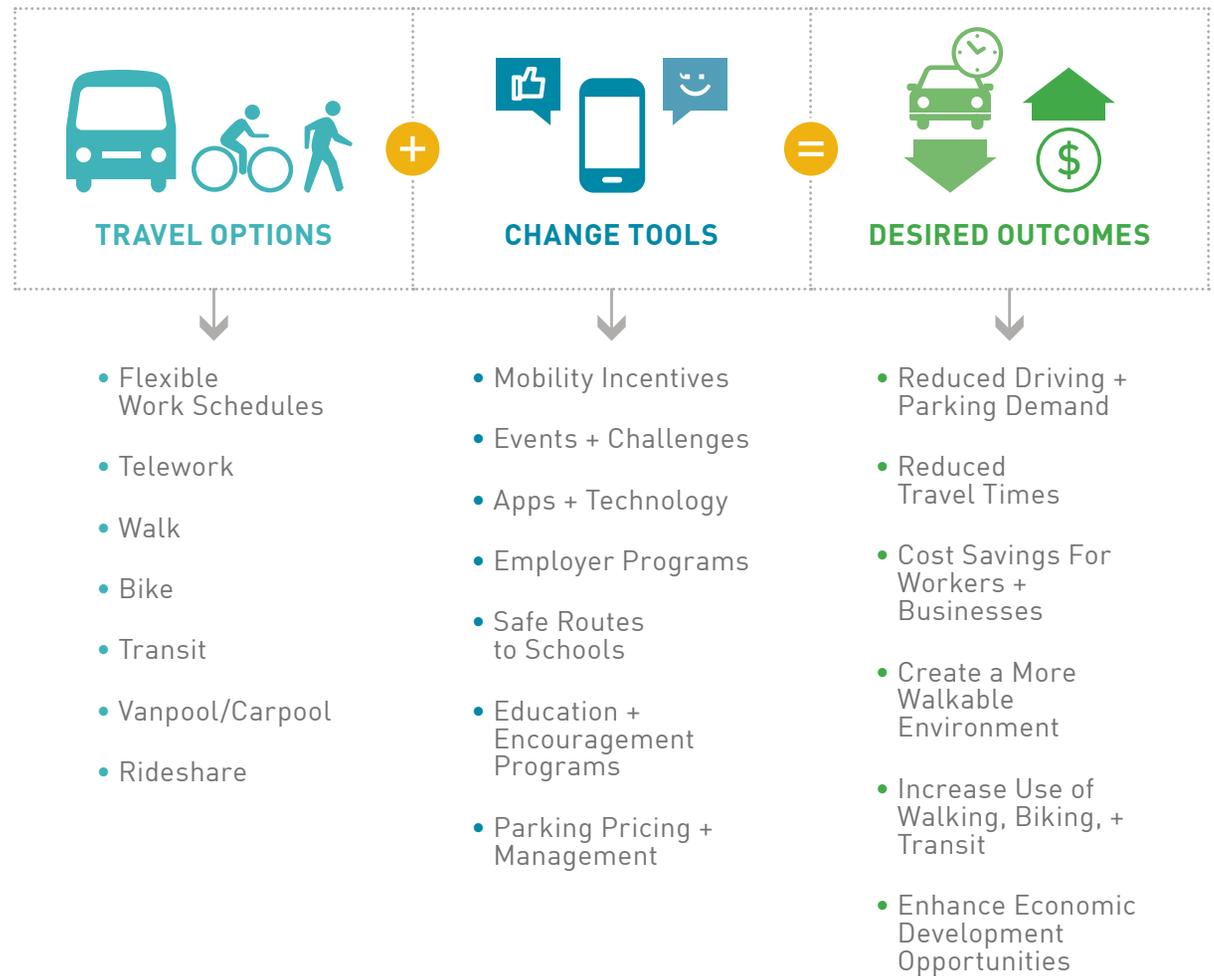
ENHANCED NAVIGATIONAL ELEMENTS

Enhanced navigational elements provide additional wayfinding assistance for active transportation users in the form of 1) mile markers, 2) gateway markers, 3) interpretive signage, 4) pavement markings, and 5) map kiosks. **Mile markers** aid pathway users with measuring distance traveled while providing pathway managers and emergency response personnel points of reference to identify field issues, such locations of emergency events. **Gateway markers** define the entry into a distinct neighborhood, or mark trailheads,

access points, and landmarks. **Interpretive signage** is signage that helps to create a narrative that acts to generate a positive user experience. **Pavement markings** are an ideal tool to provide navigational assistance along a neighborhood bikeway or trail route, while reducing sign clutter. **Map kiosks**, which tend to be located at trailheads and downtown locations, provide people with information about the surrounding area, amenities, and bikeway and transit routes. Since this signage is installed off-street, there is more flexibility in terms of design.

transportation demand management program

Coordinate with the Charlotte Regional Transportation Planning Organization (CRTPO) and the Charlotte Area Transit System (CATS) to establish transportation demand management (TDM) programs that promote transit, walking, and bicycling, carpooling, ridesharing, telecommuting, and other options increase accessibility and reduce dependence on single-occupancy vehicle travel. TDM efforts will reduce congestion, reduce parking demand, and reduce car ownership costs. Successful TDM programs expand mobility for residents, commuters, and visitors so that they have the freedom of choosing between multiple options to meet their travel needs.



Examples of Transportation Demand Management (TDM) activities and their desired outcomes. TDM can enhance economic development opportunities by reducing congestion, parking facility costs, and other business costs (“Economic Development Impacts.” TDM Encyclopedia. Victoria Transport Policy Institute. January 2, 2017. Available at www.vtppi.org/tdm/tdm54.htm).

POLICY

why is it important?

Policies establish priorities for decision making about infrastructure design, mobility services and programs, and transportation investments. In other words, they provide guidance in decision-making that will lead to successful implementation and achievement of the goals for mobility in Downtown.

policy goals

- Expand travel choices to get to and around Downtown.
- Improve travel safety in Downtown.
- Test ideas with pilot projects to measure performance and refine street design strategies.



REGIONAL COORDINATION

- Align North Carolina Department of Transportation (NCDOT), Mecklenburg County, Charlotte Area Transit System (CATS) and Town of Matthews Departments to coordinate infrastructure improvements, transit routes, and programs.
 - » Coordinate between municipalities to develop transportation demand management strategies.
- Engage the private sector to identify implementable programs for new and existing developments to manage employers transportation needs.
- Continue to work with regional partners such as transit providers, CRTPO, CDOT, NCDOT, and others to ensure collaboration and diversify funding sources across southern Mecklenburg County.



STREET DESIGN

- Design streets to be safe, convenient, and comfortable for all users.
- Adopt a Vision Zero plan and work towards no traffic fatalities or serious injuries by a specific year.
- Consider implementing a “20 is Plenty” Campaign in the downtown area to enhance traffic flow and a consistent speed limit.
- Whenever possible, provide elements that ensure vulnerable street users such as bicyclists and pedestrians are provided with facilities that provide protection from natural and transportation related hazards.
- Provide people walking and biking with new and comfortable walkways through the use of alleyways in downtown.



FUNDING

- Establish prioritization criteria and a process to prioritize projects. However, prioritization results should be flexible so as to allow for timely and cost-effective implementation opportunities.
- Capitalize on the adoption of this Plan to support requests for regional, state, and federal funding.
- Establish a target portion of the annual budget dedicated to maintenance of streets and sidewalks.
- Explore available private funding sources for pedestrian and bicycle projects, from small grants for marketing activities to multi-year foundation grants. Funding sources for creating active an active downtown include local health and wellness charities, corporate and cultural organizations, local hospitals and health departments, as well as national foundations.



PARKING

- The Town should embark on a private-public partnership to create a shared parking program to make more efficient use of private parking spaces in the downtown core.
- The Town should review and update parking policy to incentivize sustainable and smart transportation choices and create sustainable platforms for new mobility practices. (See previous recommendations in this chapter on proposed parking policies and ordinance changes that follow.)

Parking and the Unified Development Ordinance

The Town's Unified Development Ordinance (UDO) defines off-street parking and loading standards for development. Although most provisions of the parking and loading requirements of the UDO (specifically in Section 155.607) govern parking throughout the Town, certain sections have relevance to the Downtown Matthews Mobility Plan's recommendations and these are discussed here. In particular, the points presented here offer guidance for refining the UDO to better facilitate the Mobility Plan's strategy and recommendations. They are not focused on general applicability throughout the entire Town, as the Mobility Plan did not study other parts of the Town outside of its relatively walkable, mixed-use downtown center.

Increases in use. Section 155.607.1 (B) defines conditions where parking must be provided relative to changes of use or intensity. The thresholds and requirements set are reasonable, although a key means to revitalization in Downtown Matthews is through adaptive reuse of existing buildings and it is conceivable that future conversions could surpass the thresholds set for when parking requirements take effect. The UDO should define greater flexibility for downtown zoning districts so that meeting its requirements does not have to mean parking must be constructed on site.

Distance from use. Section 155.607.1 (C.7) sets a maximum distance of 400' from parking to the building or use it is supporting. While this generally fits within the scale of the street grid in Downtown Matthews, there may be conditions where shared parking is located farther away. This section of the UDO waives this requirement for certain uses; the Town should consider expanding these uses to include all uses within downtown's zoning districts.

Multi-family residential requirements. Multi-family residential requirements are based on unit sizes and not potential occupancy (such as a number of bedrooms). While the set of requirements in MUD and other downtown districts has lower standards, these are still somewhat high. Setting thresholds higher may help to provide a more downtown-appropriate level of parking.

Other Use-based requirements. Other use-based standards, as defined in Section 155.607.7, may be adjusted or redefined as follows:

- Office uses requiring one space for 400 square feet are reasonable and in line with national research, though upward trends in office density likely mean that developers face more pressure to provide parking. This is a key area for parking sharing, and defining a greater portion of parking sharing as contributing to minimum requirements should be considered.
- Medical office and clinic uses also have high requirements given the focused times of day in which these uses are active. Setting greater requirements for these uses to allow sharing or public use of parking in outside hours should be considered.
- The general standard for nonresidential uses could be reduced further. Minimum standards are not typically what developers will meet if the requirements of project investors and lenders surpass them, and one space per 400 square feet of area may be more than needed for emerging non-residential uses such as maker spaces (which may be defined as artisanal light-manufacturing uses) and specialized retail.

Sharing and other flexible parking assignment approaches. Section 155.607.7 (C) defines the conditions under which multiple uses can share a fixed supply of parking or count public parking (whether on- or off-street) toward their UDO minimum requirements. These are defined for institutional uses with considerable flexibility: uses may count up to 60 percent of on-street spaces and 75 percent of off-street public spaces within 800 feet, and all private spaces within 800 feet are eligible if documented in a written agreement. The Town should extend this permission to include other common uses in downtown, especially as restaurants, retail, and entertainment- and event-based uses become more common.

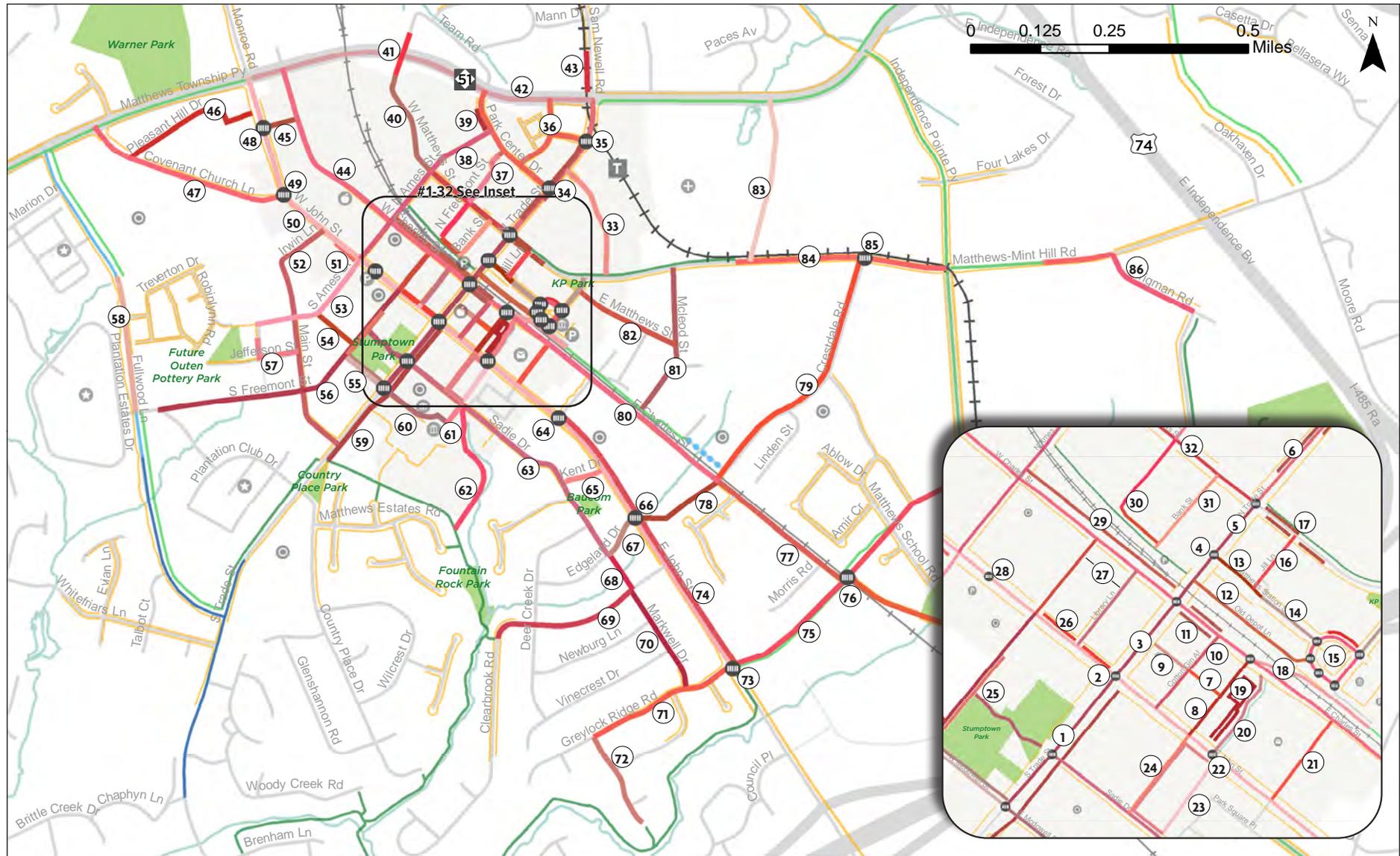
155.607.7 (C.5) also allows flexibility in demonstrating feasibility of shared parking, which is helpful to promoting its use. Applicants do not have to follow a complicated process of proving that sharing will work, although they must submit an Alternative Parking Plan that the Zoning Administrator approves. This includes submittal of a site

plan detailing parking configuration, a calculation of required spaces based on the requirements of Section 155.607.7 (B), and a brief justification.

However, other elements of this section may be reconsidered to facilitate the Mobility Plan's parking recommendations:

- Applicants might be given the option to request shared spaces as part of their pre-application process, and the Town can help identify possible candidates. If these include public parking spaces to contribute to off-street requirements as defined in Section 155.607.7 (C.1), the Town should be able to provide guidance on current typical occupancy levels and how much parking these public spaces can actually feasibly serve.
- The Town may consider per-use reductions of more than the 15 percent currently allowed if Alternative Parking Plans demonstrate it is feasible.

PROJECTS MAP



Proposed Projects



Crossing Improvement

Sidewalks

Existing

Funded

Multi-Use Paths

Existing

Funded

Bike Lanes

Existing

Funded

Funded Advisory Shoulders

Future Silver Line

Downtown / Hospital

Silver Line Proposed Alignment

PROJECT LIST

PROJECT ID	CORRIDOR NAME	FROM/ TO	PARKING	STREET TRANSFORMATION	PEDESTRIAN IMPROVEMENTS	BIKEWAYS + MULTI-USE PATHS	MILEAGE
1	Trade Street	Matthews Elementary School/ John St	Reorient to parallel	Lane Reallocation, Traffic calming	Crossing upgrades**, ADA- accessibility	Sidepath	0.20
2	Trade Street	at John Street		Intersection reconfiguration	Crossing upgrade		n/a
3	Trade Street	John Street/ Railroad Tracks	Reorient to parallel	Lane Reallocation, Traffic calming	Sidewalk widening, Crossing upgrade, ADA-accessibility		0.10
4*	Trade Street	at Matthews Station Street		Intersection reconfiguration	Crossing upgrade		n/a
5	Trade Street	Railroad Tracks/ Matthews Street	Reorient to parallel	Lane Reallocation, Traffic calming	Sidewalk widening, Crossing upgrade, ADA-accessibility		0.10
6	Trade Street	Matthews Street/ Matthews Township Parkway	Add on-street spaces			Shared Lane Markings	0.30
7	Market Alley	Cotton Gin Alley/ Heritage Lane		Shared Street		Shared Lane Markings	0.04
8	Heritage Lane	John Street/ Charles Street	Add on-street spaces	Shared Street			
9	Farmer's Market Pedestrian Lane	Trade Street/ Cotton Gin Alley				Bike/Ped Connector	0.04
10	Cotton Gin Alley	John Street/ Charles Street	Add on-street spaces	Shared Street			0.09
11	Charles Street	Trade Street/ Cotton Gin Alley	Reorient to parallel on both sides		Sidewalk widening on S side, Add sidewalk on N side, Crossing upgrade, ADA-accessibility	Shared Lane Markings	0.04
12	Old Depot Lane	Trade Street/ Matthews Station Street		Shared Street		Shared Lane Markings	0.13
13	Matthews Station Street	Trade Street/ Jill Lane		Lane Reallocation	Widen sidewalks	Shared Lane Markings	0.06

*Project is underway concurrent with this Mobility Plan study

**Crossing upgrades are detailed on pages 30-31.

PROJECT ID	CORRIDOR NAME	FROM/ TO	PARKING	STREET TRANSFORMATION	PEDESTRIAN IMPROVEMENTS	BIKEWAYS + MULTI-USE PATHS	MILEAGE
14	Matthews Station Street	Jill Lane/ Matthews-Mint Hill Road				Shared Lane Markings	0.33
15	Matthews Station Street	loop around Town Green			Fill sidewalk gaps; Fix ADA issues and add marked crossings around Town Green		0.16
16	Jill Lane	Matthews Station Street/ Matthews Street	Add on-street spaces	Roadway realignment	Add sidewalk	Shared Lane Markings	0.06
17	Matthews Street	Trade Street/ south of Jill Lane	Add on-street spaces				0.10
18	Greenway Tunnel to Heritage Trail	Charles Street/ Old Depot Lane under railroad			Crossing Upgrade (at Charles Street)	Greenway tunnel	0.12
19	Heritage Lane Parking Lot	Charles Street/ John Street	Formalize parking lot				0.15
20	Greenway along creek	John Street/ Charles Street				Greenway	0.09
21	Postmasters Lane	John Street/ Charles Street	Add on-street spaces	New Complete Street	Add sidewalks	Shared Lane Markings	0.09
22	John Street	at new greenway near Heritage Lane			Crossing upgrade		n/a
23	Mac's Speedway Greenway (alt. Alignment B)	Sadie Drive/ John Street				Greenway	0.10
24	Heritage Lane Greenway (alt. Alignment A)	Sadie Drive/ John Street		Shared Street		Greenway	0.18
25	Stumptown Park	Trade Street/ Freemont Street	Add parallel spaces on McDowell and Freemont with park development	Add curb and gutter	Add sidewalks along McDowell and Freemont when parking is added	Greenway	0.08

PROJECT ID	CORRIDOR NAME	FROM/ TO	PARKING	STREET TRANSFORMATION	PEDESTRIAN IMPROVEMENTS	BIKEWAYS + MULTI-USE PATHS	MILEAGE
26	John Street	Freemont Street/ Trade Street	Convert outside, northwest-bound lane to on-street parking				0.07
27	Library Lane, Freemont Street	John Street/ Charles Street	Add on-street spaces		Fill in Sidewalk Gaps	Shared Lane Markings	0.09
28	John Street	mid-block between Ames Street and Freemont Street			Crossing upgrade		n/a
29	Charles Street	Ames Street/ Trade Street	Add on-street spaces, reorient existing to parallel		Add sidewalk beside parking		0.11
30	Freemont Street + Bank Street connector	Matthews Street/ Railroad Tracks/ Bank Street	Formalize Freemont Street as parking lot			Bike/Ped Connector between Freemont and Bank Streets	0.05
31	Bank Street	full extent of road		Shared Street			0.09
32	Matthews Street	Ames Street/ Trade Street	Add on-street parking on northeast side		Fill in Sidewalk Gaps	Shared Lane Markings	0.18
33	Andrew Caroline Drive	Trade Street/ Matthews-Mint Hill Road	Parallel parking	New Complete Street	Sidewalks	Shared Lane Markings	0.22
34	Trade Street	at Park Center Drive			Crossing upgrade		n/a
35	Trade Street	at Overwood Drive			Crossing upgrade		n/a
36	Chimney Hill Road, Overwood Drive	full length of each road				Shared Lane Markings	0.22
37	Freemont Street + connector	Matthews Street/ Park Center Drive			Fill in Sidewalk gaps with development	Shared Lane Markings; Bike/Ped connector	0.11
38	Ames Street	John Street/ Park Center Drive		Complete Street	Fill in Sidewalk Gaps, Improve Railroad Crossing	Shared Lane Markings	0.34
39	Park Center Drive	Matthews Township Parkway/ Trade Street			Fill in Sidewalk Gaps	Shared Lane Markings	0.23

PROJECT ID	CORRIDOR NAME	FROM/ TO	PARKING	STREET TRANSFORMATION	PEDESTRIAN IMPROVEMENTS	BIKEWAYS + MULTI-USE PATHS	MILEAGE
40	Matthews Street	north terminus of Matthews Street/Ames Street	Add on-street parking		Sidewalks	Shared Lane Markings	0.20
41	Greenway Tunnel under NC 51	Matthews Street/Team Road				Greenway tunnel	0.08
42	Matthews Township Parkway (Highway 51)	John Street/Trade Street				Sidepath	0.64
43	Sam Newell Road	north of Matthews Township Parkway/Matthews Township Parkway			Fill in Sidewalk Gap		0.08
44	Charles Street	Matthews Township Parkway/Trade Street		Complete Street	Fill in Sidewalk Gaps	Shared Lane Markings	0.54
45	Lois Street	John Street/Charles Street			Sidewalk		0.06
46	Pleasant Hill Drive + connector	Covenant Church Lane/John Street				Advisory Shoulders; Bike/Ped connector	0.27
47	Covenant Church Lane	Matthews Township Parkway/John Street				Shared Lane Markings	0.38
48	John Street	at Lois Street			Crossing upgrade		n/a
49	John Street	at Covenant Church Lane			Crossing upgrade		n/a
50	John Street	Matthews Township Parkway/Charles Buckley Way		Travel Demand Analysis to determine options		Sidepaths	0.76
51	John Street (near-term)	existing sidewalk west of Ames Street/Ames Street			Fill in Sidewalk Gap		0.05
52	Irwin Lane, Main Street	John Street/Trade Street		Traffic calming	Sidewalk	Shared Lane Markings	0.45

PROJECT ID	CORRIDOR NAME	FROM/ TO	PARKING	STREET TRANSFORMATION	PEDESTRIAN IMPROVEMENTS	BIKEWAYS + MULTI-USE PATHS	MILEAGE
53	Ames Street + connector	John Street/ Alexander Street				Advisory Shoulders; Bike/Ped Connector	0.24
54	College Street	Ames Street/ Freemont Street		New Complete Street			0.09
55	McDowell Street	Freemont Street/ Trade Street				Advisory Shoulders (change to Shared Lane Markings when parking is added- see #25)	0.09
56	Freemont Street + connector	John Street/ Plantation Crossing Drive				Advisory Shoulders (change to Shared Lane Markings when parking is added- see #25); Bike/Ped Connector	0.52
57	Alexander Street, Jefferson Street	existing sidewalk on Alexander Street/ Main Street via Jefferson Street			Fill in Sidewalk Gaps		0.11
58	Fullwood Lane	south of Edenbrook Drive/ Plantation Crossing Drive				Bike Lanes; Sidepath	0.25
59	Trade Street	existing greenway/ Matthews Elementary School				Sidepath	0.12
60	McDowell Street	Trade Street/ McDowell Street extension				Shared Lane Markings	0.14
61	McDowell Street extension (existing church alley)	McDowell Street/ Sadie Drive		Formalize as Town-owned road	Fill in Sidewalk Gap		0.04
62	Greenway behind school (natural surface) + extension	N. Fork Four Mile Creek Greenway/ Sadie Drive				Pave greenway and extend to Sadie Drive	0.26

PROJECT ID	CORRIDOR NAME	FROM/ TO	PARKING	STREET TRANSFORMATION	PEDESTRIAN IMPROVEMENTS	BIKEWAYS + MULTI-USE PATHS	MILEAGE
63	Sadie Drive	Trade Street/ Edgeland Drive			Fill in Sidewalk Gap	Shared Lane Markings	0.51
64	John Street	at Charles Buckley Way			Crossing upgrade		n/a
65	Kent Drive	Sadie Drive/ John Street			Sidewalk		0.08
66	John Street	at Edgeland Drive			Crossing upgrade		n/a
67	Edgeland Drive	Sadie Drive/ John Street				Shared Lane Markings	0.08
68	Sadie-Markwell connector	Edgeland Drive/ Clearbrook Road				Bike/Ped Connector	0.08
69	Clearbrook Road	John Street/ greenway connector				Shared Lane Markings	0.27
70	Markwell Drive	Clearbrook Road/ Greylock Ridge Road				Shared Lane Markings	0.21
71	Greylock Ridge Road	Rockwell View Road/ John Street				Shared Lane Markings	0.28
72	Rockwell View Road	Greylock Ridge Road/ south terminus of Rockwell View				Shared Lane Markings	0.18
73	John Street	at Greylock Ridge Road			Crossing upgrade		n/a
74	John Street	Charles Buckley Way/ Greylock Ridge Road		Travel Demand Analysis to determine options	Sidewalk	Sidepath	0.56
75	Greylock Ridge Road extension	John Street/ Charles Street		New Complete Street	Sidewalk	Sidepath	0.17
76	Charles Street	at railroad crossing			Crossing upgrade		n/a
77	Charles Street, Tank Town Road	Crestdale Road/ Rainbow Ridge Drive				Sidepath, side TBD	0.55

PROJECT ID	CORRIDOR NAME	FROM/ TO	PARKING	STREET TRANSFORMATION	PEDESTRIAN IMPROVEMENTS	BIKEWAYS + MULTI-USE PATHS	MILEAGE
78	Crestdale Road extension	John Street/ Charles Street		New Complete Street	Sidewalk	Sidepath	0.17
79	Crestdale Road	Charles Street/ Matthews-Mint-Hill Road		Traffic calming		Sidepath	0.49
80	Charles Street	Trade Street/ Crestdale Road		Traffic calming		Shared Lane Markings	0.57
81	McLeod Street	Matthews-Mint Hill Rd/ Crestdale Heritage Trail			Sidewalk	Shared Lane Markings	0.28
82	Matthews Street	Matthews Station Street/ McLeod Street			Sidewalk	Shared Lane Markings	0.20
83	Greenway near hospital	Matthews-Mint Hill Road/ Matthews Township Parkway				Greenway	0.30
84	Matthews-Mint Hill Road	east of McLeod Street/ Independence Pointe Parkway				Sidepath gaps	0.38
85	Matthews-Mint Hill Road	at Crestdale Road			Crossing upgrade		n/a
86	Matthews-Mint Hill Road, Brigman Road	west of Brigman Road/ Sports Parkway				Sidepath	0.19

Town of
Matthews
North Carolina

3

A view of the Green at Town Hall.



ACTION PLAN

This chapter defines a structure for managing the implementation of the Downtown Matthews Mobility Plan. Implementing the recommendations within this plan will require coordination on the part of a variety of groups and agencies. Equally critical, and perhaps more challenging, will be meeting the need for sources of funding for implementation. Even small amounts of local funding could be very useful and beneficial when matched with outside sources. Most importantly, the Town and its partners need not accomplish the recommendations of this plan by acting alone; success will be realized through collaboration with regional and state agencies, the private sector, and local partners.



A view of existing conditions at Trade Street and Matthews Street, looking northwest.

prioritizing actions and funding

Given the constant change in funding availability at local, state, and federal levels, it is difficult to know what financial resources will be available at different time frames during the implementation of this plan. However, there are still important actions to take in advance of major investments, including key organizational steps, the initiation of education and safety programs, and the development of strategic, lower-cost infrastructure improvements. Following through on these priorities will allow the key stakeholders to prepare for the development of larger projects over time, while taking advantage of strategic opportunities as they arise.

key action steps

POLICY

Several policy steps are crucial to the success of future project development and how people decide to travel in Downtown. These steps will legitimize the recommendations found in this plan and support policy decision-making necessary to carry out those recommendations.

