

CHARLOTTE **STRATEGIC MOBILITY PLAN**

Our Blueprint for Safe and Equitable Mobility

Adopted June 27, 2022

 **CITY** *of* **CHARLOTTE**



This Charlotte Strategic Mobility Plan is an important next step in realizing the vision of the Charlotte Future 2040 Comprehensive Plan and is built on the engaged planning efforts of many in our community. Our mobility vision is ambitious - to offer everyone in our city safe and equitable mobility choices.

The foundational commitments of this vision that will guide us in our work include:

[Continuing our commitment of Vision Zero](#) to be a community that ensures and prioritizes the safety of all who share Charlotte’s streets.

[Establishing a 50-50 mode share aspiration](#) to be a community that balances our mobility choices and transitions away from a dependency on the car for most of our travel needs.

[Expanding transit throughout our city](#) to be a community that makes rail and bus transit trips faster, more reliable, and a natural part of how we travel.

[Preparing for the future of mobility](#) to be a community on the leading edge of the on-going technological transformation of urban mobility.

The fulfillment of these commitments will shape the future of how we move in Charlotte. Yet, they can only be fulfilled in complete partnership with all mobility stakeholders in our community.

I challenge us to work together to achieve this ambitious vision!

Liz Babson, PE
Director, Charlotte Department of Transportation

Our Mobility Vision

Establishes our mobility aspirations to serve as the foundation for our policies, strategies, and actions.

02

Our State of Mobility

Documents our mobility conditions to illustrate the diversity of mobility needs in our community.

08

Our Community Voices

Articulates our community concerns and desires to shape our mobility future.

28

Our Mobility Policy

Defines and details our policy framework to align our partnerships and actions.

56

Our Mobility Strategy

Illustrates our specific infrastructure strategies and investments to implement our mobility vision.

80

Our Roles and Actions

Define how to measure and account for progress towards our objectives.

132

Additional Resources

Information on mode share, glossary, acronyms, data sources, and acknowledgments

154

The Strategic Mobility Plan was adopted by Charlotte City Council on June 27th, 2022.

1

OUR MOBILITY VISION



Our Mobility Vision establishes our mobility aspirations to serve as the foundation for our policies, strategies, and actions.

OUR GOAL

Safe & Equitable Mobility

*The SMP is centered on the goal of “**Safe and Equitable Mobility**” with supporting mobility objectives defining the structure and intent of specific policies and actions.*

The City recently approved an equity vision statement. As part of this statement, we will be honest and accountable about how the City has contributed to inequity, including identifying and removing barriers to inclusion.

The Strategic Mobility Plan commits to upholding the City’s equity vision statement and incorporating these principles in our transportation policies, design, and implementation.

To be honest and accountable as we plan for the future of our transportation system, the Strategic Mobility Plan specifically utilizes policy language referencing historic and systemic inequities that have led to the marginalization of some of our communities. Communities that are marginalized are those that have experienced historic or systemic social, political, cultural, educational, and/or economic exclusion or injustice and are often underrepresented, underserved, or underinvested.

OUR OBJECTIVES



Safe

Eliminate transportation-related fatalities and serious injuries to make our streets safe for everyone.



Sustainable

Increase access to sustainable and zero carbon transportation modes and mobility options to support our strategic energy and sustainability goals.



Connected

Increase the share of trips made without a car and broaden multimodal connectivity to expand the capacity of our transportation infrastructure.



Prosperous

Prioritize transportation investments that promote economic vibrancy by managing congestion, connecting our workforce with opportunities, and advancing community priorities.



Equitable

Increase investment and access to support equitable and affordable mobility options in our communities that have historically lacked investment.



Innovative

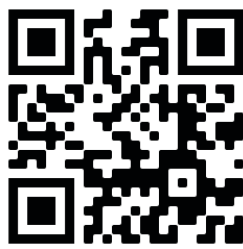
Integrate emerging mobility solutions and new technologies to move people and goods through our city in cleaner, safer, more affordable, and efficient ways.

OUR VISION

Charlotte will provide **safe and equitable** mobility options for all travelers regardless of age, income, ability, race, gender, where they live, or how they choose to travel. An integrated system of transit and tree-shaded bikeways, sidewalks, shared use paths, and streets will support a **sustainable, connected, prosperous, and innovative** network that connects all Charlotteans to each other, jobs, housing, amenities, goods, services, and the region.

CHARLOTTE
FUTURE

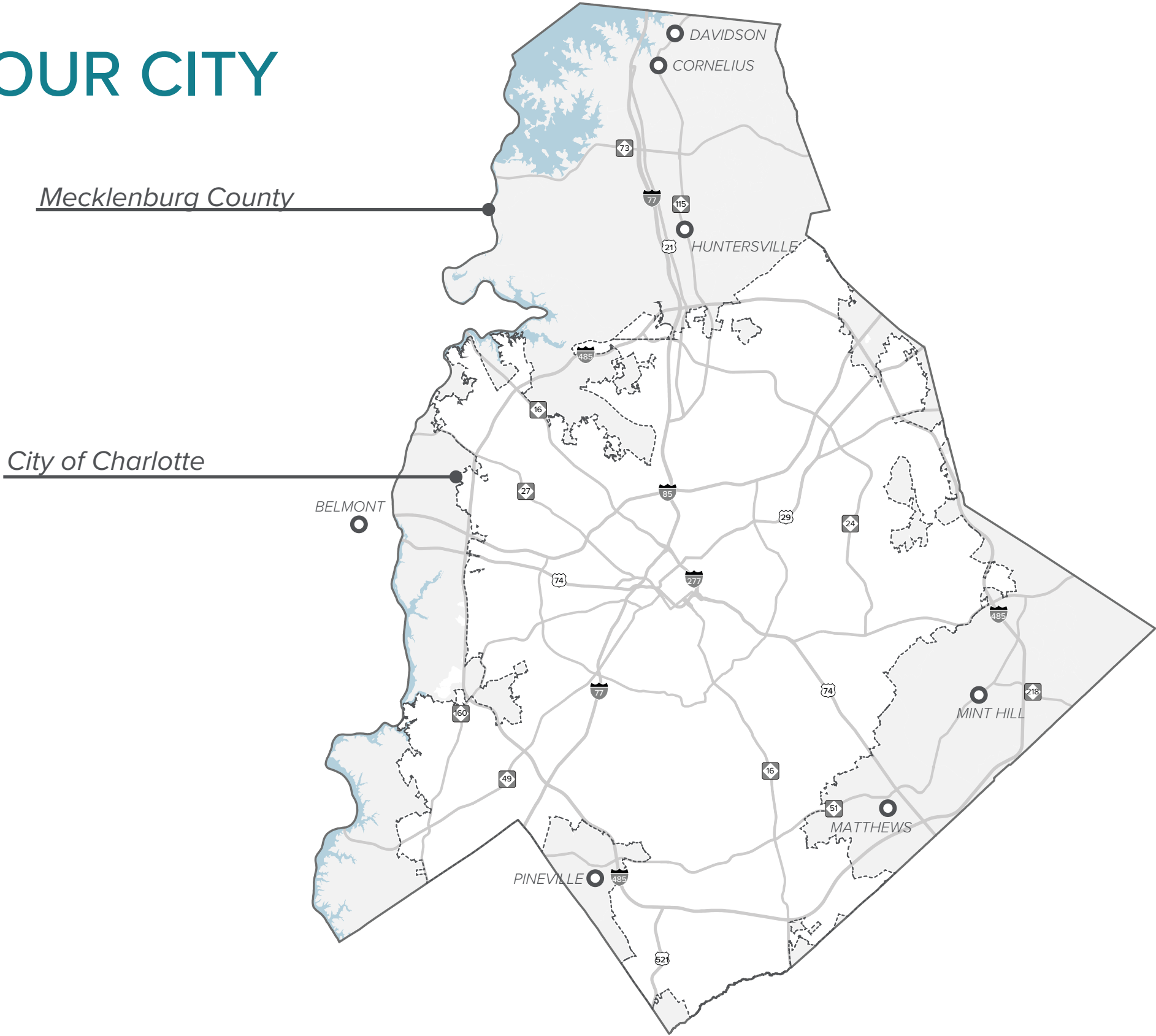
2040
COMPREHENSIVE
PLAN



The SMP aligns our mobility strategy to help implement our community vision: the Charlotte Future 2040 Comprehensive Plan.

Visit <https://cltfuture2040.com/> to learn more about the Charlotte Future 2040 Comprehensive Plan. You can also scan the QR code with your smart phone to take you to the website.

OUR CITY





Our Aspirations

To be a community that truly provides safe and equitable mobility, our aspirations cannot be timid:

Being safe means
No one in Charlotte will be seriously hurt or killed traveling on our streets.

Being equitable means
Living and working in Charlotte will not require traveling by car.

These transformational aspirations represent the foundation of the Strategic Mobility Plan, and although ambitious in nature, the resulting policies, strategies, and actions are all crafted and coordinated to make them achievable.

Defining these aspirations and being accountable towards progress is a profound and meaningful step towards a future Charlotte that provides safe and equitable mobility.

SAFE & EQUITABLE ASPIRATIONS

Safe | Vision Zero

2040 Aspiration

As a community, we will eliminate traffic deaths and serious injuries for all who share Charlotte streets.

Where We Are Today

Over the past decade, Charlotte has been one of the fastest growing cities in the country, adding close to 200,000 additional drivers, pedestrians, bicyclists, and transit riders to our streets. In 2021, Charlotte drivers logged more than 23 million miles daily on our streets, up nearly a million miles from the year before. While the total number of crashes in our city has decreased, there is still more work to be done. In 2021, there were 72 fatalities on our streets. Even one traffic-related death is too many.

Crashes and fatalities not only take a toll on human life, but also affect loved ones, healthcare facilities, businesses, and many other areas of our community. Between 2017-2021, people walking and biking were involved in less than 3% of all crashes, but accounted for over 40% of fatalities. This disproportionate share of fatalities by mode amplifies the need to re-evaluate our streets to account for all users.

Where We Want to Go

Charlotte is committed to safer streets through Vision Zero, a traffic safety program focused on reducing crashes and eliminating traffic-related deaths and severe injuries. Vision Zero distinguishes itself from traditional road safety approaches by focusing on fatalities and serious injuries and through the acknowledgment of human error. It is a shared responsibility between users, designers, and decision-makers.

Charlotte has responded to our growth by creating a variety of safe ways for people to move around the city and connect with each other by upgrading intersections, adding more bike lanes, and building additional sidewalks. Our ability to advance the implementation of Vision Zero is directly tied to our financial commitment to fund active transportation and safety programs, promote education, and maintain a commitment to enforcement.

How We Will Get There

Charlotte’s Vision Zero goal is based on the concept of shared responsibility for safety. Collaboration will be required across governmental agencies and community stakeholders focused on strategies for community engagement, data analysis, and equity. The importance of meaningful collaboration is an essential and central tenet of Vision Zero, because eliminating traffic fatalities and serious injuries will require the whole community working together.

Our commitment to Vision Zero means protecting human lives takes priority over all other objectives of our road system. It requires the belief that traffic deaths and severe injuries are preventable and unacceptable and our streets should be designed so mistakes are not fatal. Solutions must be collaborative, equitable, and data-driven, identifying and maintaining a High Injury Network to inform our actions and investments to improve safety. Safety on our streets is everyone’s responsibility and our whole community is accountable for implementation, measuring performance, and responding accordingly.



Vision Zero

In 2018, the City renewed its commitment to safer streets with the adoption of the Vision Zero Action Plan, which is based on the global Vision Zero strategy to eliminate all traffic-related deaths and severe injuries, while increasing safety, health, and mobility for all. Vision Zero focuses on how people naturally behave; people make mistakes, but mistakes should not be fatal. Through data, small infrastructure projects in targeted locations, and education and programming, the Vision Zero Program enhances safety for all of us, because even one traffic-related death is too many.

Equitable | 50-50 Mode Share

2040 Aspiration

As a community, half of our commute trips will be made by means other than a single-occupancy vehicle, through walking, biking, and taking transit.

Where We Are Today

As the demand on our transportation system increases, our investments will need to be more efficient and effective. Continued reliance on travel by car limits our ability to address equity, affordability, and environmental goals, while also impacting safety, public health, and congestion. Before the Covid-19 pandemic, more than 76% of Charlotteans commuted to work by driving alone (single-occupancy vehicles or SOVs), while only 24% used other methods of travel.

Our mode share, which relies heavily on vehicular travel, directly impacts current travel times, travel experience, and transportation cost. While we have historically widened streets and roadways to add vehicular capacity, space constraints, costs, and competing community priorities are leaving fewer places where widening roads is viable or desirable. We simply cannot build enough vehicle capacity to accommodate our growth.

Where We Want to Go

Charlotte is committed to achieving a greater distribution of travel across a more diverse spectrum of travel choices. Growth forecasts predict an additional 385,000 people and 212,000 jobs over the next 20 years. Given this growth, to simply maintain current travel times and levels of congestion, we must significantly reduce the percentage of trips made by SOV and increase the percentage of trips made by walking, biking, and taking transit.

The necessary mode shift would result in a 50-50 mode share with half of our trips made by means other than a single-occupancy vehicle, through walking, biking, and taking transit. **While the aspiration is to achieve a 50-50 mode share, the outcomes include maintaining travel times, improving transportation equity, reducing greenhouse gas emissions, improving public health, and maintaining our economic competitiveness.**



How We Will Get There

While setting performance benchmarks is necessary to focus our accountability, achieving a 50-50 mode share can only be accomplished through the committed coordination and partnership of all community stakeholders that influence mobility. This aspiration certainly requires increasing our investment in infrastructure that supports walking, biking, and transit. This investment involves the partnership and funding at the federal, state, regional, and local levels, aligning a balanced and multimodal approach to transportation investment. Residents will also need to support continued investment in our mobility infrastructure and embrace new ways of travel.

While investing in multimodal transportation choices is necessary, our mode share goal cannot be reached without also shifting travel demand. This requires public and private commitment to building places that increase density and access to jobs and services, resulting in a reduced reliance on the SOV for mobility. Where and how we grow directly impacts how we move, the length of trips, and the opportunity to connect people with destinations through means other than driving.



Congestion & Travel Time Reliability

Managing vehicular congestion includes measuring the reliability and consistency of travel time. Two particular measures help us quantify **travel time reliability** and identify specific treatments for corridors:

- *Travel time index - measures the intensity of congestion*
- *Planning time index - measures the reliability of congestion*

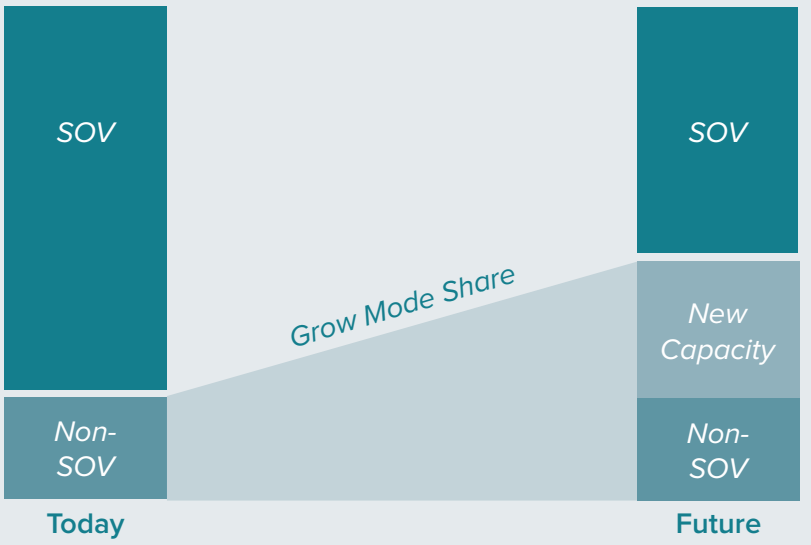
Mode Shift

Mode shift supports transportation equity and affordability by reducing reliance on cars and creating enhanced travel choices, which encourages the shift from single-occupancy vehicle use to alternative modes of travel. Modal imbalance is often a direct result of a sprawling pattern of growth and development that furthers reliance on vehicular travel and increases inequities in our communities. Successful mode shift supports City goals around climate, congestion, health, equity, growth management, and Vision Zero.

Mode Share Goals Across the Country

Many fast-growing cities throughout the U.S. are establishing mode share goals to identify and measure the impact of supporting multimodal investments and integrated land use solutions.

City	Current Drive Alone	Drive Alone Goal
Washington, DC	34.2%	25%
Seattle, WA	44.4%	25%
Denver, CO	69.6%	50%
Austin, TX	74.1%	50%
Charlotte, NC	76.6%	50%



To learn more about how we calculated our mode shift goal, refer to the Additional Resources section on page 154.

2

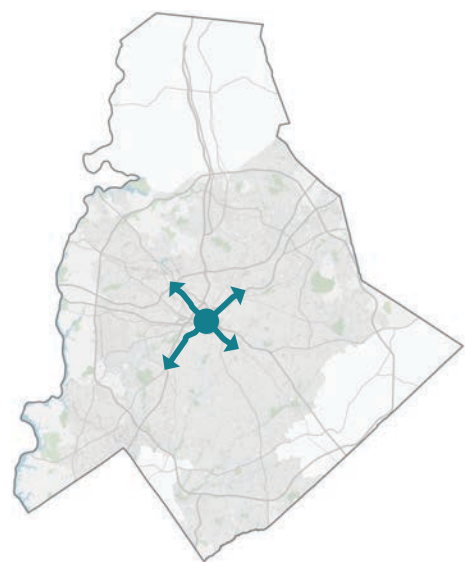
OUR STATE OF MOBILITY



Our State of Mobility documents our current conditions to illustrate the diversity of mobility needs and challenges in our community.

HISTORY & DEVELOPMENT

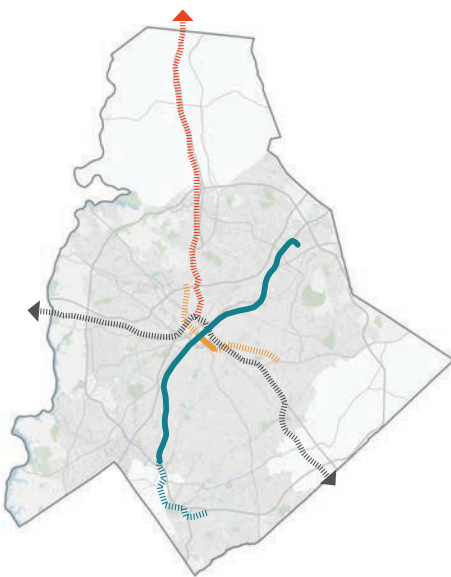
Charlotte's Mobility Evolution



The Early City



The 20th Century City



The Multimodal City

Trade and Tryon Crossroads

- Two major Native American trading paths intersected on high ground in what would become “Uptown” in future generations
- These paths didn’t follow compass directions and became the main streets for the early grid with roughly 400-foot square blocks

Mid 1800s Railroads

- Two main lines and two feeder lines ran through Charlotte with connections to Columbia/Charleston, Greensboro/Raleigh, Statesville, and Wilmington.
- The City’s population doubled during the 1850s, spurred by the railroads, an emerging textile industry, and a gold rush

Turn of Century Streetcar Service

- The streetcar was built to unlock land to be developed in current day Dilworth and to connect first ring suburbs: Elizabeth, Wilmore, Wesley Heights, and Myers Park
- At its peak, the streetcar system had 50 operating trolley cars and 29 miles of track; service ran through 1938

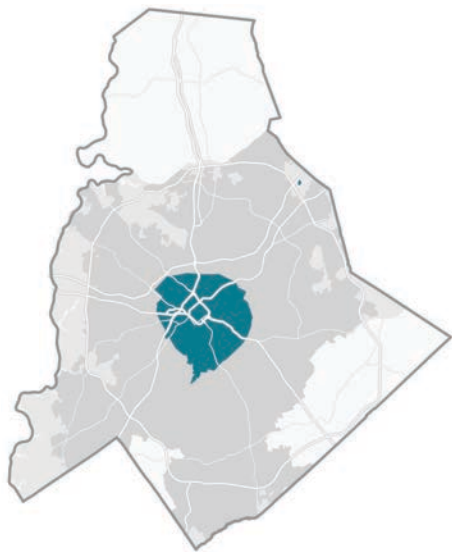
Auto-Oriented Transportation

- Focus was on highway construction: widening thoroughfares and building major interstates
- I-77 built in late 1960s
- I-85 built from 1960s–70s
- I-277 built in 1980s
- I-485 started in late 1990s

Investment in Multimodal Travel Options

- CATS established in 1998
- LYNX Blue Line Light Rail service begins in 2007
- Investment in regional greenway and rail trail projects like the Cross Charlotte Trail and Carolina Thread Trail
- CityLYNX Gold Line Streetcar service begins in 2015
- Blue Line extension opens and future Silver Line approved in late 2010s
- Investment in technology, micromobility, and shared mobility (e.g., rideshare options, e-scooters, bike share, electric car charging stations, etc.)

Charlotte's Expansion & Annexation

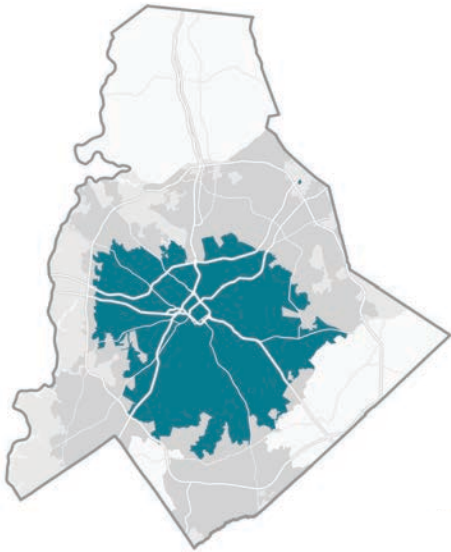


1950

134,042
Population

30
Square Miles
(5% of County)

Emerging from World War II, private automobile ownership became the norm for Charlotte households that could afford a car. Growth exploded beyond Uptown, ushering in a period of dramatic suburban growth and expansion. Local and national policies supported the increased suburban growth. They also supported increased racial segregation through redlining and urban renewal.

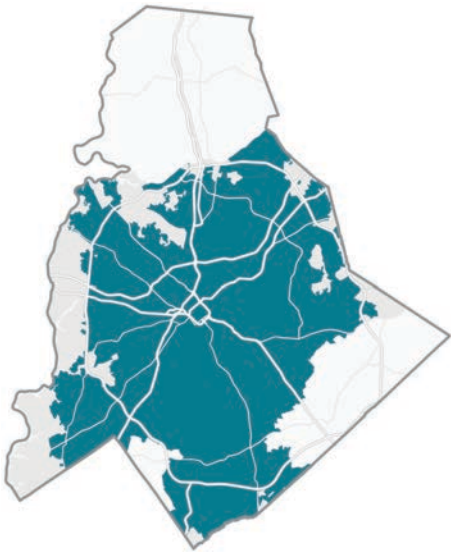


1980

395,719
Population

140
Square Miles
(25% of County)

In the late 20th century, Charlotte emerged as a nationally-significant economic center with strength in the banking/financial services, energy, and logistics/freight industries. Rapid growth continued, characterized by the development of multiple employment/activity centers with sprawling suburban neighborhoods and corridors in between.



2020

877,279
Population

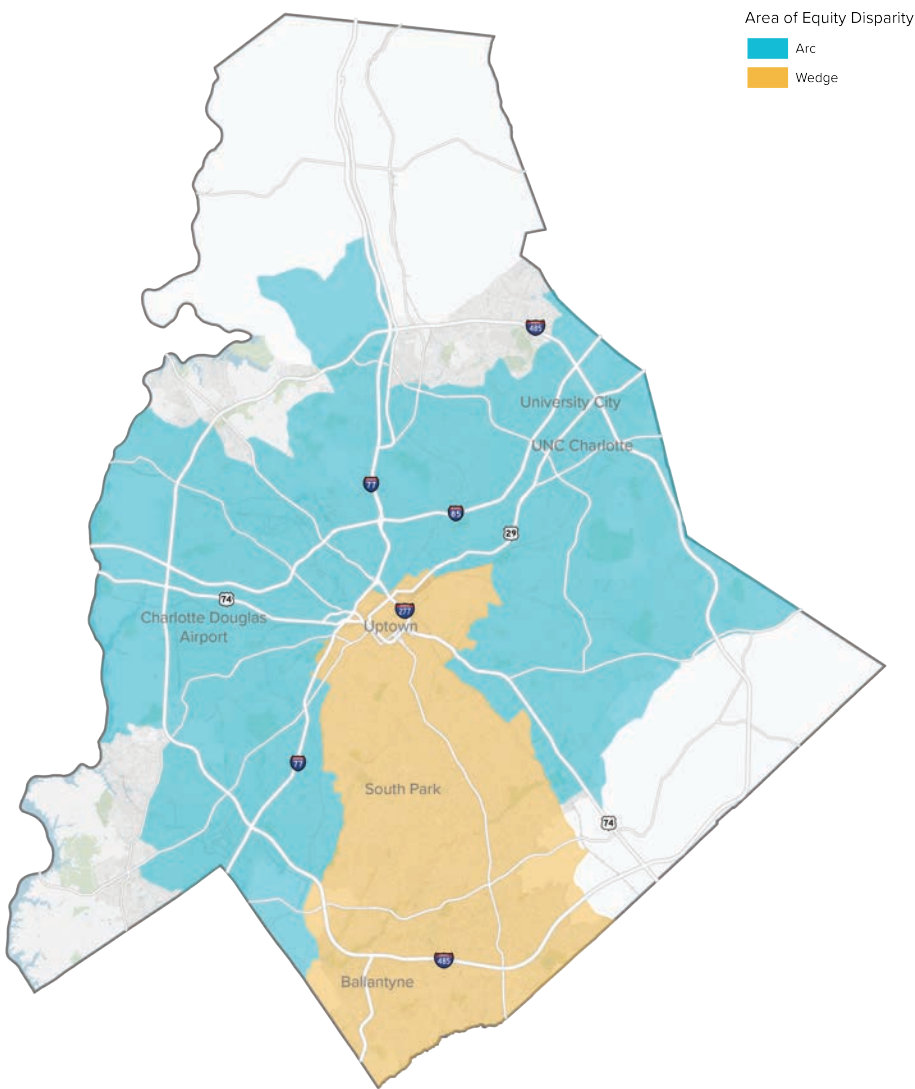
309
Square Miles
(57% of County)

The early 21st century saw growth and development guided by major transportation investments like the LYNX Blue Line light rail, Little Sugar Creek Greenway, and I-485. Uptown and areas along the light rail, like South End and NoDa, were transformed by large, mixed-use, multifamily developments. Other centers, such as University City, SouthPark, Plaza Midwood, Midtown, and Ballantyne, also saw rapid growth and densification through large commercial and multifamily projects. In between emerging and growing centers, infill development is changing the land use characteristics and transportation demands on major corridors.

RACIAL & ECONOMIC PATTERNS

The Arc

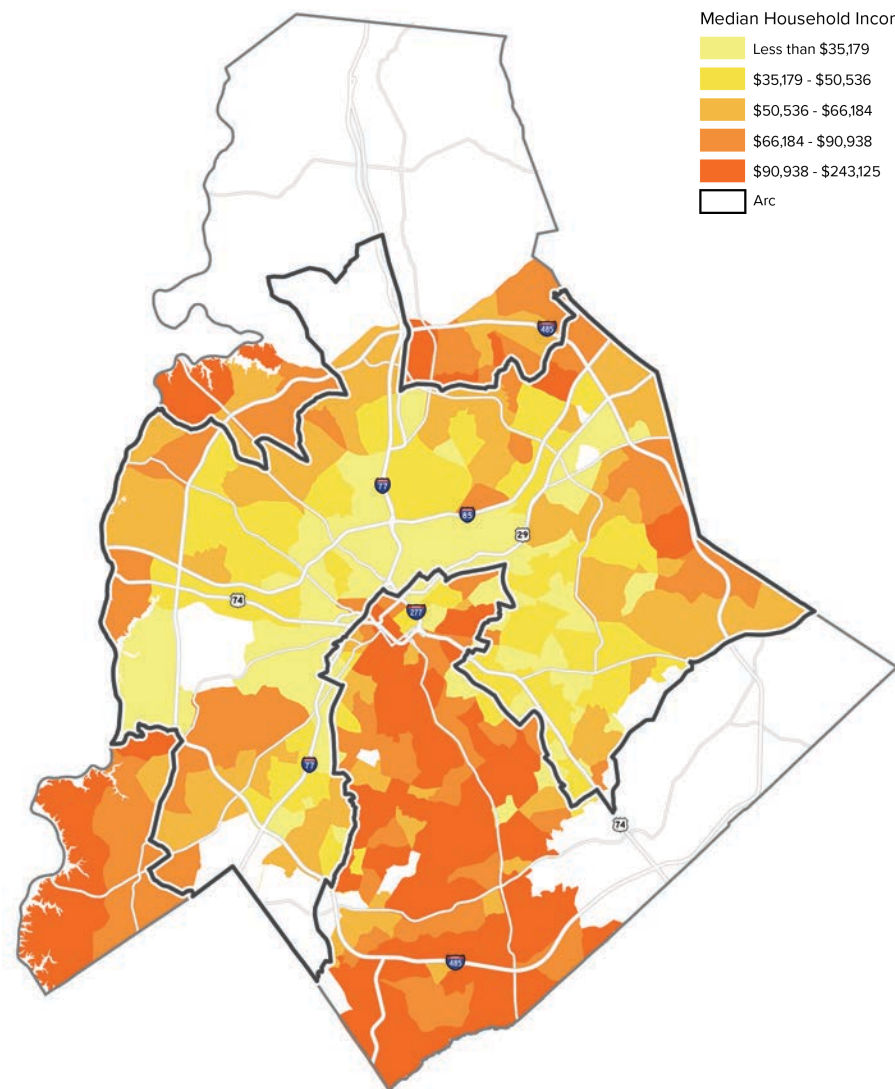
One of the early products of the Charlotte Future 2040 Comprehensive Plan process is the “Built City Equity Atlas,” known more commonly as the Equity Atlas. The Equity Atlas examines Charlotte’s built environment and socio-economic characteristics through an equity lens. It identifies an “Arc” of racial and economic segregation that extends around center city Charlotte to the east, north, and west. This spatial pattern was identified using 1) household income data, 2) race data, and 3) voter participation rates to identify areas of the city most likely to be historically and currently underrepresented.



Household Income

The median household income for Charlotte is around \$61,000. Average household incomes in Uptown and SouthPark are around \$100,000. The average household income within the Arc is approximately \$49,705. Access to transportation is one of the highest indicators of job accessibility and economic mobility.

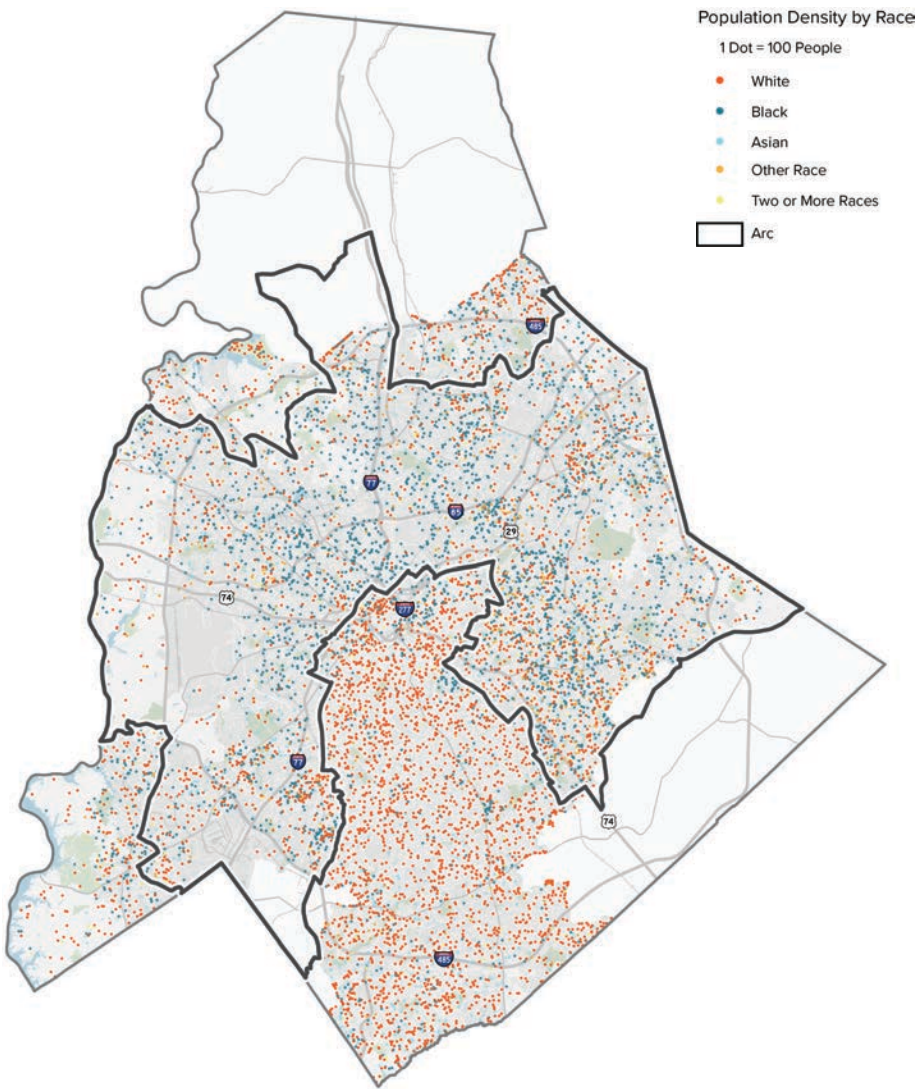
Charlotte’s highest income areas are heavily concentrated in the Wedge of neighborhoods south of Uptown.



Population Density by Race

The map below shows population density by race throughout the city, where one dot is equal to 100 people. Charlotte’s population density is generally greater in the urban core and on the south and east sides. The spatial pattern of the Arc is clearly evident in the racial distribution of population density and race clearly follows a spatial boundary of segregation in Charlotte

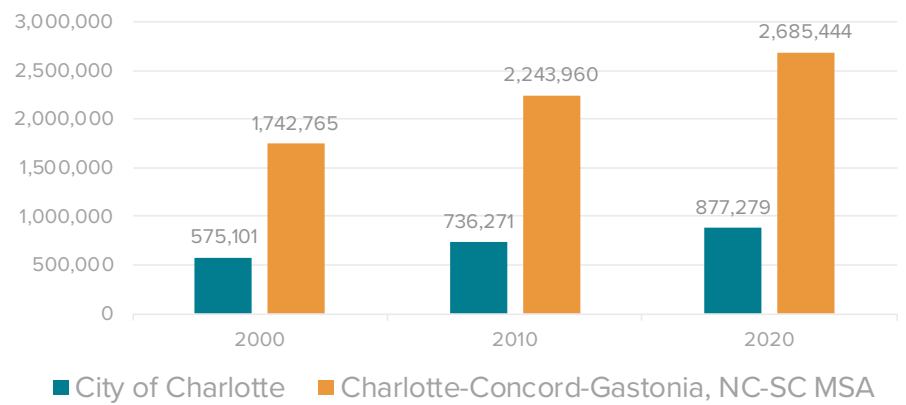
The spatial pattern of the Arc is clearly evident in the racial distribution of population density within the city.



GROWTH & DIVERSITY

Population Growth

Charlotte has seen significant population increase since 2000 (302,178 people, or 52.5%). The increase was most dramatic between 2000 and 2010, which saw a 28% increase—as opposed to a 19.2% increase between 2010 and 2020. Charlotte’s population accounts for roughly one third of the larger Charlotte-Concord-Gastonia Metropolitan Statistical Area (MSA), which has a population over 2.6 million.



Age

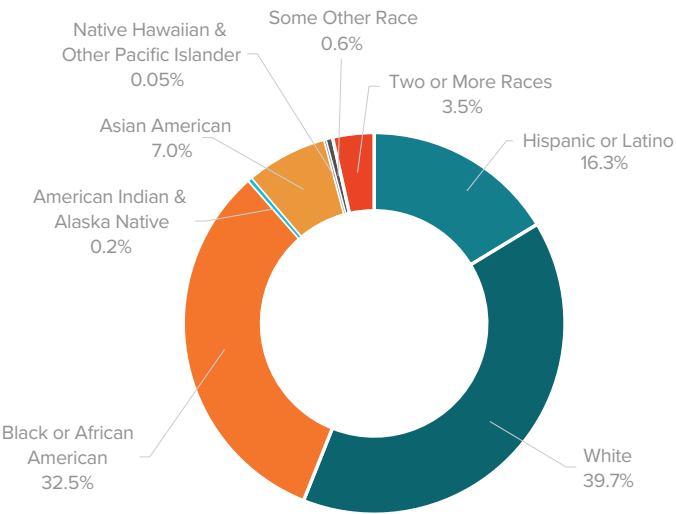
As seen on the table below, Millennials (roughly approximated by people ages 25-44) make up the largest share of the population among all generations at 31.4%. However, Baby Boomers (roughly approximated by people ages 55-74) make up the fastest growing cohort by far. This could be indicative, in part, of national trends that show Baby Boomers and empty-nesters moving back into urban areas from suburban neighborhoods. Given Charlotte’s diversity in age and growth in older populations, it will be necessary for all travel modes, especially biking, walking, and transit, to support people of all ages and abilities.

Cohort	2010	2020	% Change
0-14	477,963	526,347	10.1%
15-24	291,715	335,681	15.1%
25-34	309,666	375,962	21.4%
35-44	345,570	365,220	5.7%
45-54	325,374	367,906	13.1%
55-64	246,836	332,995	34.9%
65-74	141,369	233,634	65.3%
75-84	74,051	107,418	45.1%
85+	29,191	40,282	38.1%

Charlotte-Concord-Gastonia, NC-SC MSA

Race & Ethnic Identity

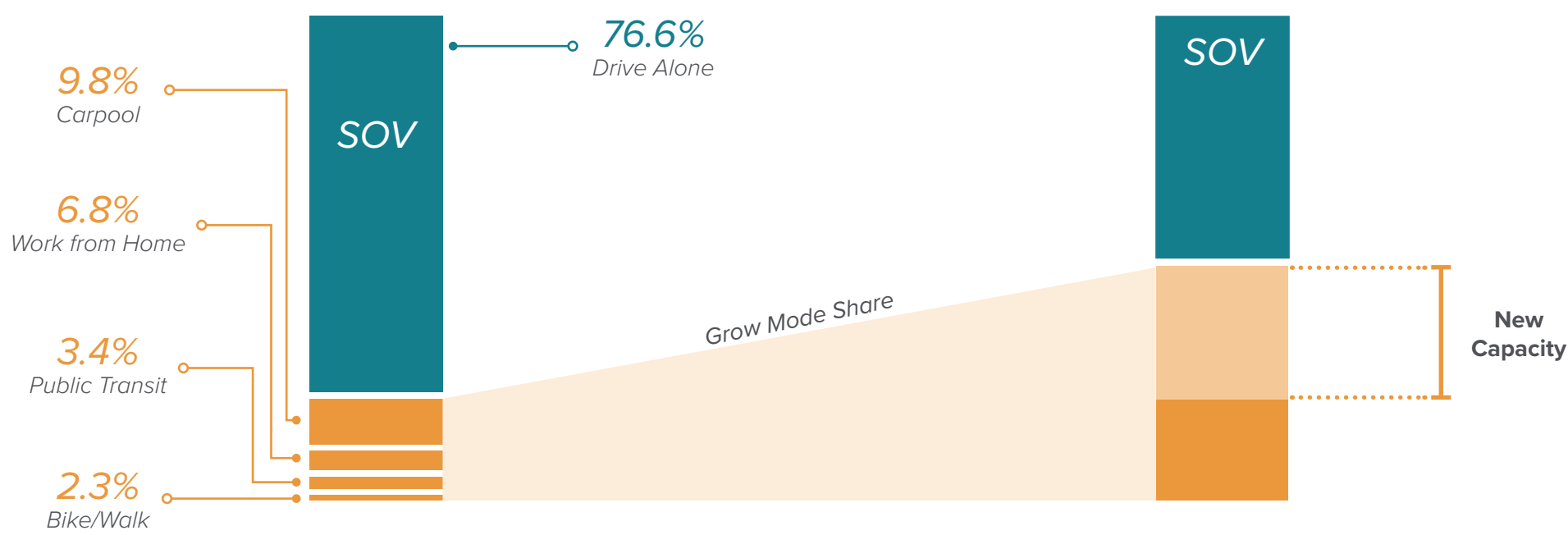
As of 2020, 39.7% of Charlotte residents identify as White; 32.5% identify as Black or African American; 16.3% identify as Hispanic; 7% identify as Asian American; 3.5% identify as Two or More Races; 0.6% identify as a race other than those provided to select by the U.S. Census (Some Other Race); 0.2% identify as American Indian or Alaska Native; and 0.05% identify as Native Hawaiian or Other Pacific Islander.



HOW CHARLOTTE MOVES

Travel Patterns & Mode

Modal imbalance is a direct result of Charlotte’s sprawling pattern of growth and development and our past decision-making.



Today

Charlotte is a car-dependent city. 76.6% of Charlotte workers drive alone to work. 23.4% travel by some other mode (e.g., walk, bike, transit, carpool, or telework). That imbalance is a direct result of 1) Charlotte’s sprawling pattern of growth and development after World War II and 2) Charlotte’s historic underinvestment in infrastructure for walking, biking, and riding transit. Charlotte’s car dependence also reflects other challenging issues, like the lack of a connected multimodal network, our transportation sector accounting for almost 40% of greenhouse gas emissions (Strategic Energy Action Plan, 2015), and the fact that the average household in Charlotte spends nearly a quarter of their income on transportation (HTA Index).

Tomorrow

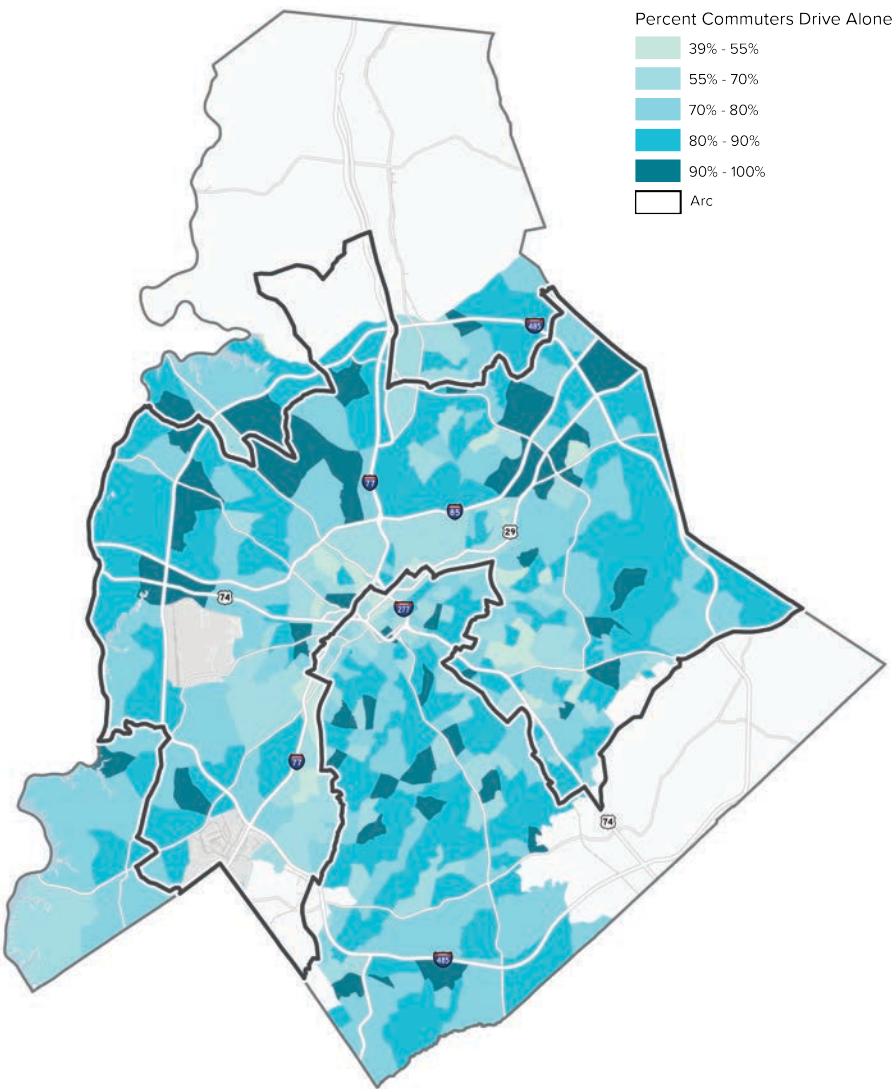
Achieving a more balanced mode share is critical to achieving complicated—and sometimes competing—mobility goals, such as:

- Managing rapid growth
- Improving multimodal accessibility and safety
- Supporting equity, affordability, and health
- Responding to climate change
- Managing congestion

Setting an aspirational mode balance target to guide future transportation investment and policies should be considered to achieve citywide mobility goals.

Single-Occupancy Vehicle (SOV) Distribution

In general, the farther you live from Uptown, the more likely you are to drive alone to work. This is especially true on the northern side of the city, within the Arc. Higher SOV percentages are also seen closer to Uptown in areas outside of the Arc, particularly those areas south of Uptown. The area immediately surrounding Uptown (but within the Arc) is representative of people who are least likely to use SOV travel for their daily commute. Many of these areas also correlate to areas where there are higher percentages of households without access to a vehicle.

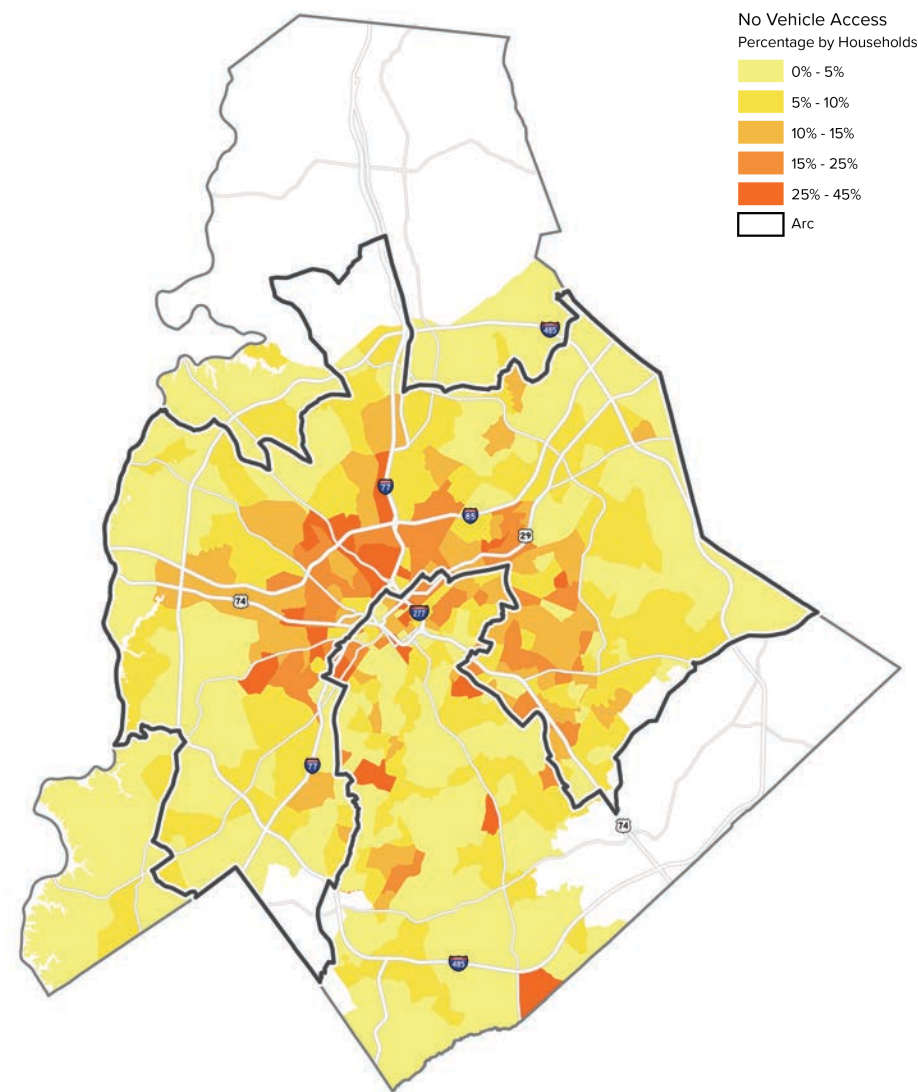


AFFORDABLE TRAVEL

Vehicle Access

Roughly 13,000 Charlotte households do not have access to a car. In a city like Charlotte, which has been designed and developed for vehicular travel, it is very difficult to move through the city without one. This is especially true for those within communities who are less likely to be able to afford a vehicle.

Almost 13,000 households in Charlotte don't have access to a vehicle, and the vast majority of these households are within the Arc.



Housing Cost Burden

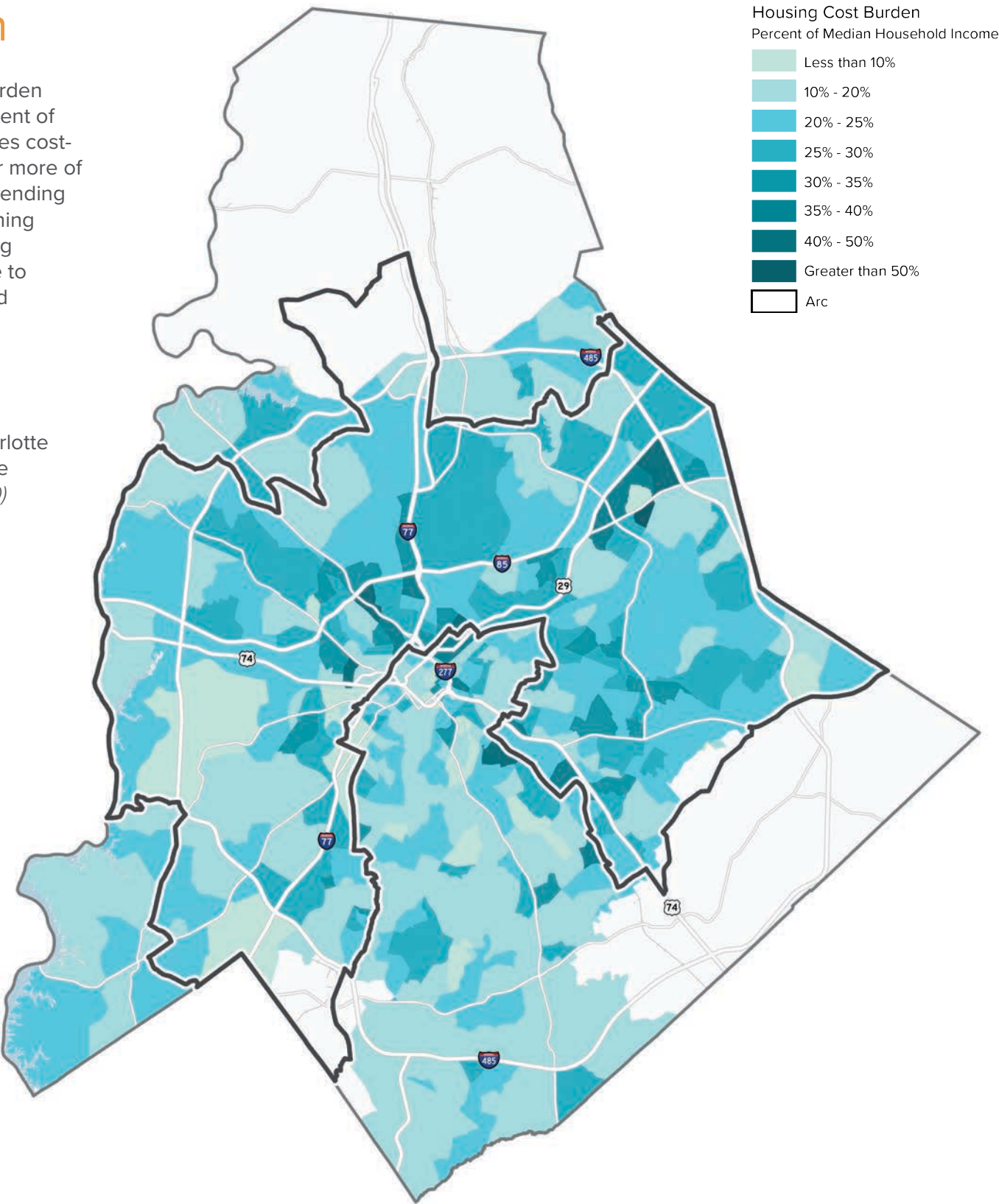
This map to the right displays housing cost burden by block group in Charlotte. The U.S. Department of Housing and Urban Development (HUD) defines cost-burdened families as those who spend 30% or more of their median income on housing expenses (spending 25% to 30% would be considered as approaching cost-burdened). Areas with the highest housing cost burden include areas inside the Arc close to Uptown (particularly to the north and west) and the University of North Carolina at Charlotte (UNC Charlotte).

13.4%
Increase in Avg. Charlotte
Rent Prices
(Since 2016)

44.9%
Increase in Charlotte
Home Value
(Since 2010)

Households that spend 25% or more of their income on housing:

Within Arc: 48%
Outside Arc: 16%





JOB DENSITY

Job Density

The data from the Mecklenburg County Quality of Life (QoL) Explorer shown on the map below was used to evaluate the areas within Charlotte that have the highest number of jobs. The map to the right shows clusters of high employment areas in and around Uptown Charlotte, University City, SouthPark, Ballantyne, and the airport. Employment centers with the highest density of jobs are located outside the Arc.

Northlake
3-9 jobs/acre

University City
20-45 jobs/acre

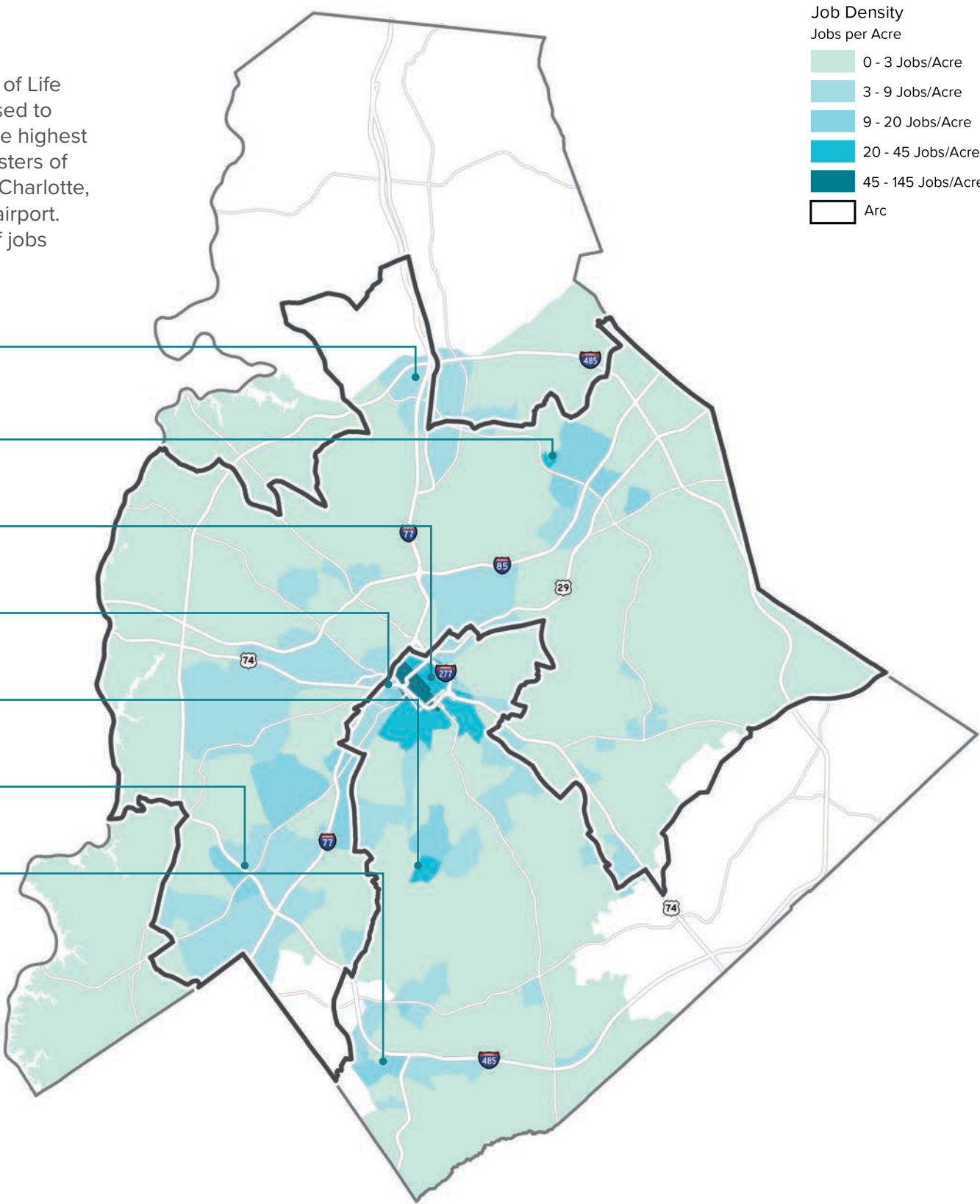
Uptown
45-145 jobs/acre

South End
9-20 jobs/acre

SouthPark
20-45 jobs/acre

Whitehall/Ayrsley
9-20 jobs/acre

Ballantyne
9-20 jobs/acre

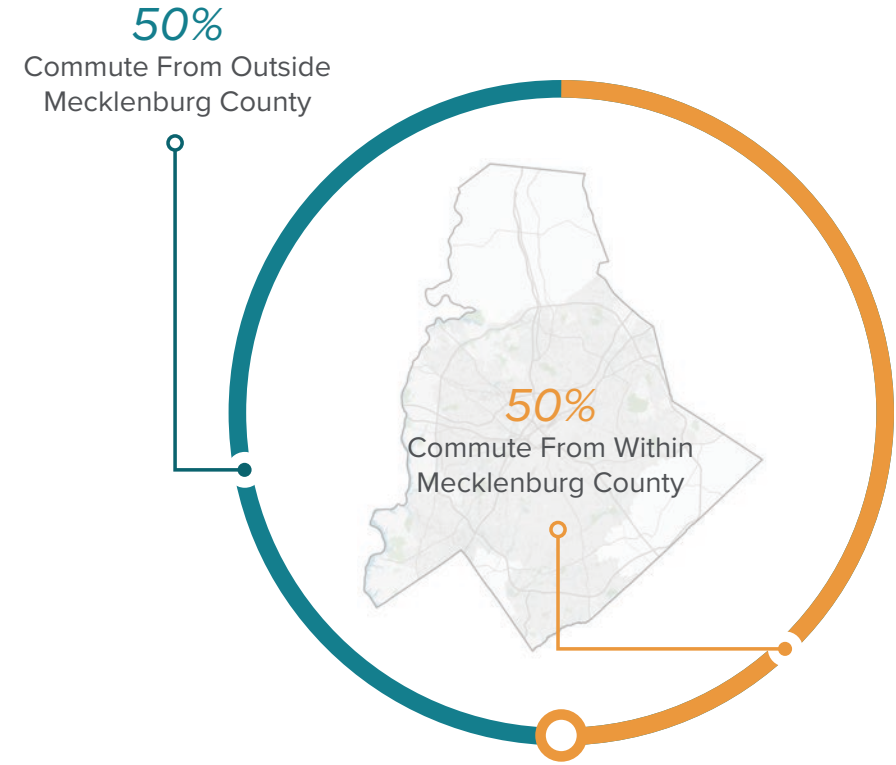


ACCESS TO JOBS

One of the most common daily trips for most Charlotteans is between two places—their home and their place of employment. The identification of important employment characteristics is critical to understanding the needs of Charlotte workers and improving economic vibrancy.

Economic Engine

Charlotte is the economic engine of a region of over 2.6 million people (U.S. Census. Charlotte-Concord-Gastonia MSA, 2019 est.). As the center of the region, how Charlotte invests in its mobility network has significant effects beyond Charlotte’s borders. Roughly half of Charlotte’s employment base commutes from homes outside of Mecklenburg County. Union County (6.4%), Cabarrus County (5.8%), Gaston County (5.4%), and York County, SC (5.4%) are the top origin points for Charlotte workers who commute from outside the County.



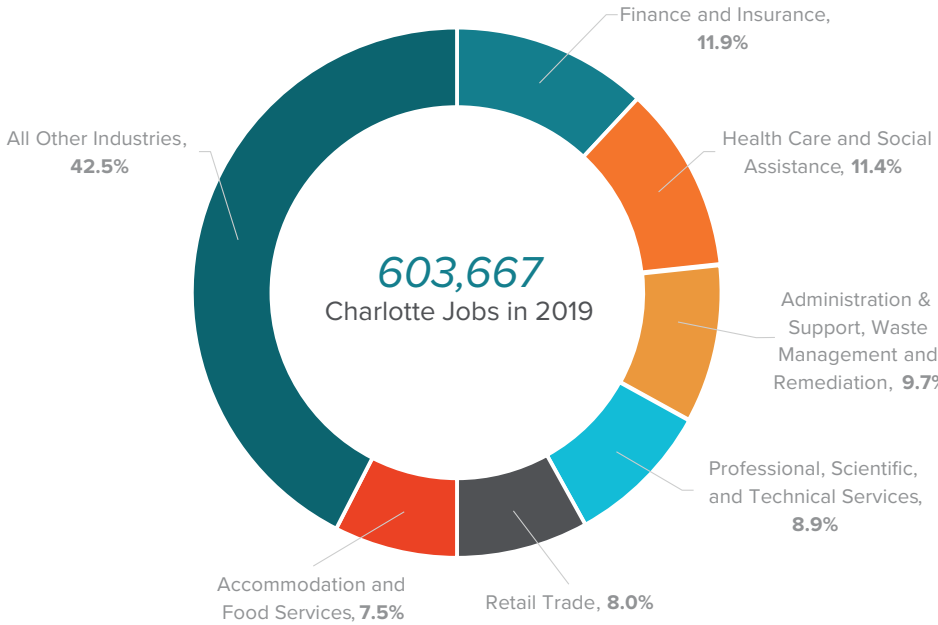
Page Source: U.S. Census - OnTheMap



Top Industries

Health Care and Social Assistance as well as Finance and Insurance are the two largest industries in Charlotte, with more than 68,000 and 71,000 employees in 2019, respectively. However, Finance and Insurance has seen rapid growth since 2014, with a 37.4% change; whereas Health Care and Social Assistance increased at less than half that rate (16.0%) over the same time period. Both industries have a strong presence in Uptown, Midtown, University City, and Ballantyne. Construction has also increased significantly in Charlotte, with over 37.5% growth in the industry since 2014.

Health Care and Social Assistance, Finance and Insurance, and Administration & Support, Waste Management and Remediation account for 33% of Charlotte’s workforce. As these and other office-based industries (like Professional, Scientific, and Technical Services) continue to grow, focus will need to be placed on efficiently moving commuters in and out of employment clusters.



ACCESS TO TRANSIT

CATS Service & the 2030 Plan

In November 2006, the Metropolitan Transit Commission (MTC) adopted the 2030 Transit Corridor System Plan (shown at right). Updated in 2019, this long-range plan consists of multiple rapid transit improvements in five corridors, a series of Center City improvements, and bus service and facility improvements throughout the region.

Once completed, the 2030 System Plan will encompass 25 miles of commuter rail, 45 miles of light rail, 10 miles of streetcar, and an expanded network of buses and other transit services.

Bus Service

The Charlotte Area Transit System (CATS) operates more than 70 routes that transport over 25 million passengers annually.

Rail & Streetcar

The LYNX Blue Line is about 20 miles long with 26 stations, and operates from I-485 at South Boulevard to UNC Charlotte’s main campus in University City. The rail carried 28,000 riders a day in 2019. The CityLYNX Gold Line is about 4 miles long, connecting the Historic West End to the Elizabeth Neighborhood to the east, and includes 17 stops.

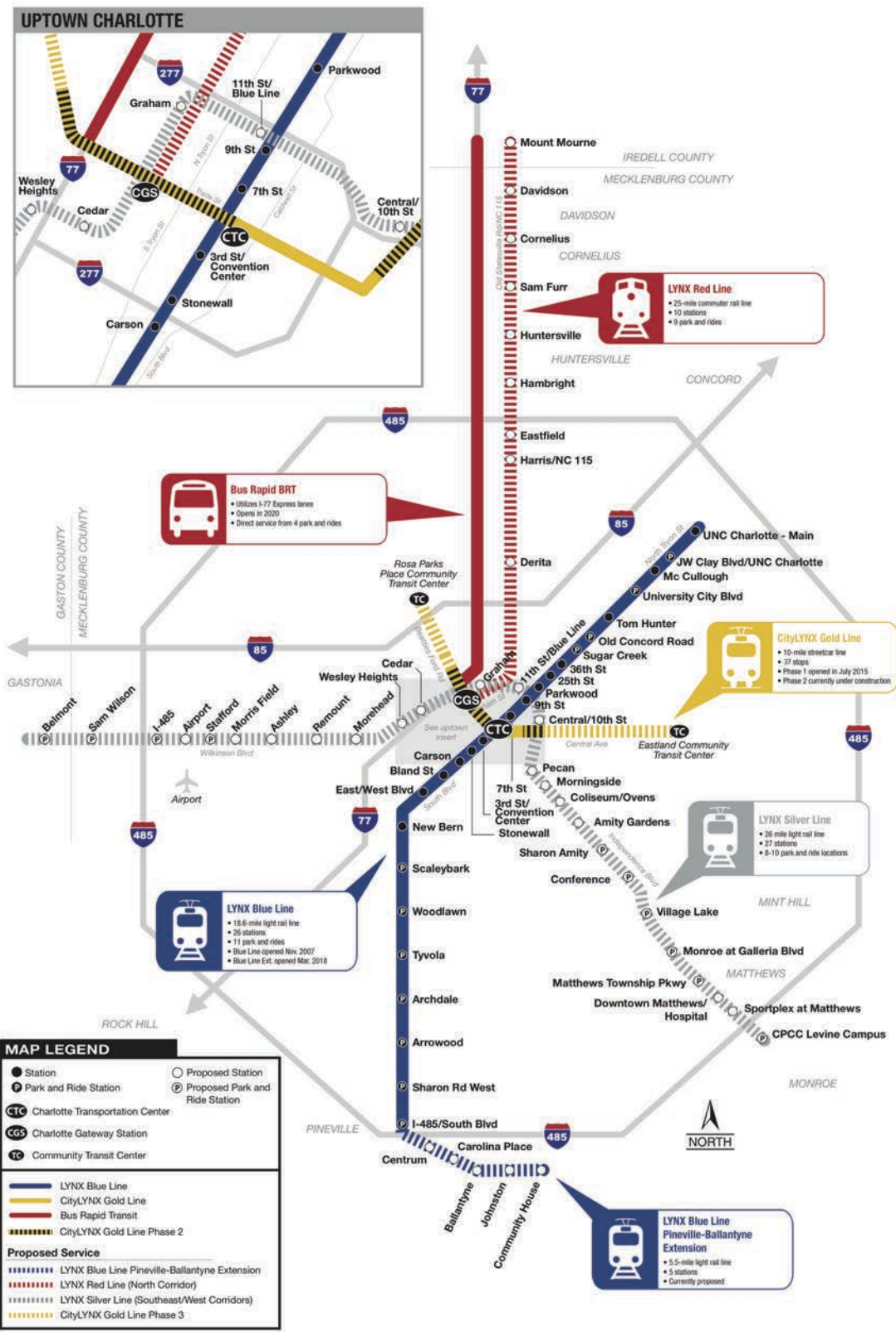
The LYNX Blue Line carried 28,000 riders a day in 2019.



Ongoing Efforts

Current efforts to expand public transportation has CATS focused on several primary initiatives that include expansion and improvement of the current bus system and service frequency through Bus Priority Corridors and the Envision My Ride process. Additionally, investment and ongoing efforts related to premium rail transit options include:

- *LYNX Blue Line Extension (to Ballantyne)*
5.5 miles | 5 stations
- *CityLYNX Gold Line Phase 3 (East to West Ctl.)*
6 miles | 20 stations
- *LYNX Red Line (North Meck. County and Mooresville)*
I-77 BRT (Long-Term: Commuter Rail) | 25 miles | 10 stations
- *LYNX Silver Line (Matthews to Belmont)*
26 miles | 27 stations



Transit Facilities & Access

The map to the right illustrates the existing transit system with emphasis on access to premium transit (light rail and bus routes that provide 15-minute headways or less during peak hours). Five and ten minute walking buffers (one quarter mile and one half mile, respectively) were placed on stops and stations to highlight areas with access to strong transit options. Future transit options (Red Line, Silver Line, and Blue Line Extension) are shown on the map as well.

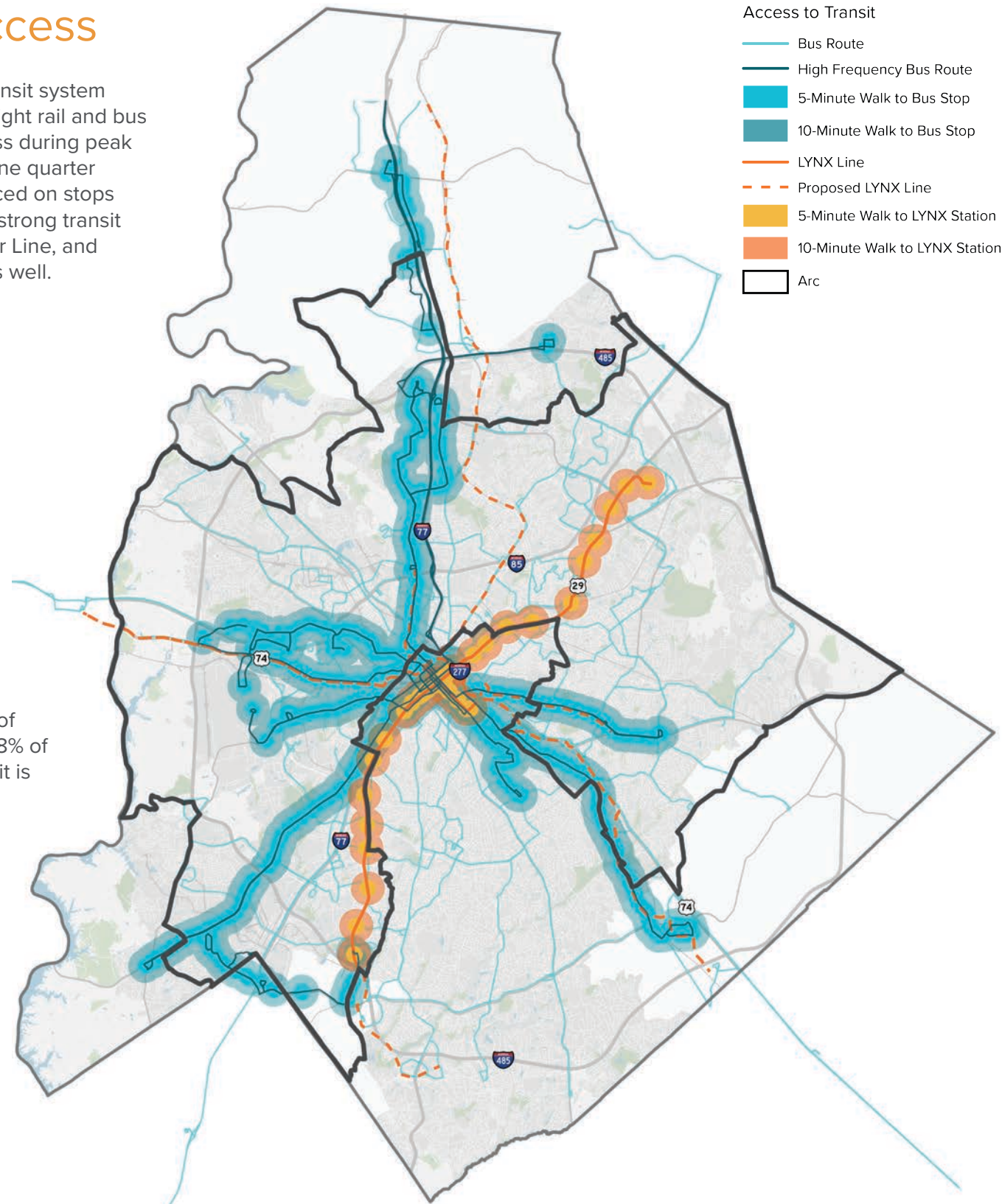
Bus Ridership

78% Black or African American
63% commuting to work
47% earn < \$25,000/year

LYNX Ridership

71% Black or African American
63% commuting to work
45% earn \$25,000–\$49,999 per year

Continuing to prioritize and provide accessible, safe, and convenient transit options is necessary to advance the equity of our transportation system. With Black or African American residents making up 32.5% of the Charlotte population, yet accounting for 78% of bus ridership and 71% of LYNX ridership, transit is an important service for many Charlotteans.

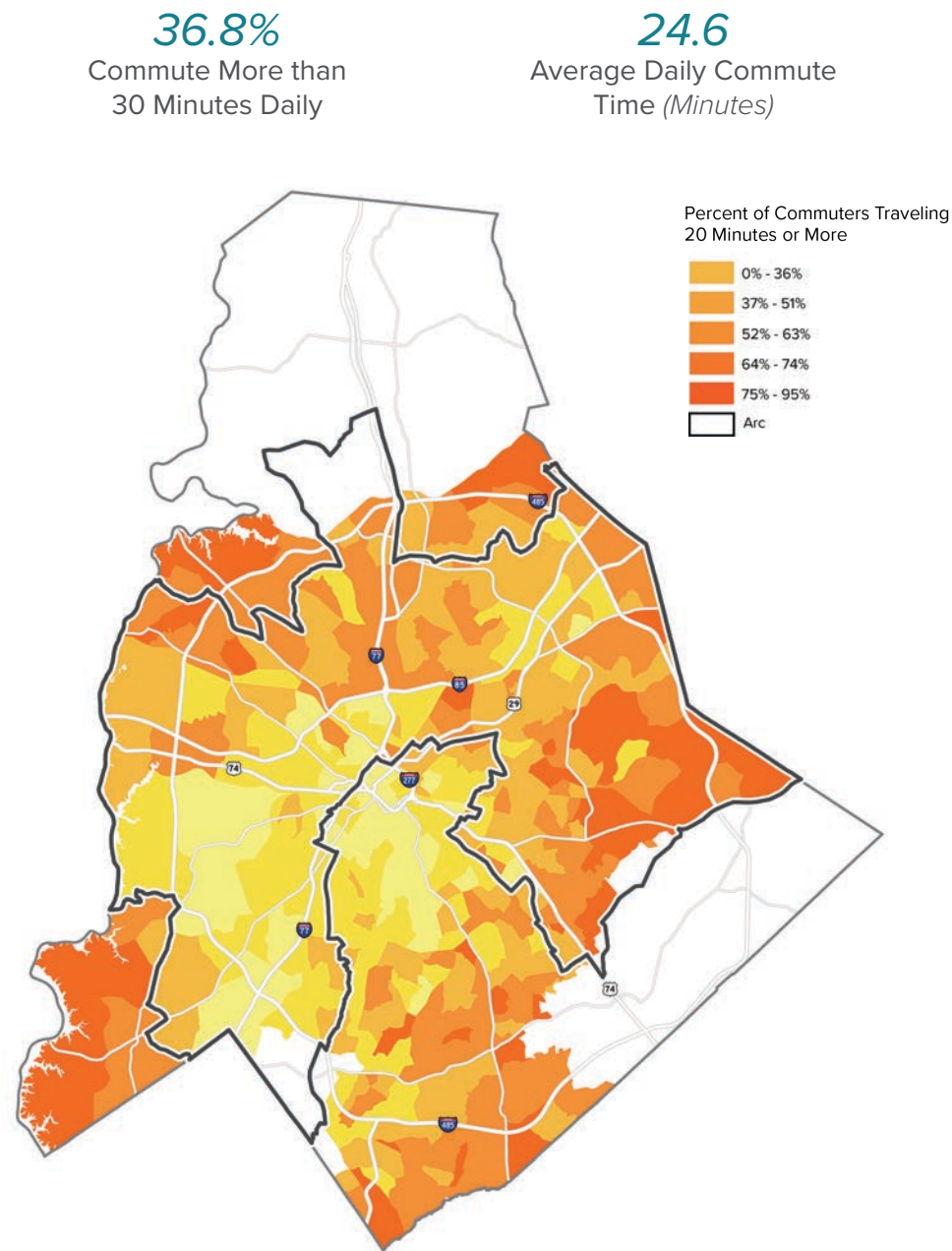


CAR TRAVEL

Commute Times

The map below shows the percentage of commuters who live within Charlotte and travel 20 minutes or more to work. In 2018, the mean travel time to work was about 25 minutes for Charlotte residents.

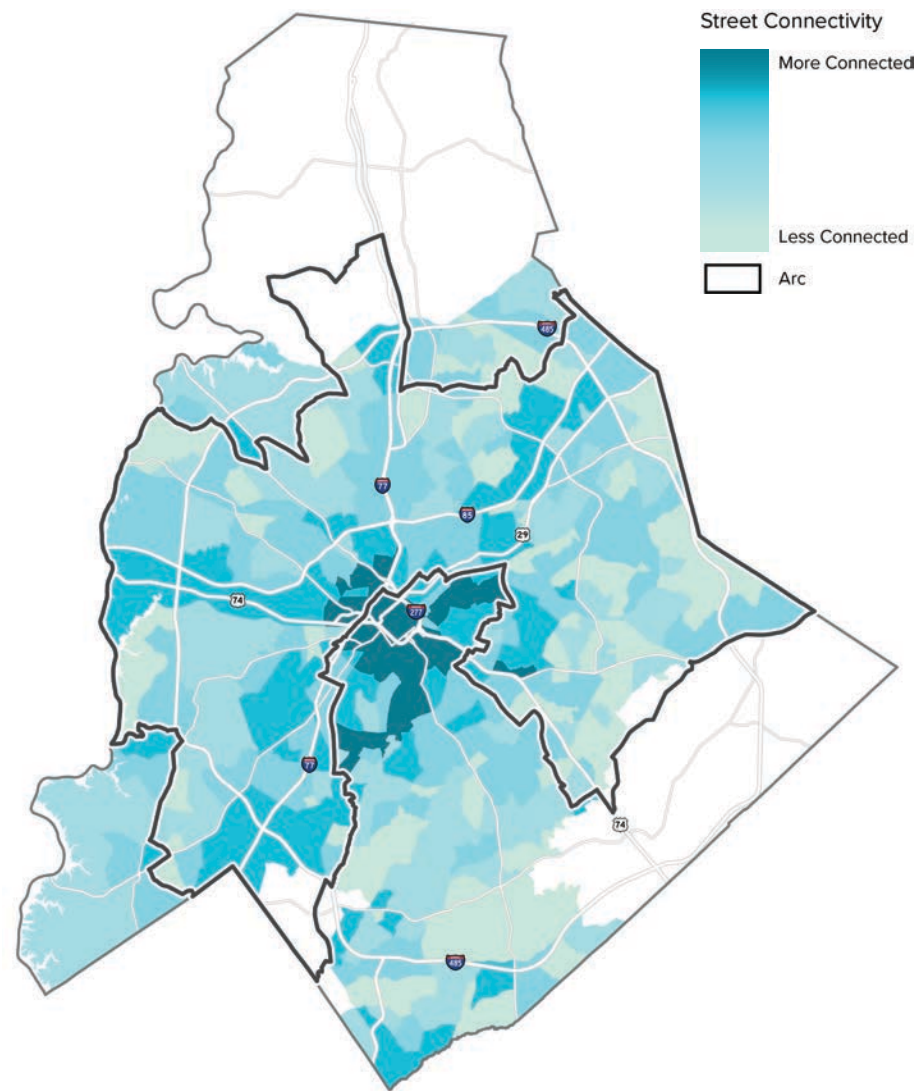
76.6% of Charlotte residents drive alone in a car for their daily commute.



Street Connectivity

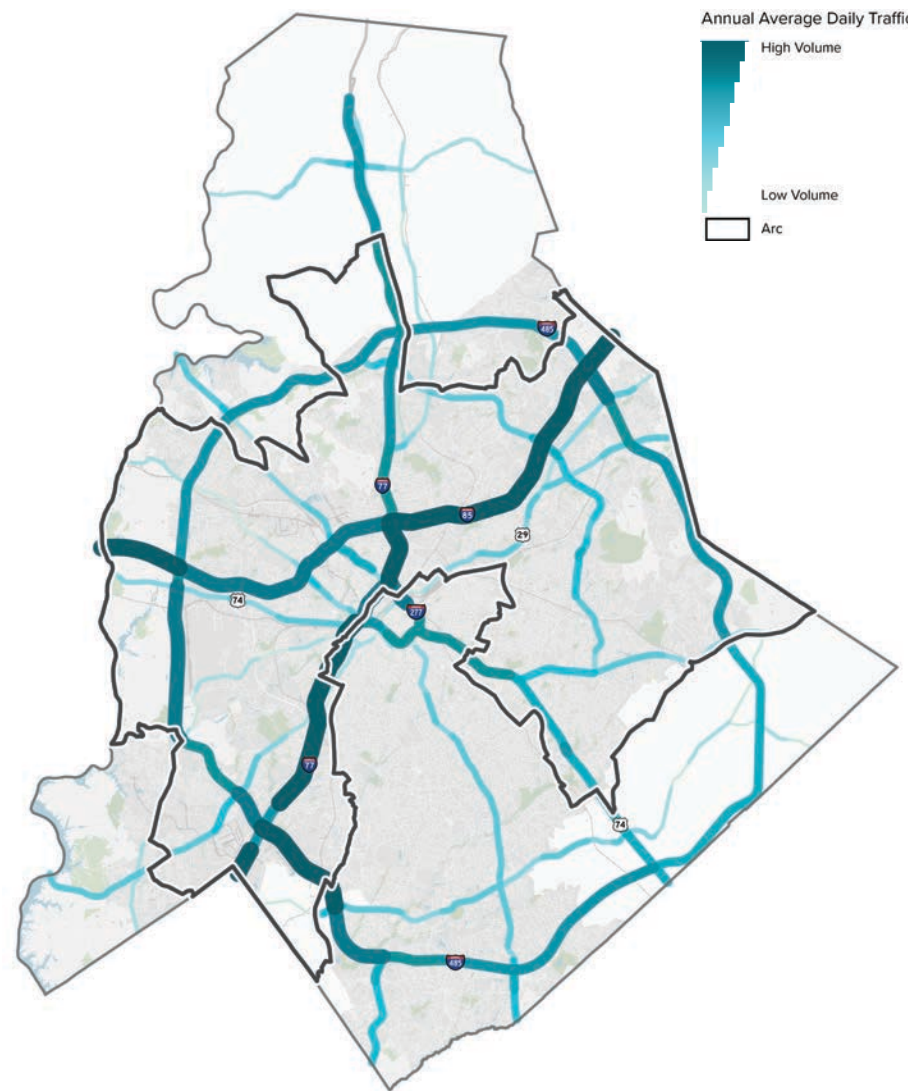
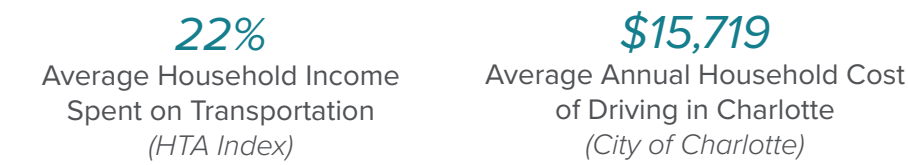
The map below uses data from the Mecklenburg County Quality of Life (QoL) Explorer tool to display the connectivity of the street network by an index number from 1 to 3 for each neighborhood profile area (NPA). A score of one indicates less connectivity and a score of three is indicative of a more connected street system. The city has a goal of having an average street connectivity index of 1.4. In 2018, the mean index value for NPAs across Charlotte was 1.16.