- Adopt this plan
- Adopt code changes for shared parking program
- Identify and prioritize funding for projects and programs
- Continue coordination with regional and local partners
- Create ride-sharing drop-off/loading zone strategies for Downtown

PROGRAMS

While policies provide a legal basis for public and private facility development, the program recommendations included in the Mobility Recommendations chapter of this plan will build a culture of safe travel and expand travel options.

- Implement parking management program recommendations, including Shared Parking Program
- Conduct a feasibility study for creating a downtown circulator bus/trolley program
- Create and implement wayfinding and signage system for parking, and pedestrian and bicycle travel
- Establish funding and staff time for Transportation Demand Management Programs (see page 68 in Chapter 2)

PROJECTS

While establishing the policies and programs described, the Town and its regional partners should move forward with the design and construction of priority projects. They should also work to identify funding for long-term, higher-cost projects.

- Identify funding for projects
- Prioritize projects and program them for implementation (see section on prioritization starting on page 86, and priority project cut-sheets starting on page 97)
- Establish pilot project program to implement “Quick Build Strategy.” Some potential projects include:
 - » Cotton Gin Alley Shared Street
 - » Ames Street Advisory Shoulders
 - » Fremont Street Advisory Shoulders
 - » Heritage Lane Greenway
 - » Heritage Lane Parking Lot

funding the mobility plan

In addition to projects funded through **development agreements and development requirements**, the following funding sources make up the core funding strategy for this plan:

Capital Budgets. The Town can use the concepts and policies presented in this plan to implement it through regularly scheduled capital projects, such as streetscape projects, street resurfacing, or new public or private property construction.

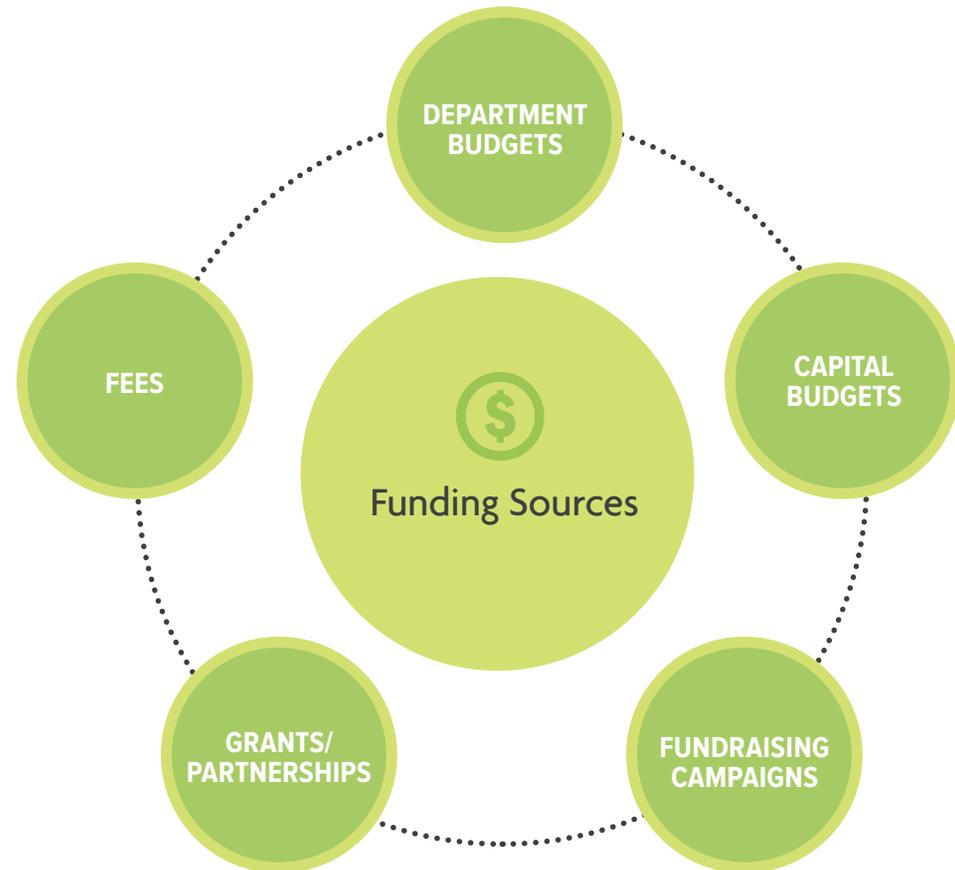
Department Budgets. Departments like Public Works or Parks, Recreation, and Cultural Resource can use their maintenance resources and staff to support programs, planning efforts, and infrastructure maintenance.

Fees. User fees or in lieu fees provide an opportunity to generate revenue to fund infrastructure projects, such as sidewalk construction, and programs, such as bicycle education classes.

Grants. Competitive grants through public agencies or through private or non-profit foundations can generate additional resources for projects and programs.

Fundraising Campaigns. Fundraising through neighborhood groups, advocacy groups, or even crowd-funding can help generate additional resources for projects and programs.

The Town will need to actively manage the list of projects, programs, and policy recommendations in this plan and assign appropriate funding and staff time to implement them. It should also be flexible and opportunistic with funding and prioritization of projects to deliver projects as quickly as possible.



project selection + prioritization

Potential projects were identified through a needs assessment process. Activities included in the needs assessment are as follows:

- A **review of relevant local planning documents**, which served as a starting point for project recommendations
- A **gap analysis**, which identified missing links between existing facilities
- A **safety analysis**, which identified patterns associated with historic vehicular, bicycle, and pedestrian crashes as well as roadways where serious injuries and fatalities involving vulnerable roadway users have occurred
- An **assessment of relative demand for transportation**, based on public/stakeholder input, existing land uses, parking demand, transit stops, and professional experience, which identified locations where demand for access and mobility is likely to be high
- A **review of available traffic data, roadway characteristics, right-of-way dimensions, publicly-owned property, easements, rivers and streams, and utility location information**, which shed light on the feasibility of potential projects. The project team incorporated previously planned and/or funded sidewalks, bikeways, and trails into the maps and tables contained in this plan.
- A **review of hundreds of stakeholder and public comments** from in-person meetings and activities, web-based comments from the Downtown Matthews Mobility Plan online survey and interactive map, and comments contained in emails sent directly to the project team
- A **comprehensive parking study** that inventoried existing parking spaces and their occupancy rates
- **Extensive fieldwork** conducted by the consulting team of planners and designers

prioritization criteria development

The project team developed draft prioritization criteria in coordination with the Town of Matthews staff that reflect the vision and goals of the project, as defined in the project scope and by the Steering Committee and the public. The Steering Committee was tasked with ranking the draft prioritization criteria. Based on the responses from the Steering Committee, the prioritization criteria were finalized and assigned weights, as shown in the table at right. The weights identified in the table were determined by averaging preferences expressed by the Steering Committee and then rounding to the nearest whole number.

Each project was scored using the prioritization table at right, and was given a score for each of the six criteria. **The highest score any project could receive was 30 points.**

The projects are mapped according to their prioritization score on page 89 and are listed with their scores in a table starting on page 90.

Project Prioritization Scoring Table

Criterion	Input	Scoring Notes	Weight
Pedestrian Accessibility + Mobility	Project is located on a high demand corridor for walking or serves a major destination.	“High demand corridor” defined as an arterial or collector street with a bus route and/or retail destinations (Trade Street, John Street, Matthews Station Street, Matthews Street, Matthews-Mint Hill Road, and Charles Street)	7
Parking Availability + Supply	This project adds new parking spaces to the overall downtown supply.	New parking spaces	6
Increases Network Connectivity	An overall measure of expanded connectivity for roadway, transit, pedestrian, or bicycle mobility (and other modes). Project connects to existing facilities to increase network capacity and coverage, provides additional travel options, or closes a key network gap.	Projects must connect to an existing on-street bikeway, greenway or other multi-use path, or roadway	5
Downtown Pedestrian Comfort	Project incorporates elements that make walking and biking in downtown more pleasant: lower vehicle speeds, lower traffic volumes, shade, places to rest, aesthetics, more attractive pedestrian environment, lighting, visibility, public art/placemaking elements.	Projects that improve comfort and attractiveness elements include Shared Streets, Traffic Calming, Advisory Shoulders, Lane Reallocation, New/widened sidewalks, or are located on sections of Trade or Matthews Station that will be subject to the future streetscape plan.	5
High Collision Areas + Major Roadway Crossings	Project addresses issues in area with multiple reported crashes or addresses crossing of a major roadway where improved crossings is desired.	All reported/recorded collisions have occurred on John Street and Trade Street. Stakeholders/public have expressed desire for making it easier to cross these two major roadways.	4
Responds to Public Input	Proposed project was identified as a priority on the project’s online input map during public engagement	“Priority” is defined as proposed projects corresponding with multiple comments made on the map during public input	3

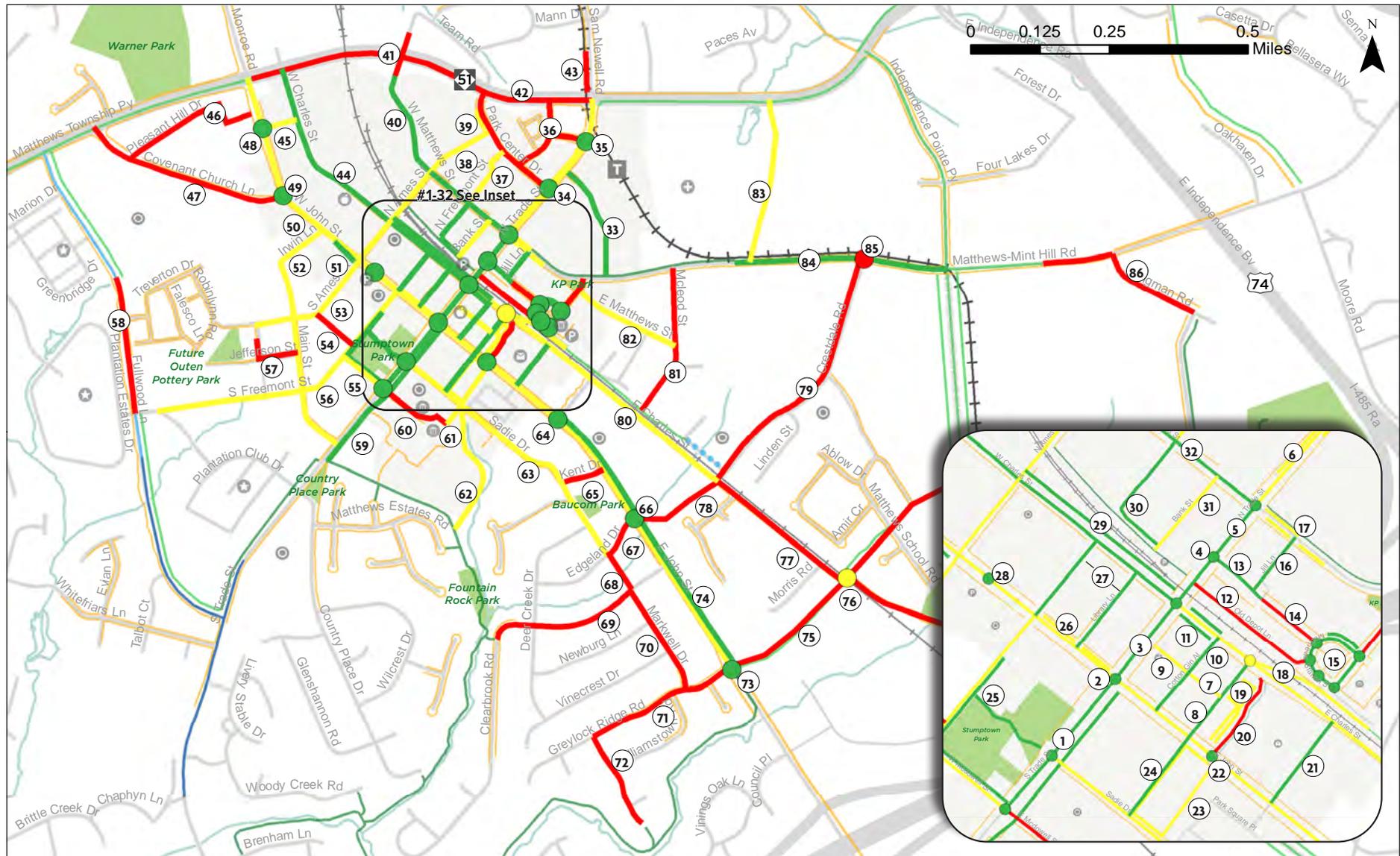
priority project list

The priority project list that follows is the result of the prioritization process outlined on the previous page. The map on the facing page displays the projects based on their prioritization score and are color-coded based on top, middle, and lower tiers of scores. This map and the accompanying project list can be used to identify projects that rank higher in meeting the objectives of this mobility plan. It can also be used as a starting point for identifying and ranking projects for implementation. However, these scores do not represent the only criteria for ranking projects for implementation. Funding availability, roadway resurfacing schedules, feasibility, and community needs are additional factors that impact which projects can and will be implemented first.

The priority project list from this plan should be reviewed and updated annually and recommendations for new projects can be developed at that time. Further details about project development and implementation roles are noted at right:

- The Priority Project List and recommended actions will be reviewed and modified as needed. At least annually, and prior to development of the town’s capital improvement plan (CIP), Town staff will review project prioritization and actions and provide staff recommendations for the following fiscal year.
- A joint Transportation Advisory Committee / Planning Board meeting will be scheduled to review the recommended priority projects and proposed updates to the project list for the purpose of making a recommendation to the Town Board of Commissioners.
- Priority project and funding lists will be presented to the Town Board of Commissioners for approval.
- Town Staff will pursue grants each year for priority projects based on the Town-board approved list of projects.
- Every five years a more comprehensive review of project status and prioritization should be considered.
- Every year an action plan for each annual list of priority projects should be developed by Town staff. The annual action plan should be populated with the current priority projects from the Downtown Matthews Mobility Plan. The action plan should include, but is not limited to the following elements:
 1. Project / Policy Name:
 2. Responsible Departments/ Staff:
 3. Funding sources:
 4. Time Allocation:
 5. Partners needed:
 6. Board Action required:
 7. Process for approval and implementation:
 8. Timeline to complete:

PRIORITIZATION MAP



Intersection +Linear Projects*

- High Scoring Tier: 14+ Points
- Middle Scoring Tier: 9 - 13 Points
- Low Scoring Tier: 0 - 8 Points

**Numbers in map correspond to the project numbers, not the prioritization scores. Prioritization scores for each project can be looked up by project number in the tables on the following pages.*

PROJECT PRIORITY SCORES

PROJECT ID	CORRIDOR NAME	FROM/ TO	PEDESTRIAN ACCESSIBILITY + MOBILITY (7 POINTS)	PARKING AVAILABILITY + SUPPLY (6 POINTS)	INCREASES NETWORK CONNECTIVITY (5 POINTS)	DOWNTOWN PEDESTRIAN COMFORT (5 POINTS)	HIGH COLLISION AREAS + MAJOR ROADWAY CROSSINGS (4 POINTS)	RESPONDS TO PUBLIC INPUT (3 POINTS)	PRIORITY SCORE
1	Trade Street	Matthews Elementary School/ John St	✓			✓	✓	✓	19
2	Trade Street	at John Street	✓			✓	✓	✓	19
3	Trade Street	John Street/ Railroad Tracks	✓			✓	✓	✓	19
4*	Trade Street	at Matthews Station Street	✓			✓	✓	✓	19
5	Trade Street	Railroad Tracks/ Matthews Street	✓			✓	✓	✓	19
6	Trade Street	Matthews Street/ Matthews Township Parkway	✓	✓					13
7	Market Alley	Cotton Gin Alley/ Heritage Lane			✓	✓			10
8	Heritage Lane	John Street/ Charles Street		✓	✓	✓			16
9	Farmer’s Market Pedestrian Lane	Trade Street/ Cotton Gin Alley			✓	✓			10
10	Cotton Gin Alley	John Street/ Charles Street		✓	✓	✓			16
11	Charles Street	Trade Street/ Cotton Gin Alley	✓			✓		✓	15
12	Old Depot Lane	Trade Street/ Matthews Station Street				✓			5
13	Matthews Station Street	Trade Street/ Jill Lane	✓		✓	✓			17
14	Matthews Station Street	Jill Lane/ Matthews-Mint Hill Road	✓						7
15	Matthews Station Street	loop around Town Green	✓		✓	✓			17

*Project is underway and concurrent with this Mobility Plan study

PROJECT ID	CORRIDOR NAME	FROM/ TO	PEDESTRIAN ACCESSIBILITY + MOBILITY (7 POINTS)	PARKING AVAILABILITY + SUPPLY (6 POINTS)	INCREASES NETWORK CONNECTIVITY (5 POINTS)	DOWNTOWN PEDESTRIAN COMFORT (5 POINTS)	HIGH COLLISION AREAS + MAJOR ROADWAY CROSSINGS (4 POINTS)	RESPONDS TO PUBLIC INPUT (3 POINTS)	PRIORITY SCORE
16	Jill Lane	Matthews Station Street/ Matthews Street		✓	✓	✓			16
17	Matthews Street	Trade Street/ south of Jill Lane	✓	✓					13
18	Greenway Tunnel to Heritage Trail	Charles Street/ Old Depot Lane under railroad			✓	✓		✓	13
19	Heritage Lane Parking Lot	Charles Street/ John Street		✓				✓	9
20	Greenway along creek	John Street/ Charles Street				✓			5
21	Postmasters Lane	John Street/ Charles Street		✓	✓	✓			16
22	John Street	at new greenway near Heritage Lane	✓			✓	✓	✓	19
23	Mac's Speed Shop Greenway (alt. Alignment B)	Sadie Drive/ John Street			✓	✓			10
24	Heritage Lane Greenway (alt. Alignment A)	Sadie Drive/ John Street			✓	✓			10
25	Stumptown Park	Trade Street/ Freemont Street		✓	✓	✓			16
26	John Street	Freemont Street/ Trade Street	✓	✓					13
27	Library Lane, Freemont Street	John Street/ Charles Street		✓	✓	✓			16
28	John Street	mid-block between Ames Street and Freemont Street	✓			✓	✓	✓	19

PROJECT ID	CORRIDOR NAME	FROM/ TO	PEDESTRIAN ACCESSIBILITY + MOBILITY (7 POINTS)	PARKING AVAILABILITY + SUPPLY (6 POINTS)	INCREASES NETWORK CONNECTIVITY (5 POINTS)	DOWNTOWN PEDESTRIAN COMFORT (5 POINTS)	HIGH COLLISION AREAS + MAJOR ROADWAY CROSSINGS (4 POINTS)	RESPONDS TO PUBLIC INPUT (3 POINTS)	PRIORITY SCORE
29	Charles Street	Ames Street/ Trade Street	✓	✓	✓	✓		✓	26
30	Freemont Street + Bank Street connector	Matthews Street/ Railroad Tracks/ Bank Street		✓	✓	✓			16
31	Bank Street	full extent of road			✓	✓			10
32	Matthews Street	Ames Street/ Trade Street	✓	✓	✓	✓		✓	26
33	Andrew Caroline Drive	Trade Street/ Matthews-Mint Hill Road		✓	✓	✓			16
34	Trade Street	at Park Center Drive	✓			✓	✓	✓	19
35	Trade Street	at Overwood Drive	✓			✓	✓		16
36	Chimney Hill Road, Overwood Drive (private roads)	full length of each road							0
37	Freemont Street + connector	Matthews Street/ Park Center Drive			✓	✓			10
38	Ames Street	John Street/ Park Center Drive			✓	✓		✓	13
39	Park Center Drive (private road)	Matthews Township Parkway/ Trade Street			✓	✓			10
40	Matthews Street	north terminus of Matthews Street/Ames Street	✓	✓		✓			18
41	Greenway Tunnel under NC 51	Matthews Street/Team Road			✓			✓	8
42	Matthews Township Parkway (Highway 51)	John Street/Trade Street				✓		✓	8

PROJECT ID	CORRIDOR NAME	FROM/ TO	PEDESTRIAN ACCESSIBILITY + MOBILITY (7 POINTS)	PARKING AVAILABILITY + SUPPLY (6 POINTS)	INCREASES NETWORK CONNECTIVITY (5 POINTS)	DOWNTOWN PEDESTRIAN COMFORT (5 POINTS)	HIGH COLLISION AREAS + MAJOR ROADWAY CROSSINGS (4 POINTS)	RESPONDS TO PUBLIC INPUT (3 POINTS)	PRIORITY SCORE
43	Sam Newell Road	north of Matthews Township Parkway/Matthews Township Parkway			✓				5
44	Charles Street	Matthews Township Parkway/ Trade Street	✓		✓	✓		✓	20
45	Lois Street	John Street/ Charles Street			✓	✓			10
46	Pleasant Hill Drive + connector	Covenant Church Lane/ John Street							0
47	Covenant Church Lane	Matthews Township Parkway/ John Street							0
48	John Street	at Lois Street	✓			✓	✓	✓	19
49	John Street	at Covenant Church Lane	✓			✓	✓	✓	19
50	John Street	Matthews Township Parkway/ Charles Buckley Way	✓			✓			12
51	John Street (near-term)	existing sidewalk west of Ames Street/ Ames Street	✓		✓	✓			17
52	Irwin Lane, Main Street	John Street/ Trade Street			✓	✓		✓	13
53	Ames Street + connector	John Street/ Alexander Street			✓	✓		✓	13
54	College Street	Ames Street/ Freemont Street			✓				5
55	McDowell Street	Freemont Street/ Trade Street			✓	✓			10

PROJECT ID	CORRIDOR NAME	FROM/ TO	PEDESTRIAN ACCESSIBILITY + MOBILITY (7 POINTS)	PARKING AVAILABILITY + SUPPLY (6 POINTS)	INCREASES NETWORK CONNECTIVITY (5 POINTS)	DOWNTOWN PEDESTRIAN COMFORT (5 POINTS)	HIGH COLLISION AREAS + MAJOR ROADWAY CROSSINGS (4 POINTS)	RESPONDS TO PUBLIC INPUT (3 POINTS)	PRIORITY SCORE
56	Freemont Street + connector	John Street/ Plantation Crossing Drive			✓	✓		✓	13
57	Alexander Street, Jefferson Street	existing sidewalk on Alexander Street/ Main Street via Jefferson Street			✓				5
58	Fullwood Lane	south of Edenbrook Drive/ Plantation Crossing Drive			✓			✓	8
59	Trade Street	existing greenway/ Matthews Elementary School	✓		✓	✓			17
60	McDowell Street	Trade Street/ McDowell Street extension							0
61	McDowell Street extension (existing church alley)	McDowell Street/ Sadie Drive			✓	✓			10
62	Greenway behind school (natural surface) + extension	N. Fork Four Mile Creek Greenway/ Sadie Drive			✓	✓			10
63	Sadie Drive	Trade Street/ Edgeland Drive			✓	✓			10
64	John Street	at Charles Buckley Way	✓				✓	✓	14
65	Kent Drive	Sadie Drive/ John Street			✓				5
66	John Street	at Edgeland Drive	✓				✓	✓	14
67	Edgeland Drive	Sadie Drive/ John Street							0

PROJECT ID	CORRIDOR NAME	FROM/ TO	PEDESTRIAN ACCESSIBILITY + MOBILITY (7 POINTS)	PARKING AVAILABILITY + SUPPLY (6 POINTS)	INCREASES NETWORK CONNECTIVITY (5 POINTS)	DOWNTOWN PEDESTRIAN COMFORT (5 POINTS)	HIGH COLLISION AREAS + MAJOR ROADWAY CROSSINGS (4 POINTS)	RESPONDS TO PUBLIC INPUT (3 POINTS)	PRIORITY SCORE
68	Sadie-Markwell connector	Edgeland Drive/ Clearbrook Road			✓				5
69	Clearbrook Road	John Street/ greenway connector							0
70	Markwell Drive	Clearbrook Road/ Greylock Ridge Road							0
71	Greylock Ridge Road	Rockwell View Road/ John Street							0
72	Rockwell View Road	Greylock Ridge Road/ south terminus of Rockwell View							0
73	John Street	at Greylock Ridge Road	✓				✓	✓	14
74	John Street	Charles Buckley Way/ Greylock Ridge Road	✓		✓			✓	15
75	Greylock Ridge Road extension	John Street/ Charles Street			✓				5
76	Charles Street	at railroad crossing	✓					✓	10
77	Charles Street, Tank Town Road	Crestdale Road/ Rainbow Ridge Drive	✓						7
78	Crestdale Road extension	John Street/ Charles Street			✓				5
79	Crestdale Road	Charles Street/ Matthews-Mint-Hill Road							0
80	Charles Street	Trade Street/ Crestdale Road	✓			✓			12

PROJECT ID	CORRIDOR NAME	FROM/ TO	PEDESTRIAN ACCESSIBILITY + MOBILITY (7 POINTS)	PARKING AVAILABILITY + SUPPLY (6 POINTS)	INCREASES NETWORK CONNECTIVITY (5 POINTS)	DOWNTOWN PEDESTRIAN COMFORT (5 POINTS)	HIGH COLLISION AREAS + MAJOR ROADWAY CROSSINGS (4 POINTS)	RESPONDS TO PUBLIC INPUT (3 POINTS)	PRIORITY SCORE
81	McLeod Street	Matthews-Mint Hill Rd/ Crestdale Heritage Trail			✓			✓	8
82	Matthews Street	Matthews Station Street/ McLeod Street			✓	✓		✓	13
83	Greenway near hospital	Matthews-Mint Hill Road/ Matthews Township Parkway			✓	✓			10
84	Matthews-Mint Hill Road	east of McLeod Street/ Independence Pointe Parkway	✓		✓			✓	15
85	Matthews-Mint Hill Road	at Crestdale Road	✓						7
86	Matthews-Mint Hill Road, Brigman Road	west of Brigman Road/ Sports Parkway			✓				5

priority project cut-sheets

In addition to the quantitative prioritization scoring outlined on the previous pages, the Downtown Matthews Mobility Plan Stakeholder Committee identified top priority projects for implementation based on input gathered during the course of the Mobility Plan study. The following Priority Project Cut-Sheets highlight four projects that the Stakeholder Committee has put forward for consideration by the Town Board of Commissioners for near-term funding and implementation.



The Stakeholder Committee reviews the criteria and resulting priority project list.