Higher street connectivity provides greater route choice and facilitates efficient multimodal travel.



Roadway Traffic Volumes

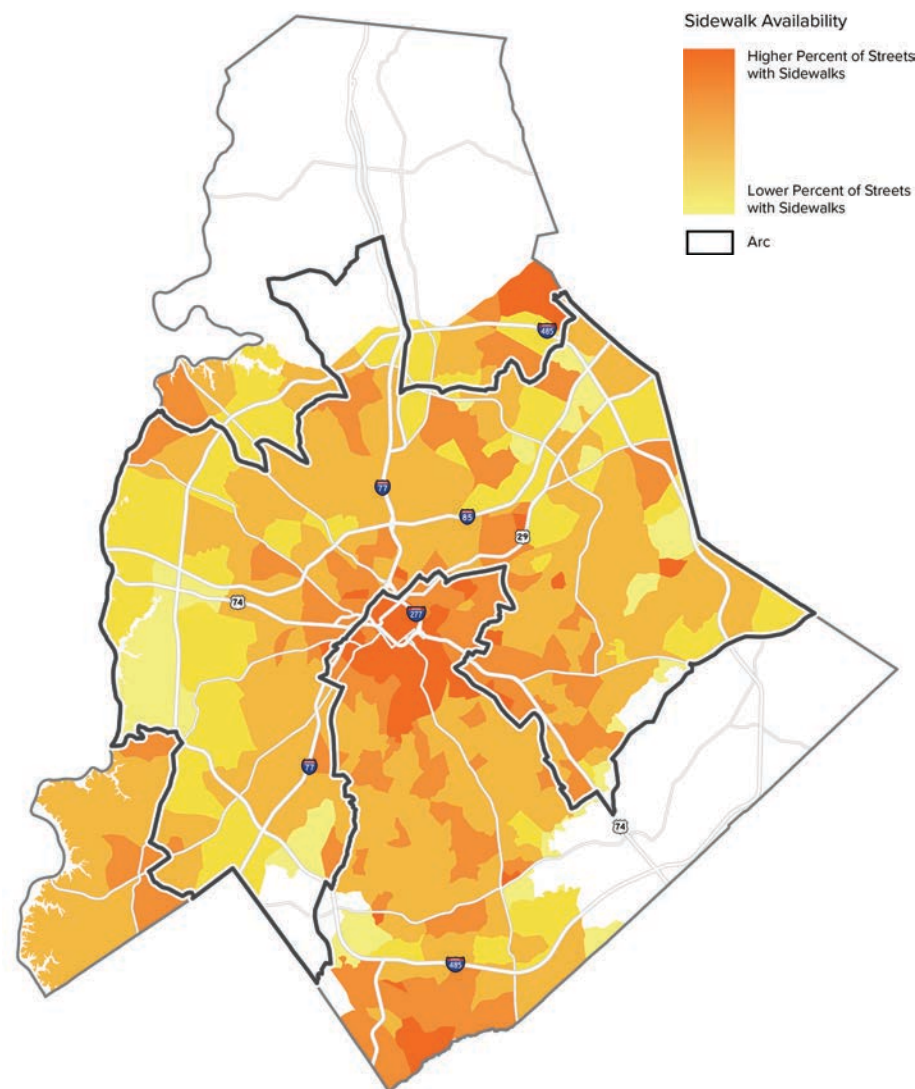
Annual average daily traffic (AADT) is a measure of the total volume of vehicle traffic on a highway or road. High traffic roads in Charlotte include I-485, I-277, I-85, and I-77. These interstates are Charlotte's major thoroughfares and include the inner- and outer-beltlines that encompass Uptown and the greater metropolitan area.



WALKING & BICYCLING

Sidewalk Availability

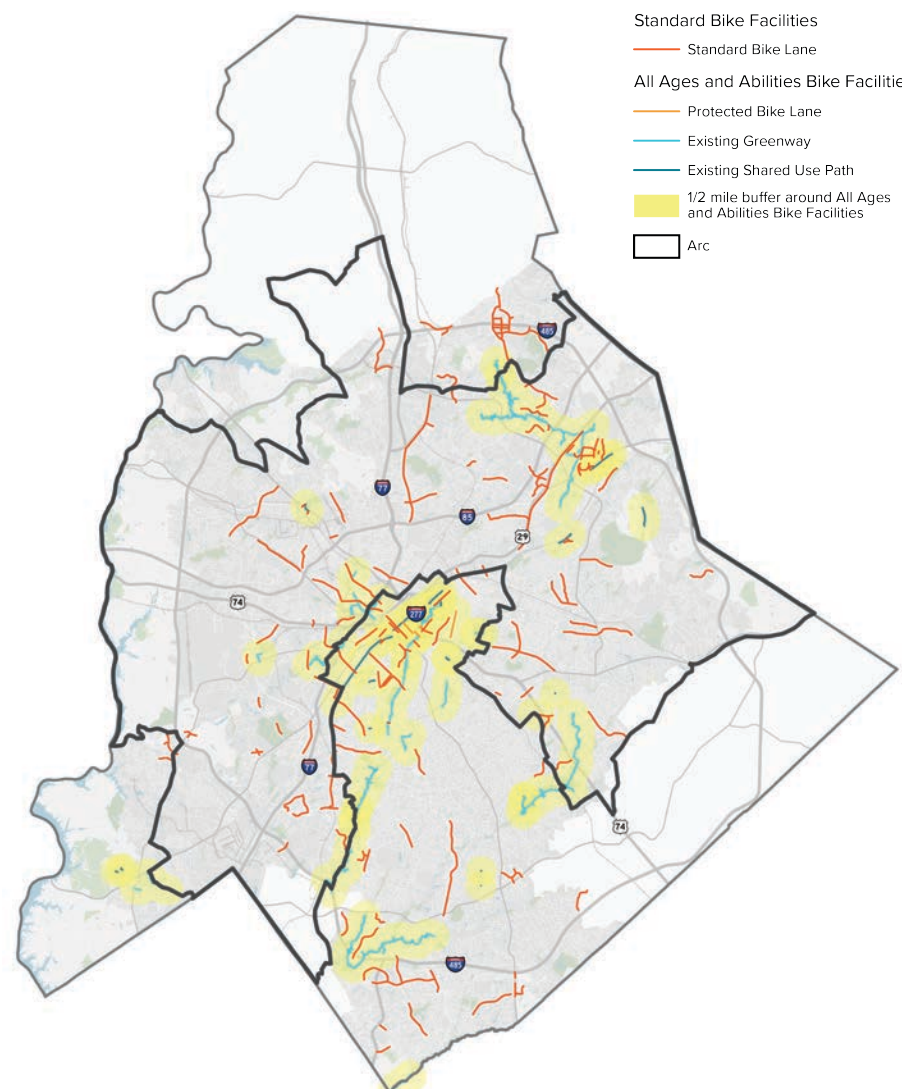
The sidewalk availability map below shows the areas with a higher percentage of paved streets that have sidewalks. The data set was last updated in 2015. Sidewalk availability is most prevalent in Uptown and areas directly adjacent to it, especially to the south. In some cases, sidewalk availability increases more towards the edge of the city—this is due to newer developments in those areas, which were required to build sidewalks after more comprehensive sidewalk requirements were adopted by Charlotte in 1998.



Bicycle Facilities & Access

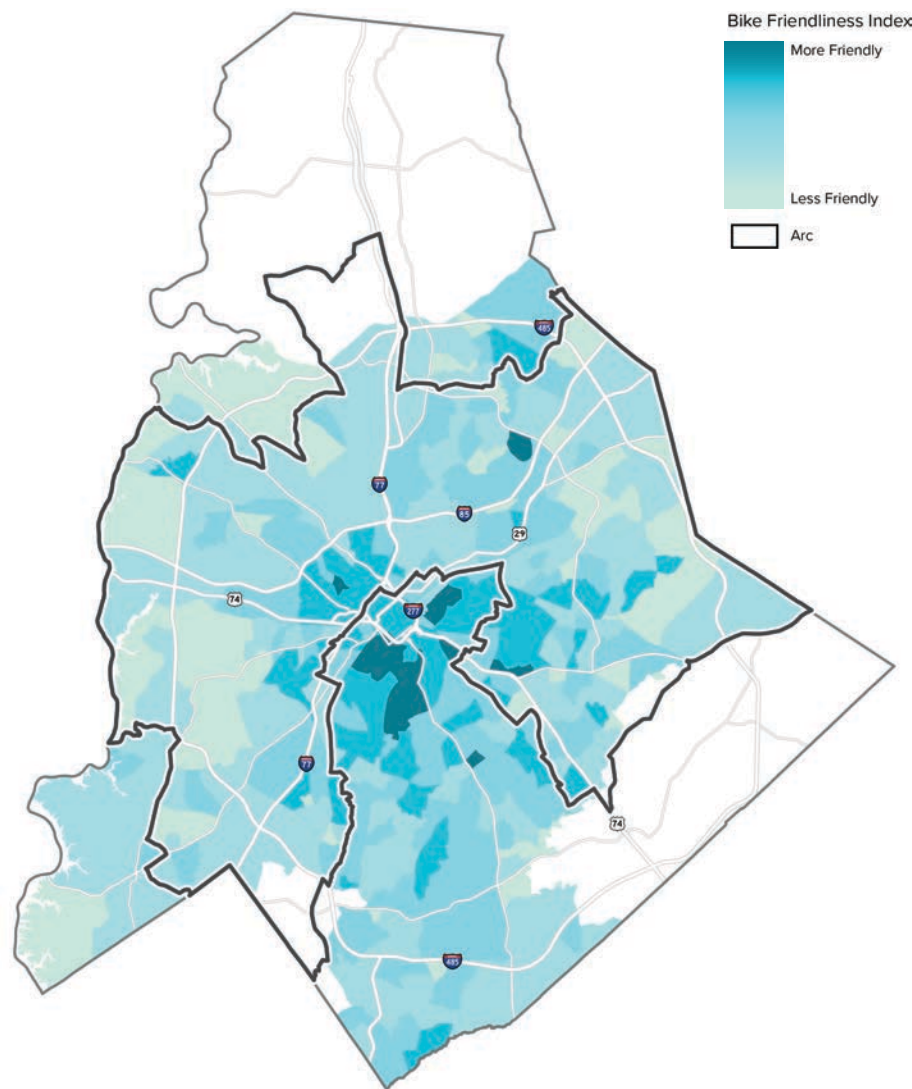
The map below highlights existing bicycle facilities with a focus on access to premium All Ages and Abilities (AAA) facilities (e.g., protected bike lanes, greenways, shared use paths). Access to these facilities is shown as a half mile buffer (about a ten minute walk). In general, areas around Uptown and to the south have good access to premium facilities, while households within the Arc typically have less access, aside from the University City area.

194
Miles of Existing Facilities
(includes bikeways and greenways)



Bicycle Friendliness

The map below displays the bicycle friendliness score by assigning NPAs an index number from 1 to 3. The index is calculated by assessing the street speeds, the bicycle lane miles, and the greenway and multi-use path miles, which is then divided by the total street mileage. A score of 1 indicates less bicycle friendliness, with a 3 being most bicycle friendly. The average score for Mecklenburg County is 1.5, with a score of 1.4 within the Arc, indicating a need to improve the bicycle network citywide. The most bike friendly areas are closest to the urban core where the street connectivity is shown to be higher.





Challenges

One challenge to the utility of the greenway network as the backbone of Charlotte’s pedestrian and bicycle system is the fact that nearly all greenway corridors follow creeks. This creates two major challenges:

Climate Resilience

Most greenways are within floodplains. As a result, much of Charlotte’s bicycle network is under water during rain events. A recent analysis by CDOT revealed that the city loses as much as 44 miles (or 24%) of its bike network after significant rain events. The impacts to those segments can last for days until floodwaters recede and sedimentation/debris is cleared (see map on page 25).

Lack of East-West Connections

Since nearly all greenway corridors follow creeks, and most creek corridors in the Charlotte region run on a north-south orientation, there are very few east-west greenway connections across the city. So, in addition to the planned greenway network, the current greenway master plan calls for an additional 200+ miles of “overland connectors” along streets to improve east-west connectivity.

GREENWAYS & URBAN TRAILS

Regional Greenway Connectivity

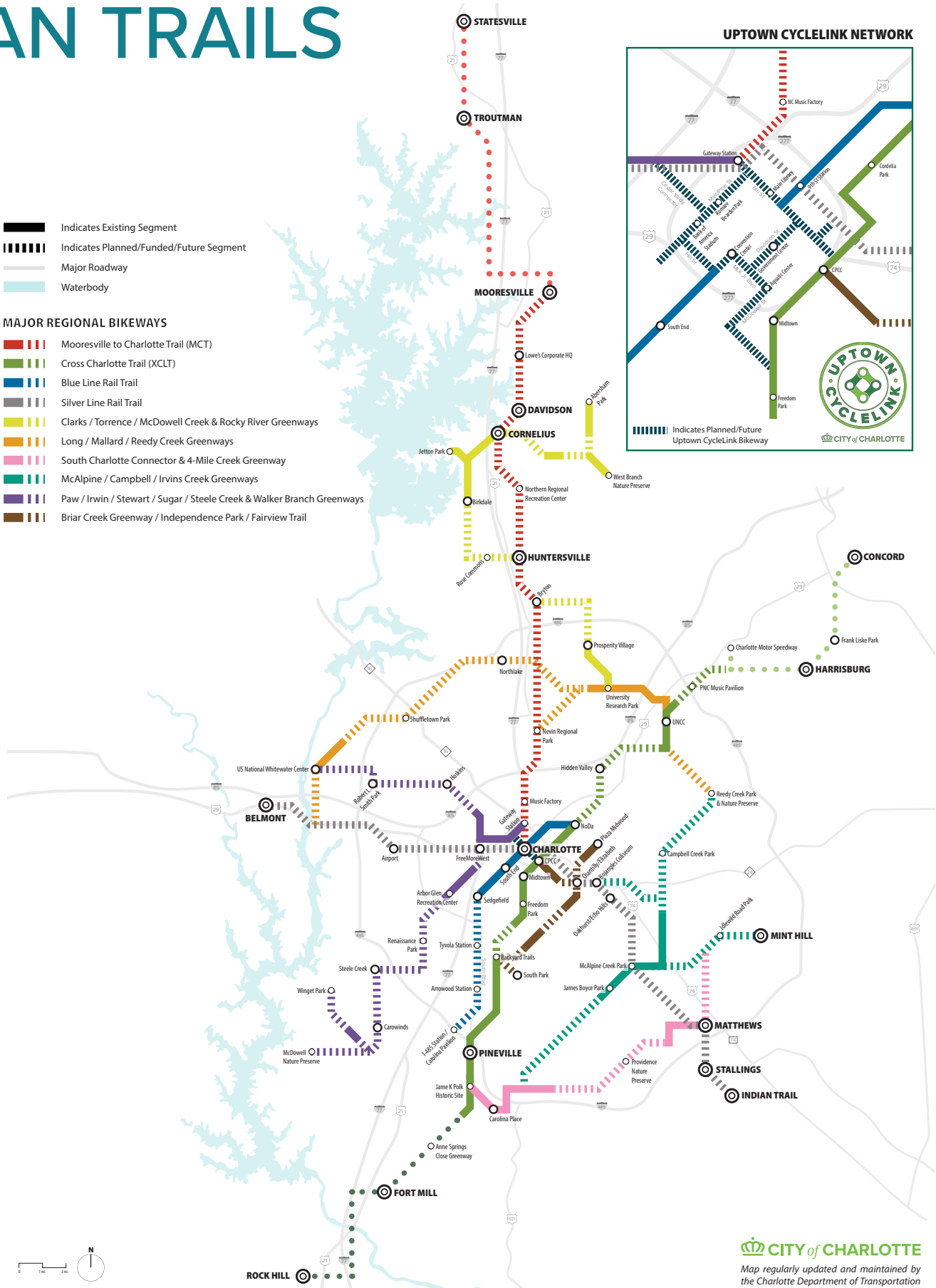
Greenways and urban trails are the “superhighways” of Charlotte’s regional pedestrian and bicycle system. They are also the most complete and longstanding part of Charlotte-Mecklenburg’s All Ages and Abilities (AAA) bicycle network. In public surveys conducted by the County, paved walking and biking trails are typically the number one requested amenity, with natural surface trails second. Mecklenburg County Park and Recreation builds and maintains the majority of the greenway system. In recent years, urban trails built and maintained by the City of Charlotte (like the Blue Line Rail Trail, the Uptown CycleLink, and portions of the Cross Charlotte Trail) have become important additions to that greenway network.

County Greenway Master Plan

The current Greenway Master Plan calls for 308 miles of paved trails throughout the County. Today, there are approximately 55 miles of greenways on the ground. The County is in the process of implementing an “accelerated greenway plan” with a goal to build 30 new miles between 2019 and 2023.

Regional Greenways & Urban Trails Vision

The map to the right illustrates regionally-significant greenways and urban trails. It does not include all existing and planned bicycle or pedestrian facilities. The map is a “living document” that is regularly updated and maintained by CDOT to help illustrate a regional bicycle and pedestrian vision.



HEALTH & SAFETY

Vision Zero

Vision Zero is a comprehensive traffic safety initiative focused on eliminating traffic fatalities and serious injuries. Vision Zero distinguishes itself from traditional road safety approaches by acknowledging that human error is inevitable, but that it should not be fatal. That approach puts emphasis on the shared responsibility of designers, decision-makers, and users.

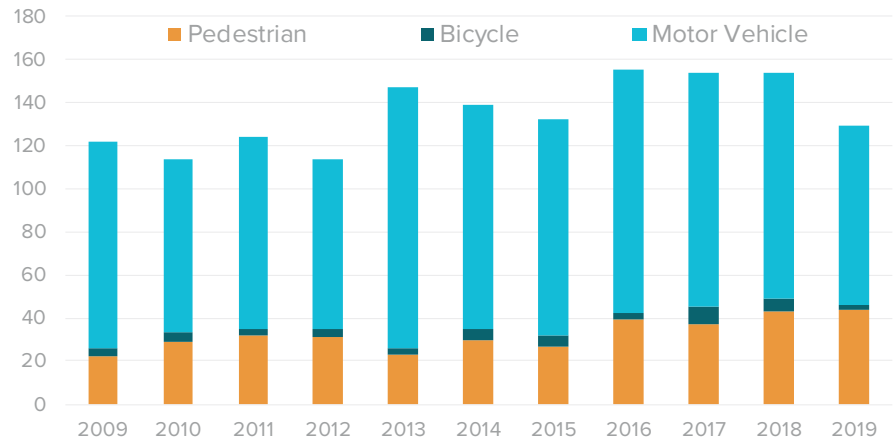
Charlotte’s Vision Zero Action Plan was developed using a collaborative process that convened a Task Force of over 50 members from 25 organizations representing a breadth of safety professions and advocates—including public health professionals, law enforcement agencies, transportation engineers and planners, emergency response professionals, and activists. The Vision Zero Task Force jointly developed the following commitment statement to guide the effort:

“As a community, it’s our responsibility to eliminate traffic deaths and serious injuries for all who share Charlotte streets by 2030.”

Historic Crash Data

The chart below showcases historic crash data annually since 2009. The bars depict the number of people killed or severely injured each year (based on the Killed or Severely Injured (KSI) score) and the mode they were using at the time of their death or injury.

Annual KSI Crashes



Page Source: City of Charlotte

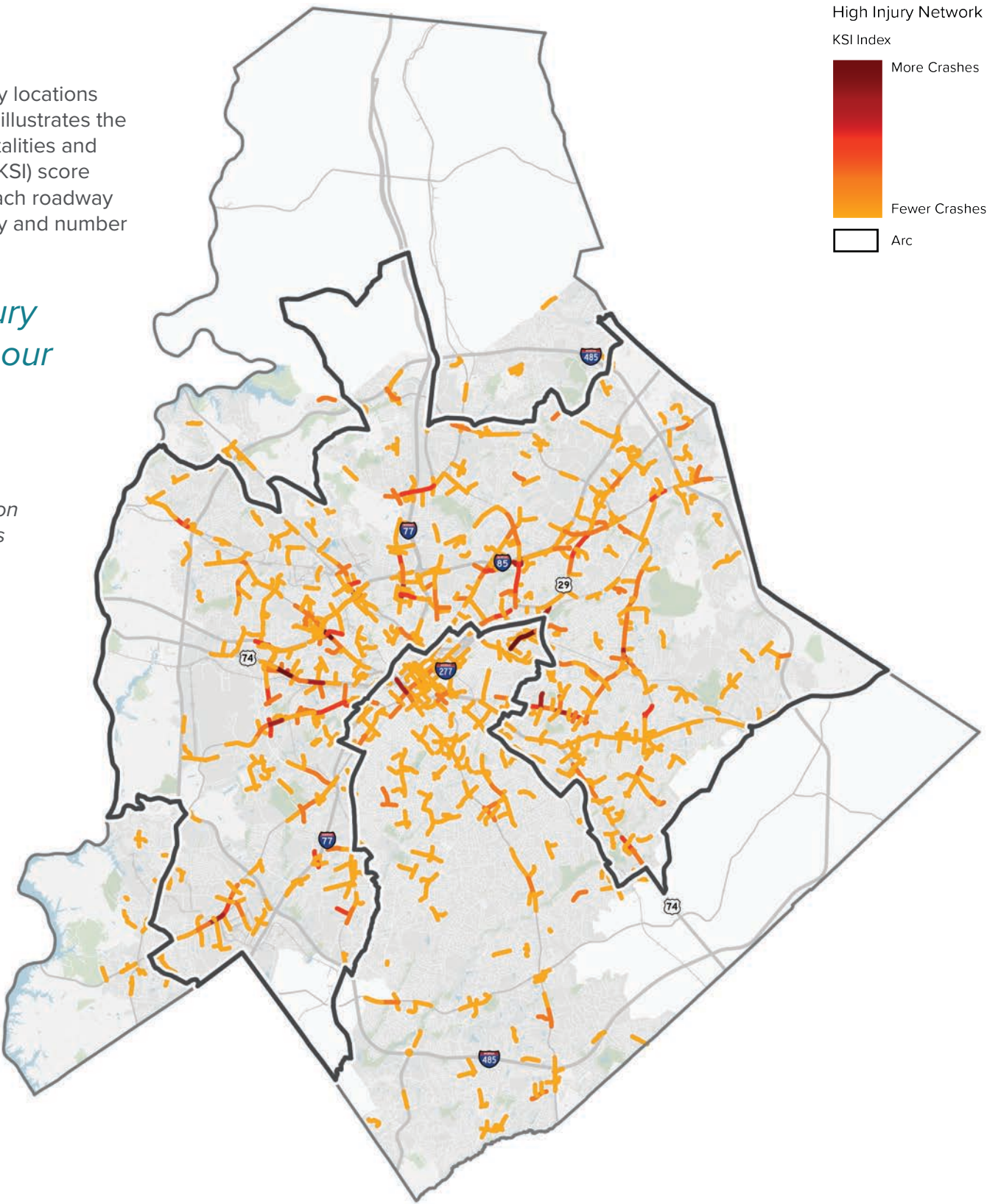
High Injury Network

The High Injury Network (HIN) is used to identify locations where investments in safety are most urgent. It illustrates the 10% of Charlotte’s streets that account for all fatalities and serious injuries. The Killed or Severely Injured (KSI) score shows the combined and weighted score for each roadway segment on the HIN, reflecting both the severity and number of crashes.

100% of fatal and serious injury crashes occur on just 10% of our streets.

Vision Zero data analysis showed that:

- 100% of fatalities and serious injuries occur on just 10% of Charlotte’s streets (also known as the High Injury Network, or HIN).
- Speeding accounts for 44% of all traffic fatalities in the City of Charlotte.
- People walking and bicycling are involved in less than 3% of all crashes but account for over 40% of all traffic deaths, reaffirming that pedestrians and bicyclists are the most vulnerable users of roadways in Charlotte.



SUSTAINABILITY & HEALTH

Addressing Climate Change

Strategic Energy Action Plan

Climate change is one of the most critical issues affecting our society today. Here in Charlotte, transportation is a significant contributor to the greenhouse gas emissions that lead to climate change. Approximately 40% of community-wide greenhouse gas emissions in Charlotte come from the transportation sector.

Charlotte’s Strategic Energy Action Plan (SEAP) is the guiding document for environmental sustainability and greenhouse gas mitigation in the City. The SEAP supports two primary goals that were adopted by City Council in December 2018:

- Strive to become a low carbon city by 2050, with each person emitting less than two tons of carbon dioxide equivalent (CO2e) per year (Charlotte is currently at 11.65 tons of CO2e).
- Strive to source 100% of energy use in municipal buildings and fleet from zero carbon sources by 2030.

The SEAP states that the rapid uptake of sustainable modes of transportation is critical to achieving the emissions reduction target.

To visit the SEAP website and learn more, click the link below or scan the QR code.

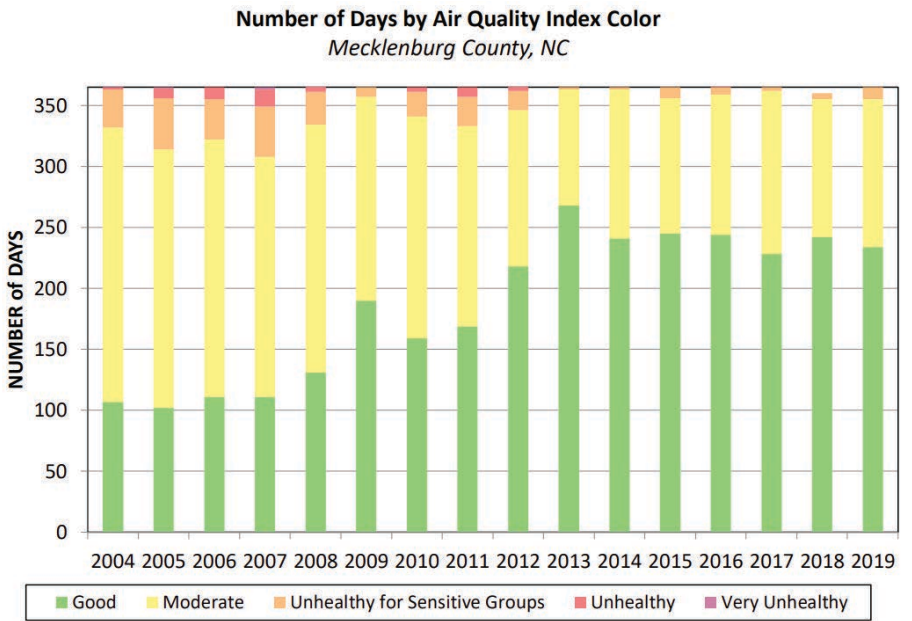
<https://charlottenc.gov/seap>



Improving Air Quality

According to Mecklenburg County air quality data, over the past 15 years, air quality has notably improved in the Charlotte-Concord-Gastonia MSA (see chart below). Nearly 250 days of the year in 2019 were “Good” quality compared with a little more than 100 days in 2004 and about 150 days in 2010.

In 2020, early data from the Environmental Protection Agency (EPA) has shown improved air quality, likely due to the circumstances of the pandemic and reduced travel.



Over past 15 years, air quality has notably improved in Charlotte-Concord-Gastonia MSA.

Public Health

More than half of the deaths in Mecklenburg County are caused by chronic diseases, (Mecklenburg County Public Health: Behavioral Risk Factor Surveillance Survey, 2016). These deaths are disproportionately linked to “place” in Mecklenburg County. Six zip codes in the County, all located within the Arc, have been designated a Public Health Priority Area because rates of chronic disease, infectious disease, and death are up to 10% higher than other areas (Mecklenburg County Public Health: State of the County Health Report, 2018). Social determinants of health, including transportation, public safety, and the availability of food, housing, and health care, play a significant role in these outcomes.



Bike Charlotte

Since 2001, the City has sponsored Bike Charlotte, an initiative that has grown to become a two-week-long series of bicycling-themed events encouraging Charlotteans to explore their city by bike. Bike Charlotte typically kicks off with a “Bike to Breakfast” event, followed by individual events sponsored by bicycle advocates, clubs, shops, and area businesses all under the Bike Charlotte theme. Many of these events are free and provide an opportunity for all ages and abilities to join in the activities.

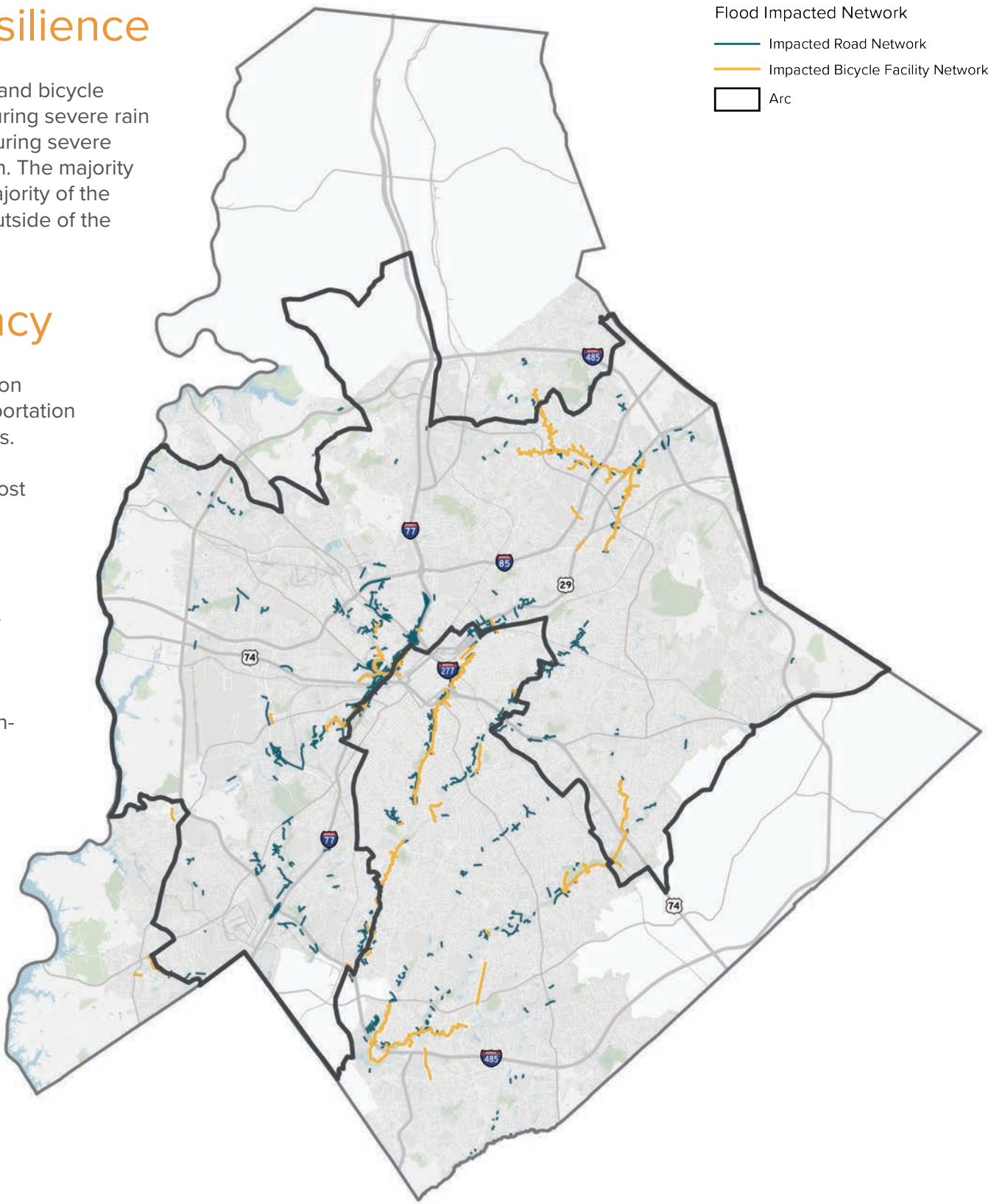
RESILIENCY

Mobility & Climate Resilience

The map to the right showcases the roadways and bicycle network facilities that are adversely affected during severe rain events. These facilities are prone to flooding during severe rain and flood events because of their elevation. The majority of roadways affected fall within the Arc. The majority of the affected bicycle network is south of Uptown, outside of the Arc.

Bike Network Resiliency

Building a sustainable and resilient transportation network means 1) reducing the impact of transportation on climate change and 2) planning for its effects. For example, severe rain events are becoming more common as a result of climate change. Most greenways are within floodplains. As a result, between 25 and 44 miles of Charlotte’s bicycle infrastructure disappears under water during rain events. That represents 13% to 24% of the total bike network. Planning for a more climate-resilient transportation system means we can’t be too dependent on our greenways as the only pedestrian and bicycle superhighways in Charlotte. We have to build a more complete on-street pedestrian and bicycle network.



44
Miles of Bicycle Facilities Under
Water During Severe Rain Events

24%
of Total Bicycle Network Under
Water During Severe
Rain Events



HOW DOES CHARLOTTE COMPARE?

Peer City Benchmarks

The four cities profiled as comparisons were selected from the peer city set identified in the Charlotte Growth Factors Report that was developed as part of the Charlotte Future 2040 comprehensive planning effort. They are all fast-growing U.S. urban centers that possess comparable and aspirational characteristics when compared to Charlotte. Like Charlotte, they are each grappling with modernizing their transportation systems, housing affordability concerns, and similar land use patterns. Showcasing these comparisons provides greater insight and context for evaluating Charlotte’s current mobility reality.



Charlotte
877,279
Population



Austin
964,254
Population



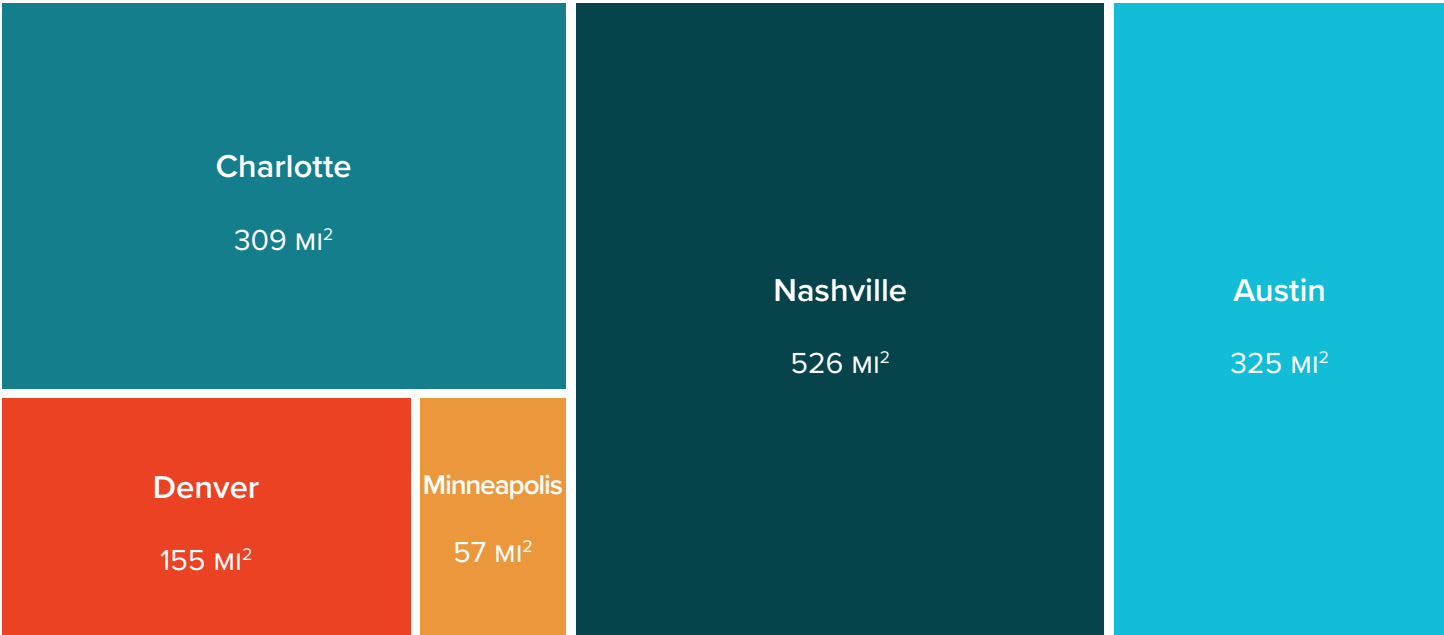
Minneapolis
425,403
Population



Nashville
692,587
Population



Denver
734,134
Population

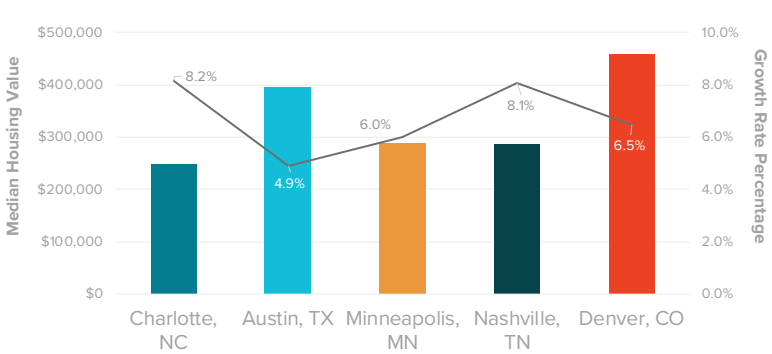


Growth & Affordability

Housing Affordability

When compared with the City’s peers, housing costs may seem relatively affordable for a desirable urban center, but in Charlotte, housing costs and home values have been increasing at a faster rate. Rent trends in the peer cities have followed a similar pattern; although average rent in Charlotte has grown at a significantly faster rate than the next closest city, Minneapolis, the average rent for Charlotte has been lower than the other peer cities.

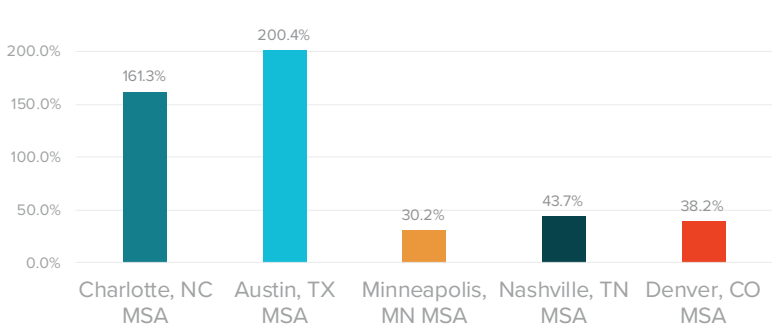
Median Housing Value and Growth Rate



Population Growth

The Charlotte region’s population base and explosive growth over the past several decades is most similar to Austin’s trajectory. Both regions’ population of nearly 400,000 in 1980 grew to over 1 million in 2020. While Austin and Charlotte more than doubled in size over those four decades, the other peer cities grew by an estimated 44% or less over the same period.

Population Growth Rate (1980–2018)



Housing & Transportation Cost Burden

According to the H&T Index, three of the five cities are above the threshold of 45% for being considered housing and transportation cost-burdened. Charlotte has the greatest burden, with the average household paying 51% of their household income toward housing and transportation costs, in part due to higher-than-average transportation costs. Nashville and Austin have the next highest cost burdens at 47% and 48%, respectively.