Trade Street Reconfiguration

John Street to Charles Street

About this Project

PROJECT AT A GLANCE

- Project #3 (see map on page 89, and table on page 90)
- Prioritization Score: 19
- Project elements:
 - » Lane reconfiguration
 - » Parking reorientation
 - » Widened sidewalks
 - » Crossing improvements
- Length: 460 ft (0.09 miles)
- Trip Generators:
 - » Downtown restaurants + shops
 - » Farmers Market
 - » Bus stops + transit services

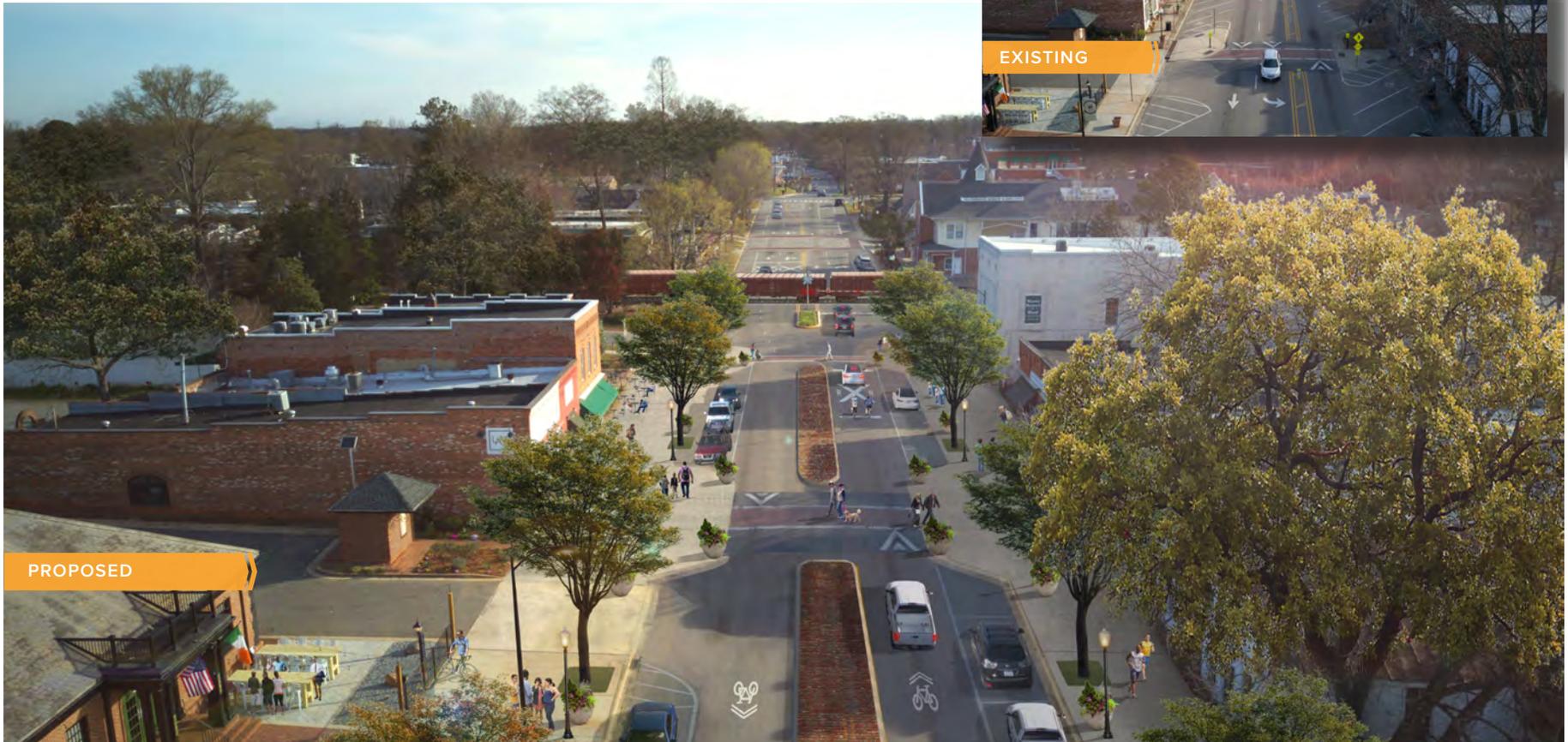
ESTIMATED CONSTRUCTION COST

Quantity	Item	Cost
1	Mobilization	\$39,100.00
1	Construction Surveying	\$4,900.00
1	Grading	\$72,250.00
250 ft	15" RC Pip Culverts, Class III	\$31,250.00
2,140 sq yd	Milling Asphalt pavement, 1.5" depth	\$32,100.00
180 ton	Asphalt conc. surface course, Type S9.5B	\$36,000.00
15 ton	Asphalt binder for plant mix	\$15,000.00
160 sq yd	Generic paving item thermoplastic stamped median	\$32,000.00
90 sq yd	Generic paving item thermoplastic stamped raised crosswalk	\$22,500.00
10	Masonry drainage structure	\$30,000.00
6	Frame with grate & hood, STD 840.03, Type**	\$12,000.00
4	Frame with cover, STD 840.54	\$6,000.00
300	1'-6" Concrete curb + gutter	\$15,000.00
1,080 ft	2'-6" Concrete curb + gutter	\$54,000.00
1,130 sq yd	4" Concrete sidewalk	\$79,100.00
10	Concrete curb ramp	\$30,000.00
20 sq yd	6" Concrete driveway	\$2,000.00
1	Temporary traffic control	\$24,500.00
105 ft	Thermoplastic pavement marking lines (4", 90 mils)	\$630.00
190 ft	Thermoplastic pavement marking lines (24", 120 mils)	\$2,280.00
12	Thermoplastic pavement marking symbol (90 mils)	\$7,200.00
11	Generic planting item street trees	\$8,800.00
	Construction Subtotal	\$556,610.00
	Inflation factor, Contingencies, E & C, Utilities, Minor items	\$386,067.69
	Total	\$942,677.69

*Cost estimate reflects 2019 prices with 20% contingencies. Typically a 10% escalation in costs per year can be expected.

Project Details

Downtown Matthews will be a more welcoming and vibrant pedestrian environment with the reconfiguration of lanes to be one travel lane in each direction and a middle turning lane with raised medians. The Trade Street Streetscape Plan (separate plan scheduled to follow this Mobility Plan) will provide further details for enhancing the pedestrian space and amenities along the block.



This is not a design plan; precise locations and elements should be designed in accordance with engineering standards and NCDOT review at the John Street intersection.

Trade Street Reconfiguration

Matthews Elementary School to John Street

About this Project

PROJECT AT A GLANCE

- Project #1 (see map on page 89, and table on page 90)
- Prioritization Score: 19
- Project elements:
 - » Lane reconfiguration
 - » Parking reorientation
 - » Multi-use path
 - » Crossing improvements
- Length: 1,060 ft (0.20 miles)
- Trip Generators:
 - » Downtown shops + restaurants
 - » Matthews Elementary School
 - » N. Fork Four Mile Creek Greenway
 - » Stumptown Park
 - » Matthews Community Center
 - » McDowell Arts Center
 - » First Baptist Church

ESTIMATED CONSTRUCTION COST

Quantity	Item	Cost
1	Mobilization	\$64,800.00
1	Construction Surveying	\$8,100.00
1	Grading	\$74,266.67
400 ft	15" RC Pip Culverts, Class III	\$50,000.00
5,090 sq yd	Milling Asphalt pavement, 1.5" depth	\$76,350.00
430 ton	Asphalt conc. surface course, Type S9.5B	\$86,000.00
30 ton	Asphalt binder for plant mix	\$30,000.00
360 sq yd	Generic paving item thermoplastic stamped median	\$72,000.00
16	Masonry drainage structure	\$48,000.00
10	Frame with grate & hood, STD 840.03, Type**	\$20,000.00
6	Frame with cover, STD 840.54	\$9,000.00
760	1'-6" Concrete curb + gutter	\$38,000.00
2,130 ft	2'-6" Concrete curb + gutter	\$106,500.00
1,130 sq yd	4" Concrete sidewalk	\$79,100.00
18	Concrete curb ramp	\$54,000.00
190 sq yd	6" Concrete driveway	\$19,000.00
1	Temporary traffic control	\$32,400.00
210 ft	Thermoplastic pavement marking lines (4", 90 mils)	\$1,260.00
430 ft	Thermoplastic pavement marking lines (24", 120 mils)	\$5,160.00
5	Thermoplastic pavement marking symbol (90 mils)	\$3,000.00
47	Generic planting item street trees	\$37,600.00
	Construction Subtotal	\$914,536.67
	Inflation factor, Contingencies, E & C, Utilities, Minor items	\$622,681.95
	Total	\$1,537,218.62

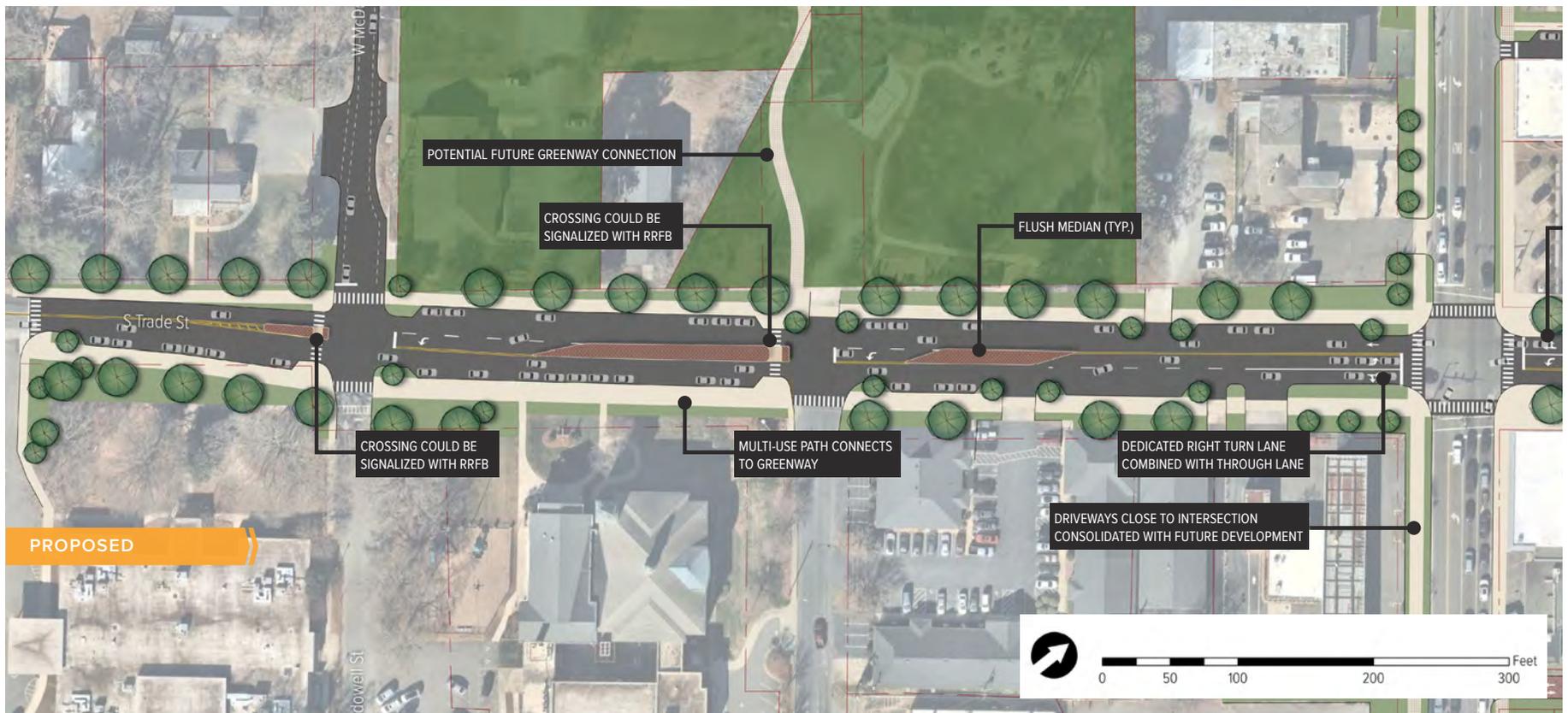
*Cost estimate reflects 2019 prices with 20% contingencies. Typically a 10% escalation in costs per year can be expected.

Project Details

The reconfiguration of lanes to be more consistent throughout downtown will provide space for:

- Traffic calming- narrowed travel lanes, intermittent medians, curb bulb-outs
- Parallel parking on both sides
- Wide multi-use path that continues from the existing greenway to John Street.

High-visibility crossings with median refuge islands will make crossing Trade Street feel safer and more comfortable for pedestrians at the elementary school driveway, McDowell Street, Sadie Drive, and John Street.



This is not a design plan and is not to scale; precise locations and elements should be designed in accordance with engineering standards and NCDOT review for the John Street intersection.

Library Lane + Freemont Street Paired One-Way Streets

John Street to
Charles Street

About this Project

PROJECT AT A GLANCE

- Project #27 (see map on page 89, and table on page 91)
- Prioritization Score: 16
- Project elements:
 - » Two one-way conversions on Library Lane and Freemont Street, creating “one-way pair”
 - » 31 new parallel parking spaces
 - » Sidewalks along both roads
- Length: 1,060 ft (0.20 miles)
- Trip Generators:
 - » Downtown shops + restaurants
 - » Matthews Farmers Market
 - » Reid House
 - » Matthews Presbyterian Church

ESTIMATED CONSTRUCTION COST

Quantity	Item	Cost
1	Mobilization	\$17,500.00
1	Construction Surveying	\$4,400.00
1	Grading	\$13,211.11
240 ft	15” RC Pip Culverts, Class III	\$30,000.00
1,760 sq yd	Milling Asphalt pavement, 1.5” depth	\$26,400.00
150 ton	Asphalt conc. surface course, Type S9.5B	\$30,000.00
10 ton	Asphalt binder for plant mix	\$10,000.00
6	Masonry drainage structure	\$18,000.00
4	Frame with grate & hood, STD 840.03, Type E	\$8,000.00
2	Frame with cover, STD 840.54	\$3,000.00
530 ft	2’-6” Concrete curb + gutter	\$26,500.00
330 sq yd	4” Concrete sidewalk	\$24,750.00
4	Concrete curb ramp	\$14,000.00
50 sq yd	6” Concrete driveway	\$5,000.00
1	Temporary traffic control	\$8,800.00
120 ft	Thermoplastic pavement marking lines (4”, 90 mils)	\$720.00
170 ft	Thermoplastic pavement marking lines (24”, 120 mils)	\$2,040.00
10	Thermoplastic pavement marking symbol (90 mils)	\$6,000.00
	Construction Subtotal	\$248,321.11
	Inflation factor, Contingencies, E & C, Utilities, Minor items	\$197,553.58
	Total	\$445,854.69

*Cost estimate reflects 2019 prices with 20% contingencies. Typically a 10% escalation in costs per year can be expected.

Project Details

Freemont Street and Library Lane will be restriped to be one-way in opposite directions between John and Charles Street. Travel on Freemont Street will be one-way towards Charles, and travel on Library Lane will be one-way towards John Street.

Reducing each road to just one travel lane will allow the remaining space to be reconfigured as parallel parking spaces to add to the overall supply of parking in Downtown Matthews.

Sidewalks installed along the entire length of each block will improve pedestrian mobility along these roadways and ensure that the new parking is accessible and connected to Downtown. The north-bound travel on Freemont can help divert some traffic away from the intersection of John and Trade Streets.



This is not a design plan and is not to scale; precise locations and elements should be designed in accordance with engineering standards and NCDOT review. Sidewalk locations are not finalized.

Heritage Lane Greenway, Alignment A

Sadie Drive to John Street

About this Project

PROJECT AT A GLANCE

- Project #24 (see map on page 89, and table on page 91)
- Prioritization Score: 10
- Project elements:
 - » Multi-use path along southeast side of alley/driveway
 - » Formalize alley/driveway as public right-of-way, “Heritage Lane”
- Length: 650 ft (0.12 miles)
- Trip Generators:
 - » Downtown Matthews
 - » Matthews Elementary School
 - » Community Center/McDowell Art Center
 - » First Baptist Church
 - » N. Fork Four Creek Greenway and the natural surface trail behind Matthews Elementary School

ESTIMATED CONSTRUCTION COST

Quantity	Item	Cost
1	Mobilization	\$16,300.00
1	Construction Surveying	\$2,100.00
1	Grading	\$30,300.00
40 ft	15” RC Pip Culverts, Class III	\$6,000.00
740 sq yd	Milling Asphalt pavement, 1.5” depth	\$11,100.00
70 ton	Asphalt conc. surface course, Type S9.5B	\$15,750.00
5 ton	Asphalt binder for plant mix	\$6,250.00
2	Masonry drainage structure	\$6,000.00
1	Frame with grate & hood, STD 840.03, Type E	\$2,000.00
1	Frame with cover, STD 840.54	\$1,500.00
690 ft	2’-6” Concrete curb + gutter	\$34,500.00
900 sq yd	4” Concrete sidewalk	\$67,500.00
6	Concrete curb ramp	\$21,000.00
1	Temporary Traffic Control	\$10,200.00
96 ft	Thermoplastic pavement marking lines (24”, 120 mils)	\$1,152.00
	Construction Subtotal	\$231,652.00
	Inflation factor, Contingencies, E & C, Utilities, Minor items	\$154,775.42
	Total	\$386,427.42

* Total cost does not include cost of acquiring right-of-way or easement. Cost estimate reflects 2019 prices with 20% contingencies. Typically a 10% escalation in costs per year can be expected.

Project Details

This project will create a multi-use path connection through the alley/driveway of the former BB&T parking lot where there is currently a lane that has some parallel parking.

The multi-use path will connect the existing greenway behind Matthews Elementary School to Downtown Matthews with improved pedestrian crossings across Sadie Drive and John Street.



This is not a design plan and is not to scale; precise locations and elements should be designed in accordance with engineering standards.

City of Matthews

4

Existing pedestrian conditions along Charles Street in Downtown Matthews.

SUPPORTING ANALYSES

overview

This chapter highlights the existing conditions analyses that support the recommendations outlined in previous chapters. These include:

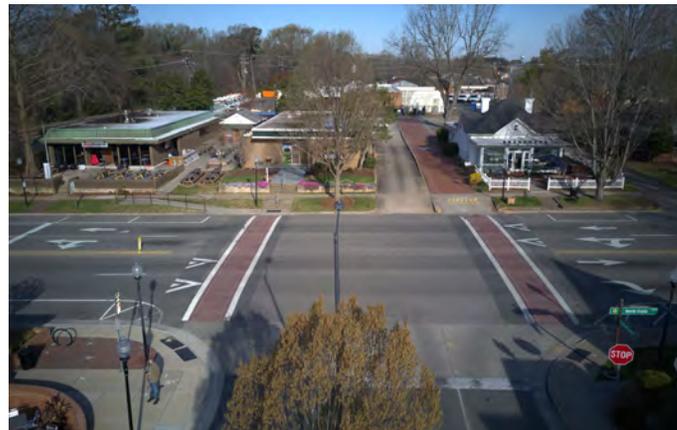
- Issues + Opportunities Analysis
- Safety Analysis
- Downtown Parking Analysis
- Traffic + Transit Analyses
- Previous Adopted Plan Review
- Appendix



(Above) Trade Street looking north.



(Above) Trade Street looking north at First Baptist Church.



(Above) Intersection of Trade Street + Matthews Station St.



(Above) Intersection of Trade Street + John Street, looking south.

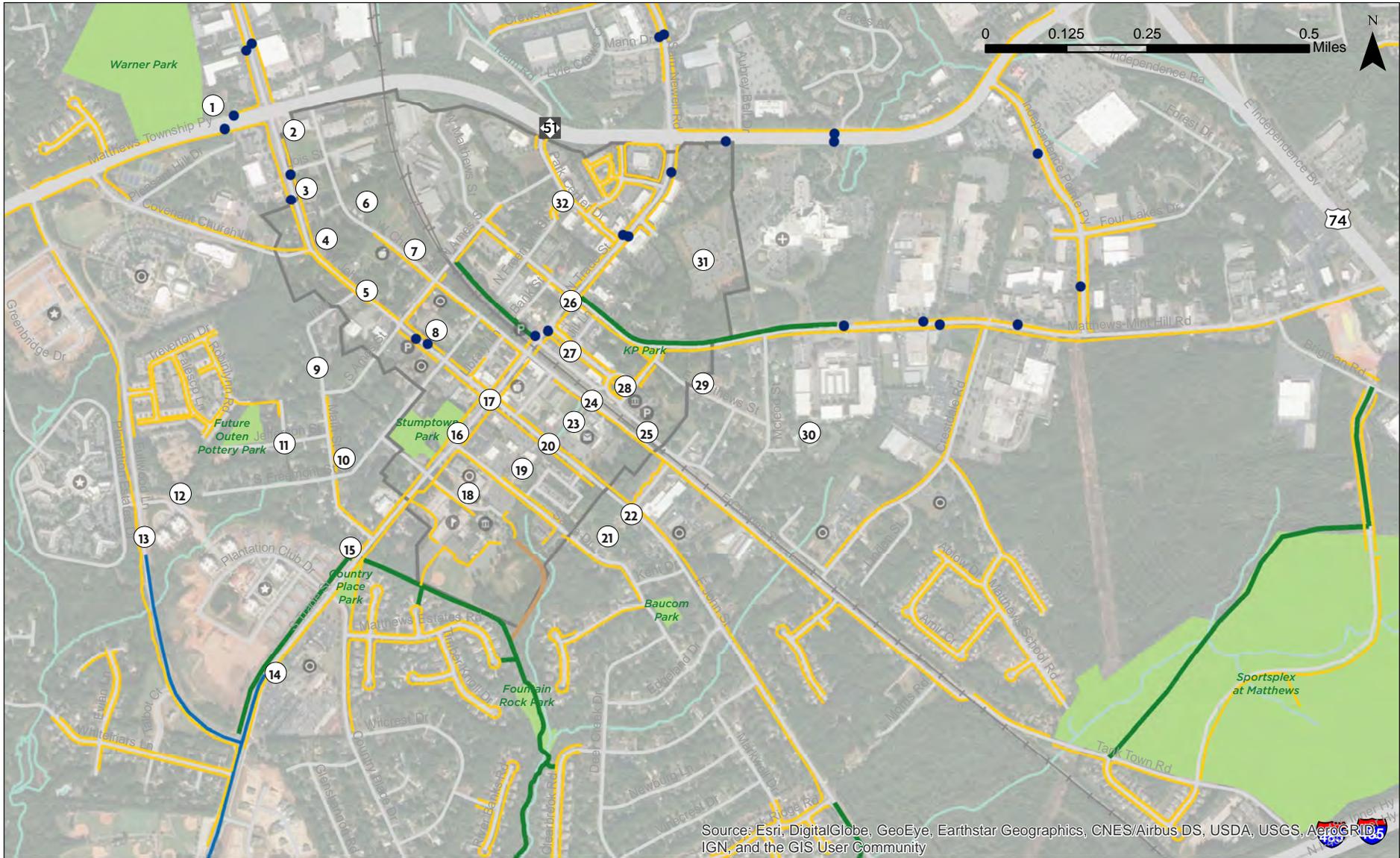
(Right) Drone shots
of the study area.
Source: Bloc Design

issues + opportunities analysis

The following list and map on the facing page catalog mobility issues and opportunities for improvements identified through the project team's field work, review of previous plans, as well as input from the Steering Committee:

1. Bus stops on Matthews Station Parkway lack sidewalk access from all directions
2. Sidewalk on John St ends abruptly before reaching intersection
3. No safe crossings near bus stops on John Street near Lois St
4. No marked crossing of John Street at Covenant Church Lane
5. No bike facilities on John Street- opportunity for separated bike facilities, given high traffic volumes and speeds
6. Charles Street is quiet but has cut-through traffic- opportunity for traffic calming to create more comfortable walking and biking corridor
7. Sidewalks on Charles Street end midblock- needs to extend to Matthews Township Parkway
8. No marked crossing of John Street at Freemont Street, Ames Street, or CATS Park-n-Ride; narrow sidewalk is constrained by mature trees and limited available right-of-way
9. Main Street is quiet but has cut-through traffic- opportunity for traffic calming to create more comfortable walking and biking corridor
10. Gaps exist in sidewalks along Main Street
11. Gaps exist in sidewalks between Main Street and Future Auten Pottery Park
12. Opportunity for pedestrian and bicycle facility connections between Freemont Street and Fullwood Lane
13. Bike lanes on Fullwood Lane end abruptly
14. Bike lanes on Trade Street end abruptly before reaching town, opportunity to transition into sidepath/separated bike facility
15. Multi-use path on Trade Street ends abruptly before reaching town
16. Inconsistent crosswalk markings along Trade Street throughout downtown area
17. Opportunity to improve pedestrian crossing experience at John Street and Trade Street; Traffic queuing (vehicular and pedestrian) on John Street on either side of Trade Street intersection. Need another outlet across town/RR tracks
18. Large under-used parking lot
19. Opportunity for connection between John Street and Sadie Street- may offer traffic relief
20. No marked crossings across John Street near post office and restaurants
21. Additional opportunity for connection between John Street and Sadie Street- may offer traffic relief
22. No marked crossings across John Street at Charles Buckley Way
23. Opportunity for connection between John Street and Charles Street- may offer traffic relief
24. Opportunity for improved railroad crossing between Charles Street and Town Hall
25. Opportunity for connectivity between McLeod Circle and Town Hall
26. Opportunity for intersection improvements (pedestrian actuation signal) at Trade Street and Matthew Street
27. Opportunity for more consistent storefront and parking configuration along Matthews Station Street
28. Missing curb ramps and sidewalks limit ADA accessibility around Town Hall area
29. No pedestrian facilities along Matthews Street
30. Opportunity for connectivity between E Matthews Street and shopping center
31. Connectivity between hospital and downtown is lacking
32. Worn path at end of N Freemont Street to Park Center Drive shows pedestrian demand- opportunity for formalized connection

ISSUES + OPPORTUNITIES MAP



Existing Facilities

- CATS Bus Stop
- Sidewalk
- Bike Lane

- Multi-Use Path
- Natural Surface Trail

Key Destinations

- ★ Retirement Community
- P Public Parking
- Community Building
- Farmers Market
- Hospital
- Post Office
- School
- Place of Worship

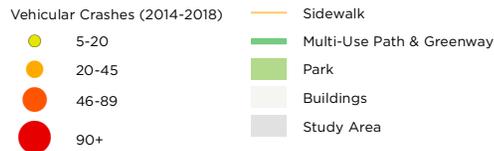
□ Downtown Matthews Mobility Plan Study A

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

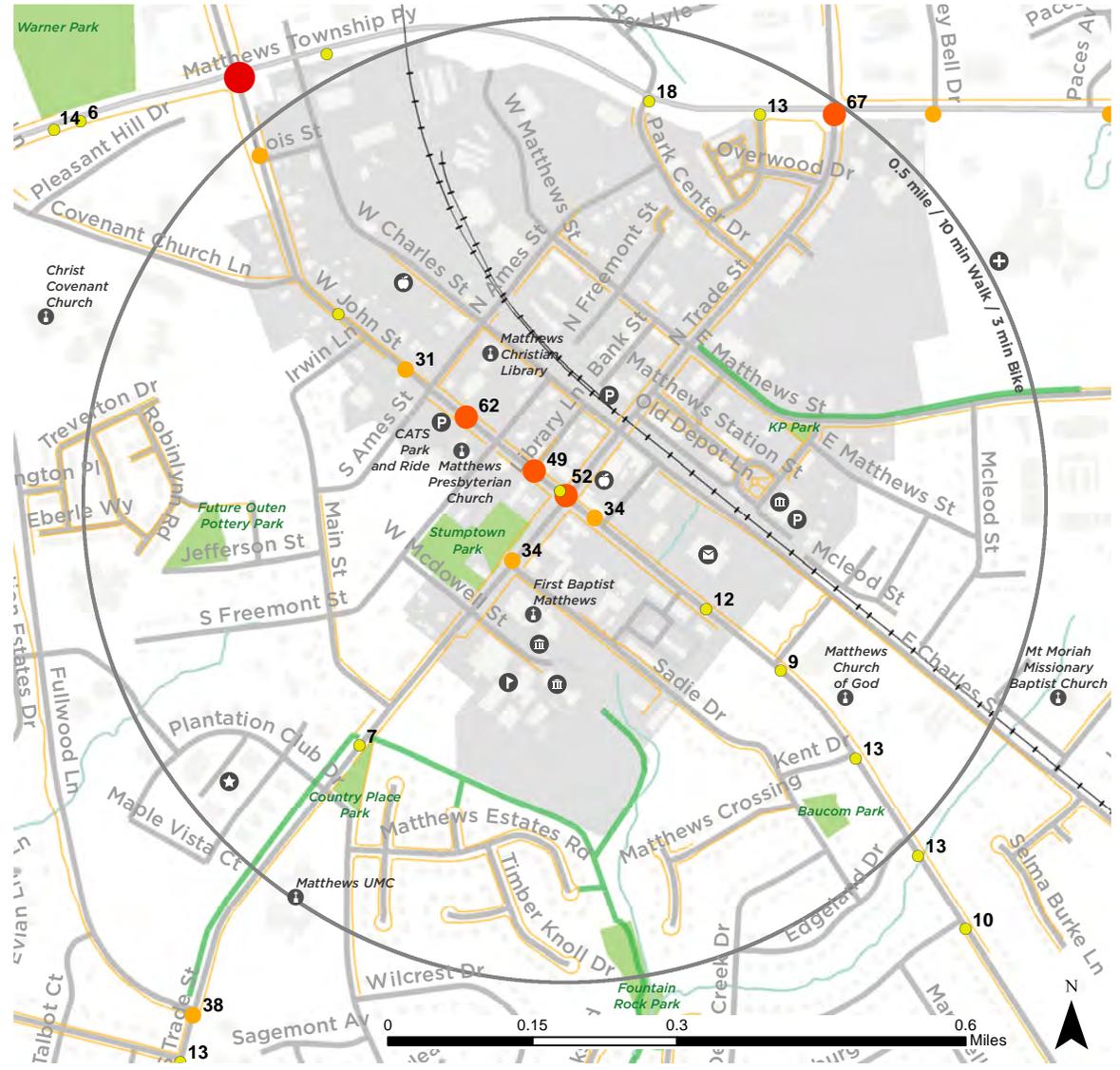
SAFETY ANALYSIS

vehicular crashes

Analysis of vehicle collisions from 2014-2018 not involving a pedestrian or cyclist reveals that 746 collisions occurred in and around Downtown Matthews during the four year period. Of those, 306 have occurred within the study area with the majority occurring along John Street. The only location not on John Street is at the intersection of Trade Street and Sadie Drive. Outside of the study area, significant locations for vehicular crashes include 110 collisions at John Street and Matthews Township Parkway, 67 collisions at Trade Street and Matthews Township Parkway, and seven (7) collisions on Trade Street where the greenway crosses the street.



Location	Number of Crashes (%)
Downtown Matthews Study Area	306 (100%)
Along John Street	272 (89%)
John Street, north of Irwin Lane	13 (4%)
John Street, south of Irwin Lane	31 (10%)
John Street northwest of Freemont Street	64 (21%)
John Street @ Library Lane	49 (16%)
John Street, northwest of Trade Street	19 (6%)
John Street @ Trade Street	52 (4%)
John Street northwest of Cotton Gin Alley	34 (11%)
John Street south of Post Office	12 (4%)
Trade Street @ Sadie Drive	34 (11%)



Data Source: NCDOT Crash Data, High Frequency Crash Locations, 2014-2018. Available at <https://connect.ncdot.gov/resources/safety/Pages/Crash-Data.aspx>

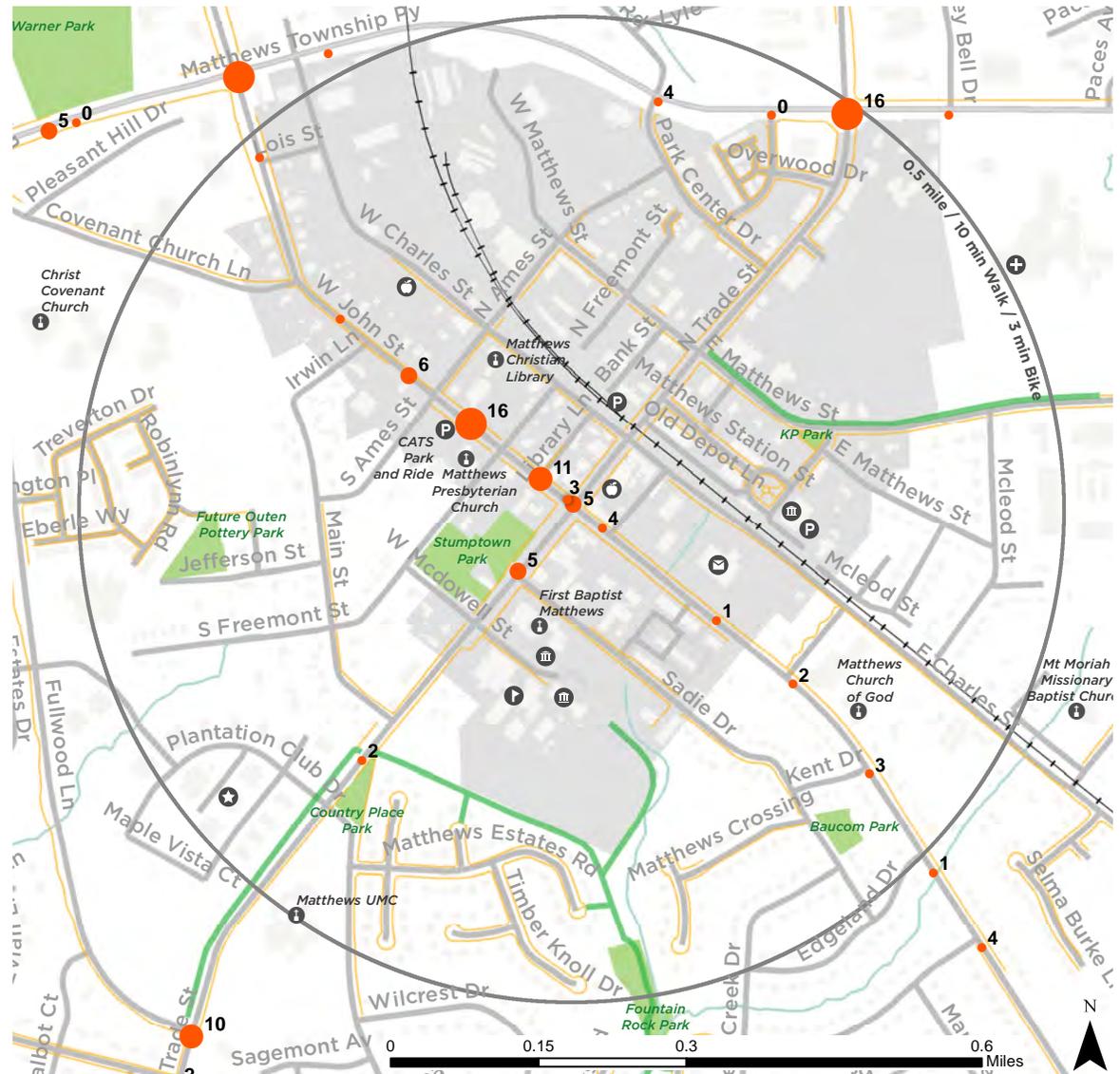
vehicular crashes resulting in injury

In Downtown Matthews, vehicle-to-vehicle crashes resulting in injury from 2014 to 2018 were clustered along John Street, representing 91% of the total crash injuries. The remaining 9% of crashes resulting in injury were located at Sadie Drive and Trade Street. Outside of the study area, the majority of crashes resulting in injury are along NC-51.

Collisions with Injuries (2014-2018)



Location	Number of Crashes (%)
Downtown Matthews Study Area	55 (100%)
Along John Street	50 (91%)
John Street, north of Irwin Lane	4 (7%)
John Street, south of Irwin Lane	6 (11%)
John Street northwest of Freemont Street	16 (29%)
John Street @ Library Lane	11 (20%)
John Street, northwest of Trade Street	3 (5%)
John Street @ Trade Street	5 (9%)
John Street northwest of Cotton Gin Alley	4 (7%)
John Street south of Post Office	1 (2%)
Trade Street @ Sadie Drive	5 (9%)



Data Source: NCDOT Crash Data, High Frequency Crash Locations, 2014-2018. Available at <https://connect.ncdot.gov/resources/safety/Pages/Crash-Data.aspx>

pedestrian- and bicyclist-involved crashes

According to an analysis of the most recently available data on pedestrian- and bicyclist-involved collisions from the North Carolina Department of Transportation, there were 4 pedestrian-involved collisions and 3 bicyclist-involved collisions within the Downtown Matthews study area between 2007 and 2016. Although not included in this data, an additional pedestrian collision that resulted in fatality occurred in July 2019 on Trade Street near Park Center Drive. Depicted on this page is a summary of these bicyclist- and pedestrian-involved collisions, and on the following page, a map shows the locations of these collisions.

It is important to account for the vehicle speeds at which collisions with cyclists and pedestrians occur. In this case, one of the fatalities within the study area occurred at a vehicle speed of 41-45mph, while the cases of minor injury occurred at vehicle speeds of less than 20mph. In addition, the minor injuries were isolated to daylight hours, **while the severe cases within the downtown study area occurred at daylight, dusk, and dark.**



15 years old
Possible Injury
16-20 mph (vehicle speed)
Daylight



47 years old
Possible Injury
11-15 mph (vehicle speed)
Daylight



44 years old
Possible Injury
6-10 mph (vehicle speed)
Daylight



81 years old
Killed
unknown vehicle speed
Daylight



30 years old
Killed
41-45 mph (vehicle speed)
Dark



58 years old
Injured
0-5 mph (vehicle speed)
Dusk



70+ years old
Unknown Injury
0-5 mph (vehicle speed)
Daylight



49 years old
Possible Injury
6-10 mph (vehicle speed)
Daylight

pedestrian- and bicyclist-involved crashes

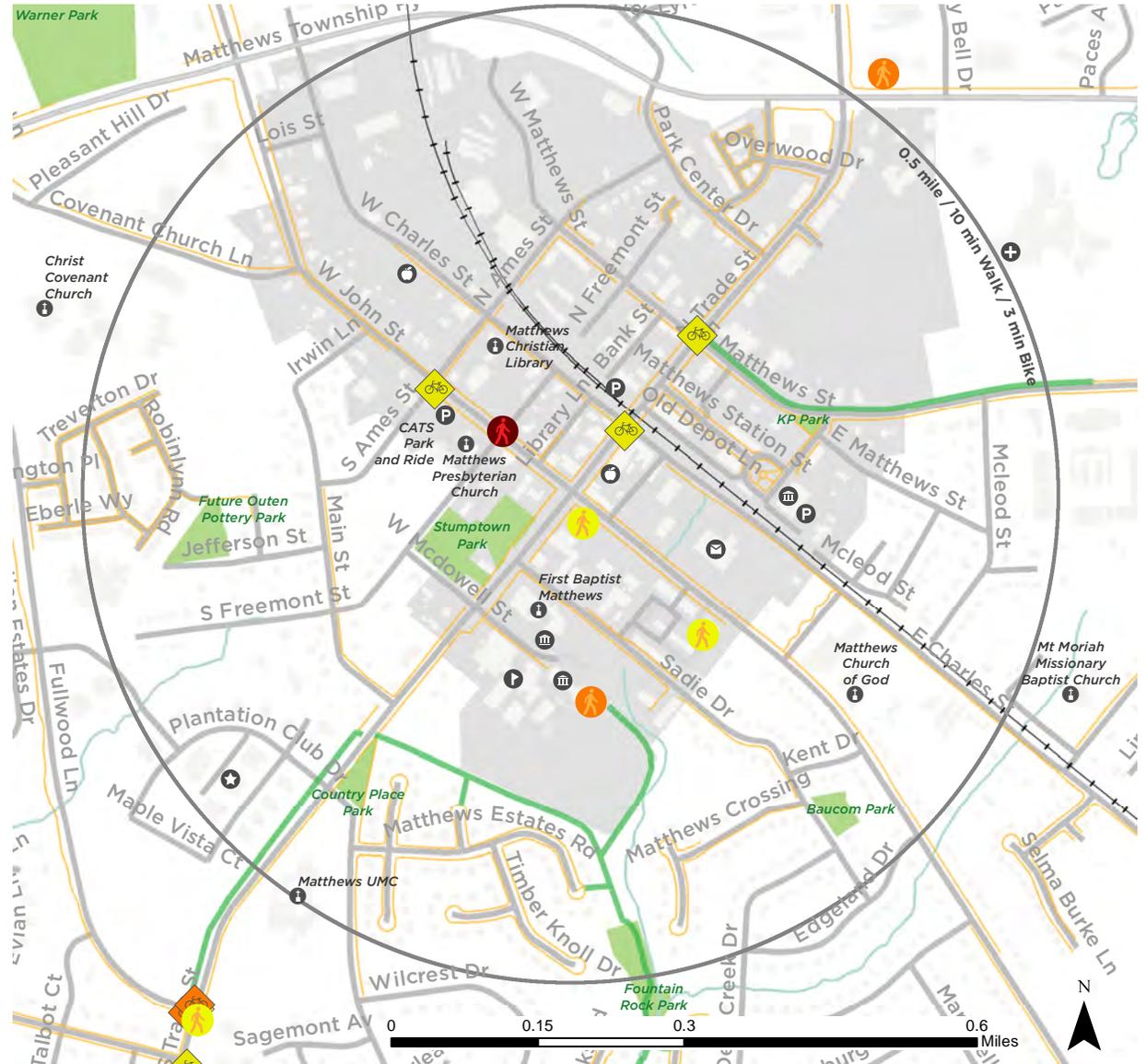
There is no clear trend involving the spatial distribution of pedestrian and bicyclist injuries due to vehicle crashes, with occurrences on John street, Trade Street, and in parking lots within the downtown area. Note, the map's data on pedestrian and bicycle collisions is from 2007 to 2016 so does not include the 2019 pedestrian fatality that occurred on Trade Street near Park Center Drive.

Pedestrian-Involved Collisions (2007-2016)

-  No or Possible Injury
-  Evident or Disabling Injury
-  Fatality

Bicyclist-Involved Collisions (2007-2016)

-  No or Possible Injury
-  Evident or Disabling Injury



Data Source: NCDOT Bicycle and Pedestrian Crash Map data, 2007-2016. Available at <https://www.arcgis.com/home/item.html?id=b4fcdc266d054a1ca075b60715f88aef>

DOWNTOWN PARKING ANALYSIS

overview

A key area of focus for the Downtown Matthews Mobility Plan was a comprehensive study of the parking system, which collected direct data on parking inventory and occupancy and also proposed a series of policy recommendations based on findings. The parking study featured an intensive effort to document the Town's parking inventory, consisting of over 3,600 spaces both publicly-owned and privately-owned, and this established the first dataset of comprehensive parking information for Matthews.

In addition, the parking study collected and analyzed information on parking utilization by counting the number of occupied spaces from the aforementioned inventory at multiple times a day. This utilization survey helped the project team understand the parking use patterns in downtown Matthews and where strategic approaches to management might help address the numerous parking challenges that downtown stakeholders have identified.

The Town included this study of its parking system in the Downtown Matthews Mobility Plan (not as a standalone effort) because of the critical role that linking parking to destinations plays in the larger mobility system. Parking is an integral part of downtown's mobility system because it is a key element for allowing automobile trips into downtown. Understanding that parking as an element of the larger mobility system is necessary for determining its quantity, distribution, and design.

Downtown's more recent economic development activity has occurred through adaptive reuse of older buildings on generally small, more constrained sites. As the Town has devoted greater focus to its downtown, development and the location of new land uses occur within a context of historic building fabric and neighborhood-appropriate development standards. This means

that providing sufficient parking to meet zoning requirements or real estate market expectations is sometimes difficult, as many sites cannot provide their own parking and parking demand is based on specific time periods of demand. Downtown continues to grow, and this growth brings increasing pressure on the district's limited parking supply, raising the public's concerns over whether downtown Matthews has sufficient parking.

This study was undertaken to answer this question and help the Town refine its strategic direction for making parking available to downtown visitors. This included understanding the extent of existing parking, its general availability, and other development factors that point to needs for the Town. The study also considered proposed improvements to a Town-owned site that could add nearly 40 public parking spaces to the downtown supply, in addition to recommendations for how any new parking added to downtown Matthews should be used and managed.

Findings of the parking study demonstrate that downtown Matthews currently has a plentiful supply of parking compared to its demand, though it is fragmented into many lots in the area.



Parking along Matthews Station Street.

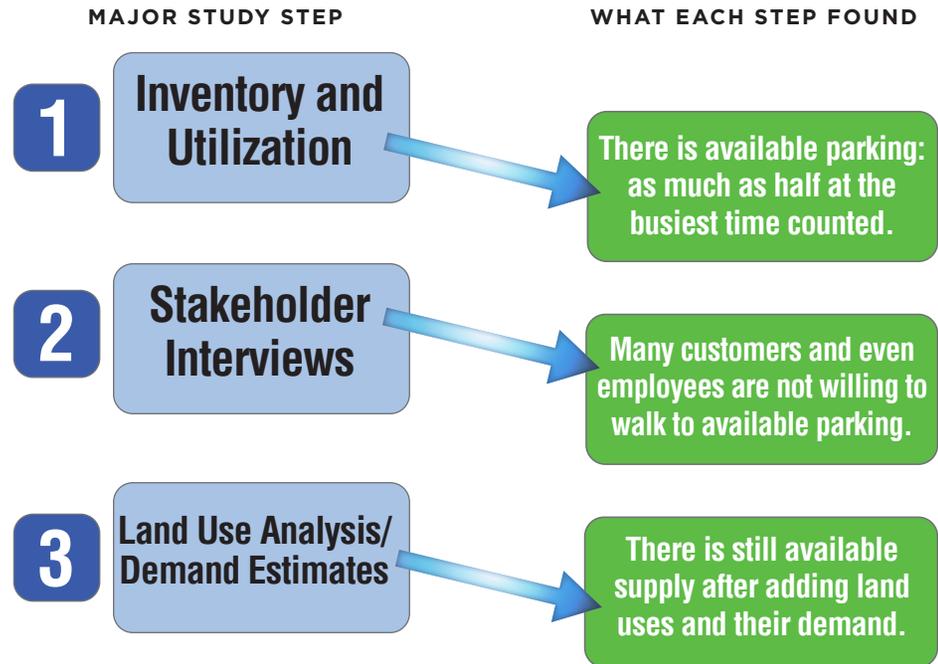
key steps to the parking analysis

The parking study consisted of three primary analysis tasks:

Step 1: Collecting data on parking inventory. The analysis starts off with counting the number of downtown spaces and any regulations governing them (such as time limits, restrictions for persons with disabilities, or other special requirements). This step also includes collecting data on parking utilization (counting how many spaces were used at given times of the day) to understand how demand for parking shifts throughout a typical weekday.

Step 2: Understanding stakeholder needs and challenges. Most of downtown’s businesses today and those expected in the future are restaurant or retail establishments, with some office and light-industrial uses in the core business district along Trade Street. The study team met with Town staff, downtown community stakeholders, and Board members to understand both day-to-day needs of parking and the impact that potential future economic development will have on the overall profile of downtown parking demand.

Step 3: Comparing the observed utilization to an expected level of parking demand. Based on downtown’s land uses, this involves estimating how much parking is expected to be needed based on the land use mix of Downtown Matthews—both today and into the future with new economic activity and development projects—and comparing this to current supply and utilization rates. This is the key analysis step to determining whether there is a parking shortage; where and when it might be occurring; and if so, the degree to which that shortage might impact further development.



parking inventory

The parking study component of the Downtown Matthews Mobility Plan included over 3,600 spaces: a mix of publicly-owned (including accessible) spaces and privately-owned spaces on private property. Generally, the parking spaces support the institutions on that property. The Town of Matthews owns or administers the public spaces, which include all spaces in public street rights-of-way or easements that effectively function as right-of-way.

It is important to note that much of the parking in Downtown Matthews is private and distributed among numerous small facilities. Downtown does not contain one single public parking facility with more than 250 spaces, and no single town-owned facility has more than 100 spaces. Of the 74 off-street parking facilities included in the parking study, 34 have fewer than 20 spaces.

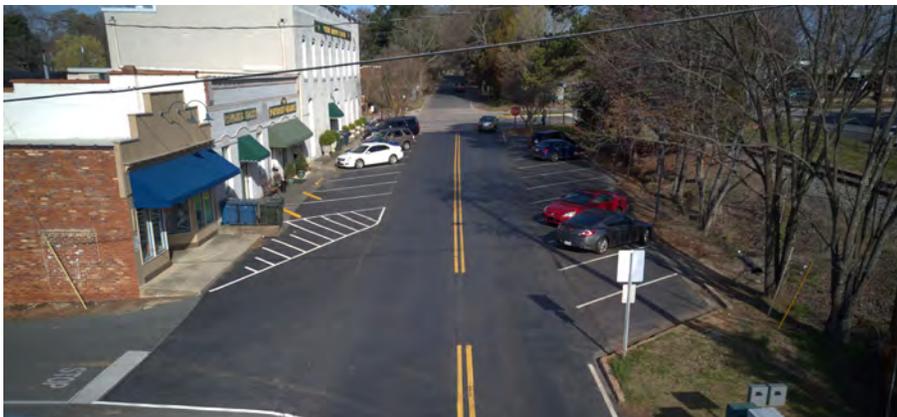
In consultation with town staff, the project team elected

to remove several parking lots from the overall inventory as they were not being used for parking or available to public use on a regular basis—even if only for customers or visitors of a business or establishment. This includes the gated US Postal Service delivery vehicle storage.

This left a total of 3,225 spaces being considered in the overall study area. Specific breakdown of this adjusted parking inventory is defined in the table on right. Some of the largest facilities are lots serving commercial and medical office buildings in the North End district of downtown, which contain 216 and 127 spaces, respectively. The lot surrounding the Town Hall/Library building is open for use by downtown visitors, not just those going to the adjacent building, and is the largest single facility in downtown’s core.

The three largest on-street parking areas are located generally along or parallel to Matthews Station Street, including the semi-circle plaza in front of the Town Hall building and Old Depot Lane.

Total Spaces	3,225
Public Spaces	676
Public Lot	209
On-Street Spaces (All)	467
On-Street with Time Limits	177
On-Street without Time Limits	290
Private Spaces	2,549



Public parking along Charles Street. Source: Bloc Design



Public parking around the semi-circle plaza in front of Town Hall. Source: Bloc Design

downtown parking inventory

It is important to note that much of downtown’s parking supply belongs to and supports private businesses or other organizations that allow parking access to the public only as customers or designated visitors. In other words, much of the supply is not configured to support visitors of the general downtown district who may be traveling to multiple destinations; rather, it is available specifically for businesses that are understood to generate parking demand.

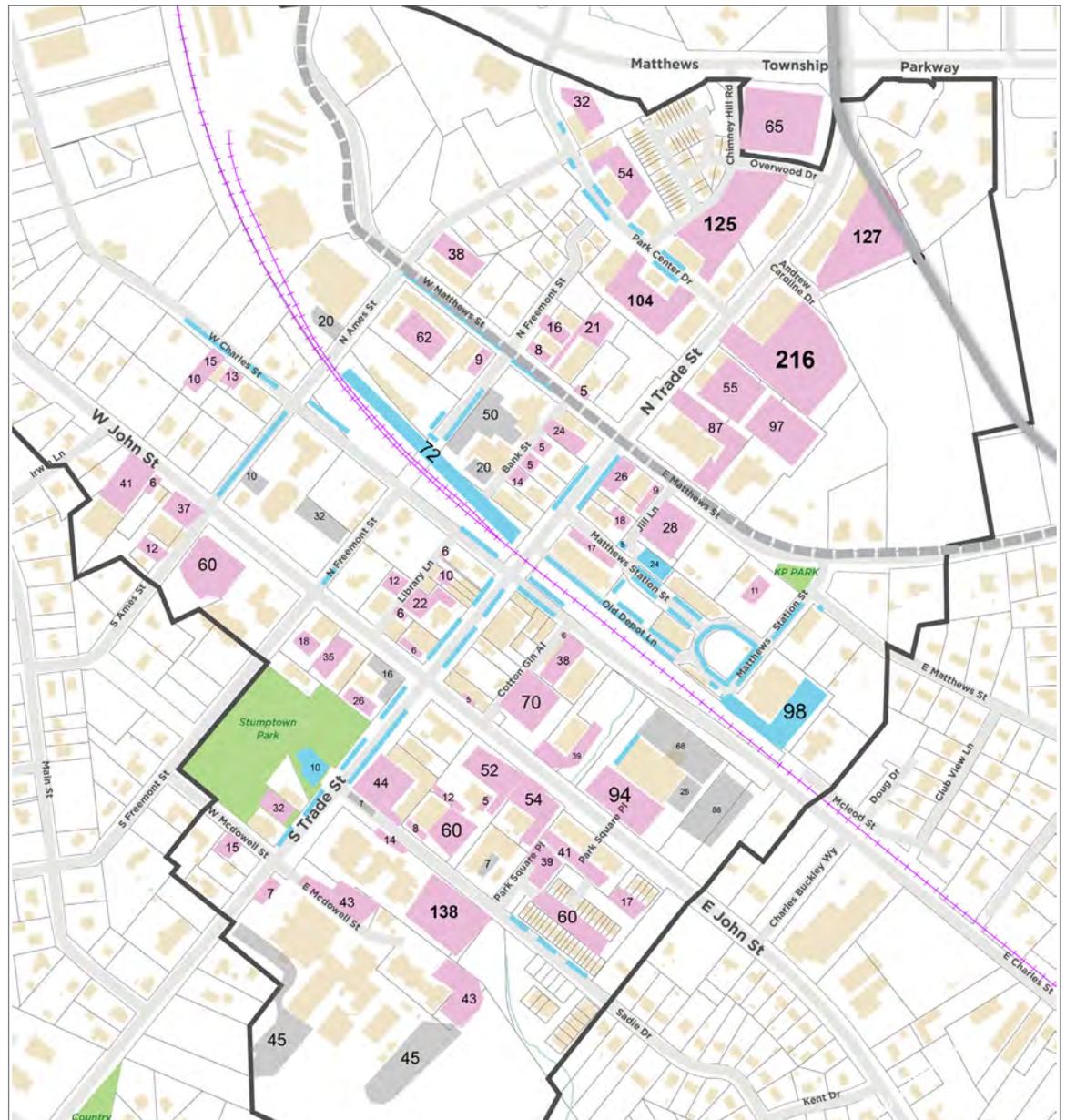
Parking Facilities*

*Note: Numbers indicate the number of spaces in each

- Public (owned/maintained by the Town)
- Private (owned/maintained by a non-Town entity)
- Initially counted in inventory but removed from the study for analysis purposes

Other Map Features

- Parks
- Building Footprints



Note that the parking analysis was not comprehensive, and thus did not include every parking space within the mobility plan study area. The study was restricted to parking spaces within the downtown core of Trade and John Streets, and those immediately adjacent to high traffic land uses, such as restaurants, schools, churches, and retail services. This study was conducted in May 2019.

parking utilization

In addition to the inventory counts, the study team performed a series of utilization counts in May 2019 to measure how many parking spaces were in use at different times of a typical weekday and a typical Saturday. This included both public and private spaces in order to understand where demand is concentrated—regardless of ownership of the parking.

The following table summarizes this utilization, and the following thirteen pages (pages 119-131) illustrate utilization by different times of day.

Overall, while it appears from the summary table that downtown’s parking is not heavily utilized, focusing on specific parking types and locations shows that utilization is highly uneven. On-street parking, for instance, is usually around half full throughout the day, but in the core commercial district of downtown, especially along Matthews Station Street and in front of the Town Hall/Library building, these spaces are at times over 90 percent utilized. Likewise, on-street parking on portions of Trade Street is often at least 90 percent full on the weekend. Professional parking practice considers this amount to be functionally full for a given facility and a condition where motorists may not be able to find an available space in a given cluster of spaces.

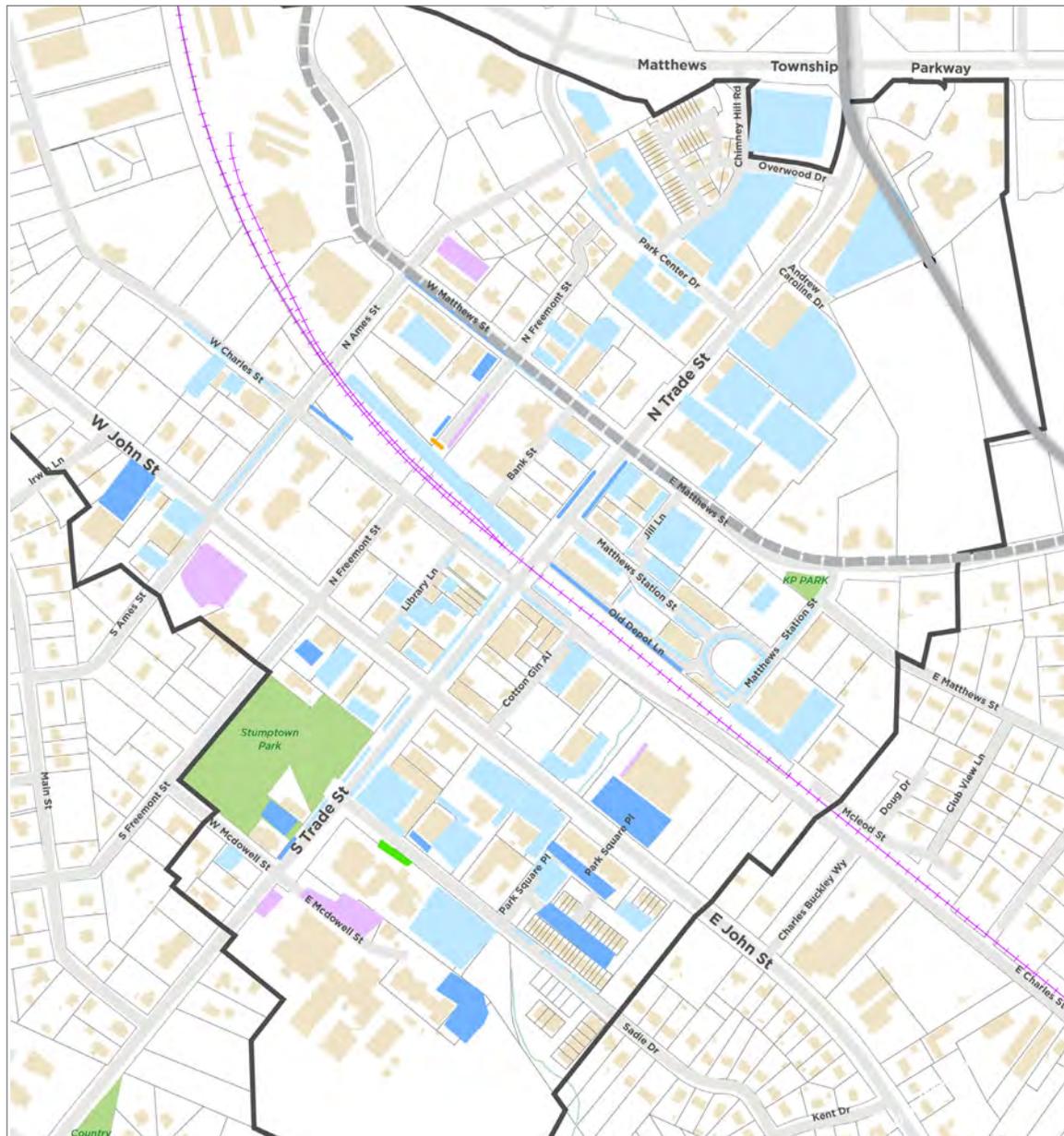
Nonetheless, on average downtown Matthews has a large amount of parking that is regularly underutilized throughout a typical weekday and Saturday, most of it privately owned. At the busiest time where utilization counts were taken, parking throughout all

of downtown was just over half full. Many parking spaces are routinely underutilized, and routinely utilized at notably lower rates than public parking. The parking that is most regularly underutilized is on the fringe of downtown, privately owned, and supports only a single land use or organization. However, private lots such as those in the North End commercial and medical office districts (along Trade Street) could offer ample parking for visitors to the general downtown area and are also generally used well below their capacity.