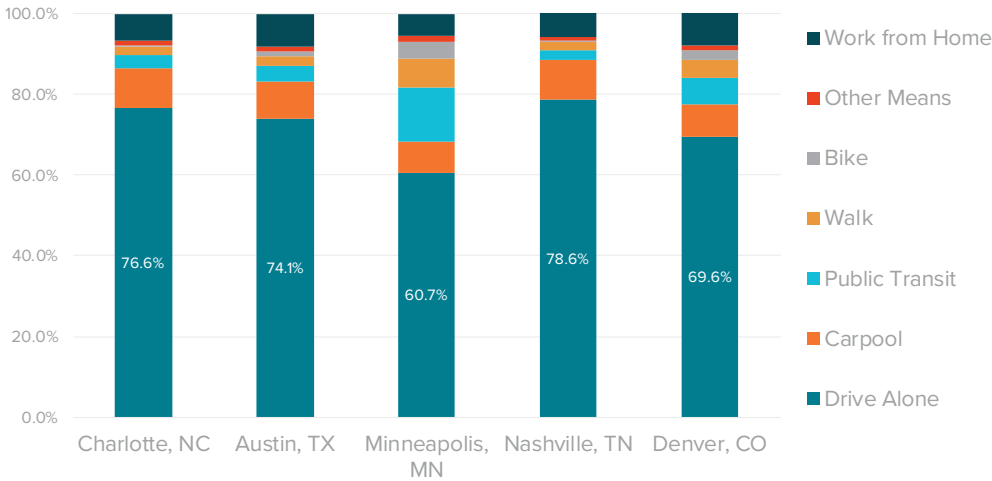
City	H & T Costs % Income (Avg)	H & T Costs % Income (Range)	H & T Costs >44% Income	Housing Costs % Income	Housing Costs >30% Income	Transportation Costs % Income	Median Household Income
Charlotte, NC	51%	24% - 116%	62.9%	29%	34.2%	22%	\$61,993
Austin, TX	47%	28% - 98%	48.9%	28%	28.3%	19%	\$71,543
Minneapolis, MN	38%	15% - 79%	20.8%	22%	17.1%	16%	\$63,590
Nashville, TN	48%	20% - 106%	58.5%	26%	24.4%	22%	\$55,873
Denver, CO	42%	20% - 94%	32.8%	24%	20.2%	18%	\$68,377

Page Source: HTA Index, US Census American Community Survey

Mode Share & Travel to Work

Mode Share

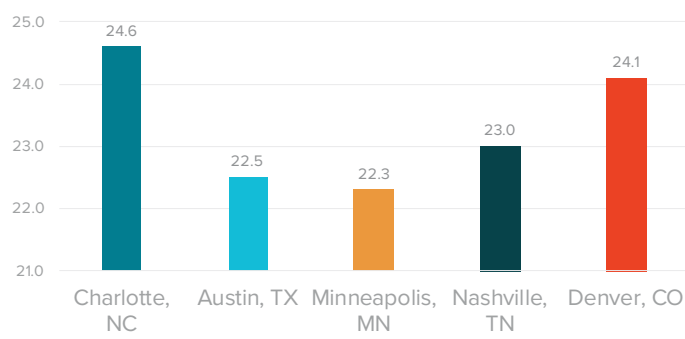
In both Charlotte and Nashville, more than three of every four commutes are by single-occupancy vehicles (SOVs), the highest shares of the peer city set. Carpooling and working from home make up a bulk of the remaining commute types in both areas. While SOVs still make up a majority of trips, Minneapolis has the most balanced distribution of commutes across all modes.



Commute Time

The mean travel time to work ranges from 22.3 minutes in Minneapolis, which has the highest walk/bike/transit scores, to 24.6 minutes in Charlotte, which had some of the lowest scores and highest rates of car-dependency.

Mean Travel Time to Work

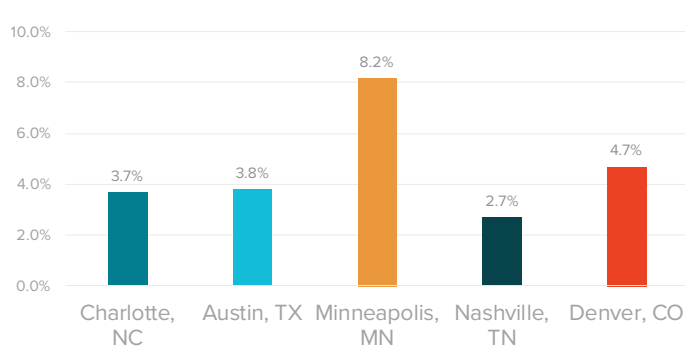


Vehicle Access

Minneapolis has the highest percentage of households without access to a vehicle at 8.2%, largely driven by the convenience of other modes for moving about the city. Vehicle access is highest in the two peer cities that scored most car-dependent: Nashville and Charlotte.

High SOV rates, commuting times, and vehicle access show significant car-dependency in Charlotte.

Percent with No Access to a Vehicle

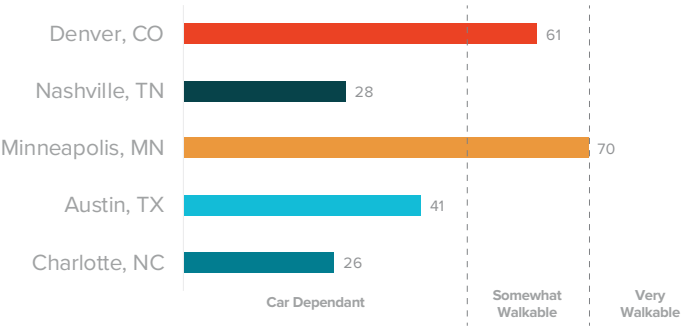


Walk, Bike, & Transit

Walk Score

Walk Score measures the walkability of any address using a patented system. For each address, Walk Score analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities in each category as well as population density and road metrics.

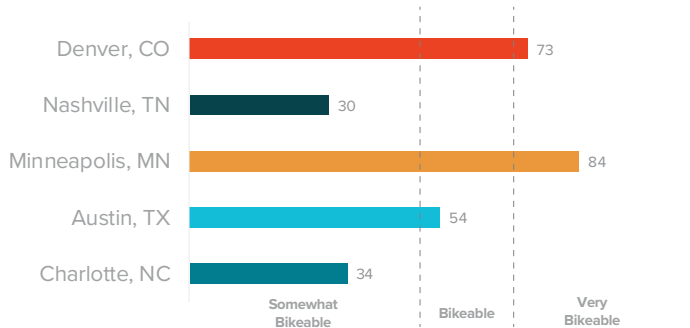
Walk Score	Description
90 - 100	Walker's Paradise Daily errands do not require a car
70 - 89	Very Walkable Most errands can be accomplished on foot
50 - 69	Somewhat Walkable Some errands can be accomplished on foot
25 - 49	Car-Dependent Most errands require a car
0 - 24	Car-Dependent Almost all errands require a car



Bike Score

Bike Score measures whether an area is good for biking. For a given location, a Bike Score is calculated by measuring bike infrastructure, hills, destinations and road connectivity, and the number of bike commuters.

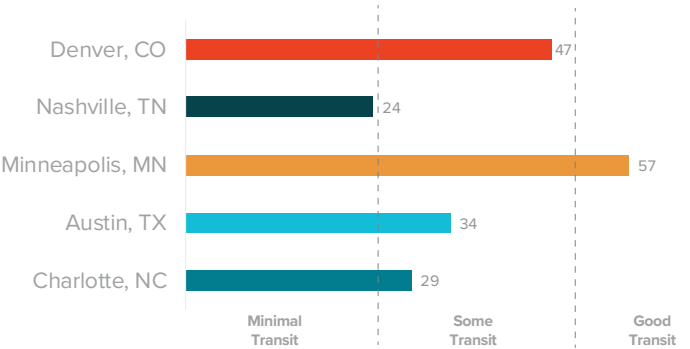
Score	Description
90 - 100	Biker's Paradise Daily errands can be accomplished on a bike
70 - 89	Very Bikeable Biking is convenient for most trips
50 - 69	Bikeable Some bike infrastructure
0 - 49	Somewhat Bikeable Minimal bike infrastructure



Transit Score

Transit Score is a measure of how well a location is served by public transit. Transit Score is calculated by measuring nearby transit routes based on the frequency, type of route, and distance to the nearest stop.

Score	Description
90 - 100	Rider's Paradise World-class public transportation
70 - 89	Excellent Transit Transit is convenient for most trips
50 - 69	Good Transit Many nearby public transportation options
25 - 49	Some Transit A few nearby public transportation options
0 - 24	Minimal Transit It is possible to get on a bus



3

OUR COMMUNITY VOICES



Our Community Voices articulate our community concerns and desires to shape our mobility future.



COMMUNITY VOICES

An Engagement Approach

The City of Charlotte is committed to shaping our actions, priorities and public investments through meaningful and ongoing civic engagement. Although no single community engagement process can capture every voice, given our growing diversity we must continue to seek out new community voices and draw them into the conversation about our future. This diversity is one of our most valuable community assets and we are committed to being intentional about gaining the perspectives, input and voices often missing from discussions about growth, development, mobility, and economic investment.

The goal of this engagement was to identify a range of community voices to capture as best we could the current conversation in Charlotte on how to improve our mobility and advance our priorities. These community voices are organized at varied scale, detail, and technique.

Citywide Voices

Online surveys that captured broad participation from across the city.

Neighborhood Voices

Virtual listening sessions that gathered input from seven defined areas of the city.

Location-Specific Voices

An online map that collected issues and project ideas at locations throughout the city.

Missing Voices

A series of focus group discussions that engaged those often underrepresented in public planning processes.

Themes & Takeaways

These conversations and community voices allowed our community to weigh in on existing conditions and establish future desires. Ultimately, they also defined key themes that inform and focus the goals of our mobility strategy.

Safe

Safety and convenience issues often are stated reasons as why more people do not walk, bike, or take transit for everyday trips

Equitable

Acknowledgment that access to transportation can be a challenge for many people in the city

Sustainable

Rising costs associated with transportation and housing place a disproportionate burden on communities already experiencing significant cost-burden

Connected

Desire for more travel options and easier connections within the city and region

Prosperous

Broad support for expanding transportation options in the Charlotte region for both economic and quality of life reasons

Innovative

Openness to new funding sources solutions for investing in our transportation priorities

OUR ONGOING COMMITMENT TO EQUITABLE ENGAGEMENT

Equitable engagement requires a coordinated citywide approach that draws meaningful participation from communities typically underrepresented in the public planning process. Often underrepresented participants include residents or stakeholders who identify as Black or African American, Hispanic, Asian American, Indigenous, and People of Color, as well as refugees and immigrants, non-English or English as a Second Language (ESL) speakers, single-parent households, older adults, people with disabilities, and people experiencing homelessness.

Barriers to participation can exclude important voices from participating in the public planning process. These voices are most often missing in our civic conversations. The goal is to build strong relationships and sustainable partnerships that improve access to opportunity, multi-generational community involvement, and shared prosperity.

The SMP gained meaningful but only partial participation and engagement from these missing voices. But the impact of that initial participation extends well beyond this plan. It is our commitment to leverage our ongoing engagement activities to build long-term relationships and ongoing dialogue with all communities in Charlotte to improve mobility, access to opportunity, and shared prosperity.

Action Plan for Equitable Outcomes

1

Build Trust

Trust is gained by sincerely listening and learning about the community and how they would like to be engaged. Equitable outcomes will not happen without identifying community interests and the partnerships required to build trusting relationships. This includes identifying who's missing by documenting demographic trends to establish an equity profile that targets key communities and stakeholders.

2

Establish Objectives

Our ongoing engagement activities will include measurable outcomes that determine success, inform the selection of techniques, and shed light on the type and level of resources necessary. Defining success is more than increasing the volume of participation. It should strive to collect more diverse interests and perspectives across the community, capturing missing voices and demonstrating the influence and power of their ideas.

3

Increase Accessibility

Barriers to public engagement limit participation from communities already underrepresented in the planning process. These voices often miss out in civic conversation because of language barriers or the increased pressure on their time that comes with working multiple jobs or being a primary or sole caregiver. Barriers to participation require creative solutions. Offering compensation or childcare, scheduling meetings at convenient times and locations, partnering with community leaders, and tailoring the communication style and diversity of engagement activities to reduce barriers to participation.

4

Establish Transparency

The end of one planning process should serve as the starting point for the next. A full debrief of the engagement strategy with an eye toward the benchmarks set early in the process should identify what worked and what needs to change. The engagement strategy will include feedback loops and transparency about engagement outcomes as the planning work progresses. All participants should be empowered to pivot and adapt the process based on honest assessments of interim outcomes.





CITYWIDE VOICES

Two online surveys were conducted as part of the engagement process. These surveys were launched to understand the way people across Charlotte travel, the challenges they face, and the tradeoffs they would accept given the limited space and finite resources available to make transportation improvements. The following is a summary of responses.

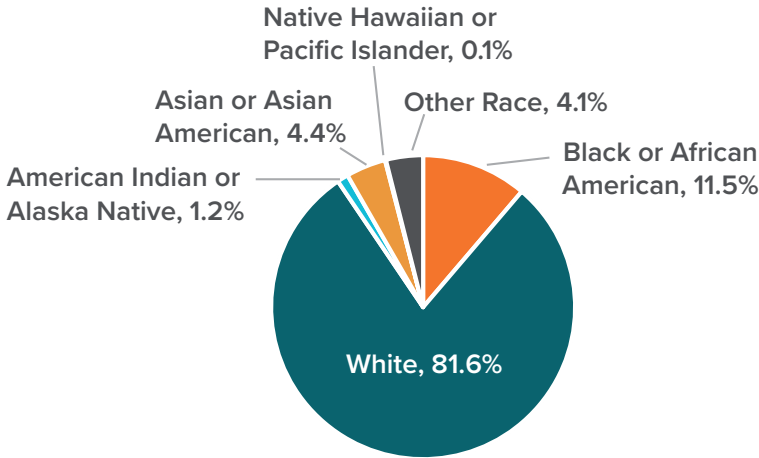
Online Survey #1

The first online survey engaged more than 1,200 participants and was active from August to November 2020. The survey included 33 questions to understand travel behaviors, determine needs, and evaluate tradeoffs for how resources could be allocated in the future.

Participation | 1,200 responses

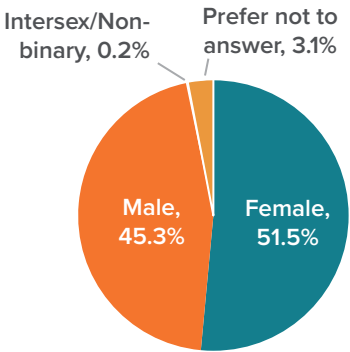
Race & Ethnic Identity

The following is a summary of respondent racial identity as self-reported by survey participants. Participants were given the option to select all that apply. Additionally, **6% of participants identify as Hispanic.**



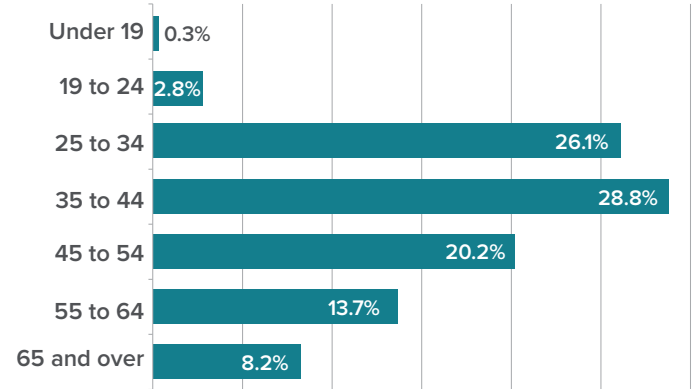
Gender Identity

Of those that responded to the survey, 51.5% identify as female, 45.3% identify as male, 0.2% identify as intersex/non-binary, and 3.1% preferred not to answer.



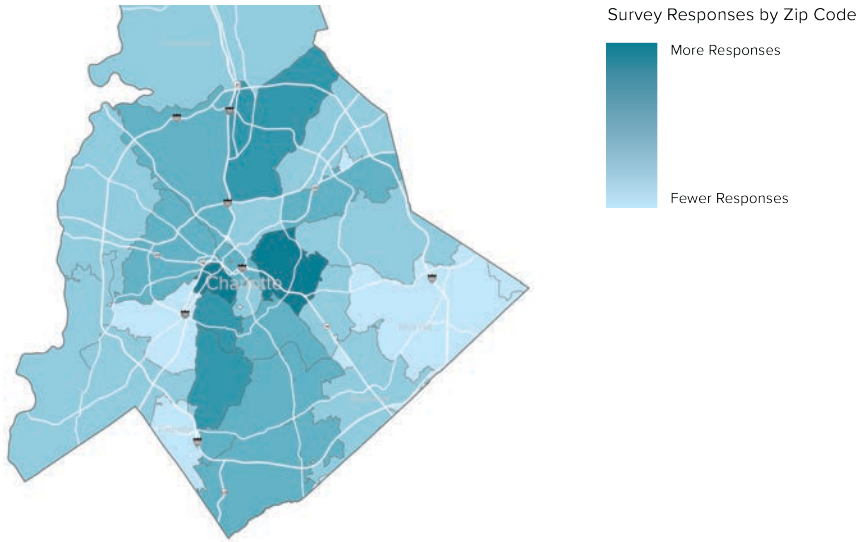
Age

Over half of survey respondents were between 25 and 44, with 26.1% between 25 and 34 and 28.8% between 35 and 44. More than 20% of participants were 55 and over.



Geography

The most common zip code among survey participants was 28205, where 188 participants live. This includes the areas of Plaza Midwood, NoDa, Commonwealth, Chantilly, and other areas east of Uptown Charlotte. Other common areas include South Charlotte and the 28269 zip code in North Charlotte.



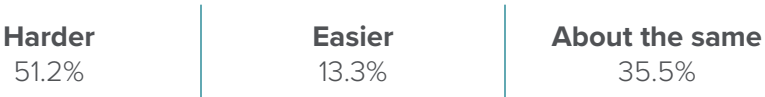


Decision-Making & Travel Challenges

The survey asked participants questions regarding decision-making and travel challenges. Participants generally believe that traveling in Charlotte has become more difficult and would like to see more convenient public transportation and travel options.

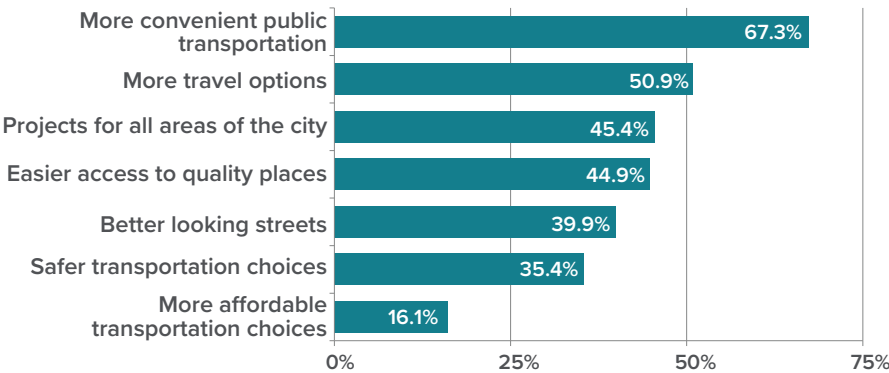
Ease of Traveling in Charlotte

When asked the following question — *Over the last few years, is traveling in Charlotte easier, about the same, or harder?* — most survey participants felt that traveling has become more challenging. Few participants felt that traveling had eased, while many participants felt that it had remained about the same.



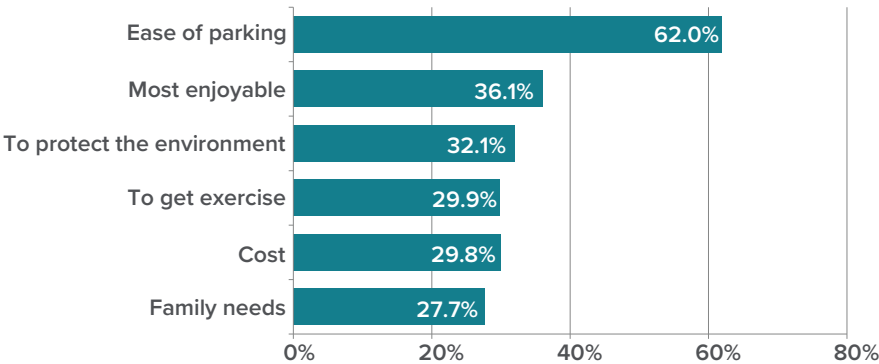
Most Preferred Mobility Changes

When asked the following question — *What THREE changes would you like to see in Charlotte? (select up to three)* — most survey participants selected more convenient public transportation, more travel options, and projects for all-areas of the city. Participants broadly wanted greater access to convenient and efficient public transportation and travel options and equitable distribution of mobility improvements across the city.



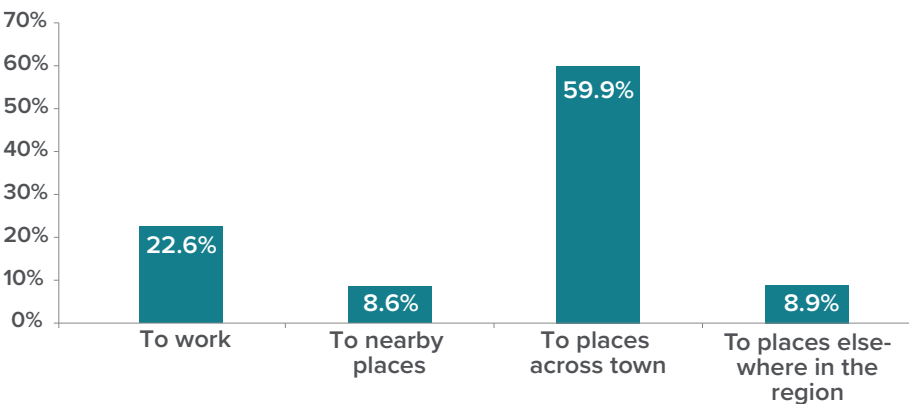
Travel Decision-Making

When asked the following question — *How do you make decisions about travel in Charlotte? (select all that apply)* — survey participants generally selected ease of parking to be a primary contributor to travel choice, followed by most enjoyable and to protect the environment.



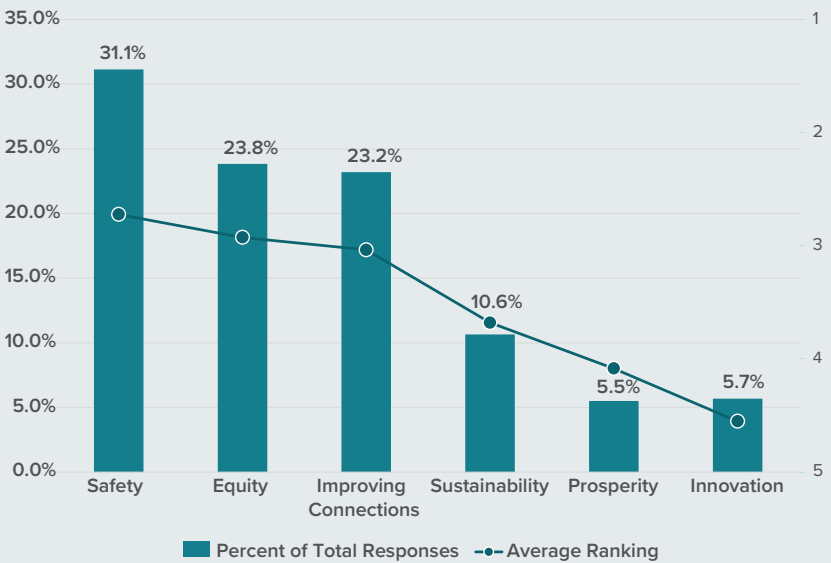
Challenging Trips

When asked the following question — *What types of trips do you find most challenging in Charlotte?* — survey participants identified trips to places across town as the most challenging trip to take in Charlotte.



Safe & Equitable Mobility

When given the following prompt — *Charlotte is facing many new challenges. As you think about the role of transportation in responding to those challenges, tell us which considerations are most important to you. Please rank the following choices, with 1 being the most important* — survey participants generally ranked safety and equity as the top two most important considerations.



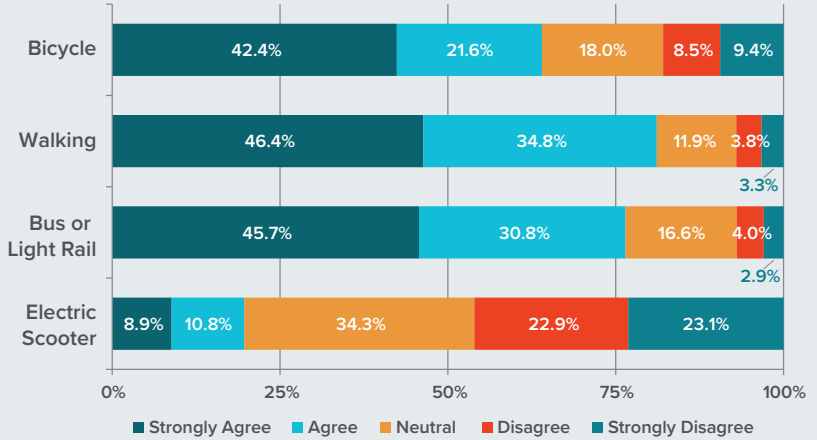
The vision of the Strategic Mobility Plan is centered on the goal of **“Safe and Equitable Mobility”** with supporting mobility objectives defining the structure and intent of specific policies and actions.

Participants identified and reaffirmed the goal of the Strategic Mobility Plan by identifying safety and equity as the top two most important considerations. As the City evaluates solutions to our toughest mobility challenges, safety and equity will remain top-of-mind, while a commitment to connectivity, sustainability, prosperity, and innovation will help guide the region in creating robust improvements to our mobility networks.



Preferred Mode Choice

When asked the following question — *How much do you agree or disagree with the following statement? I would like to travel more by _____ in Charlotte* — survey participants broadly selected by bicycle, walking, and bus or light rail as an agreeable mode of transportation. Although participants currently identify driving as the easiest way to access Charlotte, with improvements, other modes of transportation could prove to be a viable and preferred option.



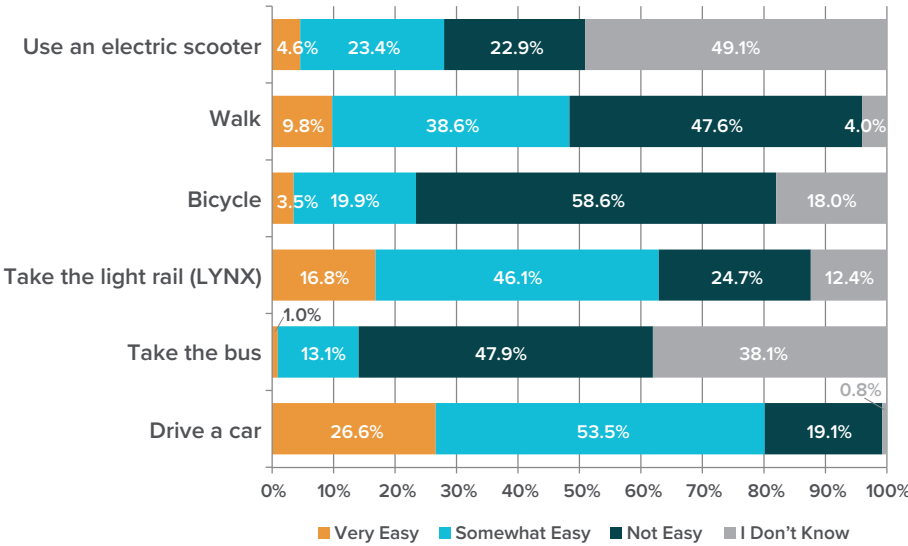
Prioritizing safe and equitable mobility will require increased connections within Charlotte so that more residents can choose to walk, bike, or take transit. Increasing connectivity throughout the city also means increasing mode choice, so that transit riders can easily access their first/last mile connection by walking, biking, utilizing micromobility, or other modes of travel.

Travel by Mode

Survey participants were asked questions regarding the ease of travel by mode. Currently, survey participants believe that traveling by car is the easiest mode of travel, but participants overwhelmingly would like to travel more by bicycle, walking, or taking transit given the right conditions and network enhancements. To further understand what prevents participants from traveling by bicycling, walking, or taking transit, participants were asked to provide their top two challenges to mode shift.

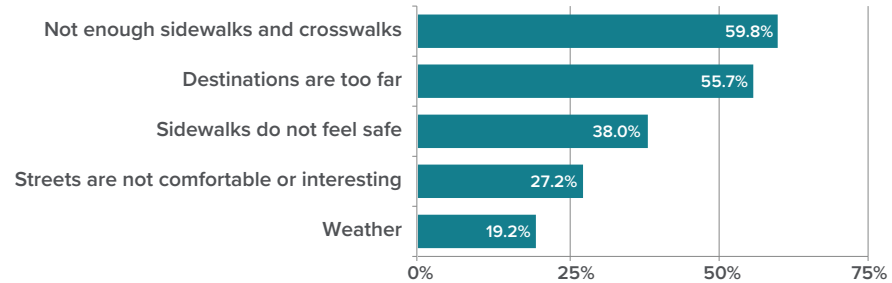
Ease of Travel by Mode

When asked the following question — *How easy is it to travel in Charlotte by the following modes?* — survey participants noted the relative ease in access by car with over 80% of participants stating that it is at least somewhat easy to drive a car in Charlotte. Participants believe that walking, biking, and taking a bus are the most difficult modes to travel around Charlotte.



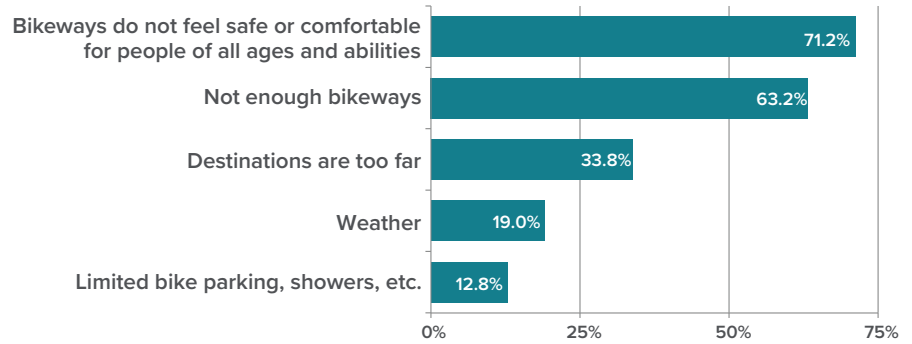
Travel Choice: WALKING

When asked the following question — *What are the TWO things that prevent you from WALKING in Charlotte? (choose two)* — most survey participants identified the lack of sidewalks and crosswalks or that destinations are too far. Sidewalk connections and 10-minute neighborhoods can add to the quality-of-life of all Charlotte residents.



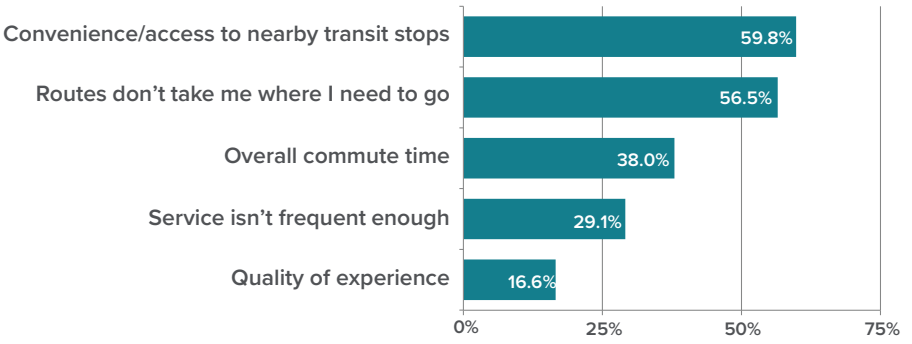
Travel Choice: BICYCLING

When asked the following question — *What are the TWO things that prevent you from BICYCLING in Charlotte? (choose two)* — survey participants overwhelmingly selected that bikeways either do not feel safe or comfortable for people of all ages and abilities or that there are not enough bikeways, reaffirming the need for a safe and connected bicycle network for all users.



Travel Choice: TAKING TRANSIT

When asked the following question — *What are the TWO things that prevent you from taking TRANSIT in Charlotte? (choose two)* — most survey participants identified convenience and access to nearby transit stops as a top contributor to not taking transit. Survey participants also identified a lack of transit network connectivity and that routes do not take participants where they need to go.



Citywide Investment

Survey participants were asked to provide input on citywide transportation investment. An overwhelming majority of participants agree that investments should be focused on improving transportation options for vulnerable users and supporting a mode shift goal that prioritizes improvements in walking, biking, and transit.

Transportation Improvements

When asked the following question — *Should the City focus transportation investments on improvements for the populations that are most vulnerable and have the greatest need for affordable transportation options?* — survey participants overwhelmingly said yes.



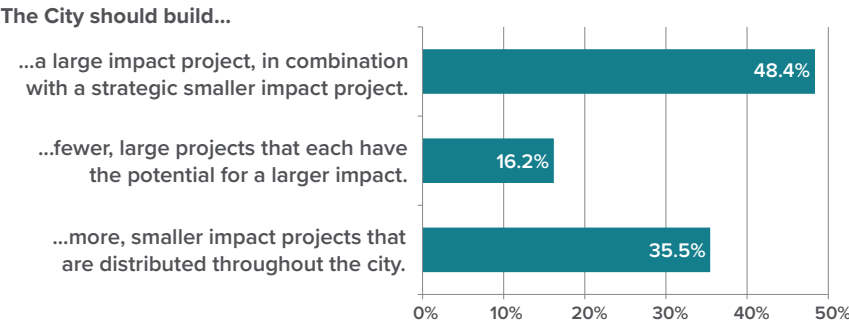
Equitable Investment

When asked the following question — *Should the City focus its limited transportation dollars to support a mode shift goal and make more significant improvements in the transportation modes that have been historically underinvested (walking, biking, and transit)* — survey participants overwhelmingly said yes.



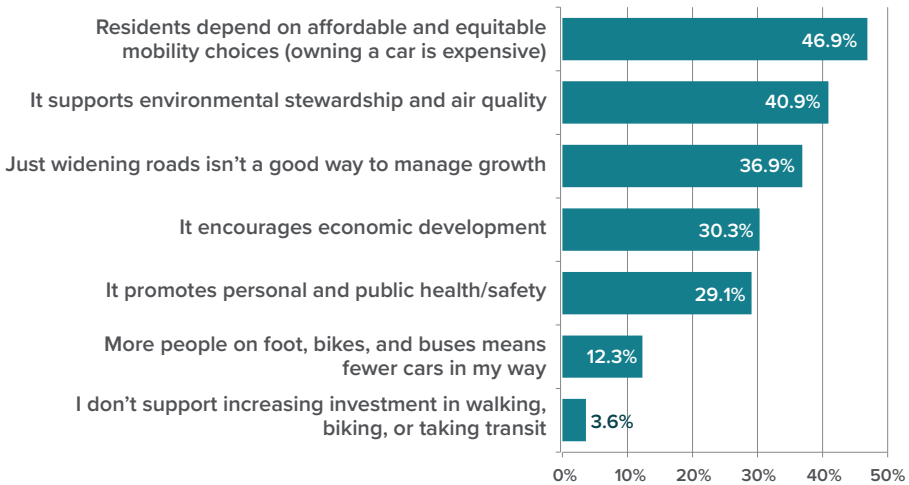
Impact of Transportation Projects

When asked the following question — *When considering future transportation projects and funding, which approach aligns more with your thinking?* — survey participants generally believe that the City should focus on large impact projects in combination with strategic smaller projects.



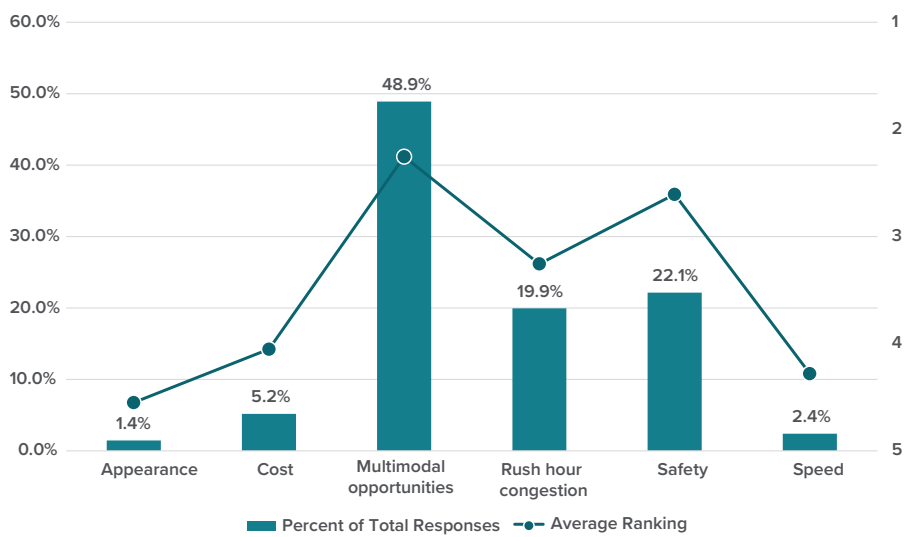
Transportation Safety & Comfort

When asked to respond to the following prompt — *There are many reasons why the City of Charlotte invests in transportation options for ALL residents, whether they choose to walk, bike, take transit, or drive. The following statements describe some of the reasons why the City works to increase the safety and comfort of those who walk, bike, and take transit. Please pick the TWO reasons that are most important to you. I support increasing investment in walking, biking, and transit options because:* — survey participants generally support multimodal investment because residents depend on affordable and equitable mobility choices and it supports environmental stewardship and air quality. Only 3.6% of participants said that they do not support increasing investment in walking, biking, or taking transit.



Project Considerations

When asked the following question — *What should the City consider as it chooses which projects to construct? Please rank 1 through 6, with 1 being the most important.* — many survey participants prioritized multimodal opportunities as a top consideration, with safety and rush hour congestion as the next highest priorities. Survey participants identified appearance as the least important consideration.



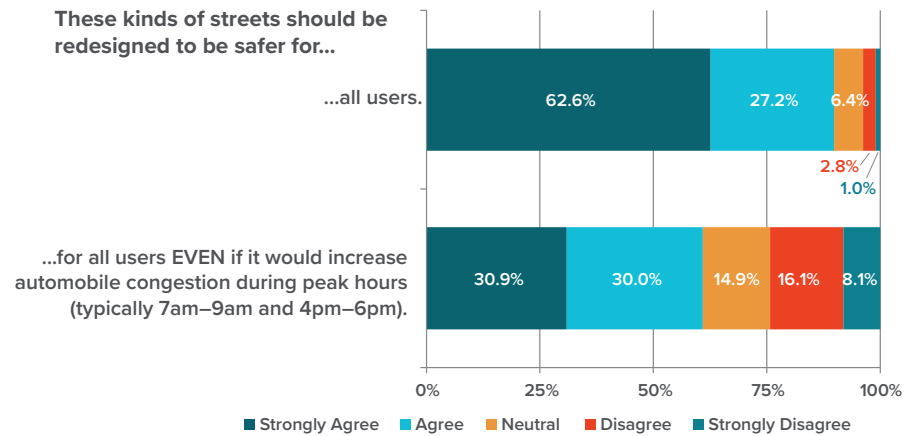


Designing for Safety & Emerging Mobility

Survey participants were asked to share their opinion on increasing travel times during peak hours as a trade-off for increased safety for all users. Participants were also asked to share their attitudes on emerging mobility within Charlotte, including micromobility, autonomous technology, and Mobility as a Service (MaaS).

Design for Safety

When asked the following question — *How much do you agree or disagree with the following statements?* — survey participants strongly agreed that streets should be safer for all users and generally agreed that streets should be safer for all users even if it increased peak hour congestion.



Travel Time & Safety

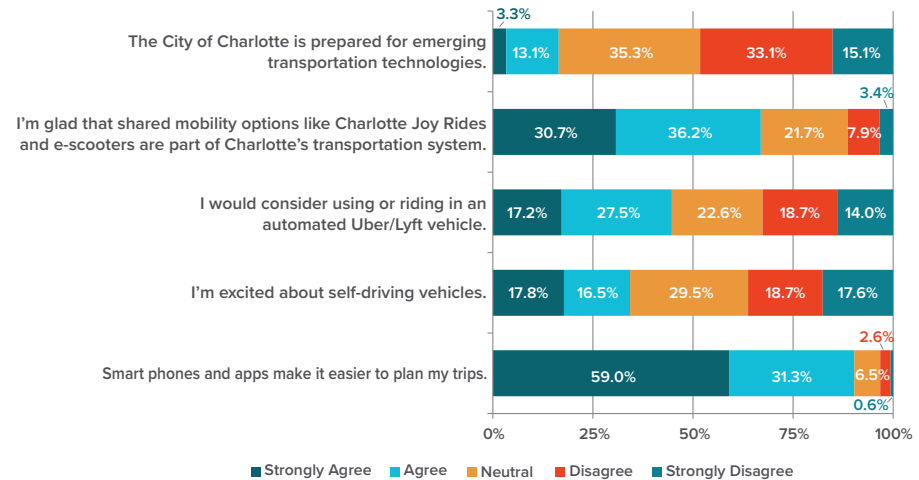
When asked the following question — *Would you be willing to accept a modest increase in travel time in order to make Charlotte’s streets safer for all users?* — survey participants overwhelmingly said yes.

Yes | 82%

No | 18%

Emerging Mobility

When asked the following question regarding emerging mobility — *How much do you agree or disagree with the following statements?* — survey participants generally agreed that smart phones and apps make trips easier, but also feel that the City is not prepared for emerging transportation technologies.



Mobility as a Service (MaaS)

MaaS integrates various transportation options into a single accessible platform, such as a mobile application, to streamline access to transportation. MaaS can combine everything needed to perform a particular trip, including selecting a mode or modes, defining a travel route, and payment. MaaS would also integrate public transportation with micromobility options and taxis or private TNCs like Uber and Lyft. Integrating MaaS within the mobility system decreases barriers to transportation and helps get people to the places they need to go.



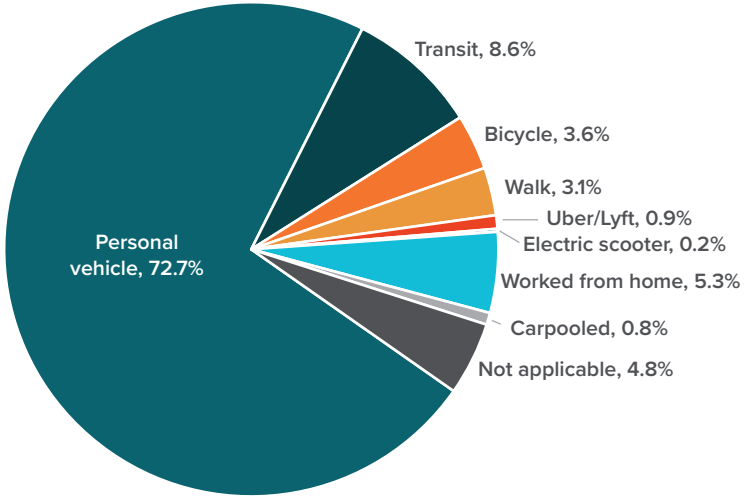


COVID-19 Pandemic Travel Choices

Survey participants were asked to share their mode choice before and during the pandemic, and their assumed mode choice for the future. Most participants primarily traveled to work by car before the pandemic and would do so after the pandemic eases. However, more than 50% of participants selected transit or bicycle as their ideal mode of travel. Given the right conditions, participants would select an alternative to traveling by car.