By contrast, Matthews Station Street’s on-street parking, which serves as front door parking for downtown’s most concentrated dining district, is heavily utilized both during the week and weekend, as are select off-street parking facilities near it.

Although downtown Matthews’ parking spaces appear largely underutilized when considered in the aggregate, the following maps demonstrate that actual parking patterns are uneven, with many of downtown’s publicly-owned spaces near Town Hall and businesses along Matthews Station and Trade Streets seeing higher levels of use throughout the day. It is larger facilities that see lower levels of use that affect the overall profile of parking utilization in downtown, and these facilities serve specific land uses, largely made up of offices, medical offices, and other employment-based commercial uses. Many of downtown’s food-and-beverage-based land uses have little of their own parking and rely more heavily on the public supply.

		Weekday Peak Utilization		Saturday Peak Utilization	
		Number	Percentage	Number	Percentage
ALL SPACES	3,225	1,555	48.2%	1,003	31.1%
Public Spaces	676	469	69.4%	405	59.9%
Public Lot	209	149	71.3%	165	78.9%
On-Street Spaces (All)	467	320	68.5%	240	51.4%
Private Spaces	2,549	1,086	42.6%	598	23.5%



Weekday Parking Utilization 8 AM - 10 AM

In early morning hours, most parking is used at fairly low rates of occupancy. Some facilities are more heavily used, although these generally account for a small portion of the overall inventory.

Utilization Ranges

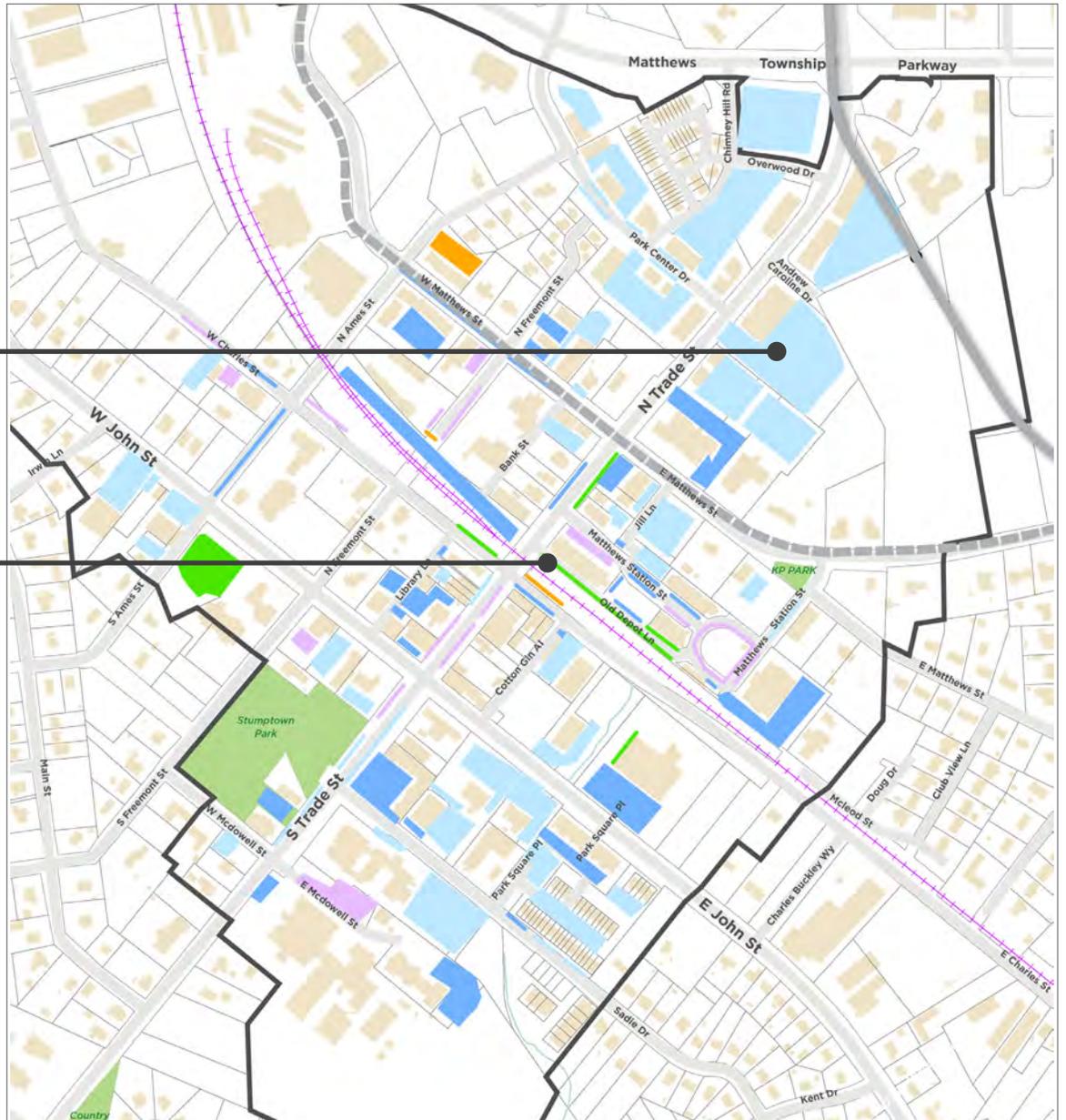
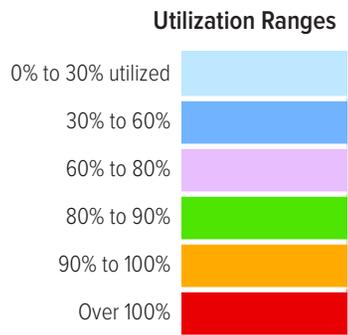
	0% to 30% utilized
	30% to 60%
	60% to 80%
	80% to 90%*
	90% to 100%
	Over 100%

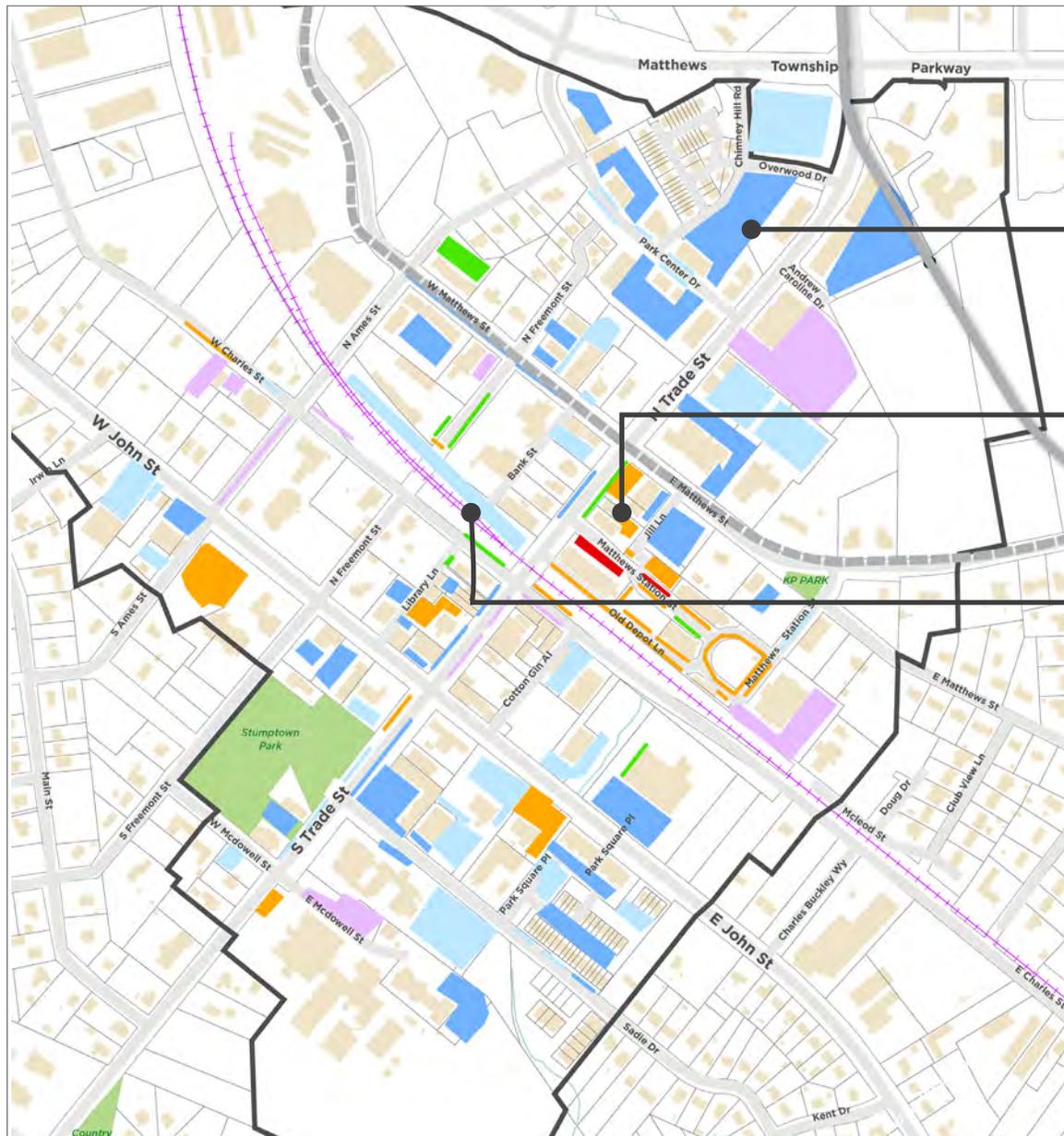
*The “80% to 90%” tier of parking utilization is colored GREEN to reflect that this is an ideal level of parking use where the supply slightly exceeds demand. The “90%-100%” and “Over 100%” tiers are colored orange and red, respectively, to indicate less favorable conditions where parking demand nearly exceeds or exceeds supply. The cooler blues and purple hues denote underutilized parking spaces, where there is an oversupply of spaces relative to demand.

Weekday Parking Utilization 10 AM - 12 PM

North End parking facilities remain in low levels of use, including the office and commercial parking that is open for business during these hours.

Some facilities are more heavily used as the day progresses, but most notably in the core of downtown near and around Matthews Station Street.



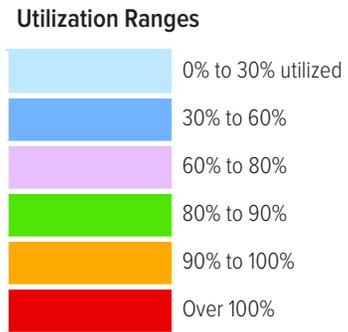


Weekday Parking Utilization 12 PM - 2 PM

North End parking facilities reach their busiest levels, although still have roughly half of their parking unused.

Parking facilities along Matthews Station and Trade Streets are at capacity, with some even over capacity (more vehicles have parked than there are spaces available).

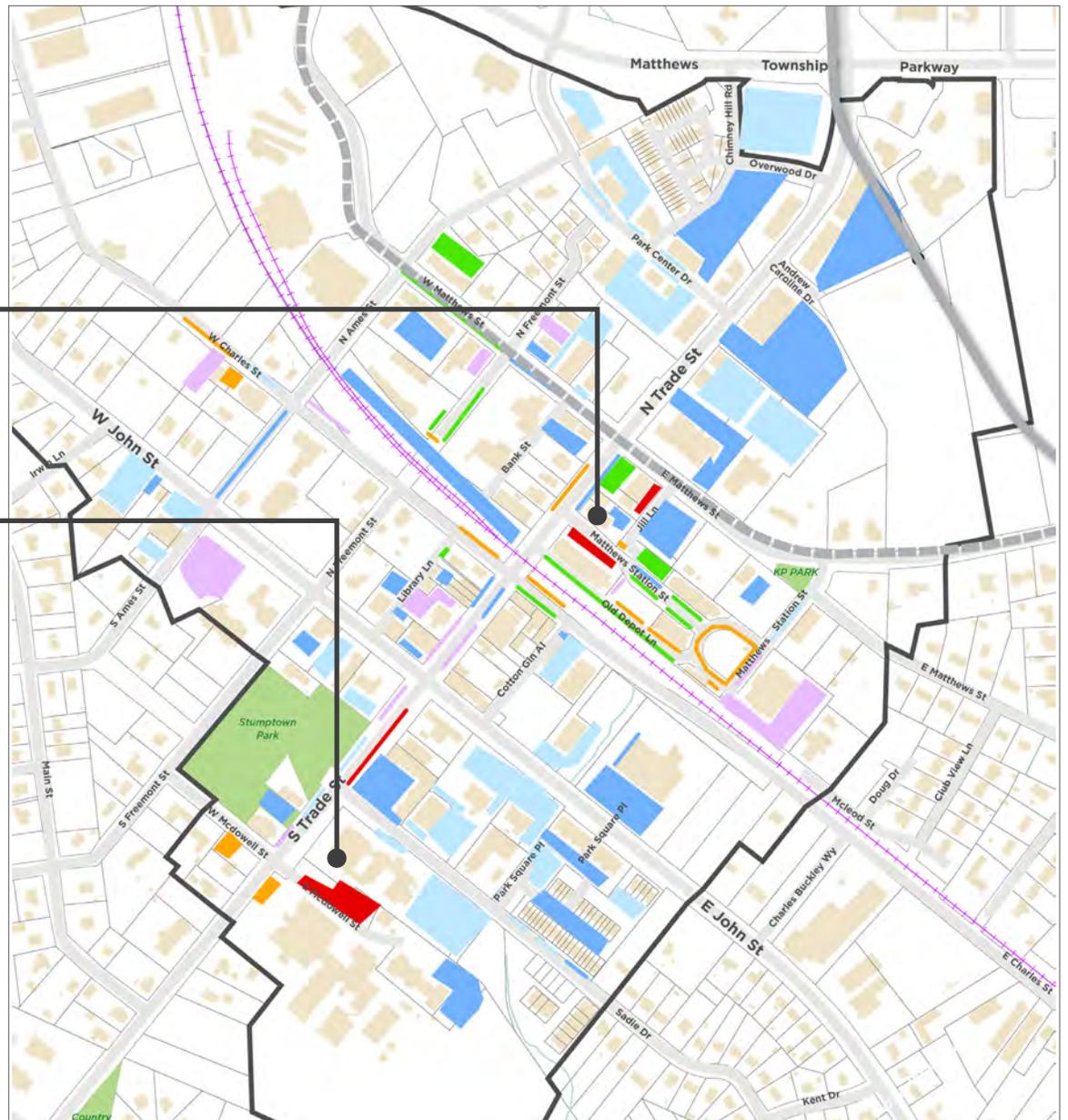
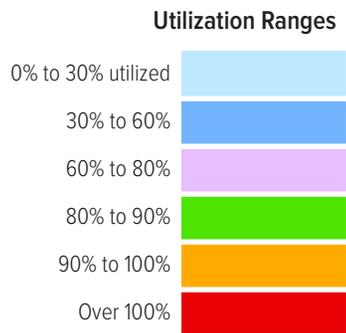
However, even during this relatively busy period for Matthews Station and Trade Street spaces, other nearby spaces remain underutilized.

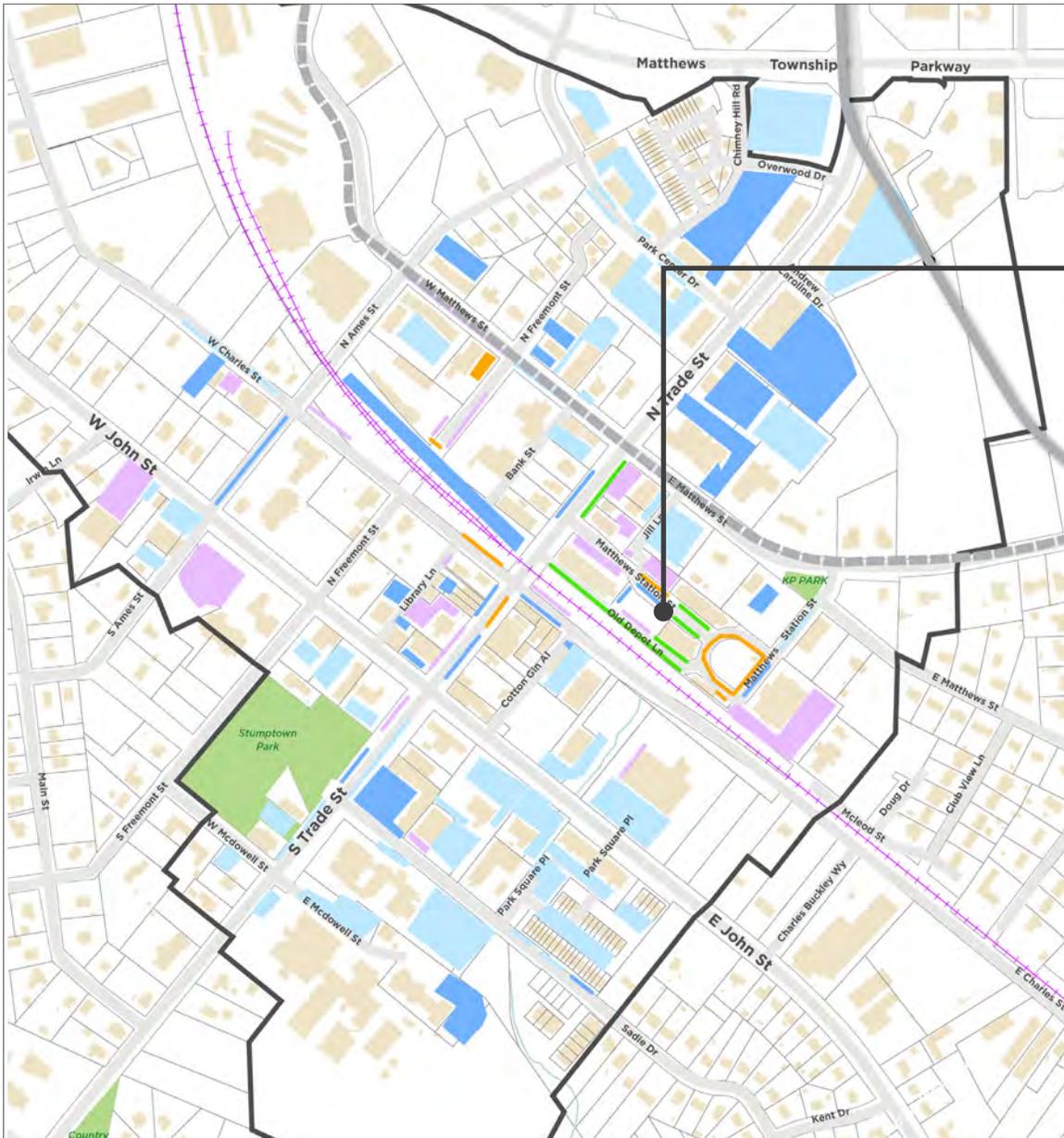


Weekday Parking Utilization 2 PM - 4 PM

Although general downtown parking use wanes into the early weekday afternoon, certain locations—especially along Matthews Station Street—remain in high use.

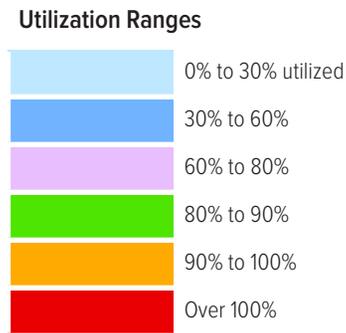
Some locations around the elementary school see high levels of use associated with school pickup, although these are brief patterns and focused in a small location.





Weekday Parking Utilization 4 PM - 6 PM

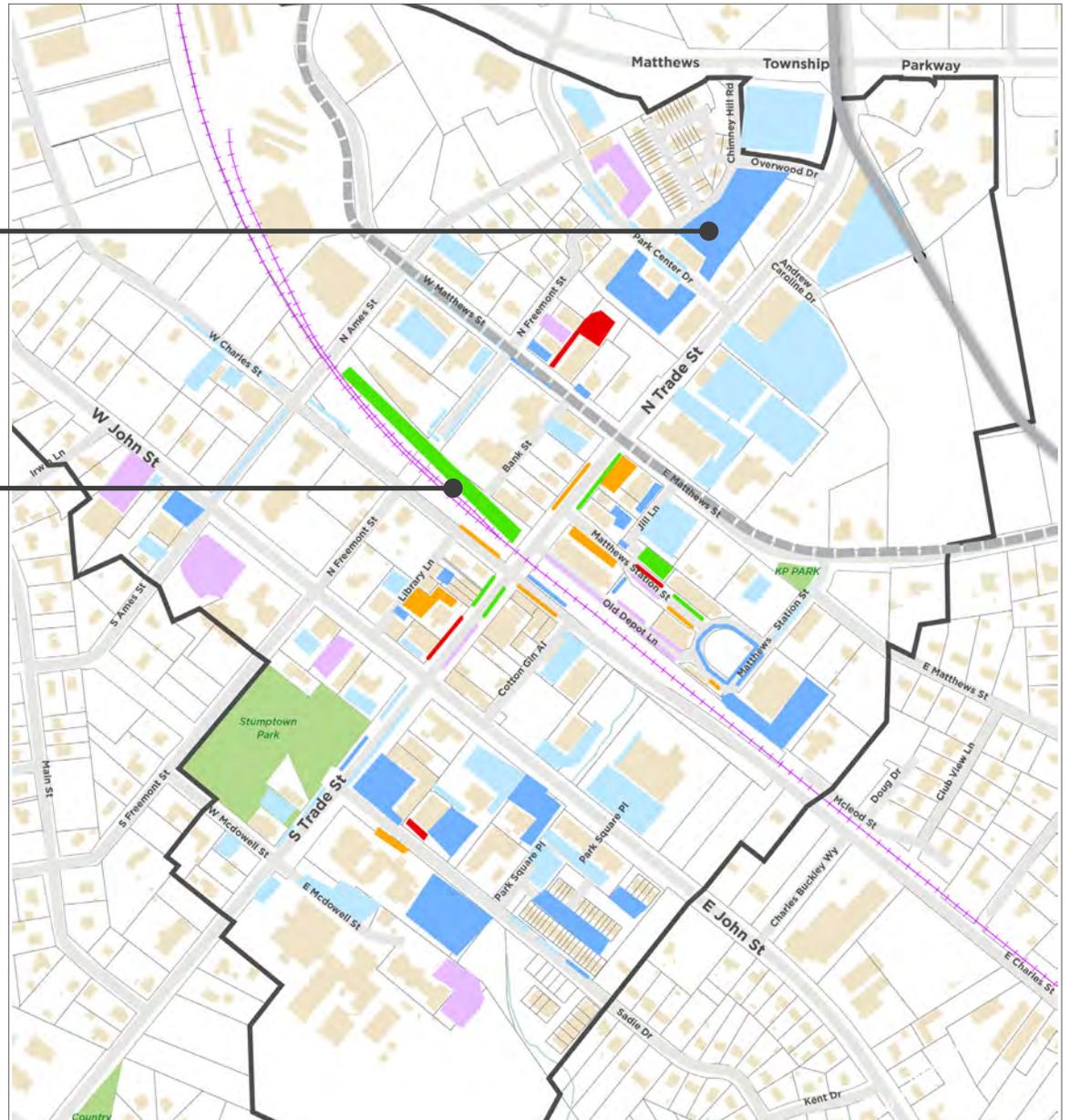
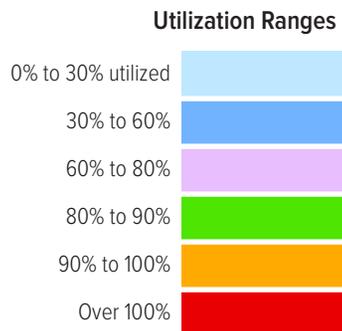
By and large, parking patterns have returned to relatively low levels of use, reflecting the lunchtime-heavy focus of downtown and the concentration of these uses around Matthews Station Street.

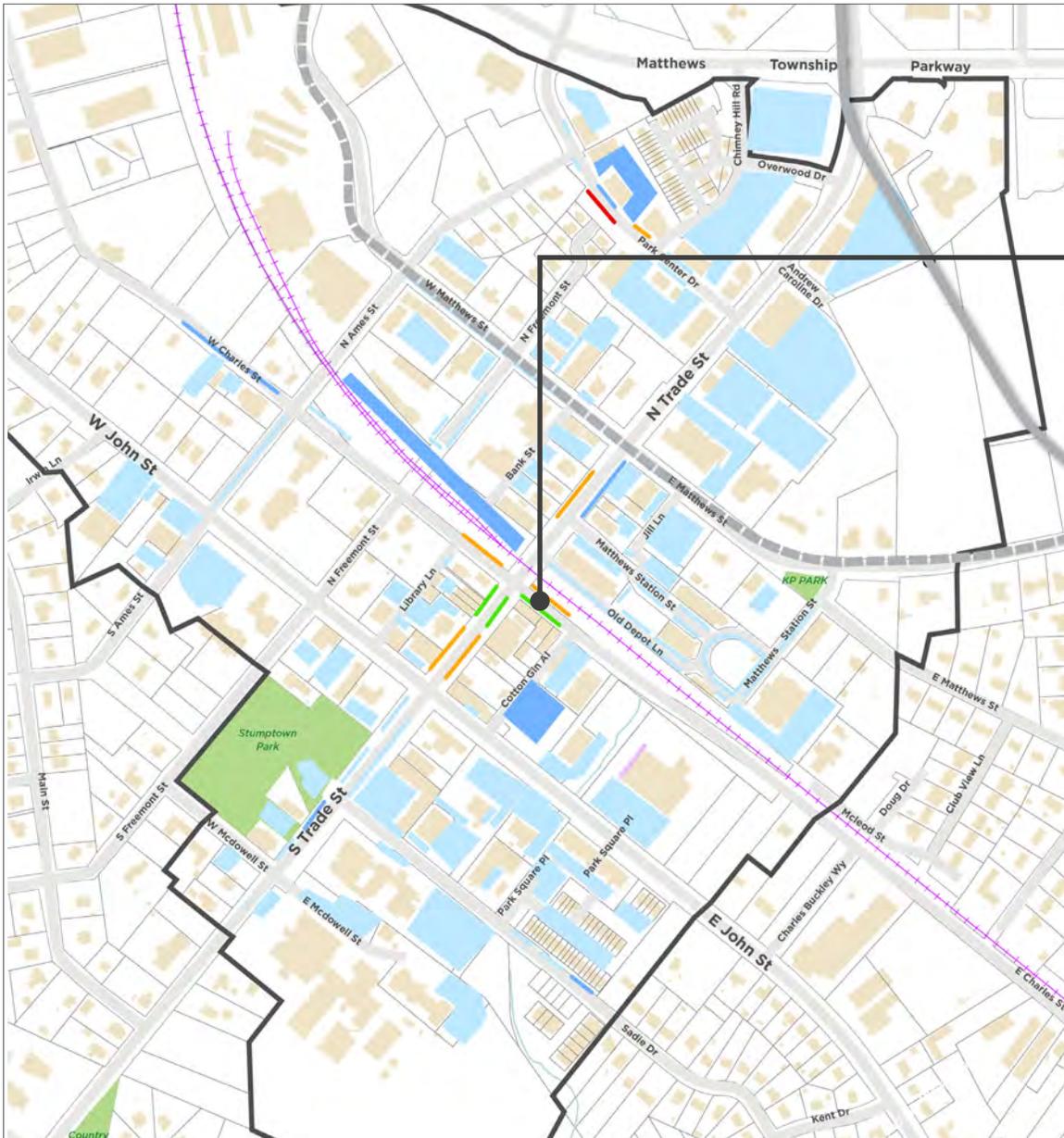


Weekday Parking Utilization 6 PM - 8 PM

Evening parking utilization patterns begin to mirror those of the midday, although major office-based districts such as the medical offices of the North End are closed and see little to no parking activity.

The downtown core remains busy, however, with spaces along Trade Street at some of their highest levels of utilization. The Town-managed railroad parking between Trade and Ames Street sees its highest level of use.

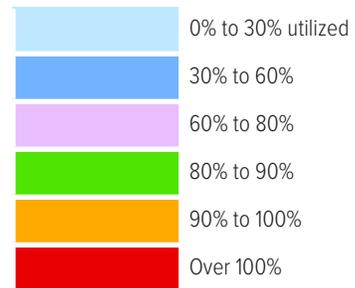




Saturday Parking Utilization 7 AM - 9 AM

Saturdays are marked by special activities such as the Downtown Matthews Farmer’s Market, which attracts visitors to the block of Trade Street between the railroad and John Street.

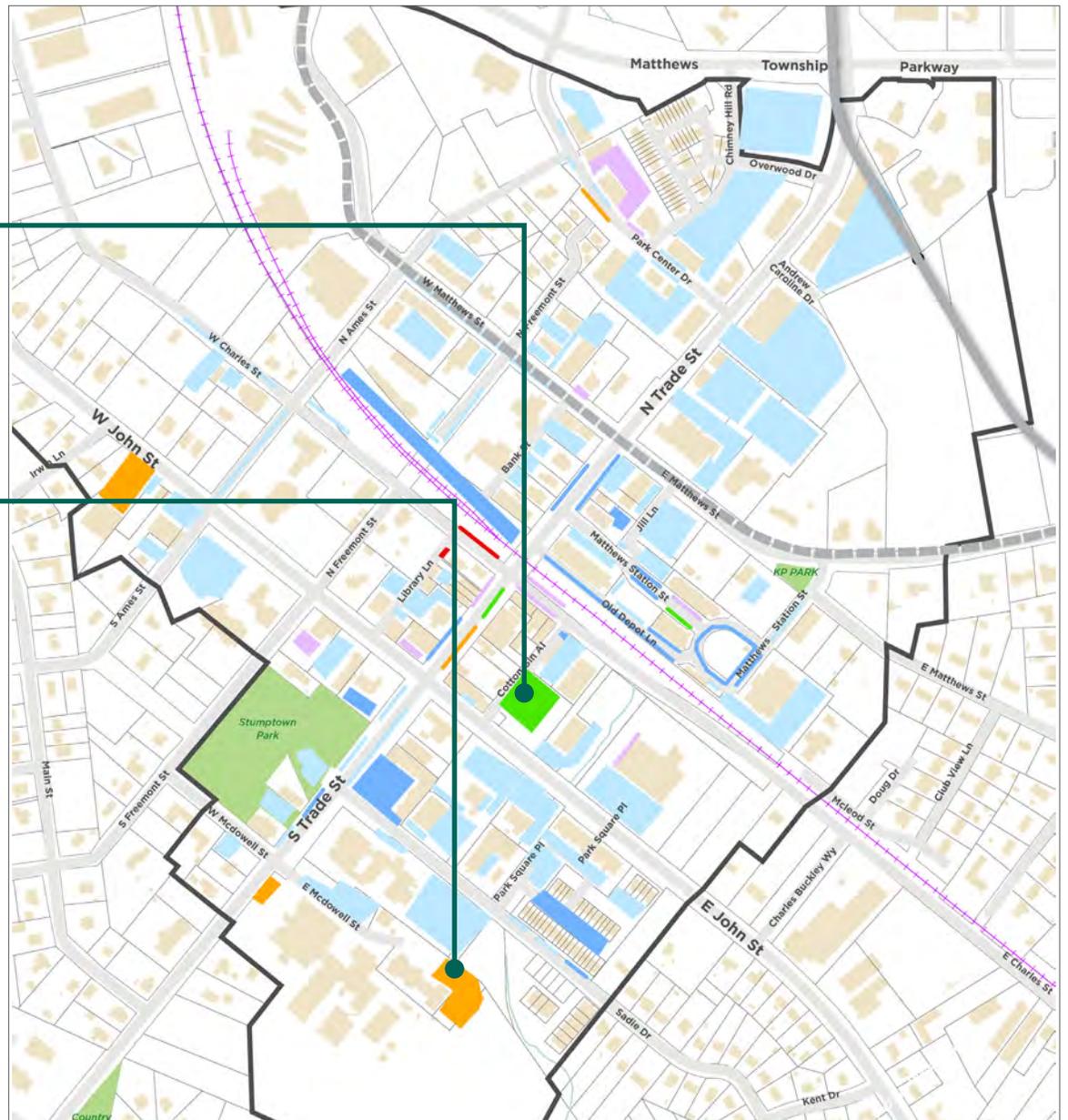
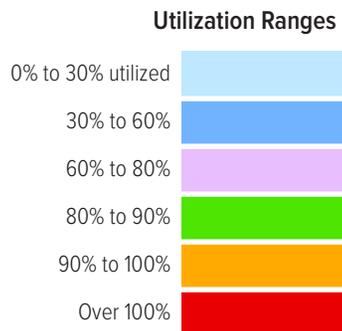
Utilization Ranges

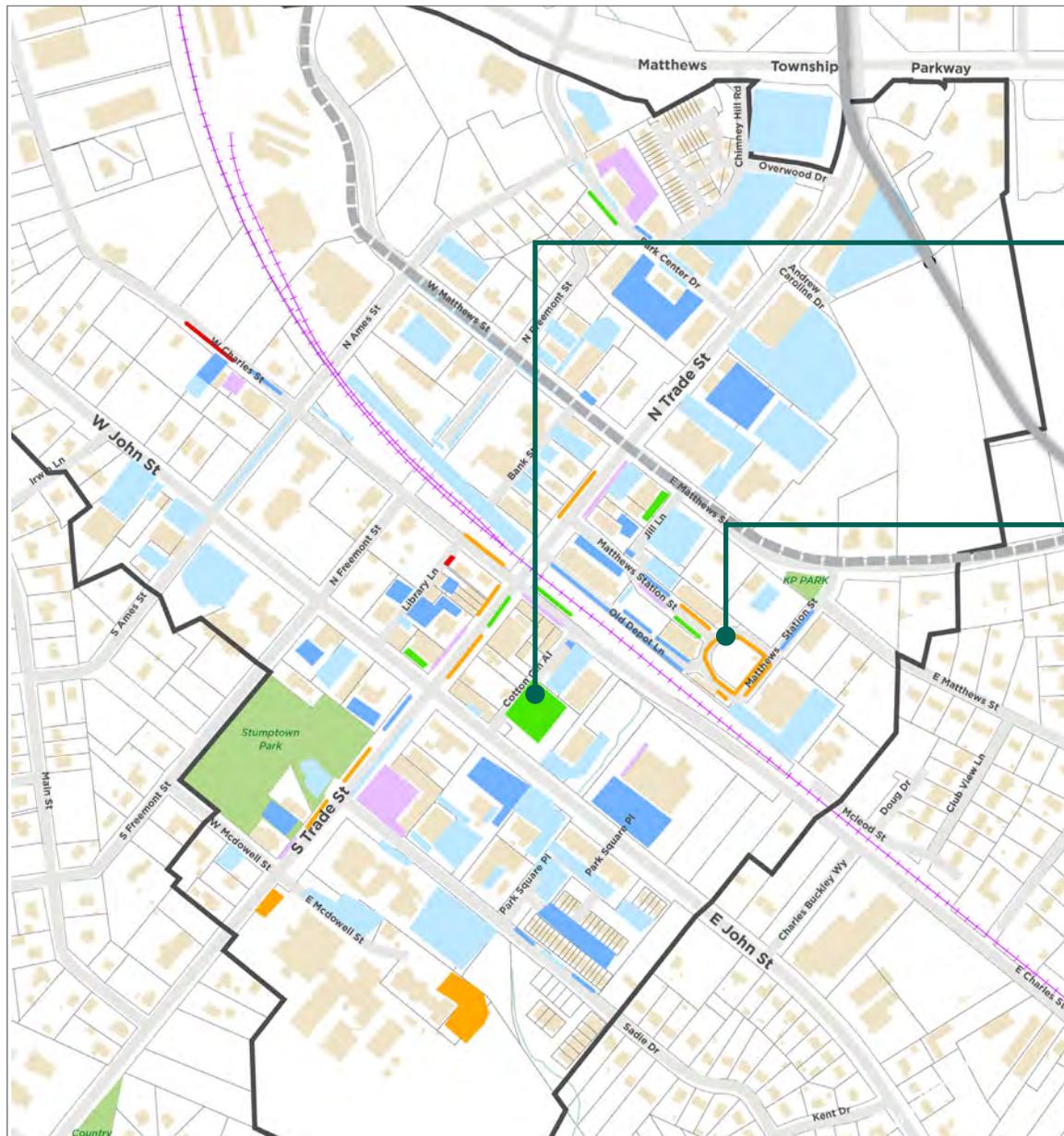


Saturday Parking Utilization 9 AM - 11 AM

By the time the market has opened at 9 AM, the market parking itself (on privately-owned property along Cotton Gin Alley) sees higher levels of use, shared between merchants and customers, and surrounding on-street spaces are also more heavily used.

The Matthews Playhouse and Community Center parking lot get heavy use starting at 9am and throughout the day (see subsequent maps).

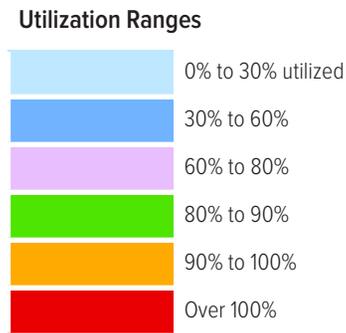




Saturday Parking Utilization 11 AM - 1 PM

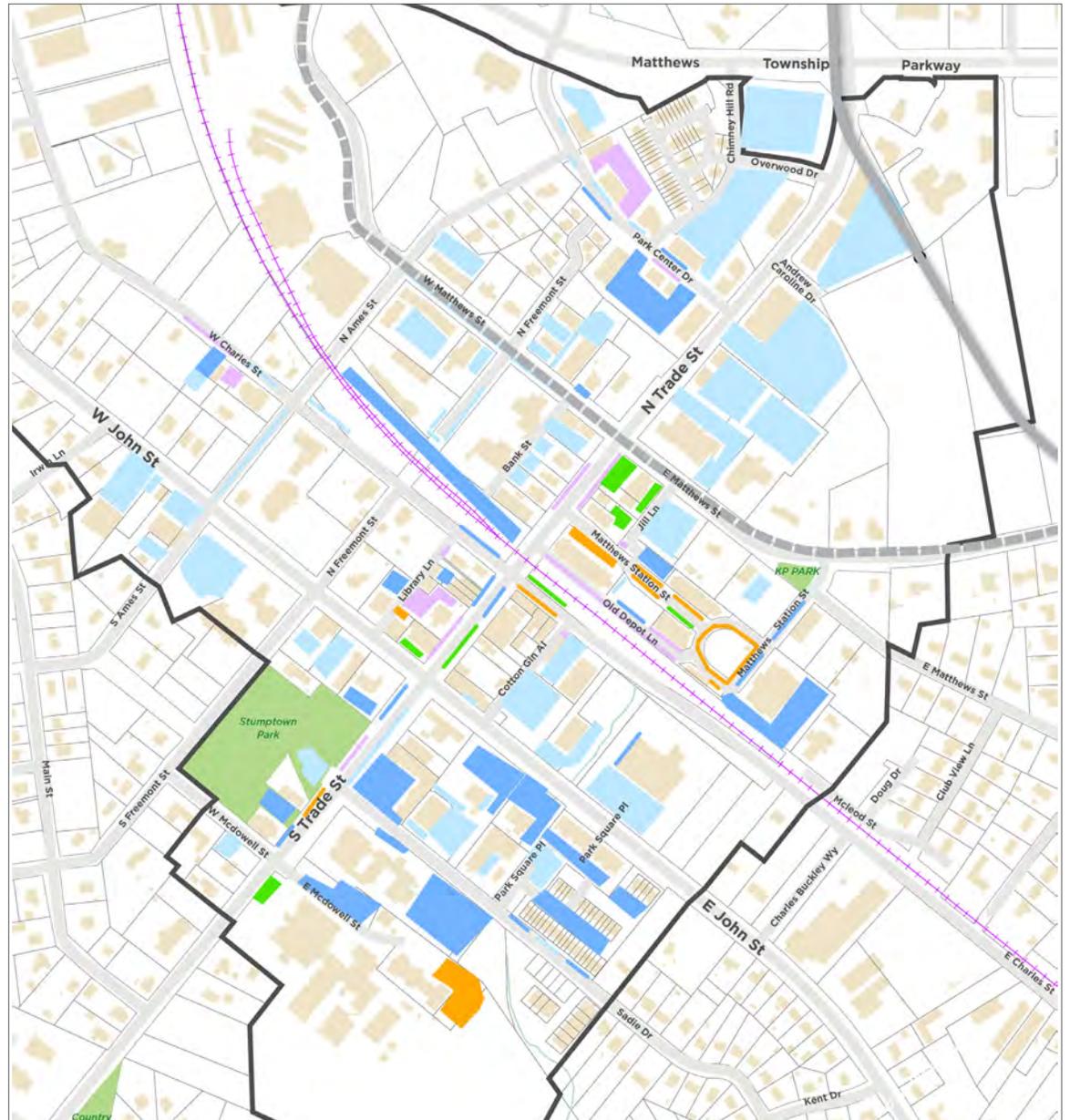
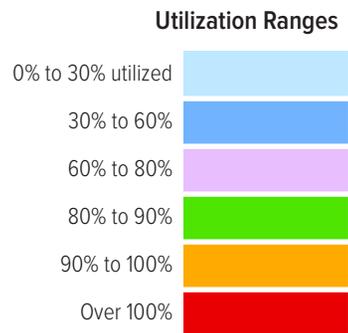
Although the Farmer’s Market parking and the street parking around it stays in heavy use through its business hours, other nearby parking (such as the Town-managed railroad parking west of Trade Street) sees use decline.

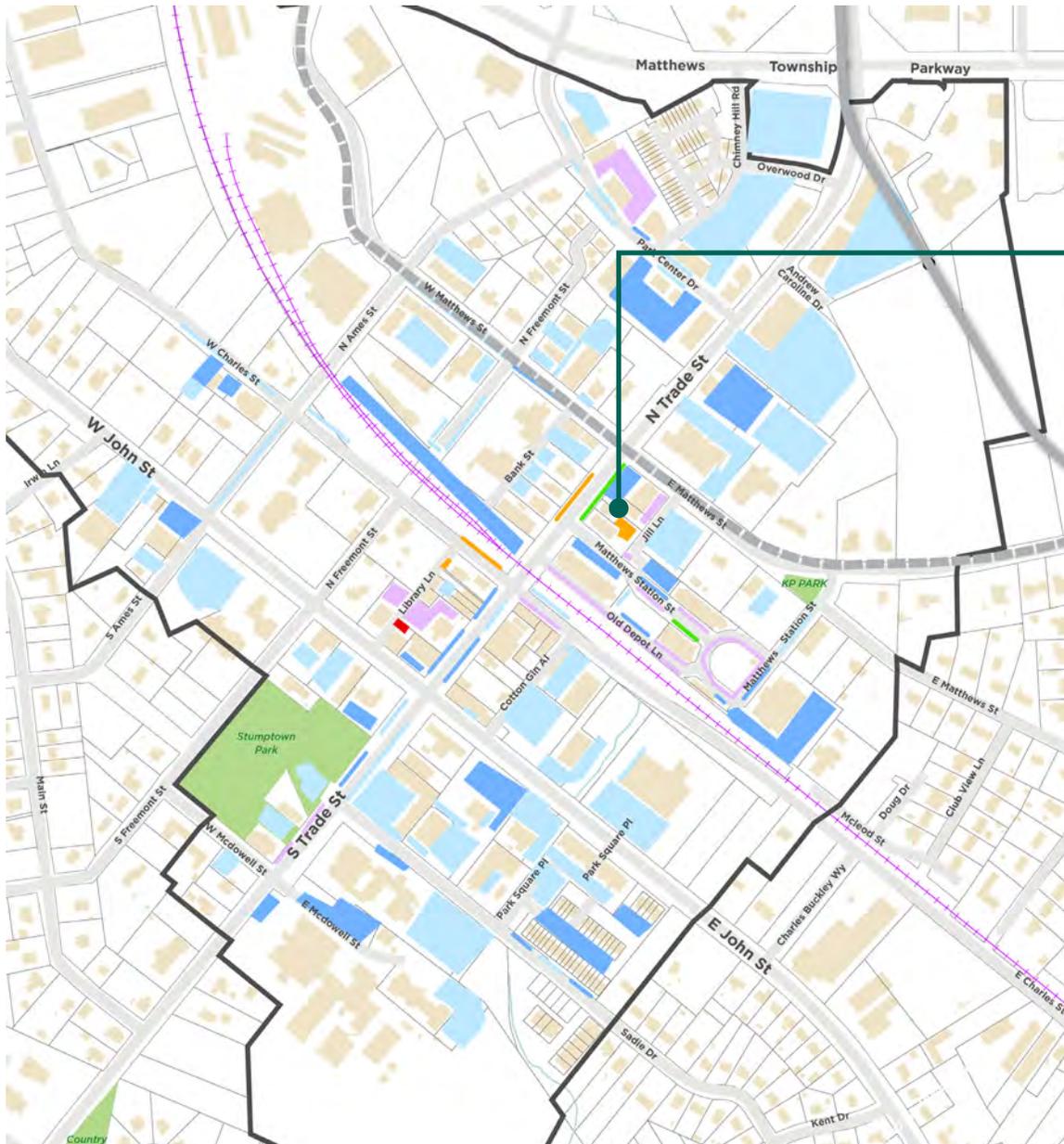
Mathews Station Street also sees higher levels of use during this period, reflecting the concentration of food and beverage establishments there.



Saturday Parking Utilization 1 PM - 3 PM

This is the busiest period on Saturdays, with most activity focused on the Matthews Station Street corridor. Shared public facilities such as the railroad parking and the Town Hall lot see higher levels of use than they did during Saturday mornings.

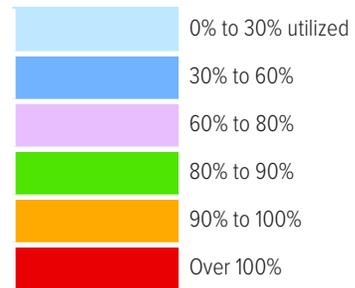




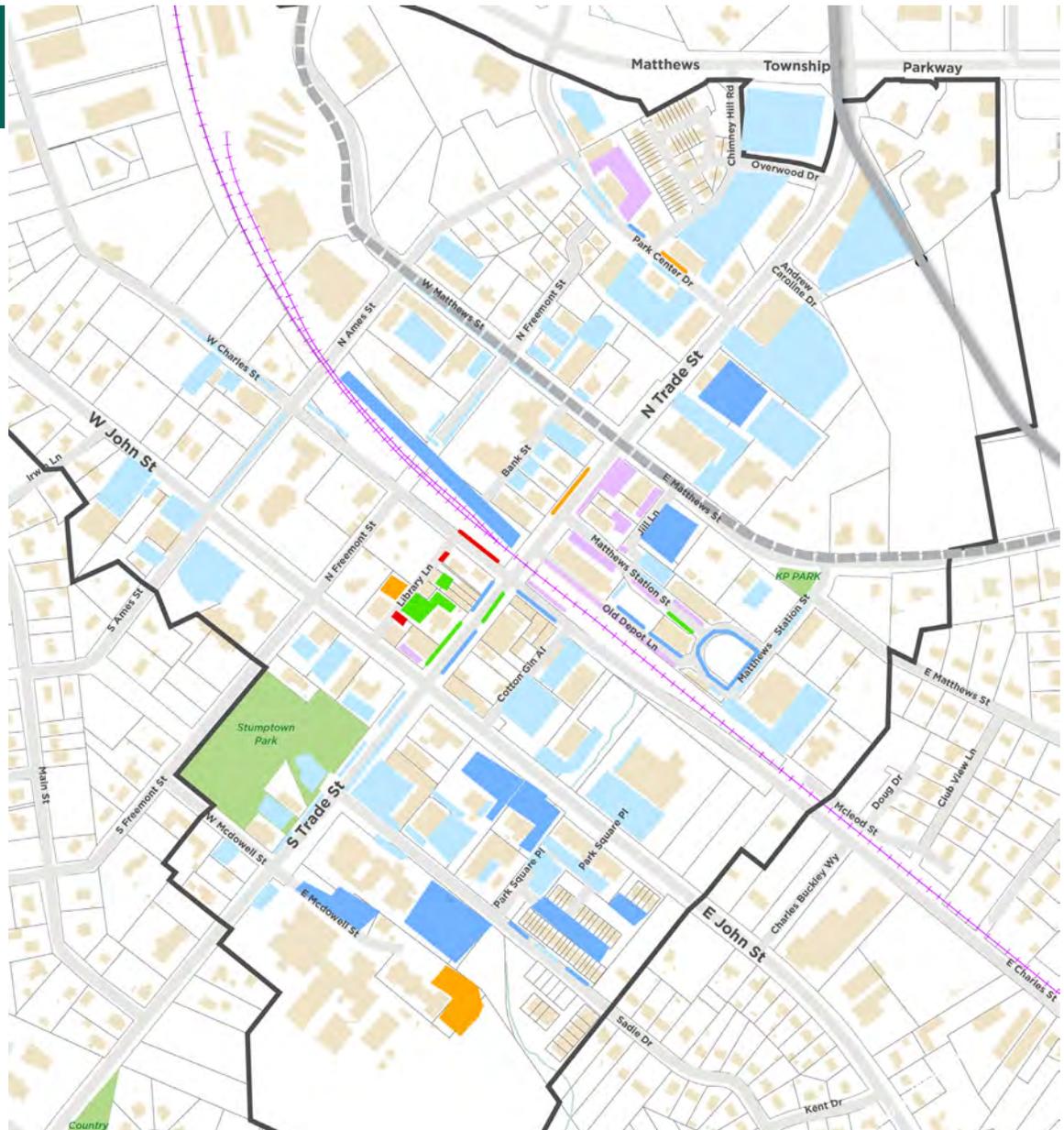
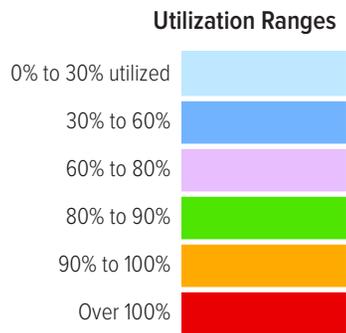
Saturday Parking Utilization 3 PM - 5 PM

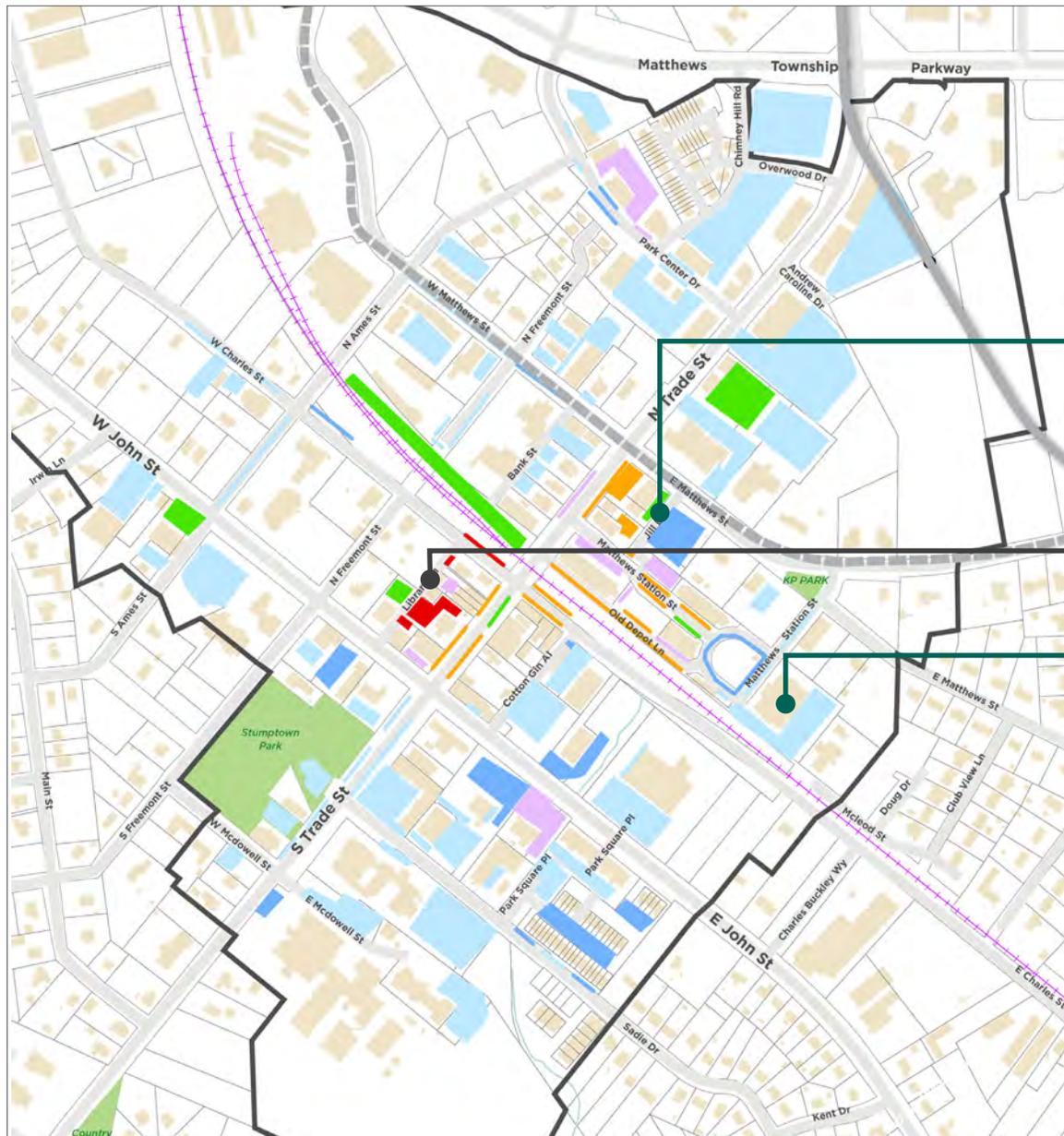
In this relatively low-activity period, only a small concentration of spaces along Trade Street sees high levels of use. Most of the rest of downtown’s parking is at or below 50 percent occupied.

Utilization Ranges



Saturday Parking Utilization
5 PM - 7 PM



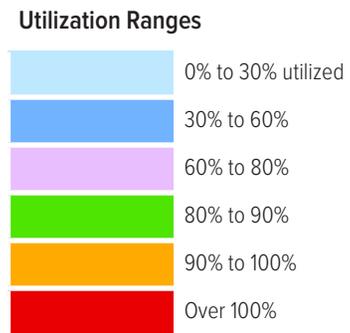


Saturday Parking Utilization 7 PM - 9 PM

Evenings are another relatively busy period, especially for parking that serves restaurant establishments in the downtown core near Trade Street and Matthews Station street. Other large parking facilities, such as those in the North End, with similar land uses have low levels of utilization.

This red area indicates heavy parking use that exceeds the parking space capacity provided by these establishments.

Some lots, such as behind Town Hall, have low utilization despite being in close proximity to restaurants. This may be attributed to several factors, including lack of visibility, or further distance from destinations.



comparing parking utilization + expected demand

The study is based on planning ahead for ongoing and continued future growth in downtown so that decisions may be made to manage downtown’s parking supply appropriately. To do this, the study has considered both current parking demand and future parking demand.

The Institute of Transportation Engineers (ITE) Parking Generation manual is the current national standard in determining parking demand. ITE standards are based on national survey-based data, and a typical analysis derived from ITE methodology takes the size of the development and multiplies it with a “standard” peak parking generation rate - for example, 3 spaces per 1,000 square feet of office or 2 spaces per residential unit. A conventional analysis also assumes that each use or building needs its own spaces, even if it acknowledges that those spaces are not utilized at a constant rate throughout the day.

However, this does not reflect actual parking behavior or demand for different land uses, especially in mixed-use downtown areas. In Matthews, though this concept is still new, **the findings of the utilization counting effort suggest that parking can be “shared” amongst different uses—even without formal agreements between property owners—simply by virtue of the high amount of availability throughout the day.** Across Matthews’ downtown, different uses have different peak demands. For example, an office may have a high demand until 5 p.m., while a restaurant may open for dinner only after 5 p.m. The peak periods of activity between these two uses thus do not overlap, and point to the possibility of both using the same supply. Other factors make parking in downtown Matthews different.