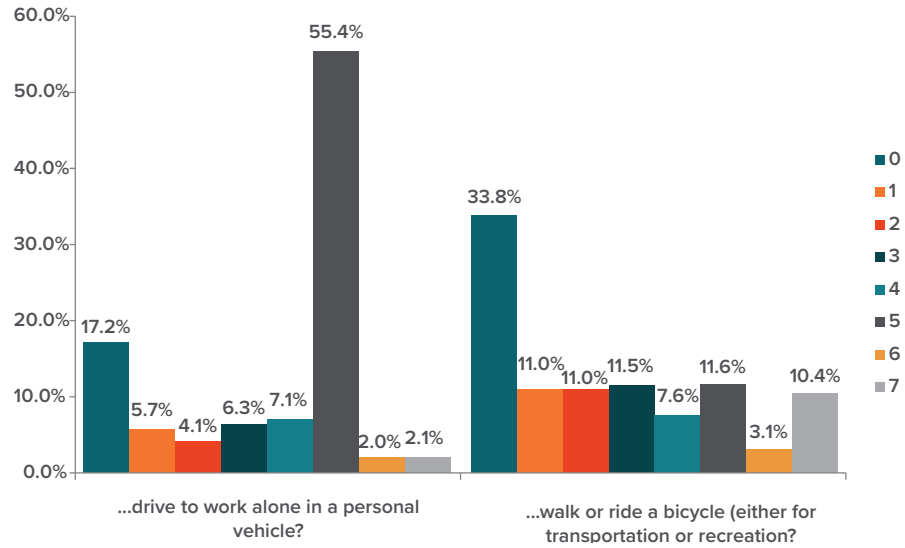
BEFORE: Travel for Work

When asked the following question — *BEFORE the pandemic, how did you typically travel for work? If more than one mode was used for the trip, choose the mode used for most of the distance.* — survey participants noted that they primarily traveled to work by car.



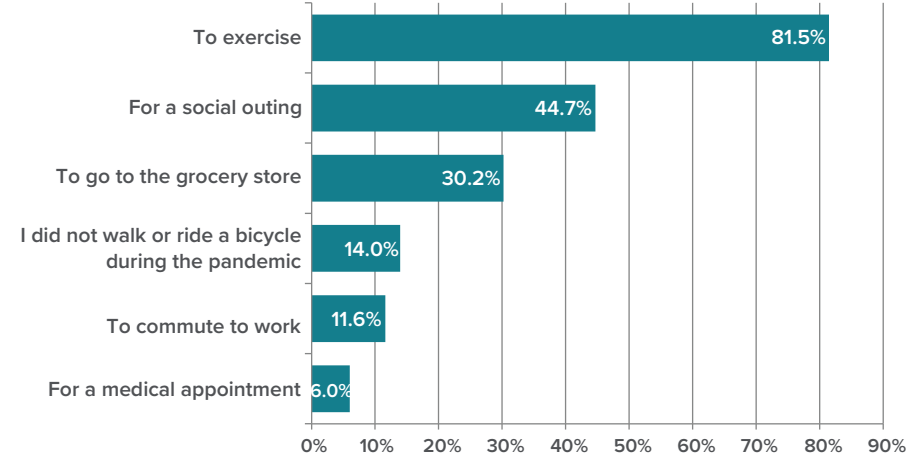
BEFORE: How Many Days...

When asked the following question — *BEFORE the pandemic, how many days per week did you....* — most survey participants stated that they traveled by car to work five days a week. More than 60% of participants noted that they walked or rode a bike at least one day a week for recreation or transportation.



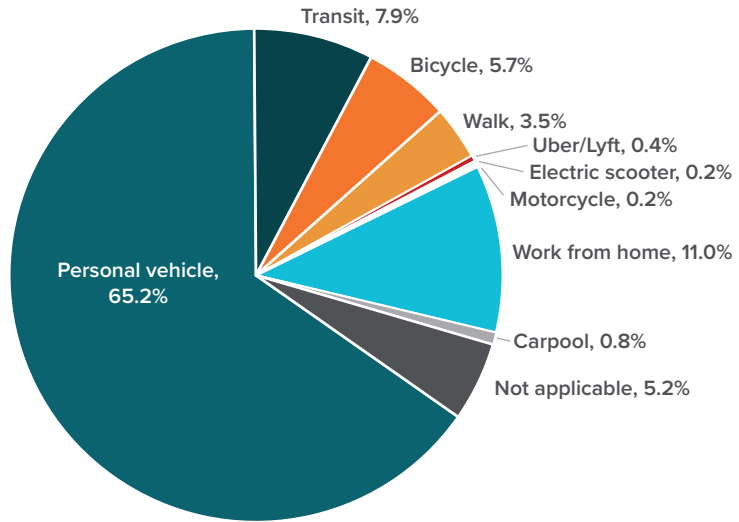
DURING: Travel by Bike or Walk

When asked the following question — *If you walked or rode a bicycle DURING the pandemic, what was the reason for your trip(s)? Check all that apply.* — survey participants primarily utilized biking or walking trips to exercise or for a social outing.



AFTER: Travel for Work

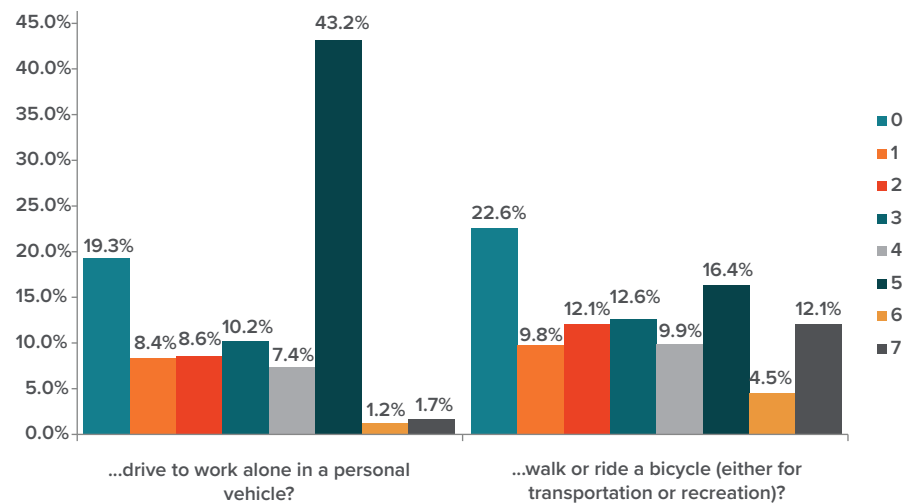
When asked the following question — *AFTER the pandemic is over, how do you think you will typically travel to work? If more than one mode likely will be used during the trip, choose the mode used for most of the distance.* — survey participants noted that they would primarily travel by car, although by slightly less than before the pandemic. A greater share of participants identified that they would be working from home.





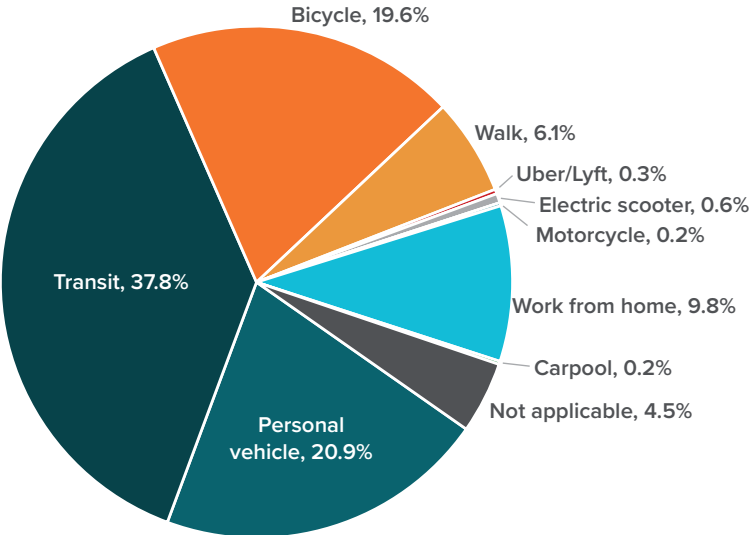
AFTER: How Many Days...

When asked the following question — *AFTER the pandemic is over, how many days per week do you think you will...* — over 40% of survey participants anticipate driving a car to work five days a week. A greater share of participants note that they will walk or ride a bicycle for either transportation or recreation more frequently than before the pandemic.



The Ideal Mode for Work Travel

When asked the following question — *Ideally, how would you like to travel to work? If more than one mode is envisioned, choose the mode that you'd like to use for most of the distance.* — survey participants would most like to take transit to commute to work, with the next largest shares preferring to commute by car or by bike.



The Lasting Influence of COVID-19

The COVID-19 pandemic began in early 2020 in the United States causing disruptions throughout the transportation sector as travel across all modes was impacted by stay-at-home orders, business closures, and border closures between states. We are still dealing with ongoing impacts related to the pandemic, but we are already able to look back on our experience over the last two years and identify some key takeaways that we can integrate into our plans, policies, and strategies going forward.

Streets as Public Space

The City temporarily repurposed some of our streets during COVID-19, which shows that transportation facilities can do more than just move cars and provide a simple way to get from point A to point B. Streets can be a destination. Good streets are good places, too, and provide public places where people meet, sit and socialize, conduct business, wander about, play, and more. As a city, we should continue to think about how we can better utilize our streets as places and community gathering spaces.

Environment

The COVID-19 pandemic offered a unique look into air pollution as one study found that nitrogen dioxide was reduced by about 10% globally in spring 2020. Reductions like this and in other air pollutants observed during a period of mass economic slowdown support the concept that air quality is negatively impacted by economic drivers. Given that personal vehicle travel accounted for about 36% of greenhouse gas emissions in Charlotte in 2015, the City has the opportunity to leverage the efforts of the Strategic Energy Action Plan to encourage the reduction of fossil fuels in the face of rising car travel post-pandemic.

Technology

A recent scenario planning exercise completed by the Charlotte Regional Transportation Planning Organization (CRTPO) illustrated potential outcomes from shifts including a rise in telecommuting and the emergence of advanced technology in connected/ autonomous vehicles. Outcomes included a 4% to 8% overall decrease in vehicle miles traveled on the Charlotte region’s highway system by 2050. It was also estimated that there could be up to a 23% decrease in the amount of time vehicles spend on Charlotte region highways by 2050.

Planning for Disruption

In just the past decade, Charlotte’s transportation system has been disrupted by a variety of factors including regional population growth, the rise of ride-share services, the start of a successful bike share system and e-scooter system, extreme weather events, cyber-attacks such as the one that shut down the Colonial Pipeline, and the COVID-19 pandemic. A more balanced transportation approach — one that supports a variety of different modes of transportation by investing more heavily in the transportation choices we currently lack — is the best way to position our citywide transportation network to respond to shifting travel patterns and prepare for future disruptions.

What’s Next? Travel Patterns and Travel Attitudes

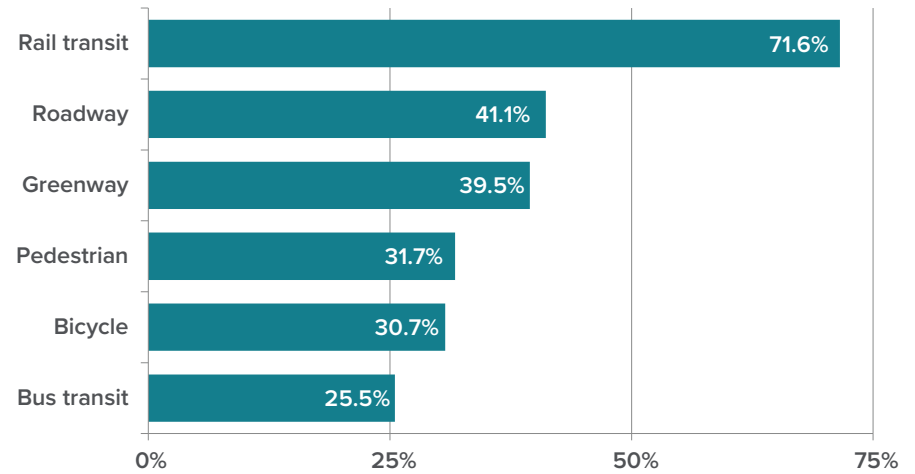
The pandemic has had significant impacts on travel patterns and attitudes as many lost jobs and others were forced to work remotely. These employment changes limited the need for vehicle and transit travel, and encouraged walking and biking. Travel patterns and attitudes continue to evolve as we make our way through the pandemic and the long-term effect of the COVID-19 pandemic on travel remains to be seen. We must continue to monitor trends and attitudes and ensure that our mobility network adapts to evolving travel demands over the next two decades and beyond.

Mobility Choices

Survey participants were asked to share their feedback on a range of mobility topics including population growth, mode shift, and investment. Participants generally support prioritizing rail transit investment as the population continues to grow in Charlotte, investing equitably in modes that have historically lacked investment (walking, biking, and transit), and would like to see improvements that support increased travel choice.

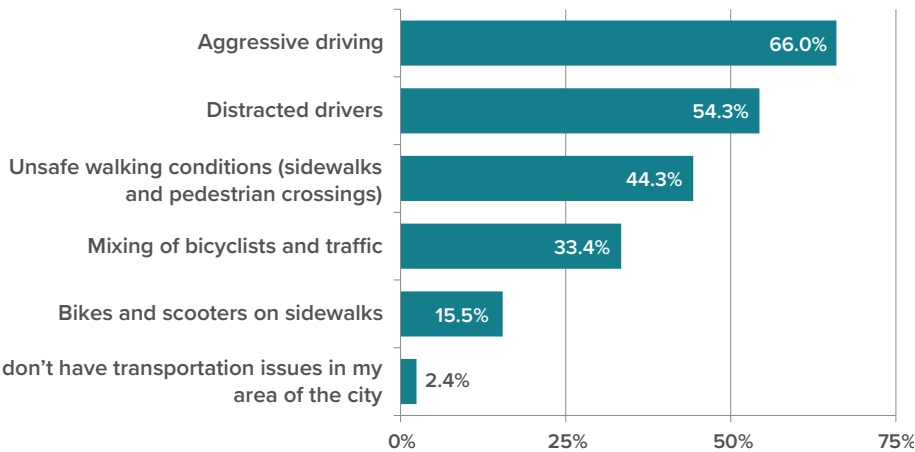
Priority Investments

When asked the following question — *What type of transportation investments are most important to accommodate Charlotte’s continued growth? (Choose TWO!)* — survey respondents largely selected rail transit as the top investment to accommodate continued growth, with roadway and greenway investment second and third.



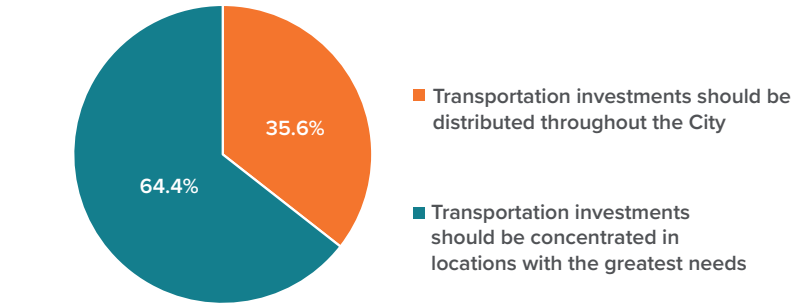
Most Frequent Safety Issues

When asked the following question — *What types of safety issues do you most often encounter? (Choose TWO!)* — survey respondents identified aggressive driving and distracted drivers as the most frequent safety issues that they encounter.



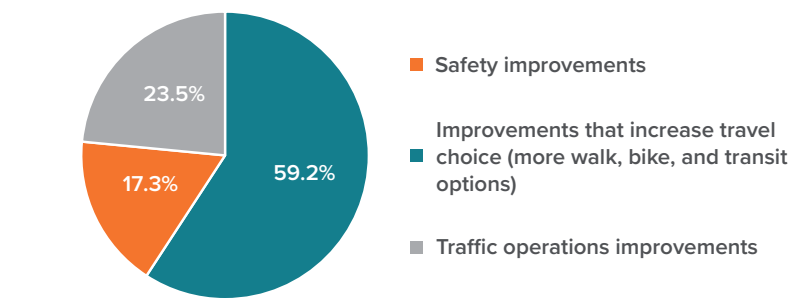
Investment Philosophy

When asked the following question — *When considering the City’s limited transportation funds, which philosophy do you align with more?* — survey participants generally believe that transportation investments should be concentrated in locations with the greatest need.



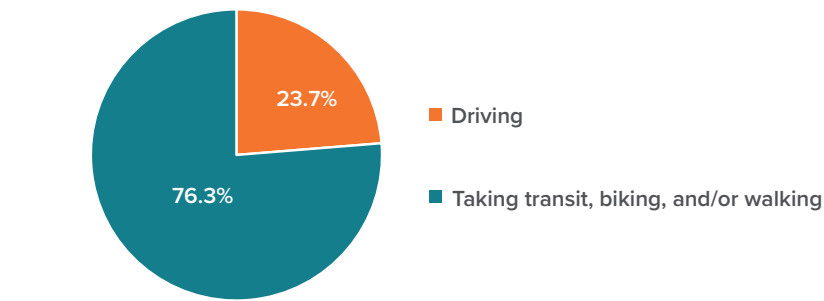
Priority Improvements

When asked the following question — *What types of transportation improvements are the greatest priority in your area of the city?* — the majority of survey participants wanted to see improvements that increase travel choice (more walk, bike, and transit options).



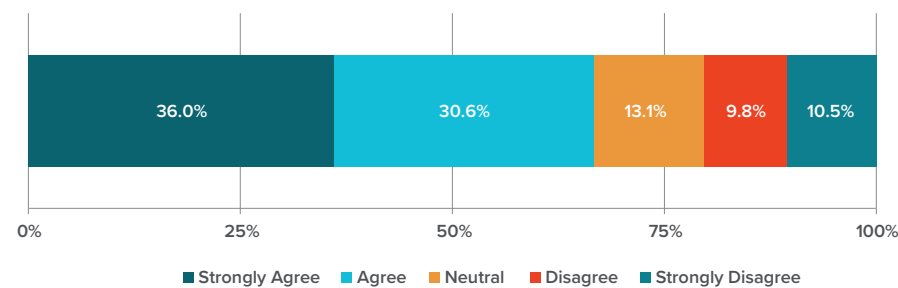
Population Growth

When asked the following question — *Over the next 20 years, more than 385,000 additional people are projected to move to Charlotte. What is the best way to move these newcomers around the city?* — majority of survey respondents identified taking transit, biking, and/or walking to be the preferred mode.



Equitable Investment

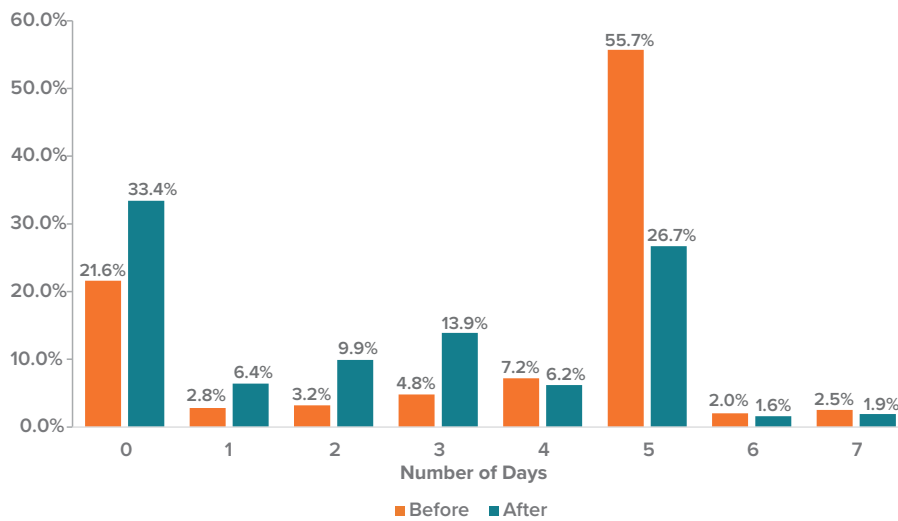
When asked to respond to the following prompt — *The City should focus its limited transportation dollars to make more significant improvements in the transportation modes that have been historically underinvested (walking, biking, and transit).* — more than 65% of participants either agreed or strongly agreed.



Commute Mode Choice, Before & After Pandemic

When asked the following question — *BEFORE the pandemic, how many days per week did you drive to work alone in a personal automobile?* — more than 55% of survey participants stated that they drove to work alone at least five days per week.

When asked if *AFTER the pandemic, how many days per week do you expect you will drive to work alone in a personal automobile?* — that number had decreased to approximately 30%, with a greater share of participants anticipating driving to work zero days per week. This shift could be attributed to a larger share of individuals working from home.





NEIGHBORHOOD VOICES

Overview

The City hosted a series of listening sessions over the course of three weeks to show how the mobility plan intersected with other recent and ongoing planning initiatives. During these listening sessions, CDOT facilitators presented information about anticipated growth for the City and how transportation planners can prioritize investments in various mobility modes. These geographic focus group discussions gathered input from 100 participants representing all areas of the city. Participants engaged virtually using the chat box and polling to explore a variety of topics, including:

- *Where transportation choices are improving*
- *The biggest challenges in their neighborhoods*
- *How they expect the pandemic to influence their future transportation decisions*
- *The types of transportation investments needed to accommodate Charlotte's continued growth*

Themes

The results of the listening sessions are organized into four key themes for each of the seven geographies: Needs, Challenges, Project Ideas, and Changing Habits. These themes were developed as a result of grouping the feedback from the listening sessions into logical thematic categories.

Needs

The investments required to improve mobility within the community.

Challenges

The barriers or difficulties that come from traveling around the community or implementing improvements.

Project Ideas

The suggestions from the community on how and what to improve.

Changing Habits

Recent behavioral changes in travel habits, generally due to changes brought on by the COVID-19 Pandemic.

Needs | What are the needs in your area?

5 West

- Growth along two-lane country roads
- Truck traffic on streets such as Moores Chapel and Sam Wilson Roads
- Connectivity from neighborhood nature centers and greenways
- Access to live-work-play neighborhood centers
- Enhanced bus service along NC 16
- Future rail stop at river for nature access
- Lack of sidewalks and greenways

7 Center

- Required connection for bus trips; Need cross-town public transportation
- Limited bike options; Abrupt end to bike lanes
- Short-distance bus service without routes connecting to central hub
- Placement of crosswalks, bike lanes, bus stops, and emergency lanes
- Distracted and aggressive drivers
- Scooters on sidewalks
- Noise levels due to traffic and transit
- Access to the airport

4 Southwest

- State roads in the ETJ
- Driving
- Focus on transit to Uptown
- Barriers to bicycles, including I-77 and South Tryon Street
- Unsafe pedestrian conditions at South Tryon Street intersections with Tyvola and Nations Ford Roads

Northeast 1

- Walking and biking paths, bike lanes, sidewalks, and crosswalks
- Access to mass transit, including bus routes and crossing I-85 at University City Boulevard

East 2

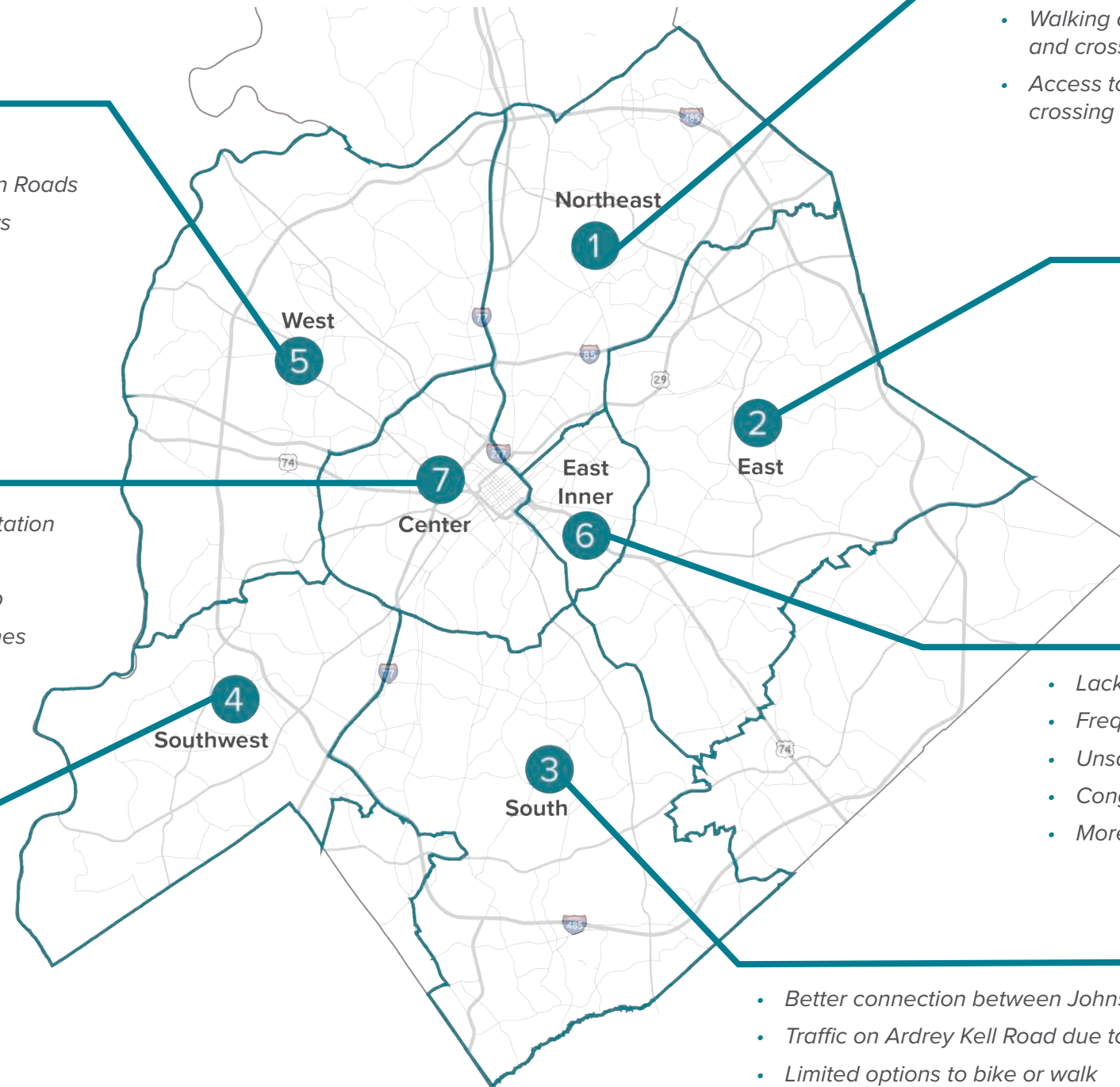
- Basic roadway network connectivity
- Lack of parallel roads bypassing busy arterials means there are fewer options for biking and walking safely
- Acknowledgment that bikes are traffic

East Inner 6

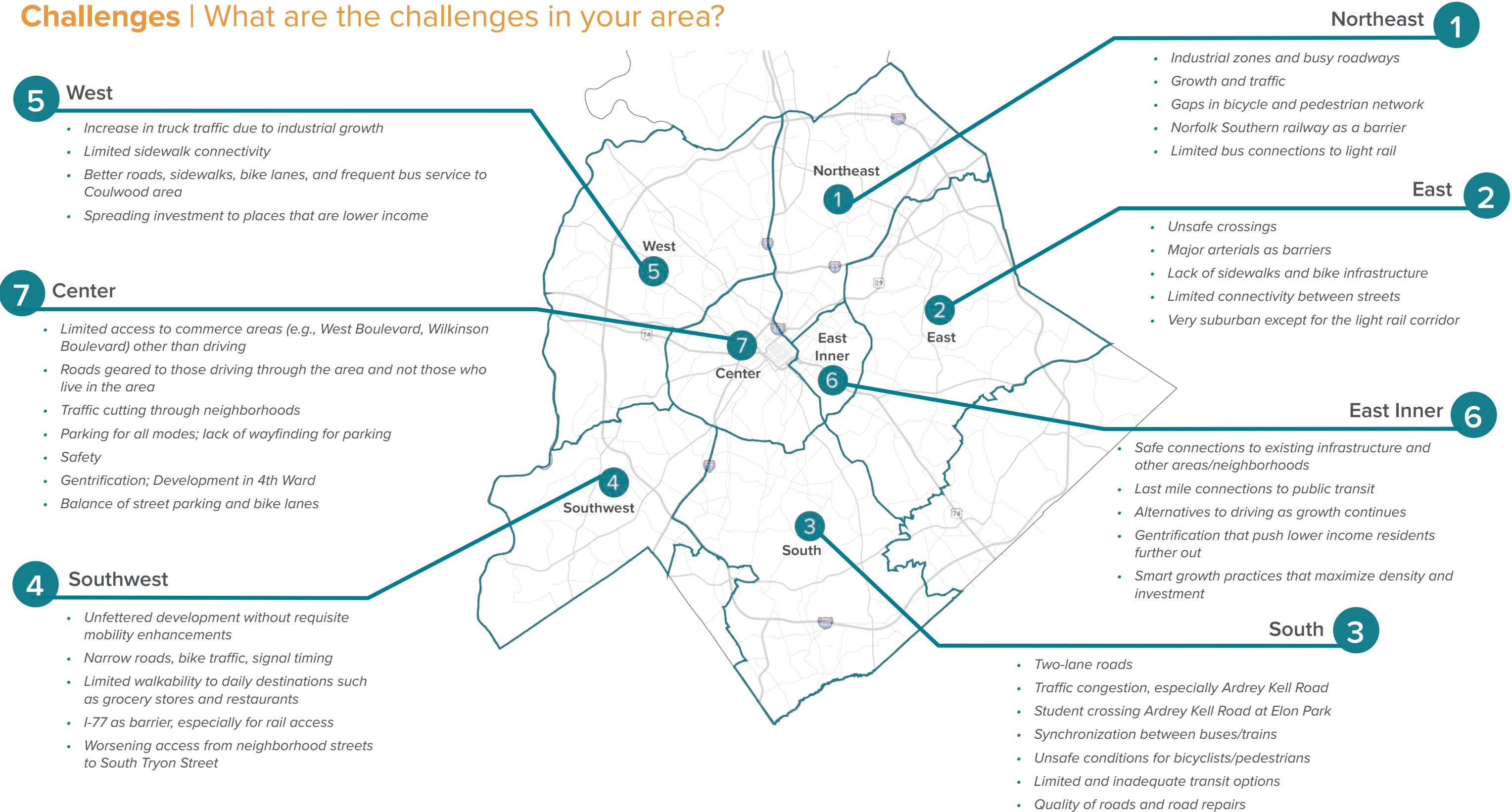
- Lack of (and loss of) tree canopy along streets
- Frequent and affordable bus service
- Unsafe drivers
- Congestion
- More greenway connections

South 3

- Better connection between Johnston and Providence Roads
- Traffic on Ardrey Kell Road due to schools
- Limited options to bike or walk
- Maintenance of sidewalks and bike paths
- More investment in greenways and bike lanes
- Quality of Providence Road pavement
- Frustrating Lynx ticket vending machines



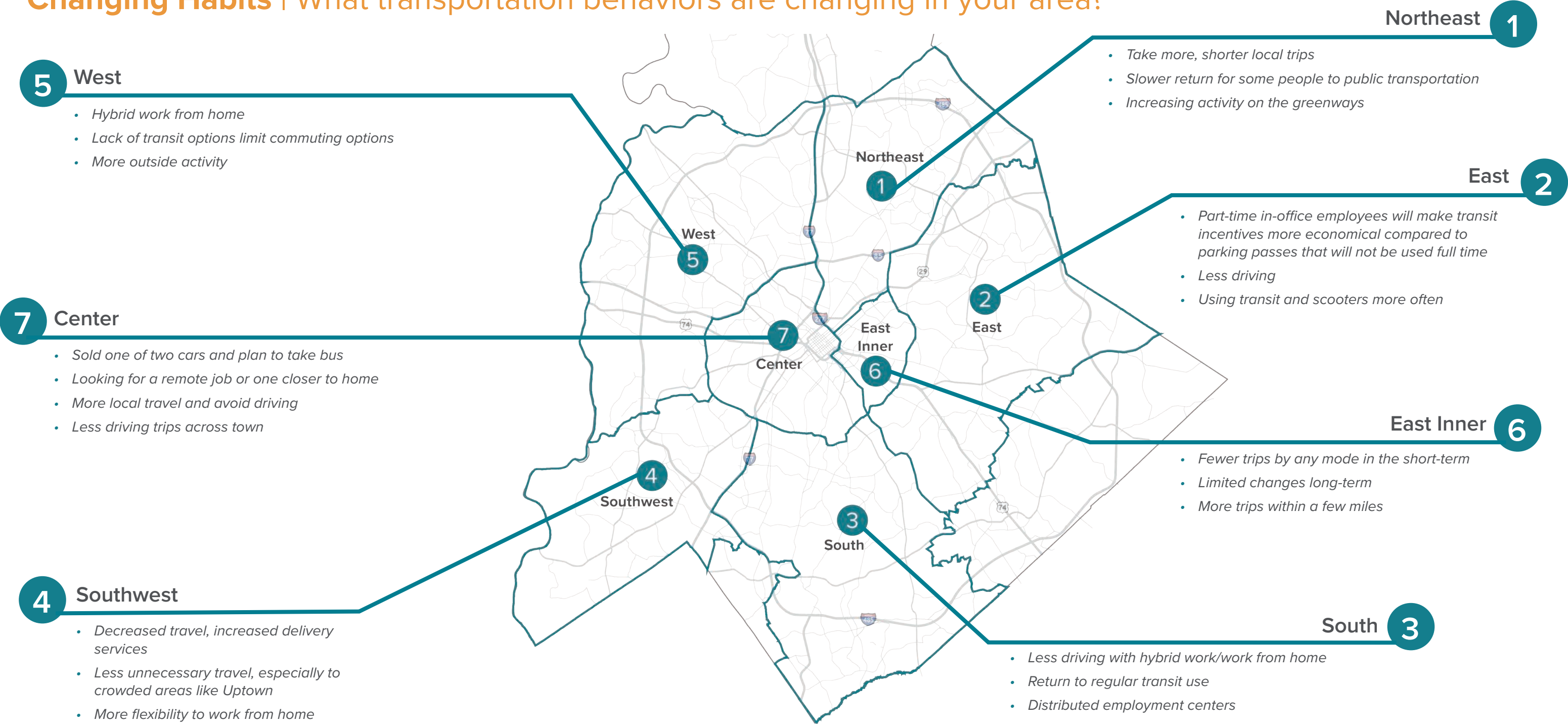
Challenges | What are the challenges in your area?



Project Ideas | What do people want to see in your area?



Changing Habits | What transportation behaviors are changing in your area?





**MAKE
YOUR
VOICE
HEARD**

GET INVOLVED



LOCATION-SPECIFIC VOICES

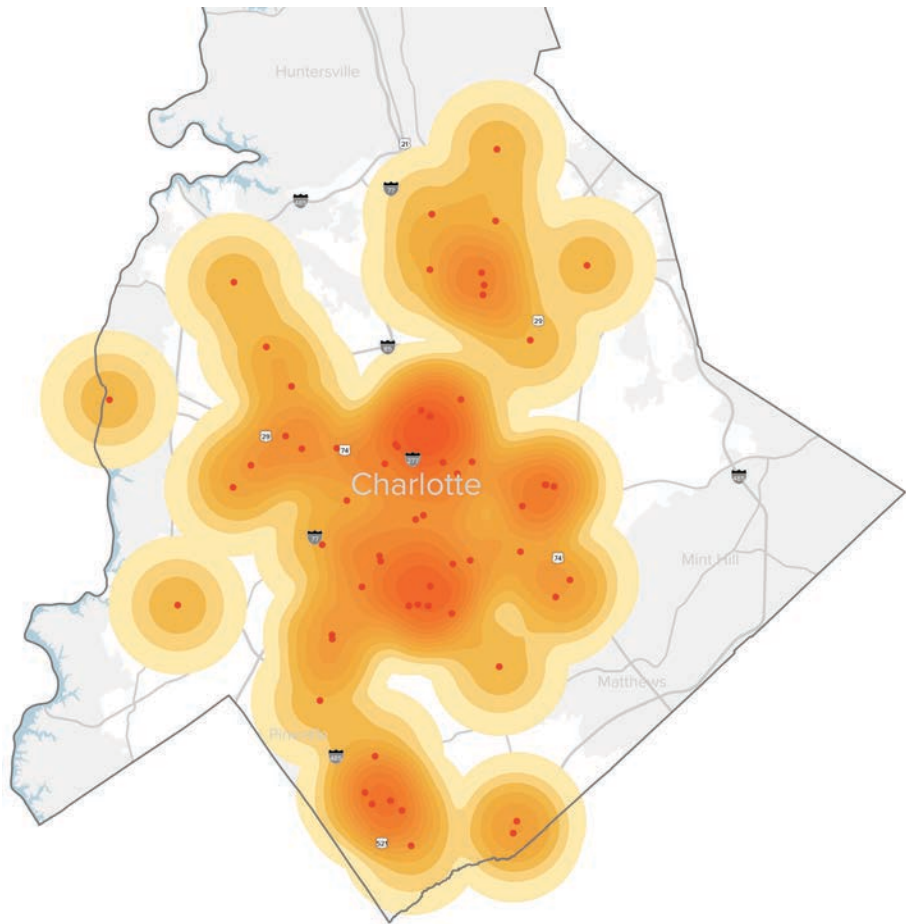
Overview

As a supplement to the neighborhood listening sessions, an interactive online map showcased access to transportation by mode and collected nearly 1,000 comments from users across the city and region. Participants could view map layers including:

- Access to Premium Transit
- Premium Bicycle Facilities
- Sidewalks
- Vehicle Travel Choices

Participants could drag markers and make comments about project ideas and safety concerns in any area of Charlotte. They could also up-vote or down-vote markers and comments provided by other participants.

Transit Input Snapshot



Increase the frequency of the Gold Line, at least during rush hour. I'd like to commute into uptown on the Blue Line, then take the Gold Line to Gateway Village but the sparse Gold Line schedule makes that difficult. I cannot wait 20 minutes for the next trolley.

A bus stop with a bench and a roof would attract more bus riders than just a pole sticking out of the ground.

Bring back the Central Avenue bus lane. This is the most-used bus route in the city, taking thousands of cars off the road. If buses become more reliable and predictable, they will be a more attractive option for those who choose how they commute.

There should be convenient public transit to get people in this area to the LYNX blue line, and to get people to shopping areas without driving their cars.

More public transportation - bus lines. This part of the city is not connected to anything. Need buses to Uptown, college campuses, major hospitals...

Bring light rail to Ballantyne to connect the office park to Uptown

Bus stop here is heavily used but has nowhere to sit, no covering, and no crosswalk.

It would be great if there were a few more buses for the 28 line after 6pm.

Connectivity between the Blue Line and the Amtrak station could also be added here.

Small, frequent circulating buses could bring residents to downtown Derita where there could be a bigger hub to continue on to light rail station.

Create easier access to the light rail terminal from surrounding apartments and neighborhoods. There is a significant lack of handicap accessibility to the UNCC station. An eventual extension of the line would be excellent.

Sidewalks, streetlights and speed bumps are needed. Every other bus stop should have shelter and/or benches.

Bring the streetcar farther out the corridor, or enhance the bus stops along the corridor or both!

At what point could regular bus routes (maybe high ridership lines) get unique covered bus shelters and public art that highlights the neighborhood and history (like the sprinter has)? It may help to encourage more ridership by making waiting for the bus more comfortable and more interesting. The freedom drive corridor and central ave corridor could be great places to start.

Create a well-lit walking path through Westerly Hills Park to Morris Field Drive for the future Silver Line stop at Morris Field. This will help provide access to the Silver Line for Westerly Hills neighborhood residents without them having to go all the way to either Ashley or Allegheny roads.

High-frequency bus service connecting SouthPark to Charlotte Douglas Airport.

Would like to see Express Light Rail that takes you directly uptown and only stops at major stations with parking such as Sharon Rd. and Scaleybark. Too many stops on the existing light rail and it ends up being quicker to drive uptown.

Use some of the parking area to set up a park and ride station.

If you map the available bus lanes and their frequency, you will see that this part of the city is grossly under-served. At the same time, the population grows fast and the roads get more congested each year. More public transportation is needed and buses are the cheapest and easiest option.

Would love to see a high-frequency neighborhood-oriented van pool service that provided local access to all the neighborhoods within a couple of miles within Park Road Shopping Center.