LAND USE PROGRAM*				
Use	Size	Units	Parking Rate per unit	Source
Retail - Shopping Center	157,573	Square Feet	2.55	ITE 820
Office - General	125,433	Square Feet	2.84	ITE 701
Office - Medical	96,724	Square Feet	3.2	ITE 720
Bank	94,967	Square Feet	4	ITE 912
Restaurant - High Quality	65,393	Square Feet	10.6	ITE 931
Government	49,877	Square Feet	4.15	ITE 730
Church	60,899	Square Feet	3.79	ITE 560
Community Center	44,633	Square Feet	3.2	ITE 495
Post Office	3,008	Square Feet	33.2	ITE 732
Elementary School	93,135	Square Feet	0.17	ITE 520
Convenience Retail	8,161	Square Feet	5.11	ITE 853
Manufacturing	7,217	Square Feet	1.02	ITE 140
Residential (Multi-Family)	40	Units	1.75	Study Team**
ESTIMATED PARKING DEMAND***				
	Demanded Spaces	Peak Time of Demand	Reduction from Unshared	
Unshared Parking	2,960	(All Day)		
Peak Shared Demand	1,989	12:00 PM	33%	

* Estimated from Mecklenburg County tax assessor records and square footage of buildings on properties.
 ** Planning team used comparable information from the local residential market to generate an specialized number of parking spaces that the market would demand.
 *** Based on methodology adapted from ITE Parking Generation and Urban Land Institute (ULI) Shared Parking manuals.

Customers, employees, and visitors can visit multiple destinations on foot and only park once, and indeed cite this as a reason for downtown’s appeal. This effectively reduces vehicle trips that might be made if these land uses were further separated, a concept known as *internal capture of trips* in the transportation planning practice. This concept is predicated on the idea that a parking customer can use a given parking space to visit multiple locations. For example, an employee who walks to get a cup of coffee while at the office is an “internally captured” trip—and does not require an additional parking space. As Matthews’ downtown becomes more walkable, there is less and less need for every trip to be made by car, even if downtown visitors continue to arrive that way. **The ability to park once and visit multiple locations on foot can reduce parking demand just as it can reduce traffic.** However, parking in downtown is not currently configured to allow this universally. Most of downtown’s spaces are privately owned and managed, and are generally contained in small lots.

Town staff worked with the study team to estimate an amount of new growth and development to be included in the study’s representation of future demand. This continued to evolve over the course of the study’s progress as the study team incorporated new levels of future growth. Town staff emphasized that the relatively compact study area meant that future growth and development would not be continuous and ongoing, and that the relative scarcity of vacant downtown sites meant that a total amount of redevelopment could be reasonably estimated. These added development amounts are summarized in the following table.

Land Use Type	Amount of Additional Development	Approximate Parking Ratio*
Office	15,000 square feet, assumed to fill currently vacant space	3 spaces per 1,000 SF
Flex Space/ ‘Maker’ Space	5,000 square feet	1.5 spaces per 1,000 SF
Retail	5,000 square feet, divided evenly	4 spaces per 1,000 SF
Restaurant	10,000 square feet	10.6 spaces per 1,000 SF

*The parking ratios shown are based on Matthews Unified Development Ordinance parking requirements, but they have been adjusted to common ratio per 1,000 SF for comparability.

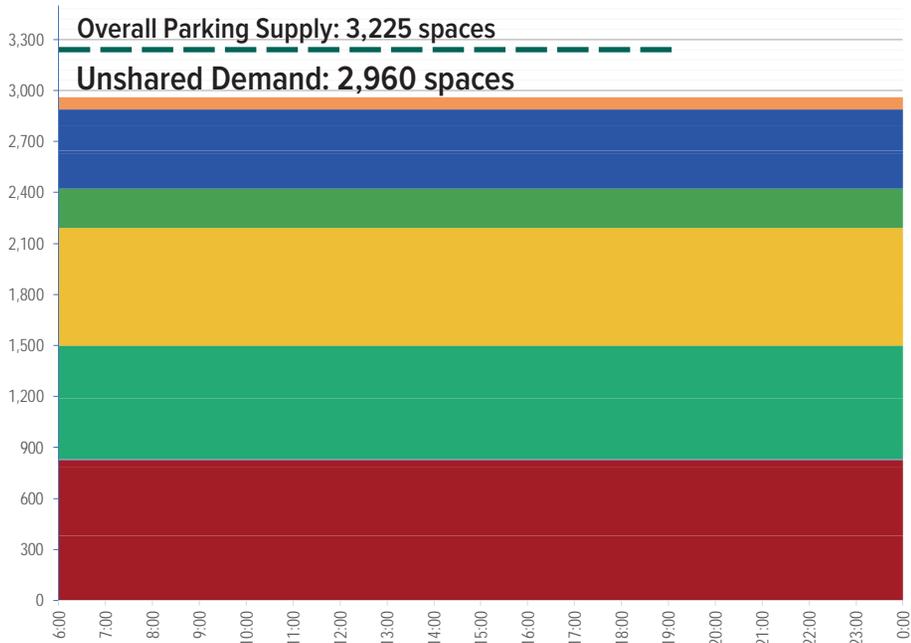
unshared parking demand + real demand

The study also distinguishes between the unshared demand that results from all parking facilities exclusively supporting a single use and the real demand that reflects when different land uses truly demand their full range of parking—a dynamic that is influenced by operating hours and when residents are at home. The figures on the following pages illustrate these estimated demand levels and how they compare, not only to one another but also to actual observed parking counts. It is intuitive to understand parking demand as a function of land uses and intensity: the size of an office, the number of apartment units, or the amount of seats in a movie theater all affect the demand for parking at those uses. However, each of these uses is active during certain windows of the day: residents of an apartment building, by and large, are not present throughout the business day while they are at work or school. Employees and visitors at offices tend to be in the office space during those same times, and active periods at dining and entertainment uses are driven by meal times and evening social times.

As demand for certain activities and access to types of land uses fluctuates, the demand for parking fluctuates accordingly. If communities build the parking they need for these most active times, they often end up with more parking than is needed. The parking utilization maps shown previously in this chapter reflect that this is the case—many facilities are not ever highly utilized and those that are highly utilized see this vary throughout the day.

It is instead useful to consider parking supply based on the real demand that varies when different land uses are active and when parking is expected to be in high. As shown in the figures on the following page, the difference between unshared and real demand estimates is often significant—in Matthews’ case, real demand is around two-thirds of what would be expected based on unshared demand.

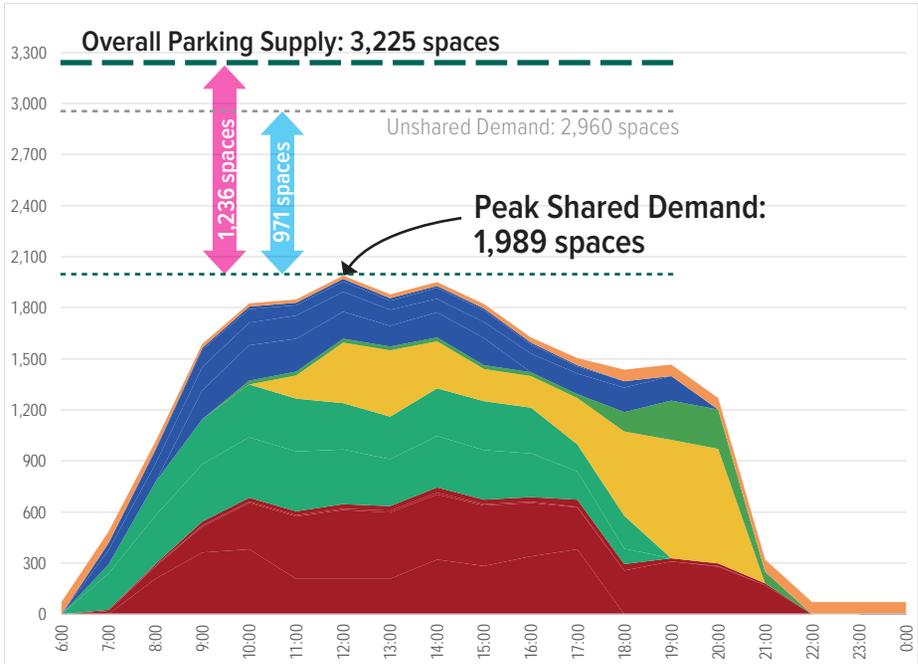
Unshared Parking Demand with Current Land Uses



If each land use provided and used parking at rates observed in ITE and other national information resources, parking would be made available regardless of levels of demand throughout the day. Many zoning ordinances and development codes require parking in this manner, simply defining a ratio of spaces to intensity of development for each land use.

Using this methodology, **the unshared parking need based on today's uses would be less than current supply, by about 250 spaces.**

Shared (Real) Parking Demand with Current Land Uses



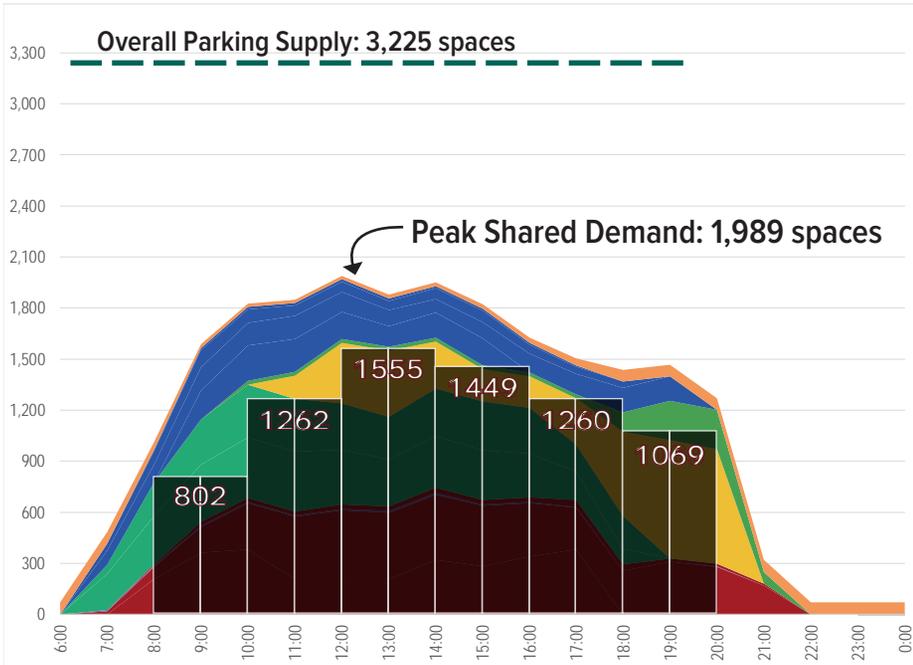
However, the true nature parking demand is more dynamic than this and depends on the hours of operation of different land uses within a district. Some uses function only during the daytime, while others have a parking demand driven heavily by meal times. Others still, such as residential uses, see their highest parking demand in the evenings.

When these are considered together, **the real demand for parking is much less than an unshared demand.**

- General Land Use Categories (for all graphs)**
- Residential (Multi-Family)
 - Civic/Institutional
 - Church
 - Restaurant
 - Office
 - Retail

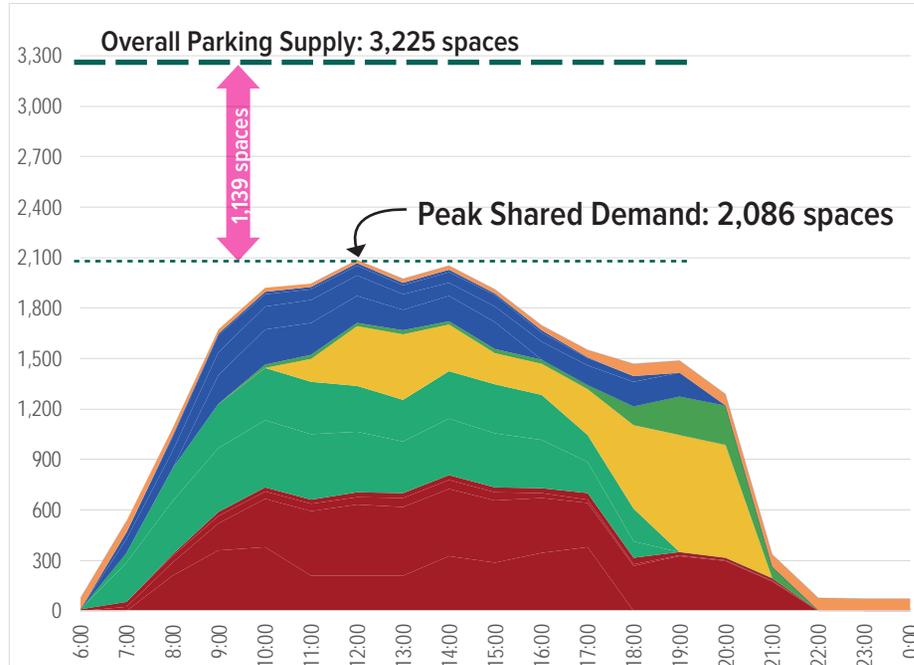
Figure 18: Graph of Estimated Shared Parking Demand with Future Land Uses

Shared (Real) Parking Demand Compared to Observed Utilization



It is useful not only to compare the real parking demand with an unshared parking profile that would result from exclusive provision of parking for each land use, but also to compare this demand—which is estimated based on industry knowledge and best practices—to the parking use actually observed. This highlights the true extent of any parking problems or shortages, and in this case, the actual rates of use in Matthews are less than what would be expected for the parking demand of downtown’s land uses.

Estimated Shared Parking Demand with Future Land Uses



When new downtown businesses and establishments are considered, even with no additions of new parking, downtown still has room to grow. However, with most of the new growth assumed in this planning effort (and detailed in the table on page 132) adding a complimentary mix of land uses and relatively modest amounts, the current downtown supply could continue to absorb them if it were made appropriately available.

- General Land Use Categories (for all graphs)**
- Residential (Multi-Family)
 - Civic/ Institutional
 - Church
 - Restaurant
 - Office
 - Retail

Adding the new development amounts, shown in the table on page 133, and using the assumed parking ratios—which included especially conservative estimates for restaurant uses to account for a high amount of restaurant-based parking demand, as suggested in this modeling exercise—the study still determined that a large amount of surplus parking remained from the existing supply.

Even when the large parking owners are given discounts on their required parking supply, downtown retains a large amount of surplus space compared to how real parking demand is expected from its current land uses. However this counts parking at the edges of the study area (which is geographically remote from the downtown core area of high parking demand).

Despite this surplus when all of downtown’s parking is considered in aggregate, the study team’s stakeholder discussions and observation of field conditions underscored that certain locations face parking challenges due largely to inability to access certain parking facilities. This is due either to these spaces being off-limits for public use, as in the case of a small number of businesses and the Postal Service vehicle maintenance facility, or the spaces being further from desired destinations than people are willing to travel.



Public parking lot in Downtown Matthews.

This is the central challenge of parking in downtown Matthews—when considered as an entire system, there is ample supply to meet current and future needs. **However, not enough of this parking is publicly available, the supply is divided among a large number of very small lots and street spaces, and customers perceive available parking as being too far from desired destinations.**

parking analysis findings

Overall, **the study found that downtown Matthews experiences regular underutilization of parking facilities and an estimated parking demand significantly below available parking supply.** In addition, downtown’s parking supply is heavily fragmented into many small lots and street parking clusters. Both of these findings suggest that downtown does not face a critical shortage of parking and does not need to add more supply today. Though many of the parking spaces are not available to the general public, there is availability at many facilities throughout the day. The Town controls some of the underutilized facilities, such as the surface lot behind Town Hall, and already makes this available for public use. These facilities are not used to capacity on a typical basis. The Town may be able to enter into agreements with owners of private spaces as well, allowing these to be used for at least portions of the day when there is demand in other parts of downtown.

There is also opportunity to better manage spaces that are highly utilized, as these are located immediately adjacent to the businesses and restaurants of downtown that attract many visitors and make up an important part of the downtown economy. The Town has regulated many of these high-demand spaces with time limits, but these are generally not enforced (and this lack of enforcement is widely known and acknowledged throughout the downtown community). **Applying management approaches to these spaces can help to preserve availability** and ensure that the desired users of the spaces—visitors and customers who spend money in downtown businesses and contribute directly to its economy—are able to find parking in these locations. This also gives parking customers who wish to use parking for longer stays a reason to select parking spaces that are less desirable but still convenient to downtown’s various attractions and land uses. This is the basis for key recommendations that are discussed in Chapter 2.

TRAFFIC + TRANSIT ANALYSES

traffic demand analysis

The project team analyzed current traffic volumes and roadway capacities and configurations in order to understand the traffic demands relative to the roadway supply. The map at right displays the average annual daily traffic (AADT) counts for the major roads in Downtown Matthews.

Based on the review of AADTs and the current lane configuration of the streets within Downtown Matthews, the streets should operate at acceptable levels throughout the majority of each day. There may be some periodic congestion on major streets, such as John Street, during peak hours, especially at the major intersections. That periodic congestion could be quantified with detailed operational analysis focusing on peak hours, but any mitigation to lower peak hour delay for vehicles (e.g., widening the road and adding lanes) must be weighed carefully against the impacts to other modes of travel, specifically the active modes (i.e., walking and biking). However, the daily volumes reviewed fall within the general levels consistent with the lane count for each street within the study area.

- Daily Traffic Volumes (2016 AADT)
- ★ Retirement Community
- 🏛️ Community Buildings
- 🌾 Farmers Market
- 🏥 Hospital
- P Public Parking
- Ⓜ️ Place of Worship
- ✉️ Post Office
- 🎓 School



transit analysis

The consultant team evaluated access to transit routes and services, including: boardings and alightings; bicycle and pedestrian access at bus stops and park-n-rides; bus stop locations and amenities; and proposed Silver Line transit station locations near downtown.

With the overarching goal of establishing safe routes to transit, the team has identified opportunities for integrating bikeway and pedestrian linkages to and from downtown and surrounding destinations, including residential areas, employment locations, and civic and commercial destinations. The evaluation also assessed ADA conditions/ universal design, safety and comfort of streetscapes, wayfinding, and route directness.

Downtown Matthews is served by three Charlotte Area Transit System (CATS) bus routes:

- 27- Monroe Road,
- 51- Pineville-Matthews Road, and
- 65x- Matthews Express

These routes are accessed via bus stops along John Street, Trade Street, and Matthews-Mint Hill Road. The map on the following page depicts these bus routes and bus stops, with the size of the bus stop symbols correlating to the relative number of riders who board and alight at each stop. Based on the most recent data available, the bus stops at the Park-n-Ride at John Street and Ames Street have the highest number of boardings and alightings, (approximately 54 per day). Shelters are provided at the two stops with the highest number of boardings, in accordance with CATS policy of providing shelters for stops that average 25 boardings or

more. A bench is provided at the stop with the third highest boardings.

Pedestrian access to the downtown bus stops is facilitated by sidewalks and sidepaths along the bus routes; however there are some critical gaps. Most notably, there is currently no sidewalk on the south side of Highway 51 (Matthews Township Parkway) between Trade Street and Independence Pointe Parkway near the bus stops that serve the hospital.



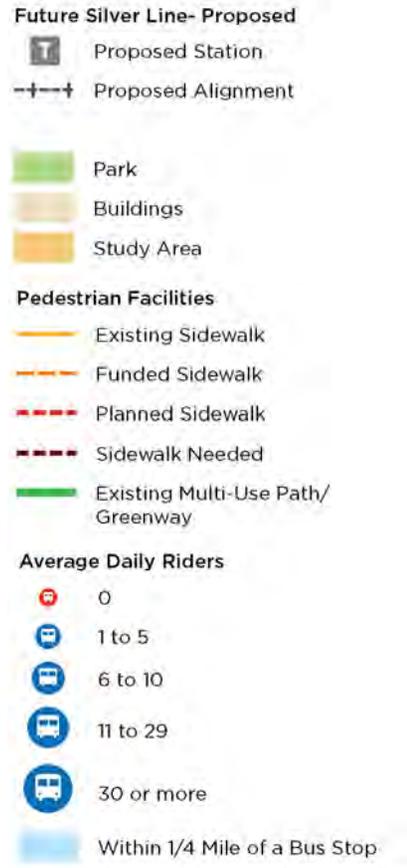
Existing bus stop at Trade St and Charles St.

Stop Location (inbound-IB/outbound-OB)	Amenities	Routes Served			Average Boardings	Average Alightings	Average Boardings + Alightings
John St + Ames Rd (IB)	Shelter	27	51	65x	51	3	54
John St + Ames Rd (OB)		27	51	65x	1	53	54
Trade St + Charles St (IB)	Shelter	27	51	65x	25	3	28
Highway 51 + Paces Ave (OB)	Bench	27		65x	10	12	22
Trade St + Matthews Station St (IB)		27	51	65x	3	17	20
Monroe Rd + Highway 51 (IB)		27	51	65x	2	16	18
Monroe Rd + Lois St (IB)		27	51	65x	15	2	17
Trade St + Highway 51 (IB)		27	51		3	7	10
Trade St + Park Center Dr (IB)		27	51		1	4	5
Matthews-Mint Hill Rd @ Hospital (IB)		27		65x	3	0	3
Highway 51 + Sam Newell Rd (IB)*		27		65x	1	2	3
Highway 51 + W John St (IB)			51		2	0	2
Highway 51 + John St (IB)			51		0	1	1
Highway 51 + Paces Ave (IB)				65x	0	0	0

*Station is at edge of study area

transit access

Analysis of existing transit shows that much of the study area is within a 1/4-mile (or five-minute walk) of a bus stop. It should be noted that bus stops that experience the highest average daily ridership have more amenities than other stops, such as a bench or shelter, and are located next to public parking.



PREVIOUSLY ADOPTED PLAN REVIEW

The following section summarizes the recommendations in previously adopted plans.

downtown master plan (2013)

The *Matthews Downtown Plan*, adopted in 2013, serves as an update of the 1997 Downtown Master Plan and sets a vision for redevelopment in the downtown area. The plan outlines recommendations for future roadway connections, streetscape and building frontage improvements, and potential opportunities for designated districts within Downtown. This plan does not include specific bicycle recommendations or transit analysis.

Relevance to this plan:

- Proposes expanded street grid system, including connections between Ames St + Freemont St and Andrew Caroline Drive (between North Trade Street + Matthews-Mint Hill Rd).
- Recommendations for new woonerf and breezeway connections, including Market Alley and Merchants Alley. This plan also includes character images for the alleyways.
- Standardized streetscape furnishings and materials in the core blocks of Downtown to create visual uniformity.

composite bicycle & pedestrian plan (2015)

The *Composite Bicycle & Pedestrian Plan* standardizes terminology for bicycle and pedestrian facilities, identifies gaps in the network, and proposes resolutions where past plans have had conflicting facility recommendations. This plan also identifies specific destinations within Downtown that should be connected with the bicycle network. Connectivity to these destinations were used as a metric to determine the completeness of the existing and recommended bicycle network. The recommendations from the 2015 *Bicycle and Pedestrian Plan* served as a starting point for pedestrian and bicycle recommendations in the current plan.

downtown streetscape improvement plan (2016)

The *Downtown Streetscape Improvement Plan* provides a street hierarchy system and recommended cross sections for each typology.

Relevance to this plan:

- Recommendations for the parking along the western side of the core blocks of Trade Street to convert from angle parking to parallel, in order to create more pedestrian space.
- Recommendations for perpendicular parking in front of First Baptist Church to convert to angled parking with a painted median.
- Proposed cross section typology for a woonerf/ alleyway within the downtown core. The cross section includes a 20' shared corridor with 10' on either side reserved for flush sidewalk/amenities. This typology is recommended for Bank Street and Market Alley.
- Proposed cross section typology for an Urban Lane - decorative shared space for vehicles, bikes, and pedestrians with limited parking. An Urban Lane typology is applied to Cotton Gin Alley, Library Lane, Jill Lane, and Old Depot Road in this Plan.
- Proposes wider sidewalks and crossing improvements throughout the downtown area.



Sampling of coverpages from previous planning reports

our town, our vision (2019)

Our Town, Our Vision is a report that was developed as a result of a town meeting, held April 2018, at which over 500 concerns and ideas were identified and ranked by attendees to set a collective vision for the Town of Matthews. During this visioning process, residents expressed a desire for connections to light rail, multimodal network improvements, and a more walkable Downtown. The pedestrian environment, including crossings and streetscape conditions, emerged as a popular topic for residents. The Downtown Mobility Study is a direct result of the visioning session.

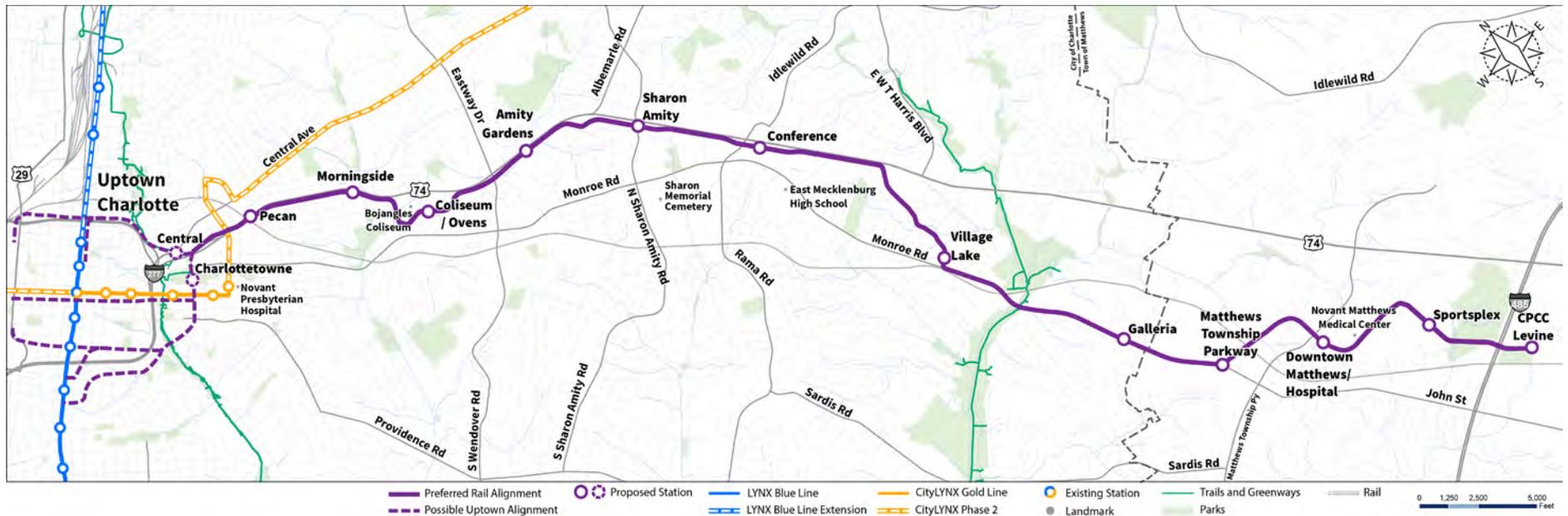
john street design (2019)

The North Carolina Department of Transportation (NCDOT) is currently developing plans to widen John Street to alleviate traffic congestion. The project proposes widening 6.5 miles of East John Street to a four-lane road from Matthews to Indian Trail. Construction for the section East of I-485 is estimated to begin in 2021. The recommendations in the plan maintain the north curb on John Street and widens the south side of the road, with new sidewalks abutting the edge of pavement. There are no dedicated bike facilities proposed in the current plans.

silver line transit study (ongoing)

The most recently completed study of the Silver Line Light Rail (March 2019) includes a preliminary alignment that will run from Belmont, through Uptown Charlotte, and east through Downtown Matthews connecting to Central Piedmont Community College (CPCC) Levine (see adopted alignment, below). The study proposes light rail stations in and adjacent to Downtown Matthews at Matthews Township Parkway, by the Novant Matthews Medical Center (Andrew Caroline Extension), and at the Matthews Sportsplex.

Ongoing studies will continue to refine and finalize station locations and alignment, with an intended opening of the Silver Line by 2030.



The adopted alignment for the Silver Line is shown with a purple line, connecting Uptown Charlotte with CPCC Levine Campus, with a proposed stop in Downtown Matthews near the hospital.

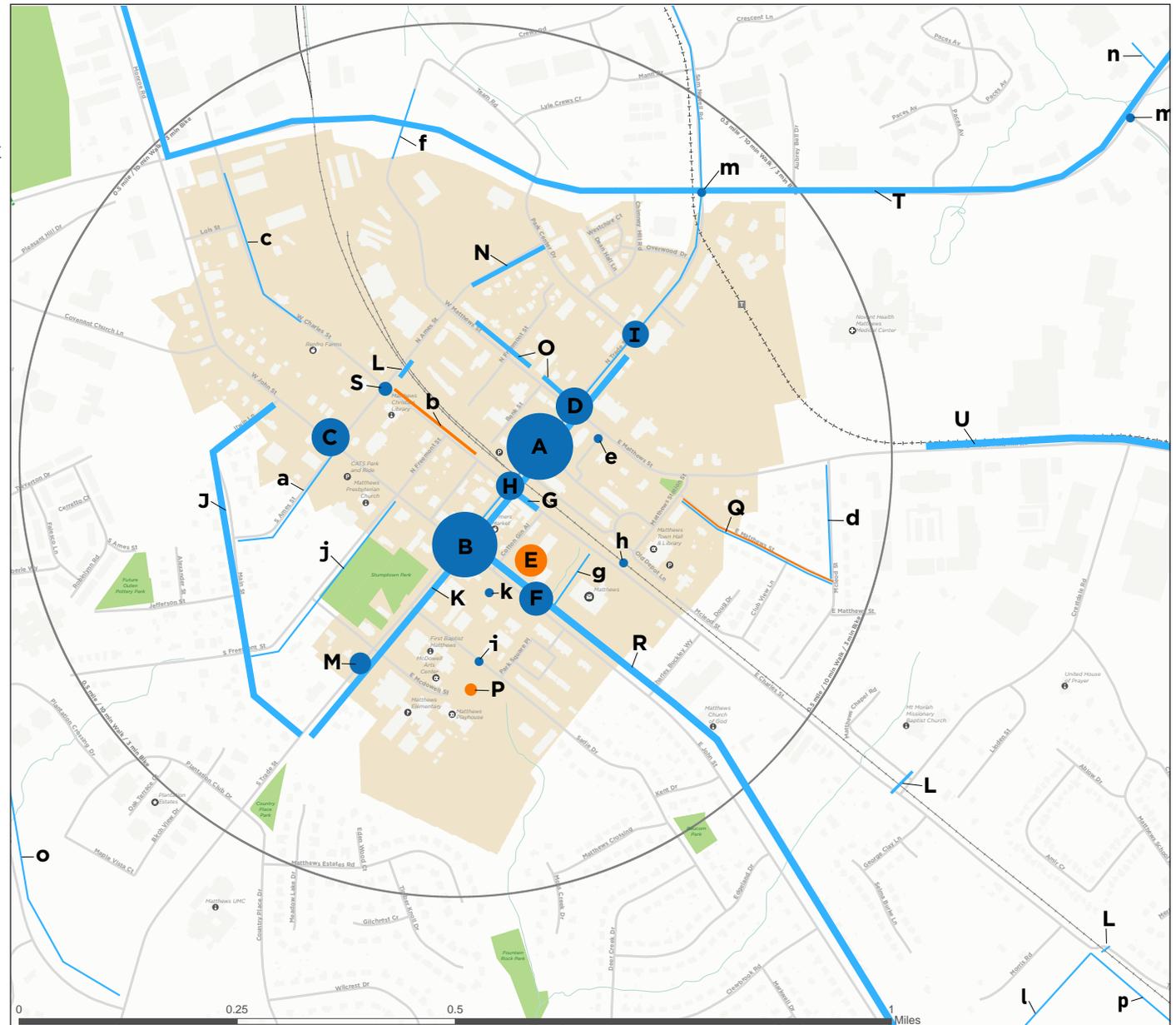
APPENDIX

public input map: most-mentioned projects

At right is a summary of all the projects that were mentioned throughout the public input process, including the online map, public meetings, the 3-day charrette, and the online public survey. The projects are listed on the facing page. Those labeled with capital letters (A, B, C, etc.) were mentioned more often in public comments than those labeled with lower case letters (a, b, c, etc.).

-  Intersection Improvement Needed*
-  Route Improvement Needed*
-  Parking Improvement Needed*

*The size/width of the symbol correlates to the relative number of related comments received from all sources of public input.



PUBLIC INPUT MOST-MENTIONED PROJECTS:

- A.** Improve Ped crossing at **MATTHEWS STATION ST** (project is in the preliminary design phase and being considered for town funding)
- B.** Intersection of **TRADE ST + JOHN ST**: Improve pedestrian crossing, signal timing, and gas station driveways
- C.** Add pedestrian crossings across and along **W JOHN STREET** (@ Covenant Church, Ames, Freemont, Library)
- D.** Add pedestrian crossing signals at **TRADE ST + MATTHEWS ST**
- E.** Increase/formalize parking around **FARMER'S MARKET**
- F.** Add pedestrian crossings across **E JOHN ST** (@ Cotton Gin, Stream/Post Office, Kent)
- G.** Complete sidewalks along **CHARLES ST** at **TRADE ST** intersection
- H.** Improve crossing at **CHARLES ST + TRADE ST**
- I.** Improve pedestrian crossing at **TRADE ST + PARK CENTER DR**
- J.** Complete sidewalks along **MAIN ST** + add traffic calming elements
- K.** **TRADE ST** (Main to Park Center): Improve vehicular/parking/pedestrians space balance
- L.** Improve pedestrian **RAILROAD CROSSINGS** (@ Ames, Crestdale, + Charles)
- M.** Improve pedestrian crossings at **TRADE ST + MCDOWELL ST**
- N.** Complete sidewalks along **N AMES ST**; improve roadway
- O.** Add pedestrian facilities + traffic calming along **W MATTHEWS ST**
- P.** Increase parking availability near **PLAYHOUSE** and **ELEMENTARY SCHOOL**
- Q.** Add sidewalks along **E MATTHEWS ST** (+ on-street parking)
- R.** Improve pedestrian facilities along **E JOHN ST**
- S.** Clear overgrowth and improve sight lines at **CHARLES ST + AMES ST**
- T.** Add bicycle + pedestrian facilities along **MATTHEWS TOWNSHIP PKWY (HWY 51)**
- U.** Extend bicycle + pedestrian facilities along **MATTHEWS-MINT HILL RD**

ADDITIONAL PROJECT SUGGESTIONS:

- a.** Complete sidewalks along **S AMES ST**
- b.** Extend parking + improve lighting along **W CHARLES ST**
- c.** Extend pedestrian facilities north along **W CHARLES ST** to connect to Hwy 51
- d.** Add pedestrian facilities along **MCLEOD ST**
- e.** Add pedestrian crossing at **JILL LN + MATTHEWS ST**
- f.** New road connection (underpass) between **W MATTHEWS ST + TEAM RD**
- g.** Connect **CHARLES ST + JOHN ST** with sidewalk at post office
- h.** Improve pedestrian crossing of **RAILROAD TRACKS NEAR TOWN HALL** (underpass)
- i.** Improve pedestrian crossing of **SADIE DR** between church and youth center
- j.** Add sidewalks along **S FREEMONT ST**
- k.** Improve access/parking for shops/restaurants near **S TRADE ST + JOHN ST**
- l.** Connect **E CHARLES ST** to **E JOHN ST** near Greylock Ridge Rd
- m.** Add pedestrian crossings along **MATTHEWS TOWNSHIP PARKWAY** (Hwy 51) (@ Trade, Independence Pointe)
- n.** Add pedestrian facilities near **MATTHEWS FESTIVAL** Shopping Center
- o.** Add bike + pedestrian facilities along **FULLWOOD LN** (with development)
- p.** Extend **E CHARLES ST** south on west side of railroad tracks past railroad crossing at Tank Town Rd

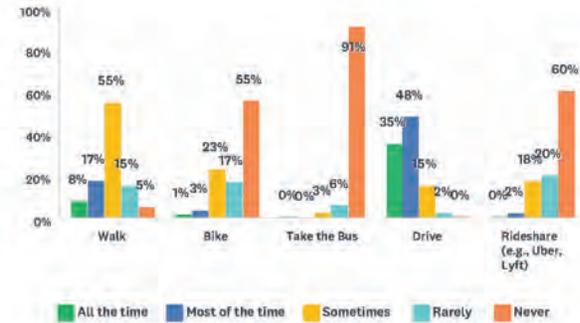
public input survey summary results

The results of the online survey are provided in their entirety on this and the following pages.

Downtown Matthews Mobility Plan: Public Input Survey

Q1 How do you typically move to/from and around Downtown Matthews?
(Select an answer for each choice)

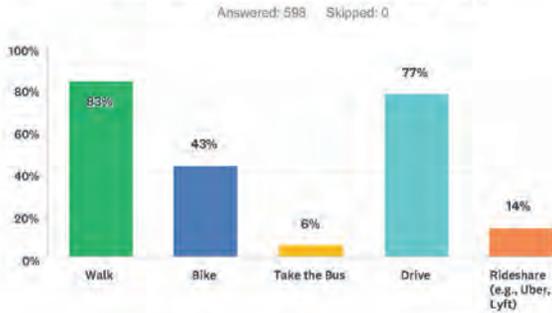
Answered: 598 Skipped: 0



	ALL THE TIME	MOST OF THE TIME	SOMETIMES	RARELY	NEVER	TOTAL	WEIGHTED AVERAGE
Walk	8% 43	17% 95	55% 297	15% 81	5% 27	543	3.08
Bike	1% 7	3% 17	23% 114	17% 84	55% 275	497	1.79
Take the Bus	0% 2	0% 1	3% 13	6% 29	91% 431	476	1.14
Drive	35% 207	48% 283	15% 88	2% 11	0% 2	591	4.15
Rideshare (e.g., Uber, Lyft)	0% 2	2% 9	18% 86	20% 96	60% 292	485	1.62

Downtown Matthews Mobility Plan: Public Input Survey

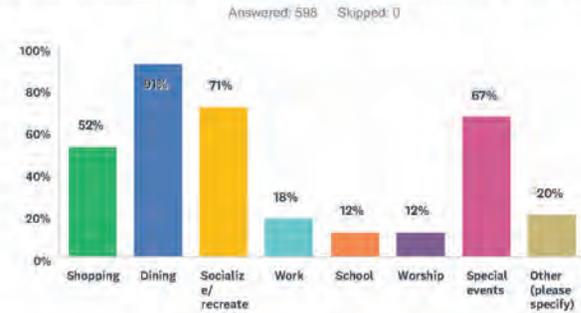
Q2 How do you WANT to move to/from and around Downtown Matthews? (Check all that apply.)



ANSWER CHOICES	RESPONSES	Count
Walk	83%	495
Bike	43%	256
Take the Bus	6%	34
Drive	77%	461
Rideshans (e.g., Uber, Lyft)	14%	82
Total Respondents: 598		

Downtown Matthews Mobility Plan: Public Input Survey

Q3 For what do you come to Downtown Matthews? (Check all that apply)

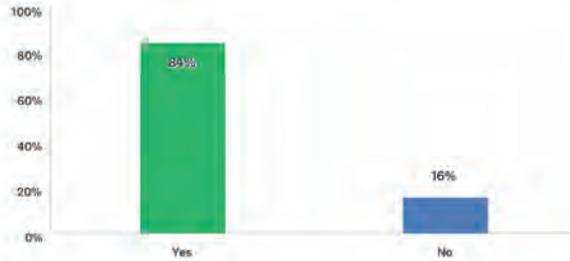


ANSWER CHOICES	RESPONSES	Count
Shopping	52%	311
Dining	91%	547
Socialize/ recreate	71%	425
Work	18%	107
School	12%	69
Worship	12%	70
Special events	67%	398
Other (please specify)	20%	120
Total Respondents: 598		

Downtown Matthews Mobility Plan: Public Input Survey

Q4 Would you like to walk more to/from/around Downtown Matthews?

Answered: 598 Skipped: 0

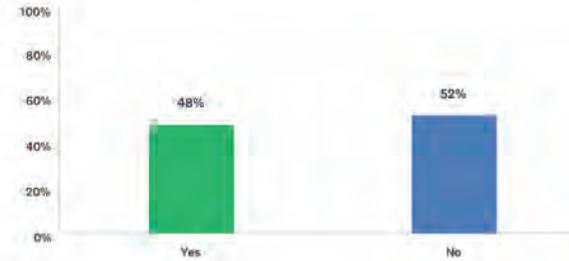


ANSWER CHOICES	RESPONSES	
Yes	84%	504
No	16%	94
TOTAL		598

Downtown Matthews Mobility Plan: Public Input Survey

Q6 Would you like to bike more to/from/around Downtown Matthews?

Answered: 598 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	48%	286
No	52%	312
TOTAL		598

Downtown Matthews Mobility Plan: Public Input Survey

Q5 If yes, what would help you to walk more?

Answered: 438 Skipped: 160

Downtown Matthews Mobility Plan: Public Input Survey

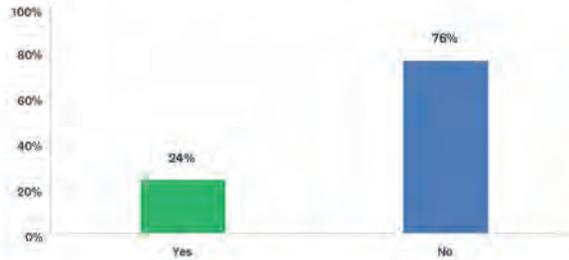
Q7 If yes, what would help you to bike more?

Answered: 300 Skipped: 298

Downtown Matthews Mobility Plan: Public Input Survey

Q8 Would you like to take public transit more often to/from/around Downtown Matthews ?

Answered: 598 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	24%	143
No	76%	455
TOTAL		598

Downtown Matthews Mobility Plan: Public Input Survey

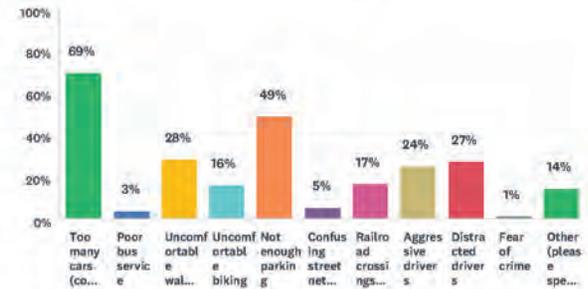
Q9 If yes, what would help you to take public transit more?

Answered: 187 Skipped: 411

Downtown Matthews Mobility Plan: Public Input Survey

Q10 What do you think the biggest transportation issues are in Downtown Matthews ? (Choose up to 3)

Answered: 547 Skipped: 51

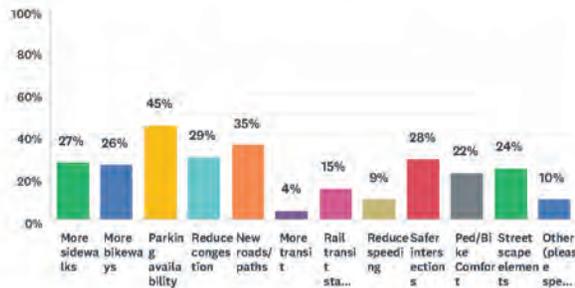


ANSWER CHOICES	RESPONSES	
Too many cars (congestion)	69%	377
Poor bus service	3%	18
Uncomfortable walking	28%	154
Uncomfortable biking	16%	88
Not enough parking	49%	266
Confusing street network	5%	27
Railroad crossings (or back-ups caused by trains)	17%	91
Aggressive drivers	24%	134
Distracted drivers	27%	148
Fear of crime	1%	6
Other (please specify)	14%	76
Total Respondents: 547		

Downtown Matthews Mobility Plan: Public Input Survey

Q11 If you could do something to improve getting to and around Downtown Matthews, what would you do? (Choose up to 3)

Answered: 547 Skipped: 51

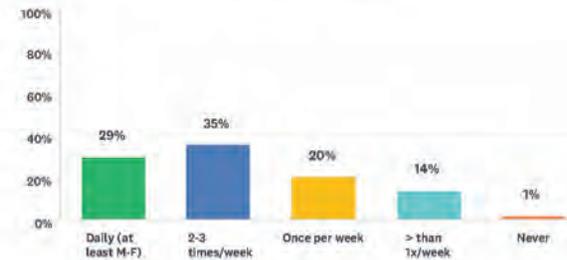


ANSWER CHOICES	RESPONSES	
More sidewalks	27%	148
More bikeways	26%	141
Parking availability	45%	244
Reduce congestion	29%	160
New roads/paths	35%	193
More transit	4%	23
Rail transit station	15%	80
Reduce speeding	9%	51
Safer intersections	28%	155
Ped/Bike Comfort	22%	120
Streetscape elements	24%	130
Other (please specify)	10%	53
Total Respondents: 547		

Downtown Matthews Mobility Plan: Public Input Survey

Q12 On a typical basis, how often do you drive to Downtown Matthews and park?

Answered: 547 Skipped: 51

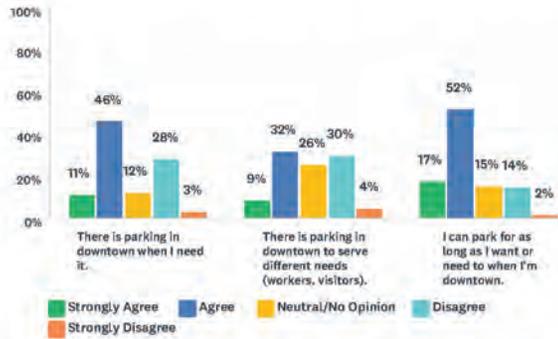


ANSWER CHOICES	RESPONSES	
Daily (at least M-F)	29%	161
2-3 times/week	35%	194
Once per week	20%	110
> than 1x/week	14%	74
Never	1%	8
TOTAL		547

Downtown Matthews Mobility Plan: Public Input Survey

Q13 Thinking of this same typical basis, please indicate how much you agree or disagree with the following statements:

Answered: 547 Skipped: 51



	STRONGLY AGREE	AGREE	NEUTRAL/NO OPINION	DISAGREE	STRONGLY DISAGREE	TOTAL
There is parking in downtown when I need it.	11% 60	46% 251	12% 65	28% 153	3% 15	544
There is parking in downtown to serve different needs (workers, visitors).	9% 47	32% 173	26% 140	30% 162	4% 24	546
I can park for as long as I want or need to when I'm downtown.	17% 95	52% 281	15% 82	14% 78	2% 9	545

Downtown Matthews Mobility Plan: Public Input Survey

Q14 On a typical basis, how often do you use a ridesharing app (e.g., Uber, Lyft) to get to Downtown Matthews?

Answered: 546 Skipped: 52

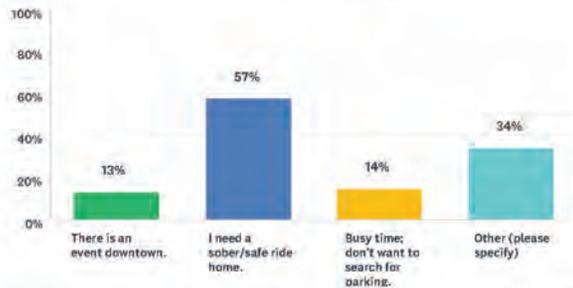


ANSWER CHOICES	RESPONSES	
Daily (at least M-F)	0%	1
2-3 times/week	0%	2
Once per week	3%	16
Less than once per week	4%	21
Once a month	20%	109
Never	73%	397
TOTAL		546

Downtown Matthews Mobility Plan: Public Input Survey

Q15 Typically, I use a ridesharing service to get to Downtown Matthews when...(check all that apply)

Answered: 336 Skipped: 262



ANSWER CHOICES	RESPONSES	
There is an event downtown.	13%	43
I need a sober/safe ride home.	57%	193
Busy time; don't want to search for parking.	14%	48
Other (please specify)	34%	114
Total Respondents: 336		

Downtown Matthews Mobility Plan: Public Input Survey

Q16 Which of the following is the most important factor to you for parking in Downtown Matthews? (More than one of these may matter to you, but choose the one that matters MOST.)

Answered: 547 Skipped: 51



ANSWER CHOICES	RESPONSES	
Available parking when I need it.	46%	253
Parking close to my destination.	17%	92
Parking as long as I need it.	10%	57
Parking easy to find/use; location, permissions, and restrictions.	20%	109
Parking location feels safe.	5%	27
Other (please specify)	2%	9
TOTAL		547

Downtown Matthews Mobility Plan: Public Input Survey

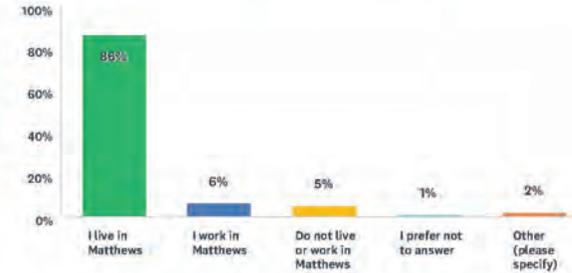
Q17 Are there any additional ideas, concerns, or issues you'd like to share?

shops right great love see think along increase spaces sidewalks nice taking lot
 driving change businesses bike lanes Trade Street Speed stop St use away
 light moved Matthews cars difficult area widened John St really people Even
 feel downtown area Trade small town feel walk residents Please bars
 town options go crosswalk road will parking day
 Matthews walk bike downtown place need back
 traffic love downtown Matthews make near
 downtown Matthews grown time events see John love
 one safe library street things pedestrian coming keep destination
 crossing pedestrians crossing Trade St biggest issue N week add s
 John Street Thanks drivers intersection concerned want issue enough good
 sides bike many built parking along congestion beautiful also live

Downtown Matthews Mobility Plan: Public Input Survey

Q18 Where do you live?

Answered: 518 Skipped: 79

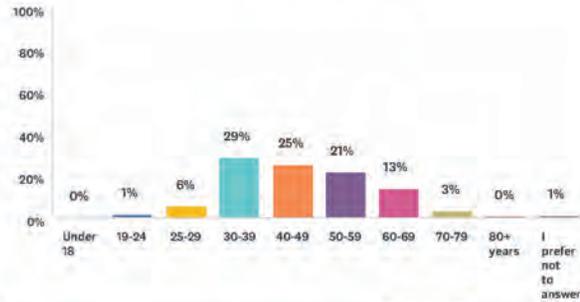


ANSWER CHOICES	RESPONSES	
I live in Matthews	88%	446
I work in Matthews	6%	33
Do not live or work in Matthews	5%	25
I prefer not to answer	1%	5
Other (please specify)	2%	10
TOTAL		518

Downtown Matthews Mobility Plan: Public Input Survey

Q19 What is your age?

Answered: 519 Skipped: 79

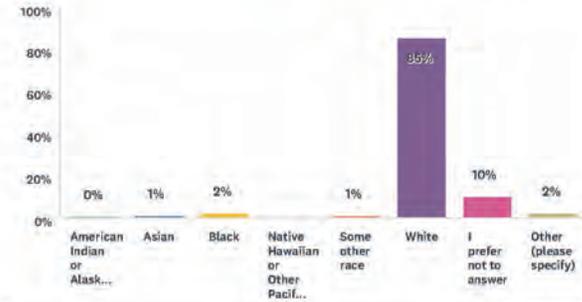


ANSWER CHOICES	RESPONSES	
Under 18	0%	1
19-24	1%	7
25-29	6%	29
30-39	29%	149
40-49	25%	130
50-59	21%	111
60-69	13%	70
70-79	3%	16
80+ years	0%	2
I prefer not to answer	1%	4
TOTAL		519

Downtown Matthews Mobility Plan: Public Input Survey

Q20 What is your race? You may select any that apply.

Answered: 518 Skipped: 80



ANSWER CHOICES	RESPONSES	
American Indian or Alaska Native	0%	2
Asian	1%	6
Black	2%	10
Native Hawaiian or Other Pacific Islander	0%	0
Some other race	1%	5
White	85%	440
I prefer not to answer	10%	53
Other (please specify)	2%	10
Total Respondents: 518		

Downtown Matthews Mobility Plan: Public Input Survey

Q21 Are you Hispanic or Latino?

Answered: 517 Skipped: 81



ANSWER CHOICES	RESPONSES	
Yes	2%	11
No	90%	464
I prefer not to answer	8%	42
TOTAL		517

Downtown Matthews Mobility Plan: Public Input Survey

Q22 What is your annual household income?

Answered: 518 Skipped: 80

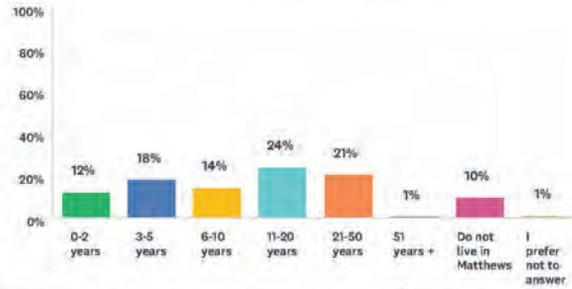


ANSWER CHOICES	RESPONSES	
Less than \$ 10,000	0%	1
\$10K - \$24,999	1%	4
\$25K to \$34,999	2%	10
\$35K to \$49,999	4%	21
\$50 to \$74,999	10%	52
\$75K to \$99,999	13%	65
\$100K to \$149,999	27%	138
\$150K to \$199,999	13%	66
\$200K or more	14%	74
I prefer not to answer	17%	87
Other (please specify)	0%	0
TOTAL		518

Downtown Matthews Mobility Plan: Public Input Survey

Q23 How long have you lived in Matthews?

Answered: 516 Skipped: 82

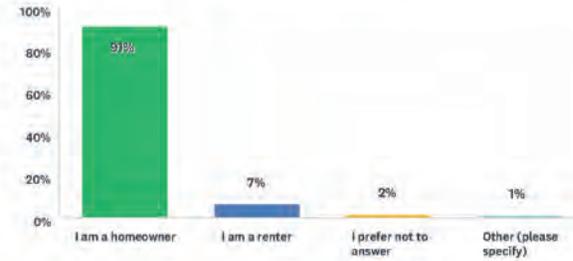


ANSWER CHOICES	RESPONSES	
0-2 years	12%	61
3-5 years	18%	94
6-10 years	14%	73
11-20 years	24%	123
21-50 years	21%	106
51 years +	1%	3
Do not live in Matthews	10%	50
I prefer not to answer	1%	6
TOTAL		516

Downtown Matthews Mobility Plan: Public Input Survey

Q24 Are you a renter or homeowner?

Answered: 516 Skipped: 82

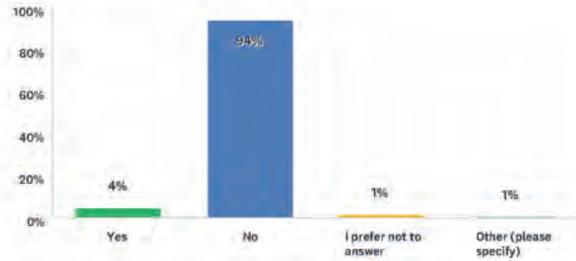


ANSWER CHOICES	RESPONSES	
I am a homeowner	91%	468
I am a renter	7%	34
I prefer not to answer	2%	9
Other (please specify)	1%	5
TOTAL		516

Downtown Matthews Mobility Plan: Public Input Survey

Q25 Do you consider yourself a person with disabilities?

Answered: 518 Skipped: 80



ANSWER CHOICES	RESPONSES	
Yes	4%	23
No	94%	485
I prefer not to answer	1%	7
Other (please specify)	1%	3
TOTAL		518

Downtown Matthews Mobility Plan: Public Input Survey

Q26 What is your gender?

Answered: 517 Skipped: 81

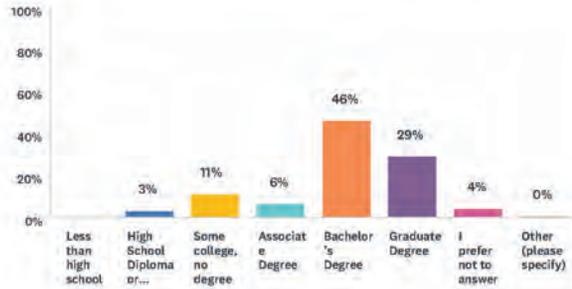


ANSWER CHOICES	RESPONSES	
Female	64%	330
Male	32%	165
I prefer not to answer	4%	21
I prefer to self-describe	0%	1
TOTAL		517

Downtown Matthews Mobility Plan: Public Input Survey

Q27 What is the highest level of education that you have completed?

Answered: 518 Skipped: 80



ANSWER CHOICES	RESPONSES	
Less than high school	0%	0
High School Diploma or Equivalent (e.g., GED)	3%	15
Some college, no degree	11%	58
Associate Degree	6%	33
Bachelor's Degree	46%	238
Graduate Degree	29%	151
I prefer not to answer	4%	21
Other (please specify)	0%	2
TOTAL		518

Downtown Matthews Mobility Plan: Public Input Survey

Q28 What is your primary language?

Answered: 518 Skipped: 80



ANSWER CHOICES	RESPONSES	
English	99%	512
Spanish	0%	0
Vietnamese	0%	0
I prefer not to answer	1%	6
Other (please specify)	0%	0
TOTAL		518

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DOWNTOWN MATTHEWS MOBILITY PLAN