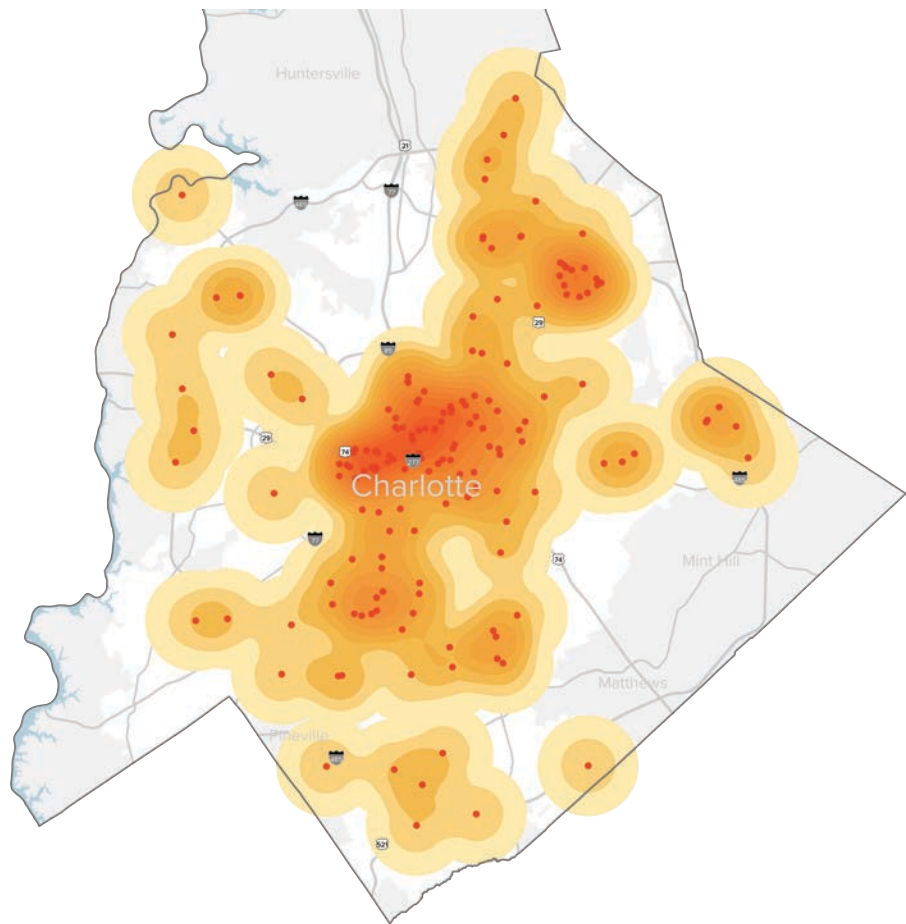
Need to build a light rail line that runs from the airport to the transit station uptown or the station on trade by the Spectrum Center.

New lighting is needed, station cleaned, fresh paint.

Add a bus stop here that offers frequent connection to Light rail.

It would be great if with all the new growth in this area, the 14 bus line would extend down to the Waverly plaza. It might help with the congestion in this area.

Bicycle Input Snapshot



Bike lanes would be a wonderful addition to provide safer ways to share the road.

A bike path off to the side of Highway 16 for just a few hundred yards would make it possible for people from Mt Isle Harbor subdivision to bike down to Rozzelle’s Ferry Road safely.

Provide shared use path along southwest side of Sugar Creek Road (closer to Garinger HS) to connect residential neighborhoods to HS, NODA and Sugar Creek light rail station.

There should be pedestrian/bicycle (only) bridges to reconnect people and neighborhoods and encourage healthy moving.

Continue bike lane from where it ends on Colony and Carmel intersection and continue the bike lane on Colony until it reaches Roxborough. **CONNECTING BIKE LANES IS KEY.**

As micro-mobility options become an increasingly viable way to get around, the greenway will become a popular transportation corridor. Add a separated “lane” for wheels.

Bicycle path from Central/Prospect to Pecan between E. Independence and Commonwealth. This would connect existing bicycle lanes to improve safety between Uptown and Plaza-Midwood/Chantilly/ Commonwealth.

The Plaza needs a separated bike lane. It is wild there is no safe, reliable and direct way to bike from NoDa to Plaza Midwood.

As rewarding as biking back and forth on Brevard can be, it would be cool if we connected NoDa and Uptown with a safe reliable and direct bike lane.

The Premium Bicycle Facilities overlay on the map says it all.... the entire city outside of South Charlotte and Uptown is underserved with adequate bicycle facilities. I would guess South Charlotte cycling is far more for recreation than transportation. #EQUITY

The road diet needs to continue from Parkwood to Sugar Creek.

Add protected bike lane and widen sidewalks along West.

The portion of W. Tyvola from West Blvd to Yorkmont has a lot of bike traffic and would have more pedestrians but it is not very safe. A bike lane and/or sidewalks would greatly improve this area.

Debris needs to be regularly removed from bike lines. Bike lanes have debris, which is dangerous.

Extend the Mallard Creek Greenway to connect to Sugar Creek Road and/or Hubbard Road.

Increase the number of planters to provide better visual separation between bike lanes and traffic lanes.

More complete sidewalks and safe bike lanes.

Utilizing abandoned / disused rail lines for a greenway and bike trail, much like ATL’s beltline project.

Would love to be able to bike to work or Uptown but need safe routes and access along this corridor.

VERY rapid housing growth with little investment into road/bike/safety infrastructure.

Road width encourages speeding - road would be better with wider protected multi-use path instead of sidewalk and bike lane unprotected from speeding cars.

No sidewalk or bike lane. Dangerous and no way to get to greenway.

A designated bike lane on this street could really help reduce traffic and pedestrian connectivity between the heart of NoDa and the surrounding areas.

Need a shared use path permitting bicycle traffic directly to the city. It will cost a little bit more than a sidewalk but allow multiple modes of traffic (pedestrian, bicyclists, [and people of all ages and abilities]).

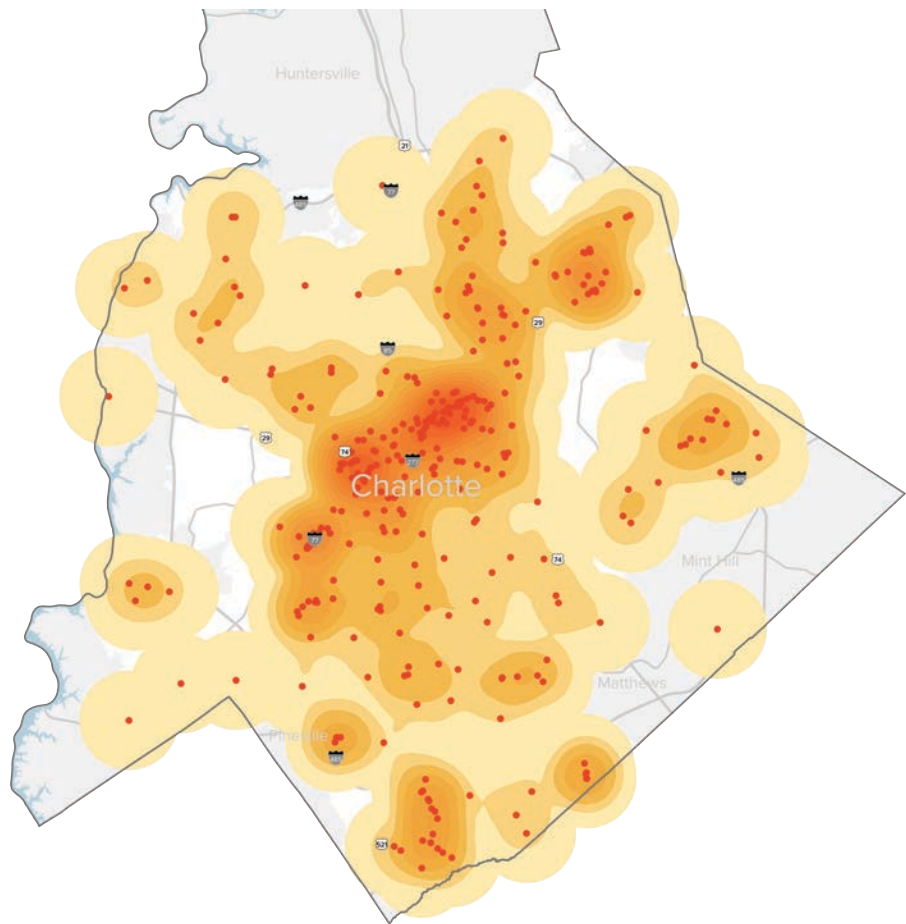
Create a direct, multi-use path connection from the greenway to the light rail station.

When bike lanes are created, they need to be clearly marked and kept clean. Too often, too much debris is left in these bike lanes.

Get rid of the street parking along this corridor. It is very confusing and severely restricts the flow of traffic. Turn it into a bike lane.

Best option of all could be several bike and walking paths between the various subdivisions connecting residential areas together to commercial establishments and to the broader CLT greenway network.

Pedestrian Input Snapshot



This stretch of sidewalk needs tree cover to be functional.

Sidewalk abruptly ends. We need a sidewalk to continue underneath the Matheson Ave bridge into NoDa to better connect the two neighborhoods.

Wheelchairs can not use the sidewalk here as it is narrow and there are telephone poles in the way as well.

Widen sidewalks on south side of University City Boulevard -- too narrow to carry pedestrians and bikes from new residential developments to shopping centers.

Complete sidewalks, or better, a shared walk/bike path on Tryon from Mallard Creek Church across the bridge.

Improve the underpass pedestrian experience to better connect South End and Wesley Heights.

New wider sidewalks/street trees/lighting needed all down N. Davidson

Can we set sidewalks wider and further from the street so that kids walking from the high school are safer?

Walking up 12th and across the bridge on Graham is pretty perilous. Any protection or median would be great.

A better pedestrian connection between Optimist Hall and the Parkwood LYNX station would be great and further encourage people to take transit instead of driving.

Harris Blvd has incomplete sidewalks or a shared use trail from JW Clay to University Hospital Road. Pedestrians are forced to use ditches or walk on road with cars going 55 mph.

There is no safe way for pedestrians or cyclists to cross Eastway. This is becoming a more common crossing since Parks & Rec opened the Eastway Rec Center.

Difficult to navigate intersection for pedestrians that makes access to the Irwin Creek Greenway difficult.

We need sidewalks to continue from the intersection of Weddington Rd/McKee Rd down to Francis Beatty Park to give people safe access to shopping and the Park.

Lack of sidewalks, not only in my neighborhood, but on very busy main streets.

Dalton Ave is very wide and has plenty of room to be improved with better pedestrian and bicycle infrastructure.

Encourage businesses, traffic, visitors to walk more around downtown Derita - park once and walk to various places. Needs traffic calming and pedestrian infrastructure as well as beautification (trees and art).

I believe a sidewalk should be place on W.T Harris Blvd. from the Northlake Mall to the intersection of Mallard creek. This would increase mobility of those living in the area without reliance on a car.

There are a lot of pedestrians and transit riders along Freedom. Can you widen and improve sidewalks, increase tree canopies and shade?

Lots of kids cross the street to get to Tom Hunter Park from Silverstone apartments. A crosswalk would be a great addition.

Harrisburg Road needs crosswalks so people can get to the recreation facilities.

Dangerous area where Wallace Rd meets Monroe - across from East Meck. Sidewalks too close to street and not maintained. Traffic pylons all knocked down and people don't follow road rules - always turn left from Wallace onto Monroe. Love the MORA improvements but still unsafe along Monroe Rd.

Create safe crossings for peds and bikes on Lasalle between Newcastle and Beatties Ford Road.

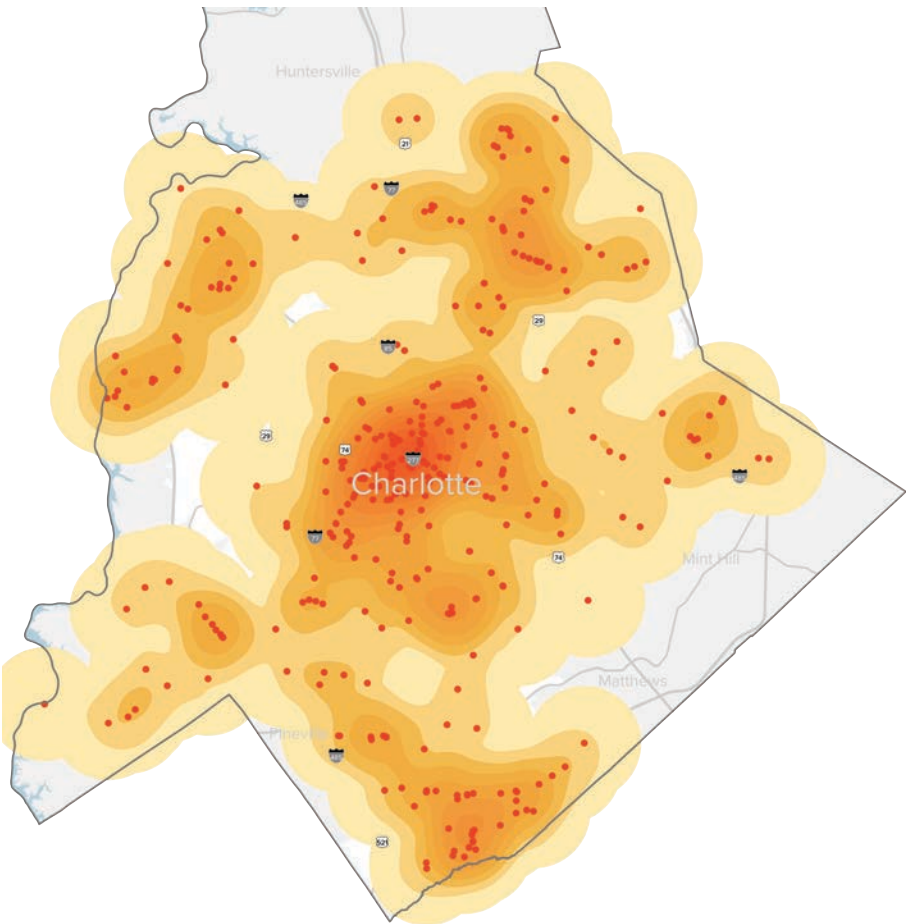
Better shade needed along this walking route to connect Central. Noda businesses with North Noda businesses.

Create parklets or expand sidewalks here for more pedestrians. The former parking spaces have been converted to loading only zones. So most of the time this space sits empty. Sidewalks are narrow here and we need more space for pedestrians

Add sidewalk on west side of Charlotte Drive between East Blvd and Ideal Way.

Many residents walk and bike this road and a sidewalk will create a safer environment for the pedestrian and motorist.

Roadway Input Snapshot



Road width encourages speeding - road would be better with wider protected multi-use path instead of sidewalk and bike lane unprotected from speeding cars.

All of E Independence (and especially this area) is basically a highway with hundreds of curb-cut business access directly along it. Incredibly dangerous stroad. Slow down the traffic by changing the design. You can't blame people for going highway speeds when it looks like an interstate.

Cap 277 to make it a park and/or remove 277 and make it a park.

Traffic circle needed for traffic calming measure. There is a blind spot on the left (south of Bellhaven) for drivers pulling out of McClure.

Traffic calming measures needed along this segment of N Davidson. Speeding observed through here...continues north to the Matheson bridge before it begins to slow a bit.

277 has outlived its usefulness. It is difficult and dangerous to drive on. Tear it down and replace with a Metro loop similar to the Chicago loop or Miami loop.

Please add reflectors, streetlights, or paint to the roads. It is so dangerous when it is rainy or dark to see your lane.

To avoid an increase in road widening, the intersection should be replaced with a traffic circle (TC). The area is becoming more congested and more drivers distracted. TCs will save the city money on power for traffic lights, reduce accidents that occur on intersections, and reduce pollution from stand-still traffic.

Better connectivity between North End neighborhoods.

Consider roundabout/traffic calming at Woodland Drive and Norland Road, people come around the curve a little fast.

A lot of speeding all along Tremont (despite stop signs).

Increase left turn signal time to reduce back up on Providence.

No left turns during rush hours. Woodlawn is very busy.

Introduce some sort of traffic calming method along the entirety of Sugar creek. People fly down this road all the way from 85 to the neighborhoods on this side.

Double lane roundabout; there's currently not enough traffic calming, and I hear fast cars and sirens every day I work around here.

Between the intersection of Sterling and Maryland and the termination of Maryland at East Blvd, there is no street parking, so the street seems wider. Cars speed here, even making the curve. You should put speed bumps in or permit street parking.

Need traffic calming like speed humps on Allen Road East. Cars drive too fast.

Visibility is very poor making a right from Robinson Church Road onto E WT Harris.

It is becoming impossible to get onto Pecan from Bay Street because of increased traffic. There needs to be a light here.

Streetlights should be added, as well as, flashing lights that indicate you are in driving in a school zone.

This 5-way intersection is very dangerous. People speed on Oakdale, people are turning onto Oakdale from Sunset, and people are pulling into the gas station and dollar store all within 50 yards of each other. Some traffic control needs to be implemented to make this safer for cars, bikes and pedestrians.

Speed humps or bumps are needed due to increased traffic from cut through to newer neighborhood or possibly cut off access to newer neighborhood Turtle Rock.

Extreme speeding.

Speed limits are not observed by many drivers and people attempting to turn into or out of the schools (at least 3) and businesses are at risk.

There [are] not enough roads to accommodate the number of housing developments taking place.

Better coordination of the timing of these lights would be a huge help with the flow of traffic. Currently it is easy to be stopped at every single light.

This entire road is unsafe. Cars coming in and out, pedestrians crossing without caution. New road with sidewalks and one in the middle as well, would make it much safer for everyone.



CITY of CHARLOTTE

I LOVE THE UPTOWN
CYCLELINK *because ...*

I ♥ CLT



PROTECTED and CONNECTED
#UPTOWNCYCLELINK

MISSING VOICES

Overview

Engagement for the SMP included informal focus group meetings to engage with people that are typically underrepresented in public planning processes. Two rounds of focus group discussions engaged more than 80 participants.

Organization

The first round of focus groups included six sessions held in October and November 2020. The second round of focus groups included eight sessions held in June and July 2021. Participants only joined one session, so each discussion included different perspectives. Due to the Covid-19 pandemic, each of the focus group meetings were held virtually. The format was a facilitated discussion based on guiding questions.

Round 1 Groupings (53 participants)

- Group A – General Population (3 sessions, 22 participants)
- Group B – Johnson C. Smith University Students (2 sessions, 25 participants)
- Group C – Charlotte’s Bilingual Preschool Parents (1 session, 6 participants)

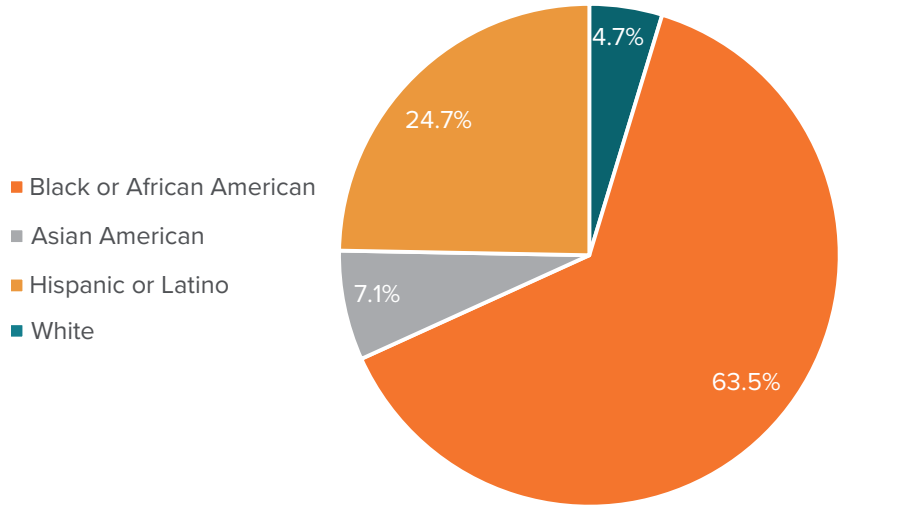
Round 2 Groupings (32 participants)

- Group A – General Population (6 sessions, 24 participants)
- Group B – En Español (2 sessions, 8 participants)

Summary

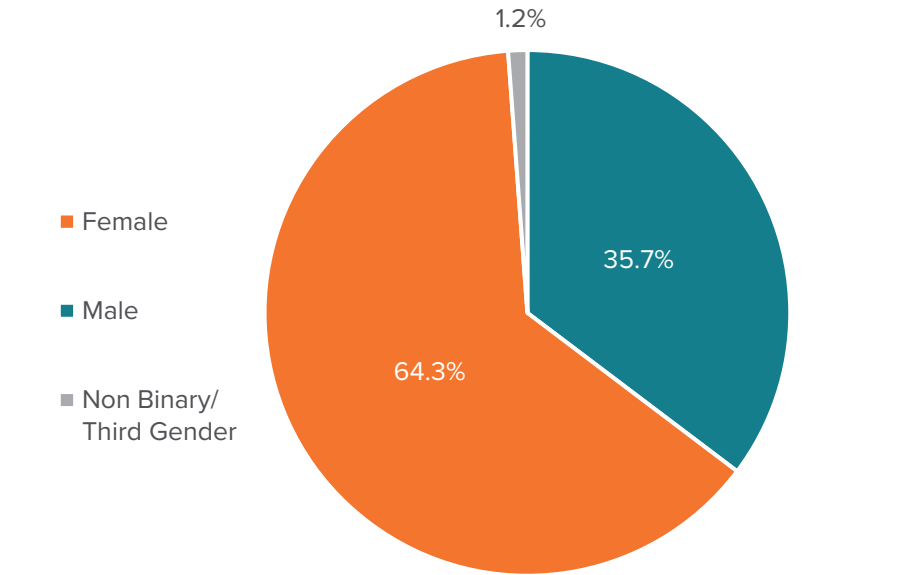
Race & Ethnic Identity

The following is a summary of respondent racial and ethnic identity as self-reported by focus group participants: 63.5% identified as Black or African American, 24.7% identified as Hispanic or Latino, 7.1% identified as Asian American, and 4.7% identified as White.



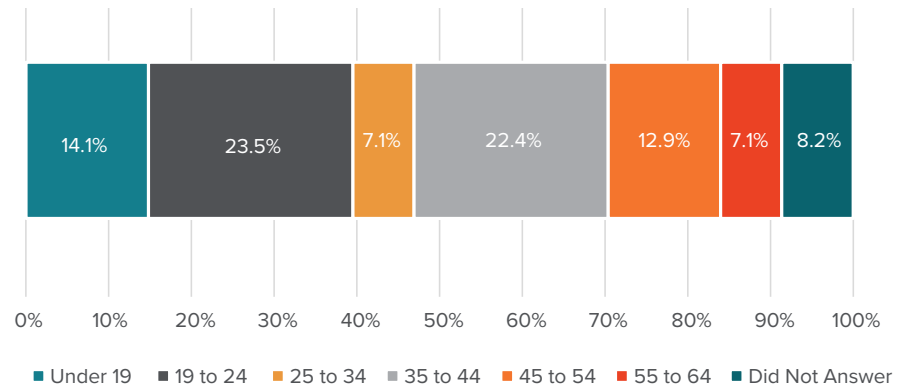
Gender Identity

The following is a summary of respondent gender identity as self-reported by focus group participants: 64.3% identified as female, 35.7% identified as male, and 1.2% identified as Non-Binary or Third Gender.



Age

Over half of survey respondents were between 19 and 44, with 23.5% between 19 and 24 and 22.4% between 35 and 44. More than 25% of participants were 55 and over.



Round 1

A General Population	B JCSU Students	C Bilingual Preschool Parents
What is your daily travel experience? (Before Covid-19)		
Personal vehicle with unpredictable traffic issues	Mostly driving	Mix of driving and transit use
What frustrations or challenges do you face in your daily travel experience?		
Lack of patience and distractions for drivers	Slow traffic and expensive options (e.g., Uber)	Inefficient transit
How often do you travel in ways other than driving or riding in a car? (Bicycling, walking and transit)		
Varies but mostly walking for recreation	Walking/running for recreation and the occasional scooter trip	Walking for recreation and to nearby stores
What is preventing you from traveling in ways other than driving or riding in a car?		
Convenience	Convenience and safety	Distance between destinations
What does a safe trip mean to you?		
Fewer crashes, more predictable travel, and better coordination between travel modes	Being careful and mindful of others around you	Arriving safely to destination
Can you think of a time where you felt safe/unsafe traveling in Charlotte? What about that trip made it feel safe or unsafe?		
Varies but aggressive drivers and unpredictable conditions commonly cited	Generally around aggressive drivers and in congested areas	Isolated incidents while taking transit
What is your vision for how people will get around in Charlotte in the next generation?		
Electric cars, better transit options, improved connectivity, more shared rides	Flying cars, self-driving cars, and more ridesharing options	More transit use

Round 2

The following answers are blended between the focus group sessions, including those conducted in English and in Spanish.

What are some personal outcomes (positive or negative) of your daily travel experience?

Access to walking, rail and bike lanes are not consistent throughout Charlotte and are experienced heavily in some neighborhoods but for longer trips, Charlotte residents mainly drive. Participants also noted an increase in traffic congestion, construction, and aggressive driving in their daily travel.

What are the most important transportation improvements the City could make to improve how you are able to move around?

There should be an increase in communication and awareness of transportation options and wayfinding resources for people to get around while driving, biking, and/or walking. Improvements in connections between light rail, bus, and last mile connections could make a difference in Charlotte commutes.

Are you okay with less investment in some areas if it means that more investment goes to areas with the least access to safe & affordable transportation choices?

Several participants shared that investing resources where they are most needed is the preferred decision.

Are you okay with less investment in infrastructure for cars if it means more investment in infrastructure for walking, biking, and transit?

There should be equity in how the resources are shared. There was not an overwhelming yes or no for this question. The consensus notes a clear trade-off between car infrastructure and the infrastructure for walking, biking, and transit. However, the idea that Charlotte residents would be less reliant on cars if they had more access to other forms of transit emerged throughout the focus groups.

How should our experience during the pandemic shape future transportation in Charlotte?

During the pandemic, focus group participants found that they used alternative modes of transportation more often for a number of reasons like working from home more often, there were less cars on the road, and they walked and biked in their neighborhoods more for recreation and exercise.

How can the City of Charlotte create ongoing engagement experiences around the topic of equity?

Provide more proactive engagement for projects in advance and get new people to the table through traditional marketing and engage with residents using a hybrid method of virtual and in person events.


4 OUR MOBILITY POLICY



Our Policy defines and details our policy framework to align our partnerships and actions.

OUR POLICY FRAMEWORK

This policy framework establishes a comprehensive approach for our mobility policy and is designed to guide and direct the City’s mobility partnerships, choices, decisions, and investments. While the SMP is a long-range view, this framework and the actions within it represent the specific steps necessary to achieve our goal of safe and equitable mobility.



→ Safe

Eliminate transportation-related fatalities and serious injuries to make our streets safe for everyone.

→ Create Safe Streets for All Users

→ Design for Safety
Plan for Safety

Shape a Community Culture of Safety

Support Education & Outreach
Analyze the Data
Shape Policy and Legislation

Actions

Steps to implementation

Strategies


Initiatives that direct action

Policies

Focus toward our objectives

Objectives

What we want to achieve



Connected

Increase the share of trips made without a car and broaden multimodal connectivity to expand the capacity of our transportation infrastructure.

Improve the Street & Roadway System

Increase Street Connectivity & Capacity
Support Regional Connectivity and Investment

Expand the Bicycle System


Increase the Availability & Safety of Bicycling and Micromobility
Advance Bicycle Facility Design & Maintenance
Create a Culture that Educates, Promotes, & Welcomes Bicycling

Strengthen the Pedestrian System

Provide a Safe Walk
Provide a Useful Walk
Provide an Inviting Walk

Support the Transit System

Implement the 2030 Transit System Plan
Implement the Bus Priority System



Equitable

Increase investment and access to support equitable and affordable mobility options in our communities that have historically lacked investment.

Create Accessible & Equitable Mobility

Provide Accessible & Affordable Mobility
Advance Equitable Mobility

Engage Our Community

Strengthen Meaningful Engagement & Communication
Build & Maintain Community Relationships
Provide High-Quality Customer Service



Sustainable

Increase access to sustainable and zero carbon transportation modes and mobility options to support our energy and sustainability goals.

Shift Mode Choice & Access

Increase the Share of Walking, Biking, Micromobility, & Transit Trips
Support Transportation Demand Management

Support Asset Stewardship

Maintain Our Mobility Assets

Minimize Environmental Impact

Reduce Vehicle Miles Traveled & Emissions
Implement Sustainable Street Design



Prosperous

Prioritize transportation investments that promote economic vibrancy by managing congestion, connecting our workforce with opportunities, and advancing community priorities.

Plan & Design for People

Plan for Places & Corridors
Design & Operate Streets as Places

Manage the Right-of-Way

Manage the Use of the Curb
Manage the Right-of-Way as a Public Resource

Expand Collaborative Partnerships

Support Our Regional Mobility Partners

Invest in our Mobility Future

Protect Our Future Mobility Needs
Fund Mobility Investment
Prioritize Mobility Investment



Innovative

Integrate emerging mobility solutions and new technologies to move people and goods through our city in cleaner, safer, and more affordable and efficient ways.

Support Shared Mobility Solutions

Increase Access to Shared Mobility Services
Support the Creation of Mobility Hubs

Prepare for a Connected Mobility Environment

Support Connected Infrastructure

Employ Emerging Technology

Maximize Signal System Technologies
Expand Our Data-Driven Decision-Making Culture

Safe Policy 1 | Create Safe Streets for all Users

Providing safe streets that accommodate growth and provide multimodal choices requires a commitment to design complete streets that serve all users. Serious injuries and fatalities on our streets are preventable. Providing for safer streets is ethical, equitable, fiscally responsible, and critical to shifting peoples' willingness to consider and use a wider variety of mobility options. Charlotte will plan and design its transportation system to be safe and accessible for users of all ages and abilities.

Safe Strategy 1.1 | Design for Safety

Charlotte will ensure that public and private projects and processes are designed to improve safety outcomes for all users of the street.

Actions

Street and Pedestrian Lighting — Implement and prioritize new street lighting for the safety of all users; support Duke Energy in the LED conversion of existing street lighting; and ensure that streetlights are located in places that effectively light sidewalks, pathways, and pedestrian crossings.

Intersections and Traffic Signals — Identify, prioritize, and improve pedestrian safety at intersections and traffic signals, including Leading Pedestrian Intervals (LPI) and LPI Plus treatments, exclusive pedestrian phase, raised intersections, etc.

Intersection Design — Design intersections to prioritize pedestrians and bicyclists by minimizing crossings distances, maximizing visibility between vulnerable users and motorists, and incorporating geometric design and traffic signal technology that slows vehicular traffic and manages conflict points between vulnerable users and motorists.

Traffic Calming — Expand our traffic calming toolbox and implement neighborhood traffic calming to help minimize speeding and prioritize traffic calming needs based on the High Injury Network.

Street Design Guide — Incorporate design guidance on safety for all street users.

Transit Stops — Coordinate with CATS to prioritize safety and enhance the public realm around rapid transit stops and bus stops.

Safe Strategy 1.2 | Plan for Safety

Charlotte will use the necessary ongoing planning and evaluation to identify and incorporate design and operational improvements that will increase the safety of our transportation system.

Actions

Vision Zero Action Plan — Maintain and regularly update the Vision Zero Action Plan to identify and prioritize Vision Zero investment, updating programs, activities, and the High Injury Network.

Speed Mitigation — Conduct speed surveys on High Injury Network streets and evaluate reducing speed limits for arterials and collectors where appropriate. Evaluate reducing speed limits on local streets where traffic calming need is identified and on the Bicycle Priority Network.

Signal Timing — Ensure that signal timing and progression along arterial corridors reflects speed limits/target speeds.

Equity — Identify, measure, and evaluate areas of our community that may be experiencing higher rates of crashes resulting in serious injury or fatality. Explore older adult mobility and safety issues identified in Sustain Charlotte's Senior Mobility Report.

State and Regional Partnerships — Work with the Charlotte Regional Transportation Planning Organization (CRTPO), NCDOT, and other regional partners to ensure that state and regional transportation funding is used to implement projects that support Vision Zero.



Safe Policy 2 | Shape a Community Culture of Safety

We have a shared responsibility to ensure we can reach our intended destinations safely, whether we drive, bike, walk, take transit, or use other micromobility options. Charlotte will place emphasis on community engagement and education for all users, focusing on preventing crashes likely to involve death or serious injuries, including those related to high speeds and/or involving vulnerable street users.

Safe Strategy 2.1 | Support Education & Outreach

Charlotte will engage with and empower the community to be partners, practitioners, and advocates of safe streets for all users.

Actions

Education — Support education campaigns, programs, and partnerships, including participating in Watch for Me NC and town halls, implementing a community ambassador program, and developing a Vision Zero curriculum for safety events.

Enforcement — Seek enforcement partnerships, strategies, and tools, including conducting enforcement events on the High Injury Network (HIN), tracking citations specific to speeding, and reporting Vision Zero statistics at CMPD division safety meetings and quarterly staff meetings.

Placemaking — Collaborate across departments to expand the Placemaking Hub toolbox to promote traffic safety and consider piloting a grant program to fund neighborhood traffic calming placemaking initiatives.

Vision Zero Task Force — Chair the Vision Zero Task Force to receive feedback and input on the implementation of the City’s Vision Zero Action Plan.

Safety Training — Conduct crash report trainings for CMPD Recruit Classes and develop training on importance of data for all CMPD patrol officers. Identify other educational partners and opportunities (e.g., CMS, CATS).

Marketing and Public Relations — Expand the role of Vision Zero in marketing the importance of traffic safety at City events and include Vision Zero messaging in media briefs.

Safe Strategy 2.2 | Analyze the Data

Charlotte will collect and evaluate data and monitor relevant research to better understand the factors that contribute to fatal and serious injury crashes and to ensure that safety improvements will have direct impacts on eliminating these crashes.

Actions

Before and After Studies — Complete before and after studies for transportation safety projects and HIN enforcement areas to assess the effectiveness of infrastructure improvements and enforcement efforts.

Annual Vision Zero Progress Report — Publish an annual progress report to track and report the results of safety improvement programs and projects. Include data from the updated HIN and before and after studies.

Crash Investigations — Conduct fatal crash investigations by CMPD and CDOT Traffic Safety, begin serious injury crash investigations for bicyclists and pedestrians, and provide quality assurance reviews of crash coding.

Data Collection — Expand data collection, including updating the HIN annually, conducting interviews for unsafe location identification with stakeholder groups, and implementing a Pedestrian and Bicycle Crash Assessment Tool.

Share the Data — Maintain and share data including publishing HIN data, participating in the NCDOT/Institute for Transportation Research and Education (ITRE) non-motorized vehicle data project, and data sharing with the Highway Safety Information System (HSIS) managed by the Federal Highway Administration (FHWA).

Safe Strategy 2.3 | Shape Policy & Legislation

Charlotte will work with partners and policy makers to ensure that local, regional, and state policies and legislation support safe walking, biking, and driving.

Actions

School Zone Policy — Coordinate with CMS and Mecklenburg County to identify and pursue collaborative projects that improve pedestrian and bicycle access to schools, including conducting a School Safety Study, updating School Zone Policy, and developing a Safe Routes to School District Policy.

CATS Bus Stop Policy — Coordinate with CATS to incorporate safety reviews in the design and location of bus stops.

City Fleet Policy — Coordinate across departments to upgrade safety features on City fleet vehicles, including automatic vehicle locators (AVL), underguard protection on large vehicles, and back up cameras.

State Traffic Safety and Speeding Policy — Advocate for traffic safety policies by monitoring state legislation and researching national policies and best practices regarding speeding and traffic violations that contribute to crashes and emerging technology impacting safety, such as autonomous vehicles and legislation that unfairly burdens vulnerable users.



CONNECTED

Increase the share of trips made without a car and broaden multimodal connectivity to expand the capacity of our transportation infrastructure.

Connected Policy 1 | Improve the Street & Roadway System

Our roadway system is made up of the streets and highways that we rely on to get to work, services, and the activities of our daily lives. While this system has historically been focused on vehicles, it is necessary to have a roadway system that can transport people and goods safely and reliably. A robust and connected system—made up of a hierarchy of streets ranging from highways to locals—provides advantages for all users of the network by shortening trips, expanding route choices and access to destinations, and distributing traffic across the system.

Charlotte’s regional highway system supports our economy, carrying more people and goods than any other transportation system in the region. Investment in our current highway system must focus improving safety and mobility and recognize that the way we built this system has inequitably created barriers and separated and displaced neighborhoods. We cannot solve congestion by building and widening more roads, but we can manage congestion and create more reliable travel times through targeted capacity improvements, such as enhancing and expanding our street network to support mode choice and greater multimodal capacity overall.

Connected Strategy 1.1 | Increase Street Connectivity & Capacity

Charlotte will support our mode share goals by expanding street grid connectivity balanced with targeted vehicle capacity improvements to existing streets and intersections.

Actions

New Streets — Invest in and protect new future street connections through capital investment and land development projects, prioritizing opportunities to increase network capacity in growing areas, expand our multimodal network, complete critical creek crossings, and partner with new development.

Connectivity and Access — Require and incentivize connectivity in new development and redevelopment through cross access, connecting and restoring existing streets, block length and connectivity standards, and alternative pedestrian and bicycle connections.

Street and Roadway Framework — Utilize the Street and Roadway Framework (as defined in the SMP) to guide capital investment in streets, corridors, and intersection improvements.

Streets Map — Maintain a citywide Streets Map to identify, protect, and prioritize future street connections for arterials and collectors.

Congestion Management — Target congestion management investment and strategies in key areas of growth and areas with limited capacity. In addition to targeted capacity improvements, strategies may include infrastructure to support mode shift, disperse traffic, or better manage traffic flow. Identify opportunities for private partnerships and focus on short-term and feasible improvements to corridors and intersections.

Intersections and Traffic Signals — Identify and evaluate technologies, signal phasing, and other traffic control innovations intended to promote intersection safety and congestion mitigation for all users.

Collector Streets — Identify collector streets to prioritize neighborhood improvements within the street network, such as creek crossings, pedestrian and bicycle facilities, traffic calming, and microtransit connections.

Connected Strategy 1.2 | Support Regional Connectivity & Investment

Charlotte will work to increase the person-carrying capacity of the highway system while removing and mitigating the barriers this system has created.

Actions

Regional Highway Capacity — Collaborate with NCDOT and CRTPO to increase the ability of the highway system to carry more people, pursuing strategies to minimize local trips on the highway system and managing new and existing capacity by incorporating strategies and investments in demand management, transit, and managed lanes in key corridors.

Removing Community Barriers — Collaborate with NCDOT to identify and target opportunities to redesign and reinvest in removing and mitigating the negative impacts of our past highway investment that separated and displaced neighborhoods.

Access and Connectivity — Collaborate with NCDOT to reinvest and reimagine highway access and connectivity at key highway interchanges in our fast-growing activity and employment centers to manage and increase access and connectivity.

Reconnect Streets and Railroads — Re-establish severed connections across highways and railroads via new bridges, underpasses, etc., and prevent the further disconnection of the street network in new highway and railroad projects.

Freight — Ensure that the street and highway network accommodates freight, as appropriate, to allow for efficient delivery of goods.



CONNECTED

Increase the share of trips made without a car and broaden multimodal connectivity to expand the capacity of our transportation infrastructure.

Connected Policy 2 | Expand the Bicycle System

To support and encourage the use of bicycles and other micromobility technologies, we must build a complete system of facilities. This requires providing a variety of context-based facilities—both on- and off-street—and stitching together networks to create bicycle access throughout our community. It also requires supporting bicyclists’ unique needs once the trip is over.

Charlotte will work with public and private partners to build a connected network of on- and off-street bicycle facilities to support peoples’ ability to choose bicycles as a safe and viable mobility option. We will plan, build, operate, and maintain bike network connections that overcome physical barriers, shorten routes, connect local and regional destinations, and function as integral parts of the city’s overall transportation network.

Connected Strategy 2.1 | Increase the Availability & Safety of Bicycling & Micromobility

Charlotte will create a safe, comfortable, and convenient network of bicycle facilities that aid and encourage bicycling and utilizing micromobility for people of all ages and abilities in all areas of Charlotte.

Actions

Bicycle Framework — Utilize the Bicycle Framework to target and prioritize capital investments that expand access to facilities for All Ages and Abilities (AAA).

Advance and Support the Greenway System — Support the greenway system as an integral part of the transportation network and partner with Mecklenburg County Park and Recreation to prioritize bicycle investments that provide connections between greenway trails and nearby destinations.

Streets Map — Implement bicycle facilities as defined on the Streets Map on all new or reconstructed roadways and resurfacing projects in the city and ensure that regulations provide adequate space for safe bicycle facilities.

Bicycle Signal Detection — Increase the number of signalized intersections that detect bicyclists.

Bicycle Program — Support and fund the Bicycle Program to manage the Bicycle Advisory Committee, maintain and update a Charlotte Bikes Action Plan that identifies and prioritizes program and project investment, and sponsor education activities and events that raise awareness of bicycling.

Connected Strategy 2.2 | Advance Bicycle Facility Design & Maintenance

Charlotte will ensure that bicycle facilities and supporting infrastructure are designed and located based on best practices, meet community needs, and serve as an asset to all current and potential users of bicycles and micromobility devices.

Actions

Bicycle Design Guide — Develop a Bicycle Design Guide using the latest bikeway design guidance from AASHTO, FHWA, and NACTO to be incorporated into an overall update of the Urban Street Design Guidelines (USDG), and include updated designs for shared use path crossings at driveways and intersections.

End-of-Trip Facilities — Invest in, partner to create, and require or incentivize facilities that meet end-of-trip needs, including bike parking that is abundant and convenient, a place to shower and change clothing, and stands for repairs.

Bicycle Facility Maintenance — Maintain bicycle facilities by keeping pavement, barriers, markings, signage, and signal detection in good condition and free of debris.

Intersection Design — Identify and invest in intersection improvements on the Bicycle Priority Network that support bicycle connectivity and access, including signal detection, lane protection, and protected bicycle signals.

Connected Strategy 2.3 | Create a Culture that Educates, Promotes, & Welcomes Bicycling

Charlotte will sponsor educational opportunities, identify initiatives, offer incentives, and support efforts to promote bicycling for people of all ages and abilities within our community to encourage safe bicycling and driver awareness of bicycles.

Actions

Bicycle Advisory Committee — Support the Bicycle Advisory Committee as the chief citizens’ advisory group for bicycle related issues and receive recommendations in accordance with its mission.

Bicycle/Pedestrian Counters — Expand existing bicycle/pedestrian volume counters into a systematic inventory of bicycling use trends and add bicycle/pedestrian counters at key locations of the network as new facilities are built to capture before and after counts, and track user trends over time.

Education — Support education campaigns and programs and partnerships, including participating in Watch for Me NC and sponsoring events to promote and raise awareness of bicycling.

Enforcement — Identify and support enforcement campaigns, training, and data collection of bicycle-related crashes to foster a culture of safety and accountability on Charlotte’s streets through the enforcement of traffic laws.

Silver Bicycle Friendly Community — Work toward achieving a Silver-Level designation from the League of American Bicyclists (currently Bronze Level) and Bicycle Friendly Business Status.

Bike Share — Support partners in efforts to operate, sustain, and expand bike share in Charlotte.



Connected Policy 3 | Strengthen the Pedestrian System

Every trip begins and ends as a pedestrian, and pedestrians are the most vulnerable users of our streets. Providing a safe, useful, and inviting pedestrian environment will encourage more walking trips, resulting in a sustainable, healthy, and equitable mobility option for residents and visitors alike. Charlotte will work with public and private partners to build a connected, safe, and comfortable pedestrian system that reflects Charlotte's many contexts and supports peoples' ability to walk or roll, no matter their age or ability.

People walk for a variety of reasons—whether to travel to work or the store, or simply for recreation, and the best walks are along streets that are comfortable, attractive, well-proportioned to adjacent buildings, and lined with interesting activities. Charlotte's streets are our primary public space and their designs should offer a safe, beautiful, and stimulating pedestrian experience.

Connected Strategy 3.1 | Provide a Safe Walk

Charlotte will design streets to provide a safe pedestrian environment as the foundation of all places.

Actions

Pedestrian Framework — Utilize the Pedestrian Framework (as defined in the SMP) to guide capital investment in pedestrian infrastructure and advance programs that prioritize the completion of sidewalk gaps along our arterial network.

Street Design Guide — Assign modal priority to pedestrians in street designs for high intensity activity centers and transit corridors.

Intersections and Traffic Signals — Identify, prioritize, and improve pedestrian safety at intersections and traffic signals, including Leading Pedestrian Intervals and LPI Plus treatments (specifically at heavy right turn locations), exclusive pedestrian phase, raised intersections, etc., and ensure that pedestrian improvements align with Americans with Disabilities Act (ADA) standards.

Pedestrian Crossings — Identify, prioritize, and construct new or improved pedestrian crossings focusing on arterials and the HIN and seek out partnership opportunities for new crossings through private development.

Pedestrian Realm — Ensure that development regulations support pedestrian-friendly design with buildings oriented to the street, usable doors, and active ground floors with windows.

Connected Strategy 3.2 | Provide a Useful Walk

Charlotte will provide a convenient walk for daily needs and activities, allowing people to get where they need to go on foot.

Actions

10-Minute Neighborhoods — Support the 2040 Plan goal of creating places that have an accessible mix of uses and services, prioritizing pedestrian investments in and to activity centers identified in the 2040 Policy Map.

Access to Transit — Identify and prioritize new sidewalks, pedestrian crossings, and other pedestrian improvements near transit stations and high frequency priority bus corridors.

Access to Community Services — Coordinate with CMS and Mecklenburg County to identify and prioritize improvements to pedestrian access near schools, parks, recreation centers, and other County service destinations.

Expand Connectivity — Support opportunities to create new pedestrian connections, encourage private development to create public access to adjacent trails, and enforce maximum block sizes to expand pedestrian connectivity.

Pedestrian Counts — Expand our program of pedestrian and bicycle counts to raise awareness, document our mode shift progress, and inform the prioritization of future capital investment.



10-Minute Neighborhoods

All city households should have access to essential amenities, goods, and services within a comfortable and tree-shaded 10-minute walk, bike, or transit trip by 2040. Not all neighborhoods are expected to include every essential amenity, good, or service, but every resident should have access within a half-mile walk, 2-mile bike, or transit ride.

Connected Strategy 3.3 | Provide an Inviting Walk

Charlotte will design our streets to provide a comfortable, interesting, and attractive pedestrian environment that makes walking a pleasure.

Actions

Streets Map — Apply and regularly update the Streets Map to align sidewalk widths with the 2040 Policy Map (Place Types) and ensure that the recommended sidewalk locations and widths are implemented through private development and capital investment.

Street Design Guide — Refine urban street tree planting standards to ensure that the use and design of hardscaped amenity zones protects the long-term viability of street trees, while providing safe and unobstructed access to and along sidewalks.

On-Street Parking — Promote and encourage the use of on-street parking in retail districts, Main Streets, and activity centers to improve walkability and support commercial activity.

Parklets and Placemaking — Collaborate with other City departments and private partners to support and expand parklets and placemaking opportunities to activate existing streets and places.



CONNECTED

Increase the share of trips made without a car and broaden multimodal connectivity to expand the capacity of our transportation infrastructure.

Connected Policy 4 | Support the Transit System

A connected and robust transit system is the foundation of our mobility system, as it provides an affordable and sustainable travel option. Combined with supporting land use and infrastructure to support first/last mile travel, transit provides equity, mobility, and economic access for residents, visitors, and commuters alike. Corridor-based station area planning will ensure all mobility options are integrated and a transit-oriented vision is in place to shape our future growth and economic investment.

Implementing this system plan will result in technologically advanced, high-capacity transit corridors tailored to our regional or municipal travel needs and each corridor’s context, including light rail, commuter rail, and bus rapid transit, along with streetcar. Charlotte will support the development and implementation of a strong citywide and regional transit network.

Connected Strategy 4.1 | Implement the 2030 Transit System Plan

Charlotte will implement the 2030 Transit Corridor System Plan as the foundation of our multimodal transportation network, establishing a system of rapid transit corridors that connect people to jobs and strengthen our regional connectivity.

Actions

Transit-Oriented Development — Support CATS and the Planning, Design and Development (PDD) Department in proactive station area planning along new and existing corridors, focusing on identifying the critical mobility infrastructure investment necessary to support transit-oriented development.

LYNX Silver Line — Support CATS and the Planning, Design and Development (PDD) Department in the preliminary engineering and station planning of the Silver Line corridor to coordinate implementing the corridor within our existing transportation network.

CityLYNX Gold Line — Support CATS and the Planning, Design and Development (PDD) Department in the preliminary engineering of the Gold Line Corridor Phase 3 to ensure integration of the expanded streetcar within our existing street right-of-way.

CONNECT Beyond — Support CATS and the Centralina Regional Council in implementing the regional transit initiatives of CONNECT Beyond – A Regional Mobility Plan – and promote a regional network of commuter transit bus corridors and vanpool facilities to connect employment areas and enhance regional air quality and multimodal travel choices.

Connected Strategy 4.2 | Implement the Bus Priority Network

Charlotte will implement a bus priority system that supports our rapid transit corridors, improves the transit experience, and connects neighborhoods to our growing employment centers, ensuring affordable access to opportunity.

Actions

Bus Priority Network — Support CATS in implementing the Bus Priority Study to improve the speed and reliability of bus service. Evaluate transit signal priority, queue jumps, dedicated lanes, and other operational or street design improvements.

Mobility Hubs and Improved Transit Experience — Support CATS to develop mobility hubs and other corridor infrastructure to create an attractive, comfortable, and convenient transit experience.

Technology — Support CATS in connecting multimodal trip information to developing mobile payment/trip planning applications to enable easier and more reliable multimodal trip planning and vehicle tracking for users.

Street Design Guide — Develop and incorporate bus priority and transit design options and standards.

Transit Stops and Stations — Support CATS to ensure all bus stops are fully accessible per the ADA and consider opportunities to improve access to bus stops, including new pedestrian crossings, improving sidewalk and bicycle connections, and stop amenities to improve comfort and safety (i.e., shelters, real-time signage, seating, lighting).

Microtransit — Support CATS in implementing microtransit zones to support on demand transit services as well as first/last mile connectivity to frequent transit routes and key destinations.



Mode Shift Goal

When asked the following question — *Charlotte will add approximately 325,000 people between now and 2040. In order to absorb that growth in population without increasing traffic congestion, do you think the City should establish a goal for more trips to be taken by walking, biking, and transit (a “mode shift” goal)?* — survey participants overwhelmingly said yes.

Yes | 93%

No | 7%

CONNECT Beyond (2021)

<https://connect-beyond-hdr.hub.arcgis.com/>
CONNECT Beyond is the first regional effort to create a single, coordinated transit system that includes multiple transit modes. This mobility initiative envisions how individuals will move from place to place across the region to get to work, school, and daily needs and services by public transportation.

Metropolitan Transit Commission (MTC)

The MTC is the policy board for the Charlotte Area Transit System (CATS). The board provides guidance on all long-range public transportation plans, reviews the CATS’ operating and capital programs, and recommends subsequent approval and funding of those programs for local governments. The MTC voting members represent cities and towns located in Mecklenburg County and non-voting members represent surrounding counties.



EQUITABLE

Increase investment and access to support equitable and affordable mobility options in our communities that have historically lacked investment.

Equitable Policy 1 | Create Accessible & Equitable Mobility

The lack of equitable access to mobility is a barrier to the economic, educational, social, and health opportunities that define Charlotte's unique quality of life. We acknowledge that there are disparities in neighborhoods and populations in our city that have historically been marginalized. An accessible transportation network recognizes that people have different functional abilities and economic resources, causing them to move around the city in very different ways.

After housing, transportation costs are often a household's second highest expense. An equitable community allows everyone to participate and prosper, and fosters conditions that helps all of us to reach our full potential. Charlotte will be inclusive and intentional in addressing gaps in travel options, quality of facility and service, and safety.

Equitable Strategy 1.1 | Provide Accessible & Affordable Mobility

Charlotte will provide our diverse community with an accessible and affordable transportation system that supports the safe, comfortable, and efficient movement of people of all ages and abilities.

Actions

ADA Transition Plan — Implement the ADA Transition Plan, review inventory, and track progress of public and private investments in compliance with current federal regulations.

Multimodal Accessibility — Set goals and measure and track the population served by the Transit, Bicycle, Pedestrian, and Street Priority Networks (as defined in the SMP), employing this data to prioritize ongoing mobility investments and expand multimodal accessibility.

Affordable Housing — Support the Housing and Neighborhood Services Department to protect and increase affordable housing near major transportation investments and mobility corridors, and support the development of affordable housing with pedestrian and multimodal access to provide safe and affordable travel options.

Affordability and Displacement — Support City efforts to analyze, evaluate, and reduce displacement and ensure existing residents and businesses benefit from transportation investments.

Paratransit — Support CATS in further implementing paratransit services to individuals within three-quarters of a mile of fixed route bus routes.

Equitable Strategy 1.2 | Advance Equitable Mobility

Charlotte will ensure that transportation decisions are made to reflect an equity lens and better serve everyone who lives or works in Charlotte.

Actions

Equitable Growth Framework — Support the Equitable Growth Framework by defining transportation equity and develop metrics to guide the prioritization of programs and projects that ensure that people of all ages, abilities, and backgrounds have access to high-quality, affordable transportation choices.

Diversity, Equity, and Inclusion (DEI) — Partner with the Office of Equity, Mobility and Immigrant Integration (EMII) to update department work plans and performance review measures to ensure our mobility planning activities meet the City's DEI values.

Economic Mobility — Support the work of EMII to create a neighborhood level strategy for economic mobility, focusing on the role of transportation and mobility.

Equitable Mobility Analysis — Evaluate historic resource investment and disinvestment, considering the locations and populations benefited or burdened to better understand future mobility needs through an equity lens. Identify criteria, geographies, and factors to help focus efforts on communities that have historically been marginalized.

Equitable Transit-Oriented Development (ETOD) — Work with CATS and other City departments to advance ETOD planning efforts and implementation steps.

Equitable Micromobility Access — Support the creation of equity requirements for micromobility providers and vendors to address adequate service to underserved areas and transaction opportunities for unbanked users.



Americans with Disabilities Act (ADA) Transition Plan

The City's ADA Transition Plan, developed in accordance with the requirements of Section 504 of the Rehabilitation Act of 1973 and Title II of the ADA, provides guidance for all City-owned facilities, including public rights-of-way, services, programs, and activities to comply with federal and state accessibility law. The City is committed to providing equal access to its public programs, services, facilities, and activities for all residents, including those with disabilities, and the intent of the City's ADA Transition Plan is to:

- *Identify physical and communicative barriers in the City of Charlotte's public facilities that could limit the accessibility of the City's programs, services, or activities to individuals with disabilities*
- *Describe the methods to be used to make the facilities, programs, services, or activities accessible*
- *Provide a schedule for addressing any barriers to achieve better accessibility*
- *Identify the public officials responsible for implementation of the plan*

Equitable Growth Framework

The 2040 Comprehensive Plan's very DNA is an Equitable Growth Framework, informed and shaped by the community. The Framework includes four Equity Metrics: 1) access to essential amenities, goods, and services, 2) access to housing opportunity, 3) access to employment opportunity, and 4) Environmental Justice. The 2040 Plan and the SMP are crafted through a lens of equity and with a commitment to thinking of our communities disproportionately affected by the equity metrics defined above, and with a vision of helping our city become a place where all residents can thrive, regardless of race, income, age, ability, or where they live.



Increase investment and access to support equitable and affordable mobility options in our communities that have historically lacked investment.

Equitable Policy 2 | Engage Our Community

Meaningful and informative interactions with the people and communities of Charlotte are integral to successfully addressing our mobility needs. Achieving our mobility goals requires numerous, frequent, and ongoing public engagement efforts to best understand and communicate with our community. We will ensure that engagement is convenient, accessible, meaningful, and inclusive, and we will be transparent and accountable by continuing to share information, updates, and data on the outcomes and impacts of mobility projects and programs with the public.

As a customer service organization and provider of community services, mobility planning, and information, we are responsible for building strong relationships with the community. Our actions should be guided by transparency, responsiveness, ethics, and building public trust in our processes, decisions, and actions. Creating successful community relationships is a commitment that requires energy, dedication, and inclusion. Charlotte will ensure an inclusive public engagement process by using whatever tools needed to hear from the diverse people of Charlotte.

Equitable Strategy 2.1 | Strengthen Meaningful Engagement & Communication

Charlotte will ensure equitable public engagement design and processes are a fundamental part of our decision-making.

Actions

Public Engagement Program — Develop a Public Engagement Program to proactively create, maintain, and improve community-informed transportation decisions. Include performance metrics to measure public involvement in transportation decisions and a toolbox of inclusive outreach formats, including how to identify impacted community groups.

State of Mobility Report — Prepare an annual report that details activities, accomplishments, and challenges as well as the status and performance of the existing transportation system.

Mobility Survey — Conduct a biennial mobility survey to measure and track public attitudes and behaviors related to mobility.

Virtual and Online — Expand online resources, virtual engagement events, and social media activities to make information and engagement opportunities more accessible to the public.

Focus Groups — Regularly utilize focus groups that target specific social and economic groups and communities that historically have not been engaged in transportation decisions.

Equitable Strategy 2.2 | Build & Maintain Community Relationships

Charlotte will develop and maintain strong relationships with a diverse range of local, cultural, social, institutional, and business groups to facilitate the dialogue necessary for the community to help shape our mobility.

Actions

Existing and New Relationships — Work with neighborhood organizations, community leaders, and community-based organizations to maintain and expand collaboration and partnerships on mobility planning and investment, especially in historically marginalized and underinvested areas of the city.

2040 Planning Academy — Support the City’s Planning, Development and Design (PDD) Department with the 2040 Planning Academy to build community capacity and partnerships in mobility planning.

Immigrant Integration — Support the creation and implementation of the City’s Language Access Plan (through the EMII) to ensure our mobility engagement activities reach our existing and growing immigrant communities.

Bicycle Advisory Committee (BAC) — Support the BAC as an important citizen advisory group to communicate the City’s bicycle vision to local organizations and residents, and advocate, promote, and educate the community on the value of bicycle mobility.

Charlotte’s Equity Policy and Equity Action Plan — Support the development of Charlotte’s Equity Policy and Equity Action Plan to remove barriers to inclusion and prioritize an equity lens in decision-making.



Charlotte's Equity Policy and Equity Action Plan

The City is reinforcing its commitment to diversity, equity, and inclusion through the upcoming creation of an Equity Policy and Equity Action Plan. Through the creation of an Equity Policy and a short-, intermediate-, and long-term Equity Action Plan, the City will serve our community by identifying and addressing existing inequities and working to remove barriers to inclusion.

Equitable Strategy 2.3 | Provide High-Quality Customer Service

Charlotte will minimize response time in investigating and addressing resident requests and make customer service information readily available, accessible, reliable, and usable.

Actions

Digital Engagement — Utilize the resources of the City’s Innovation & Technology Department (I&T) to expand the accessibility of services digitally “from the palm of their hands,” coordinating mobile offerings and advancing digital equity.

Service Requests — Audit and analyze 311 calls and service requests considering calls per capita in various areas of Charlotte to track and improve service response time, outcomes, and geographic equity for the community.

Equitable Communication — Collaborate with EMII to provide the utmost in customer service via language interpreters and writers.

Resident Concerns — Provide timely and engaged responses to resident concerns regarding Charlotte’s streets, rights-of-way, and other public infrastructure.

Land Development Process — Continue to process and review land development plans and applications in a timely and efficient manner, and seek out ways to improve the overall review process.

Sustainable Policy 1 | Shift Mode Choice & Access

The way we choose to invest in mobility defines our mobility choices and accessibility. Our reliance and dependence on cars limits economic mobility and equity and puts strains on our infrastructure capacity, environment, and quality of life. Mode share measures the percentage of travelers using a particular type of transportation (i.e., walking, biking, taking transit, driving a car). Shifting mode choice and accessibility will require investing in new ways to provide access to facilities, places, and programs that can change our willingness and ability to move about the city in more sustainable ways.

To provide for long-term sustainability and improved mobility, people must be willing and able to choose travel options other than single-occupancy vehicles. Charlotte will work to have 50% of all commute trips taken by means other than a single-occupancy vehicle by 2040. To achieve our mode shift goal, we will need to dramatically increase the share of walking, biking, micromobility, and transit trips.

Sustainable Strategy 1.1 | Increase the Share of Walking, Biking, & Transit Trips

Charlotte will plan for and invest in mobility options that complement land uses and most effectively increase the share of trips made by walking, biking, using micromobility, and taking transit.

Actions

Frameworks — Maintain and advance the Transit, Bicycle, Pedestrian, and Street and Roadway Frameworks (as defined in the SMP) to prioritize the multimodal projects that will most effectively increase mode choice and accessibility.

Track Goals — Set and track specific goals by geographic area for investment in infrastructure, strategies, and education programs to increase the mode share of walking, biking, micromobility, and transit.

Integrated Planning — Work to ensure that all planning efforts consider the effects of land use and development on the transportation system and vice versa. Set targets and measures for high intensity places and track developments occurring in these places to maintain our ability to most effectively prioritize our mobility investments.

Monitor and Measure — Expand data collection on pedestrian and bicycle use into a systematic inventory of trends to monitor and communicate shifting mobility preferences, behaviors, and patterns.

Travel Surveys — Use data collected from the City's biennial transportation survey, U.S. Census data, and the Household Travel Survey to assess mode shift in regular increments.

Sustainable Strategy 1.2 | Support Transportation Demand Management (TDM)

Charlotte will work with public and private partners to implement TDM programs and projects that educate, encourage, and provide incentives for residents and commuters to choose travel modes other than single-occupancy vehicles.

Actions

Comprehensive Transportation Review (CTR) Guidelines — Integrate a TDM assessment in the transportation review process to ensure development and redevelopment projects meet an established threshold to evaluate and address the multimodal transportation impacts of the development.

Education — Implement programs and projects that educate, encourage, and provide incentives for residents to choose travel modes other than single-occupancy vehicles.

Regional TDM Plan — Support the recommendations of the CONNECT Beyond Plan and collaborate with CATS to ensure that any TDM programs and efforts support long-range transit plans and policies.

City TDM Strategy — Develop a long-term citywide TDM implementation plan that identifies strategies for employers and property managers to encourage fewer drive-alone trips (including overall reductions in work trips) for their employees and/or residents. Establish the City of Charlotte, as an employer, as a leader in implementation of TDM programs.





SUSTAINABLE

Increase access to sustainable and zero carbon transportation modes and mobility options to support our strategic energy and sustainability goals.

Sustainable Policy 2 | Support Asset Stewardship

A sustainable transportation system requires maintenance, preservation, and continued improvement and investment as the city continues to grow and mobility needs evolve. This includes maintaining and efficiently utilizing our transportation infrastructure as well as future-proofing our networks. Charlotte will protect, build, and maintain its transportation infrastructure, utilizing best practice designs, materials, and programs, to minimize lifecycle costs, keep streets and bridges in good repair, and allow for future mobility needs.

Sustainable Strategy 2.1 | Maintain Our Mobility Assets

Charlotte will keep our streets, bridges, and other transportation infrastructure in good repair by using proactive, data-driven, and efficient maintenance processes and innovative designs and materials.

Actions

Resurfacing — Resurface City streets on a regular cycle, and identify opportunities to increase the frequency of street resurfacing when funding allows. Maintain existing sidewalks, pavement markings, signage, and curb and gutter.

Innovation — Evaluate new and emerging techniques in utilizing pavement materials and other public infrastructure to increase longevity, reduce the lifecycle carbon footprint, and support other environmental objectives.

Bridges — Inspect, maintain, repair, and replace City-maintained bridges.

Coordination and Partnership — Seek to maintain and protect our transportation assets to achieve a state of good repair in a cost-effective and minimally disruptive manner by coordinating utility work and other street improvements when possible.

Retrofit — Coordinate and evaluate resurfacing to identify opportunities to retrofit existing streets to improve bicycling and pedestrian facilities. Maintain a list of, and evaluate opportunities for, potential street conversions to utilize existing facilities as complete streets.

Pavement Markings — Ensure pavement markings are legible, sensible, and conspicuous for all users and vehicles, including driverless vehicles.

Signals — Maintain the physical and operational components of traffic signals to promote proper messaging to all users at all times. Evaluate new and emerging traffic signal technologies to enhance the experience for all users and mitigate incidents such as power outages.

Inventory — Maintain an inventory of the City’s mobility assets and monitor the condition of facilities, such as sidewalks, pavement markings, signage, curb and gutter, and City streets.



Pavement Preservation Pilot

CDOT is responsible for maintaining 5,445 lane miles of asphalt and concrete pavement. With such a large network of streets to maintain, CDOT’s Street Maintenance Division is continually testing new, state-of-the-art approaches to preserve our pavement assets. As an example of a new approach, CDOT recently piloted a new asphalt treatment in Highland Creek that is applied within the first three years after repaving to preserve the life of the pavement. This treatment has several sustainability and equity benefits, including less heat absorption and improved breakdown of harmful environmental contaminants. The treatment and its long-term benefits will be monitored by CDOT and considered for application in additional locations.

Sustainable Policy 3 | Minimize Environmental Impact

Our transportation system is essential for quality of life, economic prosperity, and supporting economic development, yet the transportation sector is the largest contributor to greenhouse gas emissions. As the center of a growing region, Charlotte and its regional partners can work together to ensure our transportation system minimizes its impact on the environment.

We recognize that reducing vehicle miles traveled (VMT) per capita is critical to improving the region's air quality and efficiently managing our infrastructure capacity. Charlotte will support mobility planning and infrastructure design that increases multimodal and zero carbon mobility options, minimizes vehicle miles traveled, and strengthens the environmental quality of our infrastructure.

Sustainable Strategy 3.1 | Reduce Vehicle Miles Traveled & Emissions

Charlotte will coordinate with regional partners and develop strategies and integrated planning efforts to reduce per capita VMT.

Actions

Strategic Energy Action Plan (SEAP) — Support the implementation efforts of the SEAP to make Charlotte a low carbon city, focusing on encouraging sustainable modes of transportation.

Regional Collaboration — Collaborate with local and regional partners to ensure that transportation investment is prioritized to achieve the region's vision for transportation and land use, air quality, reduction in greenhouse gas emissions, quality, and long-term regional sustainability.

Land Use — Support the development of mixed-use activity centers with targeted improvements to the multimodal network that will best remove obstacles between the places we live, work, and play—particularly in communities that have historically lacked investment.

First/Last Mile — Increase access to zero carbon transportation options for first/last mile trips and provide new and adapt existing transportation infrastructure to support a range of tree-shaded, sustainable transportation choices.

Carbon Neutral Travel — Encourage carbon neutral travel options and supporting infrastructure, including electric vehicles, shared mobility services, and e-charging infrastructure for vehicles, bikes, and scooters.

Measures and Metrics — Develop tools to measure the VMT impact of transportation projects, development plans, and land use plans and consider VMT and vehicle trip reduction targets for evaluation.

Sustainable Strategy 3.2 | Implement Sustainable Street Design

Charlotte will treat streets as an environmental asset by using them strategically for effective and innovative storm water management and continuing to plan for, design, and build streets and a street network that provide for meaningful street tree canopy.

Actions

Green Streets and Storm Water — Explore street design techniques that detain and filter storm water runoff (i.e., green streets) to manage runoff, protect water quality and stream health, and increase natural landscape design in the urban environment.

Street Design Materials — Investigate and implement design standards and new street design materials to reduce urban heat island effects and storm water runoff.

Tree Canopy — Increase the canopy of our right-of-way for safety, health, and aesthetic value through standards that ensure the viability of street trees, prioritize street trees in the design of capital projects, and coordinate to accommodate street trees on state-maintained roads.



Clean Transportation Plan for North Carolina

<https://www.ncdot.gov/initiatives-policies/environmental/climate-change/Pages/clean-transportation-plan.aspx>

In January of 2022, Governor Roy Cooper issued Executive Order No. 246, affirming North Carolina's commitment to a clean energy economy and directing next steps to achieve net-zero greenhouse gas emissions and create economic opportunities for North Carolinians across the state, especially in communities that have been historically underserved. This will include creating the first-ever Clean Transportation Plan for North Carolina, designed to supplement the 2040 Statewide Transportation Plan.

Neighborhood & Activity Centers

<https://cltfuture2040.com/>

The Charlotte Future 2040 Comprehensive Plan identifies the following mixed-use Place Types as areas where a strong multimodal network can connect residents and visitors to where they live, work, and play.

Neighborhood Centers are small, walkable mixed-use areas, typically embedded within neighborhoods, that provide convenient access to goods, services, dining, and residential for nearby residents.

Community Activity Centers are mid-sized mixed-use areas, typically along transit corridors or major roadways, that provide access to goods, services, dining, entertainment, and residential for nearby and regional residents.

Regional Activity Centers are large, high-density mixed-use areas, typically along transit corridors or major roadways, that provide access to goods, services, dining, offices, entertainment, and residential for regional residents and visitors.





Prosperous Policy 1 | Plan & Design for People

We recognize that our city streets represent our most abundant public space. Cities and neighborhoods function best when they have the combination of mobility, land uses, and design that best complements the places where people are living, working, and playing. Well-designed and highly functional places provide for a high quality of life and civic vitality. Charlotte will work to ensure that transportation and land use planning efforts align to preserve and create great places throughout the city.

Prosperous Strategy 1.1 | Plan for Places & Corridors

Charlotte will create great multimodal places and streets along our corridors and in our neighborhoods and activity centers.

Actions

Community Area Planning — Support the Planning, Design and Development (PDD) Department in area planning to identify, design, and prioritize mobility needs and investments.

Activity Center Mobility Plans — Conduct specific mobility plans for existing and emerging activity centers to assess future growth and traffic conditions and identify multimodal transportation and mobility strategies, programs, and investments.

Corridor Mobility Playbooks — Develop corridor mobility playbooks on key corridors to define short- and long-term mobility investments. Prioritize corridor studies based on land use context, emerging developments, geographic equity, historical investment, and the HIN.

Parking — Support and encourage the reduction, elimination, or sharing of off-street parking requirements in places with transit options and as part of TDM measures to reduce vehicle trips and the cost of development.

Prosperous Strategy 1.2 | Design & Operate Streets as Places

Charlotte will design and operate streets to support vital gathering, commerce, and social interaction within our diverse communities and neighborhoods.

Actions

Street Design Guide — Update the Urban Street Design Guidelines (USDG) to be a tool that guides mode priority and tradeoff decisions on street design and space usage in the public right-of-way.

Placemaking — Support creative placemaking in the public right-of-way.

Street Activity and Vitality — Support the active use of the public right-of-way for sidewalk dining, parklets, valet stands, food trucks, vendors, and other activities that enhance the vitality of city streets.

Special Events — Support special events on City streets that promote economic and cultural vitality in a manner that manages transportation and access impacts while supporting the equitable distribution of such events in places and neighborhoods throughout the city.

Open Streets — Partner with key stakeholders to continue the Open Streets 704 program and encourage active, healthy transportation.



Placemaking Hub

The City's Placemaking Hub is a one-stop-shop for public realm enhancement tools, from sidewalk dining, to bicycle parking, to street adoption, and cabinet wraps. It aggregates the tools available across City departments to provide communities and neighborhoods with direct access to the specific processes, procedures, and permitting necessary to enhance their streets and public spaces with their preferred public realm tools. The Hub continues to add to its placemaking toolbox to provide streamlined instructions to help ease the process of enhancing places that matter to residents.

Parklets Pilot Program

The City launched a successful Parklets pilot program in 2015, which has become a permanent fixture in the Placemaking Hub. Parklets are a small public park serving as an extension of the sidewalk over an on-street parking space. Parklets offer a way to reclaim a small amount of public space to contribute to an active, accessible, and vibrant urban environment. Parklets may provide amenities like bicycle parking, green space, or places to stop, sit, and rest while enjoying the activity of the street.



Prioritize transportation investments that promote economic vibrancy by managing congestion, connecting our workforce with opportunities, and advancing community priorities.

Prosperous Policy 2 | Manage the Right-of-Way

Streets often provide the first and most lasting image of a city. Our right-of-way is our most valuable public asset and how it’s organized, designed, and used greatly influences the perception and function of a city’s streets. Charlotte has increasing competition for curb access as more mobility options come online and as delivery service use increases. Freight, waste management, urban deliveries, and ride-hailing services require space for safe and convenient loading and unloading of people and goods. Charlotte will work to ensure that this finite resource serves a diversity of needs, balances multiple objectives, and maximizes community benefits.

Prosperous Strategy 2.1 | Manage the Use of the Curb

Charlotte will manage the curb lane in a manner that recognizes competing demands for space, and balances access, loading, and parking needs with the safe and comfortable movement of people and goods.

Actions

Curb Lane Strategic Action Plan — Develop a dynamic curb lane management strategy to manage and create flexible curbside space for different uses, including loading and unloading of people and goods and the storage/parking of all types of vehicle and mobility options.

On-Street Parking Expansion — Evaluate expanding priced/metered on-street parking to more corridors and activity centers. Collaborate inter-departmentally and externally to develop and refine shared parking solutions (i.e., shared parking lots or garages, municipal parking).

Technology — Utilize technology to manage and incentivize desired uses and access of curb lanes in activity centers and Main Streets.

Neighborhood Parking Program — Expand strategies to manage on-street parking needs in neighborhoods as on-site parking is reduced or eliminated.

Prosperous Strategy 2.2 | Manage the Right-of-Way as a Public Resource

Charlotte will manage the public right-of-way and access to it to support economic vitality and quality of life while balancing the competing needs of all users.

Actions

Right-of-Way Leasing — Allow for the temporary leasing of public right-of-way for the construction and staging of private facilities subject to the adopted Right-of-Way Lease Policy.

Utility Easements — Require new development to place streetscape and curb and gutter in the right-of-way whenever possible, and develop standardized easement language when utilities and infrastructure must be installed outside the right-of-way.

Encroachment Agreements — Allow for enhancements to the public right-of-way by private entities and individuals through encroachment agreements.

Utility Management — Manage the use of public right-of-way by utility companies in a manner that minimizes disruption due to construction, protects the City’s assets in the right-of-way, minimizes the permanent visual impact of utilities, and encourages collocation of utilities wherever possible.

ROW Abandonments — Retain street rights-of-way as assets and only relinquish unless they can serve no future City use or are being replaced concurrently by a more-beneficial street right-of-way instead.

Driveway Access — Ensure that regulations about access to the right-of-way are context-based and support safe multimodal streets.

Maintaining Multimodal Access — Require development construction activities to maintain pedestrian and bicycle access through the public right-of-way. Work with development to make the appropriate trade-off decisions to maintain access for all users.



Curb Lane Management

Curb lanes are a valuable and quickly evolving piece of real estate within the public right-of-way. Within the past 10 years, the curb has evolved from strictly car parking, delivery, and freight to include food trucks, outdoor dining, rideshare, car-share, on-demand delivery, and a wide variety of micromobility uses from bikes to scooters. To best utilize this resource and balance competing priorities, curb lane management programs analyze and understand the needs of users while developing systems, policies, and/or regulations that manage and provide efficient use of the space.

Park It Program

The City’s on-street parking program, Park It, manages metered spaces throughout Uptown, South End, Elizabeth, NoDa, and Commonwealth Avenue in Plaza Midwood. The program’s main objective is to provide equitable access to the curb while enhancing the parking experience. Customers, visitors, business owners, and residents use the on-street parking system to shop, dine, attend sporting and entertainment events, conduct business, and live in an urban environment.



Prosperous Policy 3 | Expand Collaborative Partnerships

Planning for and implementing a transportation network that provides for long-term growth and quality of life requires many actors. Partnerships with regional bodies, neighboring jurisdictions, public agencies, and business and advocacy groups create opportunities for data sharing, technology advancement, pooled resources, and collective benefits. Such partnerships also give the public useful tools to make informed travel choices. Charlotte will maintain and expand partnerships with public and private organizations to advance shared resources and goals in service of the community.

Prosperous Strategy 3.1 | Support Our Regional Mobility Partners

Charlotte will support regional partners and expand our relationships with public and private partners to advance key regional transportation initiatives.

Actions

Centralina Regional Council — Support the implementation of regional mobility planning initiatives, including CONNECT Beyond – A Regional Mobility Plan and CONNECT Our Future – A Regional Growth Framework.

Charlotte Regional Transportation Planning Organization (CRTPO) — Support CRTPO planning efforts, such as the Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP), and the implementation of the Beyond 77 Study and ensure that the regional travel model is maintained and utilized to evaluate regional transportation and land use scenarios.

North Carolina Department of Transportation (NCDOT) — Collaborate with NCDOT to implement regional mobility investment and City mobility infrastructure needs.

Mecklenburg County — Support the County’s implementation of the Meck Playbook, Greenway Master Plan, and Livable Communities Plan to connect to greenways for expanded mobility and accessibility to parks and open space and needed County services.

Charlotte Douglas International Airport — Support access and connectivity to and around the airport as a significant multimodal transportation facility, major employment center, and important regional economic generator.

Regional Railroads — Partner with regional railroad companies to develop collaborative plans for use of existing and future rail lines.



Meck Playbook (2020)

https://issuu.com/meckparkreccaplan/docs/20211213_final_meckplaybook_report-red/2

Meck Playbook is the plan for future Mecklenburg County parks and programs. Developed in close collaboration between the County and community, the Playbook includes a vision and set of strategies intended to meet the recreation needs of residents and create vibrant places for people who visit and work in the County.

NC 2040 Statewide Transportation Plan

https://www.ncdot.gov/initiatives-policies/Transportation/plan/Documents/NCDOT_2040TransportationPlan.pdf

The NC 2040 Statewide Transportation Plan identifies statewide transportation resources and needs over the next 30 years. NCDOT, in conjunction with local governments, developed the plan to reflect local transportation needs—ensuring the state’s transportation systems remain safe and are less congested and freight keeps moving to enhance the state’s economy. The City’s 2040 Comprehensive Plan also estimates potential funding availability and sources to help meet the state’s needs.



Prioritize transportation investments that promote economic vibrancy by managing congestion, connecting our workforce with opportunities, and advancing community priorities.

Prosperous Policy 4 | Invest in Our Mobility Future

Identifying, communicating, and implementing the City’s priorities for its (publicly funded) transportation investments supports consistent progress towards building out our multimodal network. This also provides a level of predictability and clarity that supports growth and strategic investments by business and residents. Charlotte will refine and share the strategies and priorities for investing in and advancing our multimodal network.

Prosperous Strategy 4.1 | Protect Our Future Mobility Needs

Charlotte will ensure that our transportation plans are well-integrated with other planning processes, reflect growth trends, and are kept current and relevant.

Actions

- Strategic Mobility Plan (SMP)** — Update the SMP at least every five years to ensure that Charlotte residents are provided the latest information regarding the City’s short-term and long-term transportation conditions, objectives, and accomplishments.
- Streets Map** — Maintain a citywide streets map that protects the future cross-section and rights-of-way for our multimodal network of arterial streets and guides the planning and design of capital investment, reflecting the context and constraints of individual projects.
- Track Growth Conditions** — Annually review and track levels of development and transportation conditions in areas of growth and congestion to assess and identify transportation needs and to ensure that our land use framework supports our mobility investments.
- Feasibility and Project Development** — Conduct feasibility and mobility planning studies to identify, evaluate, and define future mobility investment projects and right-of-way needs.
- Comprehensive Transportation Plan (CTP)** — Coordinate with the CRTPO to maintain and update the CTP as an assessment and catalog of transportation network conditions and needs for motorists, pedestrians, bicyclists, transit, and freight.

Prosperous Strategy 4.2 | Fund Mobility Investment

Charlotte will plan for, evaluate, and seek out funding sources that further our ability to implement our multimodal network.

Actions

- Metropolitan Transportation Plan (MTP)** — Work through the CRTPO MTP process to recommend and evaluate local projects so that they can be included in the MTP and eventually the Transportation Improvement Program (TIP).
- Community Investment Plan (CIP)** — Utilize the City’s CIP Bond funding to plan and gain public support for investment in mobility.
- Private Partnerships** — Identify and support public-private partnerships to implement transportation investment.
- Public Partnerships** — Seek federal and state grants and funding partnerships to implement shared transportation goals.
- New Funding Sources** — Seek out, evaluate, and support new funding sources, partnerships, and strategies.

Prosperous Strategy 4.3 | Prioritize Mobility Investment

Charlotte will ensure that its mobility investment is prioritized and implemented to meet the goals of the Charlotte Future 2040 Comprehensive Plan (2040 Plan).

Actions

- 2040 Plan Implementation** — Collaborate across departments to ensure that mobility investment is prioritized and evaluated to achieve the goals of the 2040 Comprehensive Plan.
- Frameworks** — Maintain and advance the Transit, Bicycle, Pedestrian, and Street and Roadway Frameworks (as defined in the SMP) to identify projects for feasibility, design, prioritization, and implementation.
- Prioritization Methodology** — Update the prioritization of mobility projects to support the 2040 Plan while incorporating metrics on congestion, safety, accessibility, freight and goods movement, funding partnerships, and equity.



CRTPO 2050 MTP | Metropolitan Transportation Plan (MTP)

<https://2050mtp.org/>
The MTP documents the region’s multimodal vision and establishes goals, objectives, and transportation priorities over the next 20+ years. It also identifies ways to fund needed projects, prioritizes how funding is spent, and establishes metrics to measure if we are moving in the right direction.



Innovative Policy 1 | Support Shared Mobility Solutions

Shared mobility includes transportation services and resources that are shared among users, allowing more people to use our existing transportation network, helping manage demand, and supporting a shift from using private cars for many trips. Shared mobility solutions continue to evolve, creating opportunities and challenges that we must anticipate and evaluate as we invest in the innovative infrastructure necessary to support a thriving city.

Mobility hubs will play a vital role in the mobility network by facilitating safe and easy first/last mile connections between shared mobility options, including bikeshare, scooter-share, car-share, and access to shuttles and ride-share services. Charlotte will support shared mobility services and systems as tools to provide first/last mile mobility solutions and increase shared trips on the transportation network.

Innovative Strategy 1.1 | Increase Access to Shared Mobility Services

Charlotte will encourage coordination of mobility service providers within our right-of-way to incentivize increased access and ensure that shared mobility services support our goals for safe, affordable, and equitable mobility.

Actions

Expand Options — Maintain and support the expansion of a range of shared mobility options, including bikeshare (dockless and dock-based) and rideshare (e.g., Lyft, Uber, ZipCar.)

Manage Micromobility — Collaborate with e-scooter and other micromobility service providers to incentivize expanded and equitable access while managing their safe use and parking.

Invest in Infrastructure — Adapt and design street space for shared mobility services (i.e., connected bicycle/micromobility network) to support e-scooter use and other emerging low-powered micromobility vehicles.

Urban Delivery — Encourage multimodal and electric-powered urban delivery services, such as e-cargo bikes.

Innovative Strategy 1.2 | Support the Creation of Mobility Hubs

Charlotte will support the creation of Mobility Hubs, appropriate at different scales and for different contexts, to serve as connection points between public and private shared mobility services and multimodal options.

Actions

Mobility Hub Network — Implement a network of mobility hubs in partnership with CATS, incorporating transit with other shared mobility services, such as bikeshare, scooter-share, and car-share.

Mobility Hub Placement — Work with CATS and community-based organizations to ensure the geographic placement of mobility hubs serves transportation and housing cost-burdened populations.



Mobility Hubs

Mobility Hubs are defined centers that support a cluster of transportation options, such as walking, biking, transit, and micromobility. Mobility hubs are often located at transit stations and/or where multiple transportation routes come together and provide an integrated set of services, facilities, amenities, and supporting technologies. The location of mobility hubs in the city will be defined through various planning efforts, including the Envision My Ride Bus Priority Study, which recommends mobility hubs at key locations along priority corridors.



INNOVATIVE

Integrate emerging mobility solutions and new technologies to move people and goods through our city in cleaner, safer, and more affordable and efficient ways.

Innovative Policy 2 | Prepare for a Connected Mobility Environment

Advancements in technology, communications, data aggregation and processing, and vehicle automation will transform and expand our mobility options. To ensure these emerging technology-based mobility options happen with us and not to us, we will proactively prepare our policies, systems, infrastructure, operations, and staff to support and take advantage of future change.

Autonomous and connected vehicles have the potential to improve roadway safety and efficiency while enhancing mobility accessibility for those who cannot drive. Ongoing investment in connected vehicle technology and roadway infrastructure will expand the capacity and safety of our mobility system—allowing travelers to find parking spaces, avoid traffic congestion and crashes, and navigate hazardous conditions. Charlotte will invite new and advanced technology to maximize mobility options in safe, equitable, and reliable ways through public and private services, collaboration, and infrastructure.

Innovative Strategy 2.1 | Support Connected Infrastructure

Charlotte will proactively prepare for a connected and autonomous mobility environment by identifying, deploying, and monitoring pilot programs, partnerships, and infrastructure.

Actions

Connected Infrastructure — Ensure our traffic signal system supports next generation communications systems to build a vehicle-to-infrastructure/vehicle/everything (V2X) communications infrastructure.

Microtransit — Support CATS in deploying microtransit—automated and on-demand services—in identified microtransit areas.

Street Design Guide — Evaluate the impacts of automated vehicles on street design and develop maintenance and infrastructure standards to ensure street readiness.

Electric Vehicle Infrastructure — Assess the demand and supply of the electric vehicle charging network and implement expanded charging locations through infrastructure investment and private partnerships.

Pilot Programs — Support and encourage pilot programs and partnerships to lay the groundwork for and evaluate the effectiveness of various new technologies.

Policy Development — Develop and monitor policies to manage the potential impacts of autonomous mobility (i.e., increase in zero-passenger miles, incentivizing shared use).



Connected Vehicles (CV)

Connected Vehicles (CV) are vehicles equipped with technology that allows the vehicle to communicate with other cars, road infrastructure, and other intelligent transportation systems (ITS) to share real-time transportation information between systems. Three communication technologies exist: vehicle-to-vehicle (V2V) communications, vehicle-to-infrastructure (V2I) communications, and vehicle-to-everything (V2X) communications.

Examples of CV technology and applications include:

- *Safety: red-light running, rail-passing timing, emergency braking, blind spot warning*
- *Mobility: traffic light status, transit priority, incidental alerts*
- *Environment: eco-driving, freight routing, transit*

Autonomous Vehicles (AVs)

AVs, also known as self-driving cars, are an emerging mobility technology that operate with little or no driver input. There are six levels of automation: Level 0) momentary driver assistance, Level 1) driver assistance, Level 2) additional driver assistance, Level 3) conditional automation, Level 4) high automation, and Level 5) full automation. Fully autonomous vehicles and shuttles are currently being piloted and deployed in various capacities throughout the country. The presence of AVs will require the understanding of how this technology impacts the existing roadway infrastructure and mobility choices.



INNOVATIVE

Integrate emerging mobility solutions and new technologies to move people and goods through our city in cleaner, safer, and more affordable and efficient ways.

Innovative Policy 3 | Employ Emerging Technology

The operation and management of our mobility system is increasingly becoming real-time, digital, and data driven. The rapid advancement of technology and communications is allowing real-time data integration to support the efficient, safe, and managed operation of our mobility system.

Access to and analysis of trip and vehicle data supports efficient management of the right-of-way and the innovative planning and investment in our future mobility infrastructure that will support mode shift. Charlotte will invest and plan for emerging technology to operate our mobility system to expand travel choices, maximize capacity, and improve the user experience.

Innovative Strategy 3.1 | Maximize Signal System Technologies

Charlotte will maximize the use of our integrated and connected signal system to support more mobility options, public safety, and traffic management.

Actions

Coordinated ITS Network — Maintain, upgrade, and complete a fully coordinated ITS signal network to improve the efficiency and safety of our mobility network for all users.

Transit and Emergency Signal Priority — Expand and support existing transit signal priority (TSP) and emergency vehicle preemption (EVP) technologies to support safety and transit efficiencies.

Multimodal Detection — Incorporate signal infrastructure and technology to expand detection for all modes, including the number of signalized intersections that detect bicyclists.

Innovative Strategy 3.2 | Expand Our Data-Driven Decision-Making Culture

Charlotte will collect data, monitor system performance, and evaluate evolving technologies to ensure we are consistently advancing the efficient and innovative operation of and investment in our mobility system and signal network.

Actions

Automated Traffic Signal Performance Measures — Develop performance measures and review/refine data collection methods to track improvements in network function.

Multimodal Data — Monitor levels of service and trip counts for motorists, bicyclists, and pedestrians at signalized intersections.

Data Analysis — Expand mobility data collection and analysis to support project planning, programming, delivery, and monitoring.

Publish Multimodal Data — Regularly collect, analyze, and publish transportation data, including monitored counts, crashes, and routing data for all modes of transportation.



Intelligent Transportation System (ITS)

Over the last two decades, the City has invested in ITS infrastructure, building hundreds of miles of fiber to connect traffic signals around the city. ITS works to provide communication channels between vehicles and infrastructure. This connectivity supports current and future initiatives by using technology to improve safety and maximize the capacity of existing roadway infrastructure.

Automated Traffic Signal Performance Measures (ATSPM)

The City is deploying an ATSPM system, an alternative to traditional signal retiming processes, with the goal of improving travel time and reliability along arterials for vehicles and transit. ATSPM systems can improve the safety of all users (transit riders, bicyclists, and pedestrians) and decrease vehicle emissions. An ATSPM system is a cost-effective way to provide real-time performance measures.

Signal Priority

Signal priority, which uses technology to communicate with traffic signals, is an example of an ITS Investment deployed throughout the city. Using vehicle location data from first responders and transit vehicles, the system can make signal timing adjustments to enable more efficient movement of vehicles through intersections. Envision My Ride's Bus Priority Study recommends further use of transit signal priority, often partnered with queue jumps, along key corridors to allow buses to travel faster and more reliably.



5 OUR MOBILITY STRATEGY



Our Mobility Strategy illustrates our specific infrastructure strategies and investments to implement our mobility vision.



OUR MOBILITY STRATEGY

Policy & Strategy

Our Mobility Policy (Chapter 4) provides the policies and actions needed to achieve our goals and bring about an improved and connected mobility network. Our policies guide decision-making and set the foundation for defining the priorities for investment in the programs, infrastructure, and technology for our mobility network.

Our Mobility Strategy (Chapter 5) focuses on our transit, bicycle, pedestrian, and street and roadway systems with a tailored framework for each mode that defines network priorities, programs, and key investments to effectively accommodate our growth and achieve our vision for mobility. The frameworks for each mode are interwoven and, together, serve as the foundation for project identification, development, and prioritization.



Transit Framework

Focuses our multimodal investment to support priority bus and rail transit service, access, and comfort.



Bicycle Framework

Defines our bicycle priority network to target the most impactful projects and program investment.



Pedestrian Framework

Establishes our pedestrian priority network to direct our investments in sidewalks, crossings, intersections, and safety.



Street and Roadway Framework

Aligns our street and roadway needs with City and regional investments to move people and goods.

PRIORITIZATION

The Advancing of Our Mobility Strategy

Our mobility needs exceed our resources. Prioritizing our investment is essential to ensure we spend our limited resources in the most impactful way to achieve our goals.

The Prioritization Strategy establishes a foundation for evaluating how to invest in our mobility network. This Prioritization Strategy will be used to direct our mobility strategy, prioritize investment, and measure our progress in achieving our six overarching objectives: Safe, Connected, Equitable, Sustainable, Prosperous, and Innovative.

The criteria defined in the Prioritization Strategy support multiple objectives and will be used to establish specific metrics (quantifiable measures of success) by which specific projects can be evaluated to transparently and equitably prioritize investment. The prioritization criteria and metrics are dynamic and should be reviewed and updated regularly to ensure we remain innovative in our prioritization process and accountable for measuring progress.

Prioritization Strategy

Safe

Serious injuries and fatalities on our streets are preventable. Providing safe streets that accommodate growth and provide multimodal choices requires a commitment to design complete streets that serve all users.

Prioritization Criteria

Investment that addresses the lack of existing facilities to protect our more vulnerable users and is targeted in our High Injury Network.

Connected

A robust and connected system, made up of a hierarchy of streets ranging from highways to locals, provides advantages for all users of the network by shortening trips, expanding route choices and access to destinations, and distributing traffic across the system.

Prioritization Criteria

Investment that increases street connectivity, creates new connections, and fills gaps in the pedestrian and bicycle networks.

Equitable

An equitable community allows everyone to participate and prosper and fosters conditions that help all of us reach our full potential. Transportation investment should support equitable and affordable mobility options to increase access in our communities that have historically lacked investment.

Prioritization Criteria

Investment that increases access to essential amenities, goods, and services as well as opportunity for housing, employment, and affordable transportation.

Sustainable

Our mode shift aspiration is to have 50% of all commute trips taken by means other than a single-occupancy vehicle, resulting from expanded affordable transportation options, and resulting in reduced greenhouse gas emissions. To achieve this aspiration, we will need to dramatically increase the share of walking, biking, micromobility, and transit trips.

Prioritization Criteria

Investment that expands access to transit, biking, walking, and micromobility to provide and encourage alternative modes of transportation.

Prosperous

Cities and neighborhoods function best when they have the combination of mobility, land uses, and design that complement the places where people are living, working, and playing.

Prioritization Criteria

Investment that manages congestion, connects our workforce with opportunity, and advances the development of places that add to our quality of life and civic vitality.

Innovative

We need to plan and design for mobility solutions and new technologies to move people and goods through our city in cleaner, safer, and more affordable and efficient ways.

Prioritization Criteria

Investments that increase access to emerging mobility solutions (e.g., shared mobility, mobility hubs), and prepares us for technological mobility advancements.



CHARLOTTE STREETS MAP

The Foundation of Our Mobility Strategy

The implementation of our mobility policy and strategy begins with a vision for the design and function of our streets. This vision will ensure that we preserve the space and design of our streets to achieve our multimodal expectations. The Charlotte Streets Map (Streets Map) defines the vision for our streets and serves as the policy document for our future multimodal network and the blueprint for street investment. Each arterial street on the Streets Map includes the expected multimodal components (vehicular travel lanes, center space, bike facilities, on-street parking, future curb location, and streetscape) to create a complete street.

The Streets Map is a critical implementation and regulatory tool that establishes the future curb line and right-of-way to ensure that space is protected for future multimodal street improvements. The cross-sections therein provide a policy-based foundation, while also allowing the specific design of our streets to adapt to changing conditions over time as mobility needs and trends continue to evolve.



Urban Street Design Guidelines

The City originally published the Urban Street Design Guidelines (USDG) in 2007. This original guidance provides the foundation for the Street Types and design guidance included within the Streets Map and the Unified Development Ordinance (UDO). CDOT will be updating the USDG to account for new mobility, safety, and curbside considerations in support of the 2040 Comprehensive Plan and corresponding SMP.

Capital Investment Plan/Bonds Referendum

City Council approves a five-year Capital Investment Plan (CIP) as part of the annual budget adoption. The first fiscal year of the five-year CIP is adopted, while the remaining four years serve as a plan for future funding. The CIP contains several funding sources, including Transportation Bonds, a subset of General Obligation (GO) Bonds. Several key transportation programs are regularly proposed in Transportation Bonds, including the Sidewalk and Pedestrian Safety Program, Bicycle Program, Transportation Safety (Vision Zero), Congestion Mitigation, Street Resurfacing, and standalone transportation projects, such as road and intersection improvements.

Charlotte Streets Map

- Parkway —
- Boulevard —
- Future Boulevard - - -
- Avenue —
- Future Avenue - - - -
- Main Street —
- Limited Access —
- Uptown Street —

The Streets Map

The Streets Map establishes four types of arterial streets:

Parkways

Connections to Our Region

Parkways provide multimodal connectivity to our regional roadway network with limited access to adjacent land uses for efficient and safe operation. They typically include four to six travel lanes for regional travel and transit capacity with dedicated pedestrian and bicycle facilities on separate adjacent shared use paths.

Boulevards

Connections Across Our City

Boulevards provide efficient multimodal connectivity to our citywide street network with managed access to support development. They typically include four travel lanes for citywide travel and transit capacity with bicycle facilities in buffered/separated bicycle lanes or shared use paths.

Avenues

Connections to Our Neighborhoods & Centers

Avenues provide multimodal connectivity to and between our neighborhoods and centers with increased access to our local street network. They typically include two to four travel lanes for local travel and transit capacity with bicycle facilities in buffered/separated bicycle lanes and may include on-street parking depending on the nature of adjacent development.

Main Streets

Connections in Our Centers

Main Streets provide multimodal access to centers of civic, social, and mixed-use activity and are designed to prioritize pedestrian comfort. They are limited to two travel lanes for low speed, shared lanes with bicyclists and always include on-street parking.

This map is a depiction of the Charlotte Streets Map. The draft is currently under review and is expected to be adopted August 2022.



TRANSIT FRAMEWORK

Working Towards a Transit-Oriented City

Our multimodal mobility vision will not be achieved without the foundation of a comprehensive and connected transit system that provides affordable and accessible mobility throughout our city.

Transit is integral to our equitable mobility goals, providing an affordable option that completes a true multimodal network. Transit is also necessary to achieve our mode shift and sustainability goals. Our transit and Policy Map vision, implemented with public infrastructure and private development investment, will result in a city that can shift mode choice while increasing the sustainability and prosperity of our community.



Our Transit Partnership

The Charlotte Area Transit System (CATS) leads the planning and implementation of the region’s transit plan with the collaboration and support of Charlotte and the towns and cities of Mecklenburg County. Since its creation in 1999, CATS has advanced our region’s transit plan through building rapid transit corridors and the expansion and operation of a county-wide bus network. Yet, the success and effectiveness of our transit system is not the sole responsibility of CATS.

The pattern, concentration, and form of our city and places determines the ultimate ability of transit to serve the community. We need to plan and design our city so that people, services, and jobs are located in supportive places that make transit convenient and efficient. The connectivity, design, and operation of our streets and roadways is equally important for transit success.

Our street network in rapid transit station areas and bus corridors can maximize first/last mile travel by walk, bike, or roll and encourage transit-oriented development and walkability. Our pedestrian, bicycle, and street investment, coordinated with the operation of our street network, can be aligned to support and prioritize transit. Our streets can be planned and redesigned to dedicate or prioritize space for transit use. The operation of the connected infrastructure of our traffic signal system is an important tool to augment the efficiency and operation of our bus system.

Transit Framework

Our Transit Framework is an essential step in advancing and capitalizing on our existing and future transit system. The framework recognizes that our mobility vision requires a robust transit system supported by multimodal investment in transit corridors and station areas to create a useful and equitable transit system for everyone in Charlotte.

This framework is founded on the 2030 Transit Corridor System Plan and Envision My Ride Bus Priority Study and is dedicated to identifying and prioritizing multimodal transportation investment. This county-wide system of rapid transit corridors and high frequency bus service will serve as a framework for ongoing project identification, design, and capital investment.



Shifting Modes and Behaviors
72% of Blue Line riders previously drove alone, which helped establish the Blue Line as a template for shifting mode share away from single-occupancy vehicle trips.
Source: 2030 Transit Corridor System Plan





OUR TRANSIT PARTNERSHIP

The 2030 Transit Corridor Plan

Our rapid transit system serves an important function in the transit network, establishing a system of high-capacity transit corridors that connect people to jobs and strengthen regional connectivity to our surrounding counties.

Adopted by the Metropolitan Transit Commission (MTC), the 2030 Transit Corridor System Plan represents our long-range vision for rapid transit. The foundation of this vision is a system of five high-capacity rapid transit corridors that include light rail, commuter rail, bus rapid transit (BRT), and streetcar, planned and tailored to our regional travel needs and each unique corridor.

Rapid Transit Corridors Today

Blue Line | Light Rail

The Blue Line is Charlotte's first light rail corridor. Built in two phases, the corridor connects Uptown north to University City and the UNC Charlotte Campus, and south to I-485.

Gold Line | Streetcar

The CityLYNX Gold Line is Charlotte's urban streetcar line connecting our in-town west and east neighborhoods to Uptown. The streetcar operates within the existing street, sharing space with vehicles and includes 17 stops.

Rapid Transit Corridors Future

Silver Line | Light Rail

The Silver Line light rail corridor is currently in preliminary design and engineering and is planned to create an east-west rail corridor to complement the north-south Blue Line corridor. When complete, the corridor will connect from the Town of Matthews to the Town of Belmont in Gaston County and provide links to Uptown and the Charlotte Douglas International Airport. The final alignment in Uptown is still under evaluation with the goal of best serving this important regional employment center.

Gold Line Phase 3 | Streetcar

The planned next phase of the Gold Line will create a 10-mile streetcar system from the Rosa Parks Place Community Transit Center to the Eastland Community Transit Center, linking Uptown to neighborhoods in West Charlotte and East Charlotte.

Red Line | Commuter Rail

The LYNX Red Line will connect the towns of Huntersville, Davidson, Cornelius, and Mooresville to Uptown Charlotte, providing an important regional commuter rail connection to the growing communities north of Charlotte.

MetroRapid I-77 | Bus Rapid Transit (BRT)

Current service utilizes the I-77 Express Lanes to provide non-stop bus service from North Mecklenburg County to Uptown Charlotte on four routes. CATS is identifying future enhancements and capital projects to compliment current MetroRapid BRT service, including BRT stations and mobility hubs.

Blue Line Pineville-Ballantyne Extension |

Light Rail

This future extension of the Blue Line will connect Ballantyne and Pineville to the I-485 station with a five-mile light rail extension and five new stations.

Charlotte Gateway Station | Uptown Multimodal Station

This multimodal station in Uptown is a critical element of Charlotte's 2030 Transit Corridor System Plan and is being implemented through a partnership between the City of Charlotte, NCDOT, regional stakeholders, and private development partners. It will anchor the surrounding Charlotte Gateway District development and connect multiple transportation services, including inter-city Amtrak service, the proposed Southeast Corridor (SEC) extending from Washington D.C. to Atlanta, CATS local and express bus services, CityLYNX Gold Line streetcar, intercity bus services, taxi and ridesharing services, and improved bicycle and pedestrian access.

Supporting Framework Actions

Ongoing Transit-Oriented Development

The continued success of our existing rapid transit corridors will require ongoing partnerships and public investment in pedestrian, bicycle, and micromobility improvements to increase accessibility to transit stations and reduce the need for and reliance on the car in station areas.

Silver Line Corridor TOD & Infrastructure

The current planning and design of this light rail corridor includes a collaborative process to envision station area development and mobility infrastructure needs. A long-term program of capital investment projects will need to be identified to maximize multimodal accessibility and transit-oriented development.

Comprehensive Transportation Review (CTR) Guidelines

Adopting and implementing these updated guidelines for land development and transportation impact review will ensure that private development identifies investment in multimodal and pedestrian infrastructure and implements TDM initiatives that enhance accessibility in our transit station areas.

Transportation Demand Management (TDM)

Developing a program of supportive TDM initiatives with regional partners (CONNECT Beyond) in activity centers and municipal service districts (Uptown, University City, SouthPark), and through private development (as required in CTR Guidelines) will reduce the need and reliance on the car and support our mode shift goal.



2030 Rapid Transit Corridors

LYNX Silver Line

- 26.6-mile light rail corridor with 27 stations
- Extension to Gaston County and Union County will require regional funding support

LYNX Red Line

- 25-mile commuter rail corridor with 10 stations, nine park and rides
- Extension to Iredell County will require regional funding support

MetroRapid I-77 Bus Rapid Transit (BRT)

- 27.4-mile BRT corridor in I-77 Express Lanes, four new park and rides
- Extension to Iredell County will require regional funding support

CityLYNX Gold Line (Phase 3)

- 6-mile streetcar extension, 20 additional stops
- Rosa Parks Transit Center to Eastland Transit Center

LYNX Blue Line Pineville-Ballantyne Extension

- 5.5-mile light rail extension with five new stations
- Corridor-wide, three-car station expansion

~ 90

Total Miles of New Premium Transit Corridor Investment

37.8

Miles of Light Rail Transit or Streetcar Investment

25

Miles of Commuter Rail Investment

27.4

Miles of Bus Rapid Transit Investment

- Existing LYNX Blue Line
- Proposed LYNX Blue Line Extension
- Existing CityLYNX Gold Line
- Proposed CityLYNX Gold Line Extension
- Proposed LYNX Silver Line
- Proposed LYNX Red Line

Source: MTC adopted 2030 Transit Corridor Plan



BUS PRIORITY NETWORK

Delivering the Better Bus Network

Buses move significant amounts of people within the transit system, carrying 60% of CATS total ridership. CATS is currently developing plans to develop a better bus network, which is fundamental to addressing transportation equity by providing an affordable option for households with limited vehicle access, and populations that simply do not drive or choose not to drive, such as older adults, the young, and people with disabilities.

Charlotte's growth and shift in population and demographics continues to change how residents use our bus system. The current "hub and spoke" bus network no longer matches our mobility needs and our expanding pattern of activity and employment centers. In response, CATS is reshaping the regional bus system to provide premium bus service throughout our community.

The vision for the better bus network is focused on improving time with more frequent service, priority bus treatments, and consistent schedules. Enhancing the physical rider experience will include bus stop and mobility hub amenity improvements. Operational improvements will include new crosstown connections and new first/last mile services.

390

Miles of Proposed All Day
High-Frequency Routes
(Two-way)

643

Miles of Proposed Peak Hour
High-Frequency Routes
(Two-way)

Envision My Ride

The CATS Envision My Ride: Bus Priority Study reimagined the existing bus network to provide more frequent and direct service, more crosstown connections to new destinations, and increased connectivity between routes. In addition, CATS introduced the MetroRapid I-77 express service between Uptown Charlotte and North Mecklenburg County.

To learn more about the Bus Priority Study, visit <https://charlottenc.gov/cats/transit-planning/envisionmyride/Pages/default.aspx>.

Bus Priority Network

The Bus Priority Network lays the groundwork for a major infrastructure investment program for Charlotte's bus system focused on specific bus treatments and high frequency service along high priority corridors. This program will be used to pursue federal funding for capital investment in stations, corridors, and new service types.

This program includes:

Focus Corridors

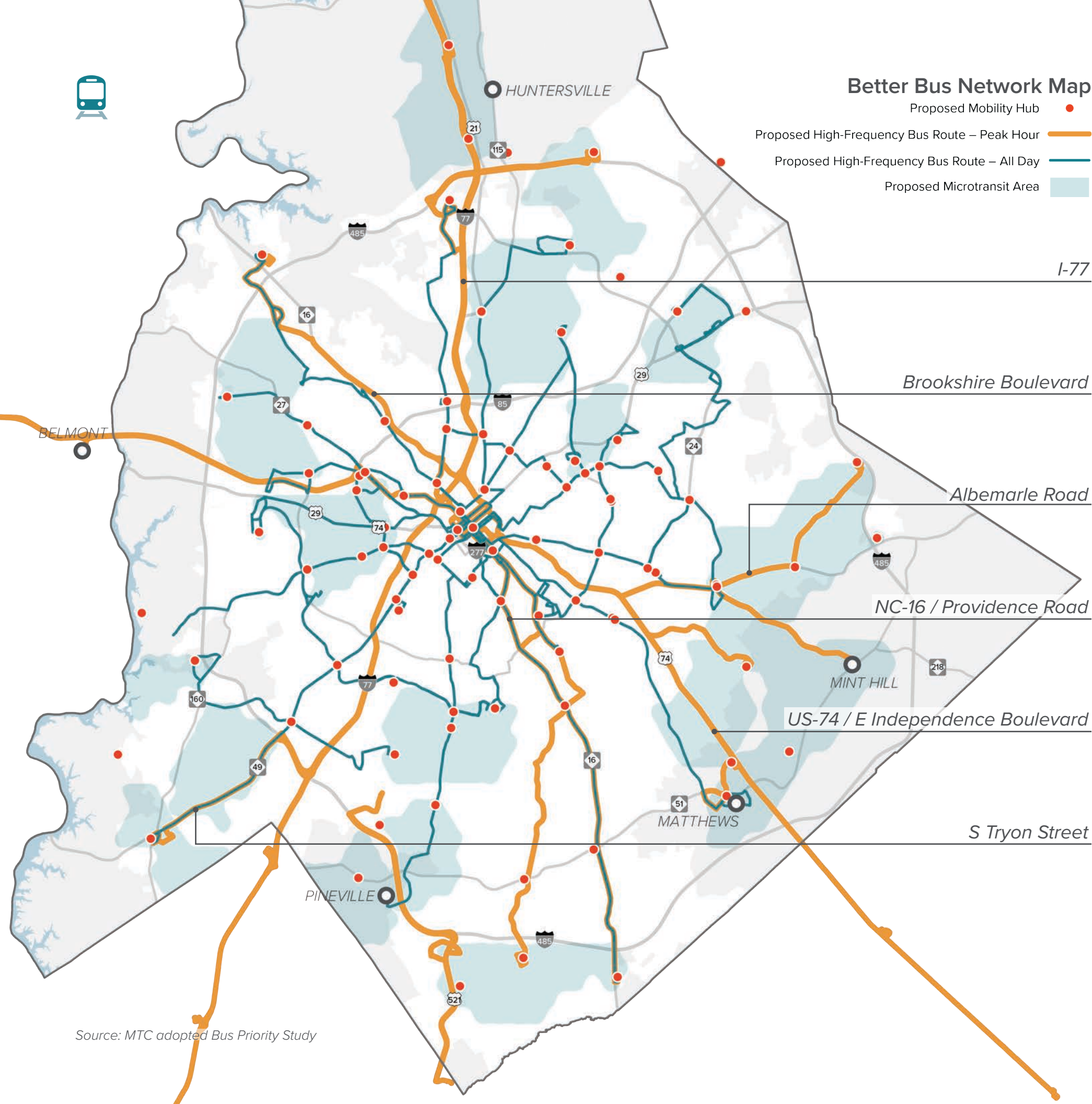
Identification of 22 corridors for high frequency service and six priority corridors for bus priority operational treatments and passenger experience enhancements.

Mobility Hubs & Stop Enhancements

Implementation of a comprehensive system of mobility hubs and bus stop improvements that improve user experience, transfer convenience, multimodal connectivity, and ADA accessibility.

Microtransit Areas & Service

New service strategies and partnerships to provide on-demand microtransit service in key Microtransit Areas throughout our community to increase access to our bus and rapid transit system.



Source: MTC adopted Bus Priority Study





Focus Corridors *Bus Priority Investment*

The Focus Corridors for bus priority investment are defined and based on prioritizing the corridors with the greatest potential to enhance system performance and support the Equity Metrics of the 2040 Plan. The bus priority investment will be tailored to each of the six corridors and will include fully implementing transit signal and intersection priority, bus stop consolidation, bus stop amenity enhancements, and new mobility hubs. CATS is also developing a capital program to extend priority treatments along additional corridors in the future.

Corridor Investment Options

Transit Signal Priority (TSP)

TSP allows buses to communicate with traffic signals and adjust signal timing or phasing in real-time to maximize the efficiency of bus service along corridors. The real-time signal communication allows approaching buses to request and extend green light timing at key intersections. Charlotte's signal system infrastructure is currently equipped to provide transit signal priority.

Intersection Queue Jumps

Queue jumps utilize short, dedicated or shared transit lanes at intersections to allow buses to bypass traffic at congested intersections. Additional improvements may include a dedicated signal phase that allows buses to advance through the intersection ahead of traffic. The Bus Priority Program includes the identification of potential queue jump improvements at key intersections along the six focus corridors.

Dedicated Bus Lanes

Dedicated bus lanes reallocate vehicular travel lanes for exclusive bus use and operation to improve bus route efficiency and on-time consistency. The operational benefits of dedicated bus lanes are maximized on corridors with peak hour and direction frequency of 24+ buses (one bus every 2.5 minutes) and 2,000 peak hour ridership.

Supporting Framework Actions

Many of the bus priority corridor improvements will require capital investment in the right-of-way and operational improvements to our traffic signal system, which will require the collaboration of CDOT and CATS to implement.

Transit Signal Priority (TSP)

Continue to support the utilization of existing TSP infrastructure to improve bus service.

Intersection Queue Jumps

Partner with CATS to evaluate intersection feasibility and support prioritization and implementation.

Dedicated Bus Lanes

Continue to evaluate with CATS the potential for dedicated bus lanes on corridors where future frequency and ridership may justify implementation.



4th Street Shared Bus-Bike Lane

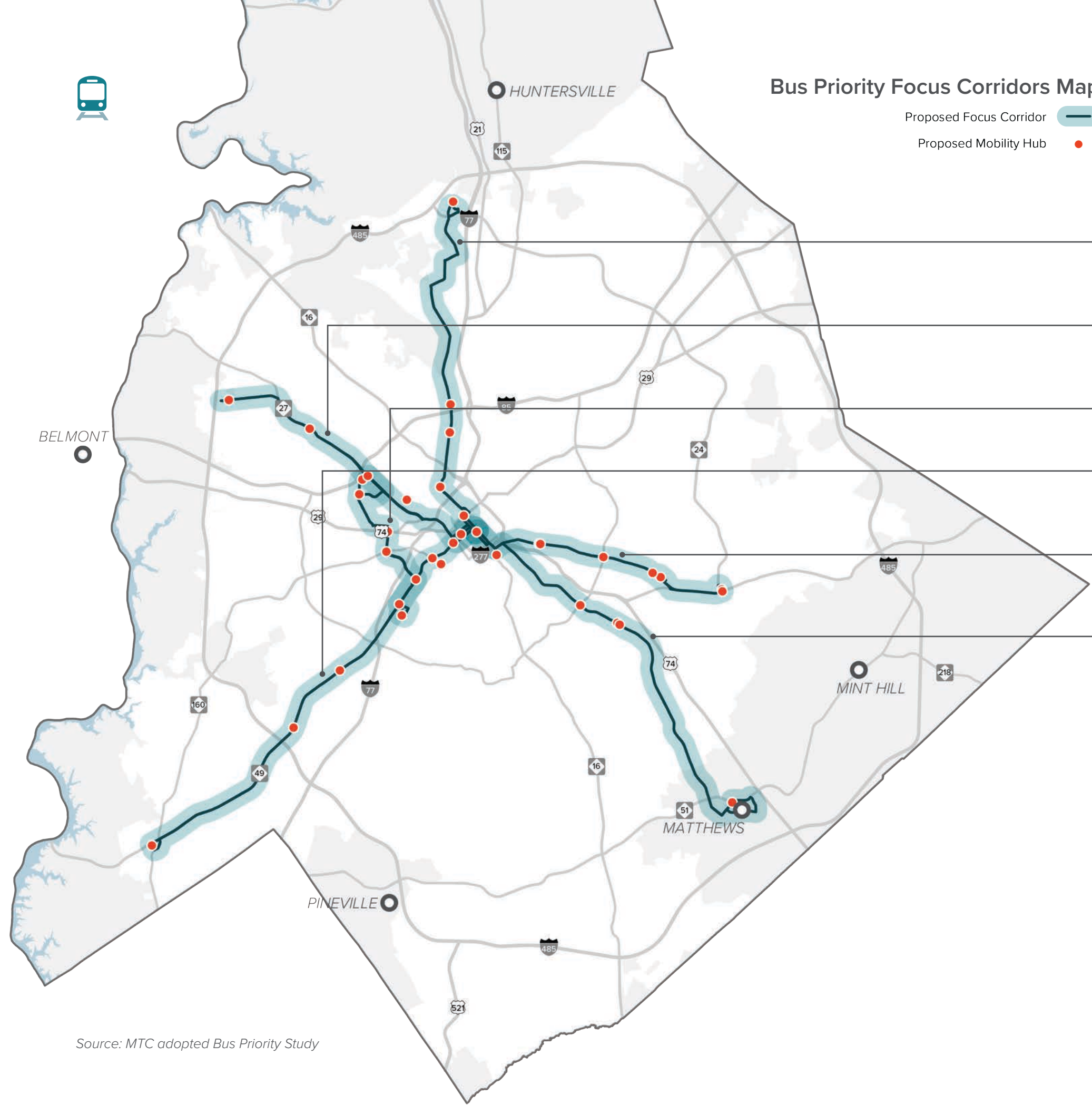
Shared bus and bike lanes have been successful in cities throughout the country, providing more transportation options, improving safety, and encouraging residents to make sustainable transportation choices. CDOT and CATS implemented Charlotte's first dedicated bus lane on 4th Street in Uptown, which created a shared bus and bike lane by combining the existing bicycle lane with the rightmost travel lane between S. McDowell Street and the Charlotte Transit Center. The resulting operational benefits included up to a 32% increase in bus travel speed.

Bus Priority Focus Corridors Map

Proposed Focus Corridor
Proposed Mobility Hub

The Focus Corridors

- Beatties Ford Road (Route 7)**
From Northlake Mall to Uptown, including the Rosa Parks Place Community Transit Center and Johnson C. Smith University.
- Freedom Drive (Route 34)**
From Mt. Holly Road/Paw Creek Shopping Center to Uptown, including the Valerie C. Woolard Center and the CPCC Cityview Campus.
- Ashley Road (Route 2)**
From Freedom Drive/I-85 to the Blue Line Scaleybark Station.
- South Tryon (Route 16)**
From CMC Steelcroft/Rivergate to Uptown, including the Whitehall Commons Park and Ride.
- Central Avenue (Route 9)**
From the Albemarle Park and Ride to Uptown, including the Eastland Community Transit Center and the CPCC Central Campus.
- Monroe Road (Route 27)**
From Presbyterian Hospital/Matthews to Uptown, including the Mason Wallace Park and Ride and the CPCC Central Campus.



Source: MTC adopted Bus Priority Study



Bus Stop & Mobility Hub Amenities*

Transit station and stop amenities can provide essential information and enhance the quality, comfort, and safety of riders. Below are several examples of amenities that enhance the passenger experience.



A Mobility Plaza with four farside bus stops and amenities including wayfinding, bus shelters, lighting, and scooter parking



Bus stop marker pylon with wayfinding signage, stop information, and real-time arrival information



An Enhanced Stop Pair with sidewalk wayfinding to connect riders to adjacent bus stops



Enhanced crosswalk with Rectangular Rapid-Flashing Beacons and pedestrian refuge island



Parking pen for micromobility options such as scooters or e-bikes



A Mobility Center with connections to rail and bus service including information kiosks, shelters, lighting, and benches

Bus Stops & Mobility Hubs *Enhancing Passenger Amenities & Experience*

The bus stop is a rider’s first point of contact with the transit system. Mobility hubs improve connections between buses and other modes of transportation, and support first/last mile connectivity by providing central locations where riders can transfer from one mode to another. The Bus Priority Program defines a range of bus stop and mobility hub types to be designed and placed based on route location and ridership.

Amenities

Bus stop and mobility hub amenities are an important part of rider comfort, safety, and convenience. A range of amenities will be included based on bus stop and mobility hub type.

- Shelter
- Benches
- Trash Receptacle
- Bicycle Rack
- Scooter and E-Bike Parking or Storage
- Information Kiosk
- Bus Stop Marker Pylon
- Sidewalk Wayfinding
- Bus and Sidewalk Bulb
- Boarding and Alighting Area
- Crosswalk and Pedestrian Crossing Improvements
- Lighting Improvements
- Operator Restrooms
- Bus Bays
- Microtransit Pickup or Dropoff Area
- Public Wifi
- Offboard Fare Payment

Bus Stop Typologies

The Bus Priority Program includes the improvement of bus amenities along the high frequency bus network and focus corridors to improve the passenger waiting experience.

Standard Bus Stop

Serve local or neighborhood routes located between activity centers in lower population and employment areas. Amenities may range from boarding areas, shelters, seating, lighting, and crosswalk improvements.

Mobility Hub Typologies

A mobility hub is a defined center for clustered transportation options and amenities, including walking, biking, transit, and micromobility. Mobility hubs are often where transportation routes come together and they provide an integrated set of services, facilities, and supporting technologies.

Level 1 Enhanced Stop Pair

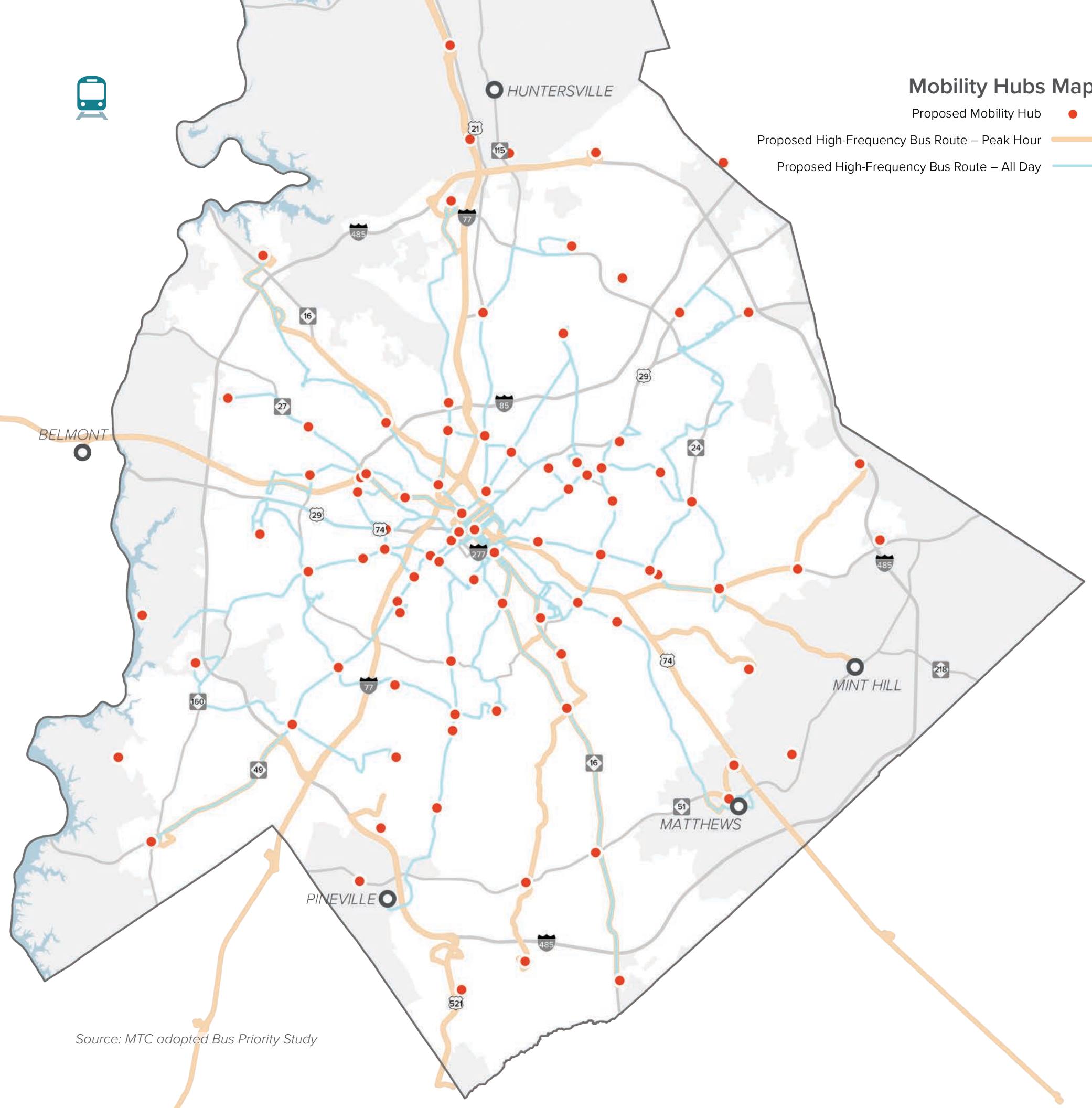
Enhanced Stop Pairs serve bus priority corridors and high-ridership stops near major activity centers. Design consists of two farside bus stops at select intermediate high-ridership points or other important points along high-frequency bus routes. Amenities additional to standard bus stops may include sidewalk wayfinding, crosswalk improvements, and public WiFi.

Level 2 Mobility Plazas

Mobility Plazas serve and are located at the intersection of bus priority corridors and high-ridership routes, typically at arterial intersections. Design consists of four farside bus stops that serve as the transfer points between high-frequency bus routes. Amenities additional to enhanced stop pairs may include scooter and e-bike parking or storage and informational kiosks.

Level 3 Mobility Center

Mobility Centers serve as transfers to rail and BRT stations and regional commuter bus routes and are located a major bus transfer points, route termini, and major activity centers. Design consists of an off-street location that provides four or more bus bays and park and ride facilities. Amenities additional to mobility plazas may include operator restrooms, offboard fare payment, and microtransit pickup/dropoff areas.



Mobility Hubs Map

- Proposed Mobility Hub
- Proposed High-Frequency Bus Route – Peak Hour
- Proposed High-Frequency Bus Route – All Day

Proposed Mobility Hubs

The location of mobility hubs are defined through the SMP and further refined through the Envision My Ride studies conducted by the City of Charlotte.

106
Proposed Mobility Hubs

Supporting Framework Actions

Mobility Hubs

Coordinate with CATS on the planning and implementation of bus stop and mobility hub locations, supporting the design and integration of passenger amenities within the right-of-way, streetscape, and street design.

Street Design Guide

Incorporate street design guidance for bus stop and mobility hub design in streets and rights-of-way.

Comprehensive Transportation Review (CTR) Guidelines

Utilize the CTR process to encourage private development to accommodate and support implementation of mobility hubs in employment and activity centers.

Pedestrian Crossings & Signals

Identify and prioritize the implementation of pedestrian crosswalks and traffic signal improvements to support pedestrian connectivity and comfort at bus stops and mobility hubs.

Source: MTC adopted Bus Priority Study



MICROTRANSIT

Creating First/Last Mile Connections

Across the country, cities are implementing digitally enabled microtransit solutions to extend the reach of transit into neighborhoods and provide first/last mile connections between transit stations and destinations. Microtransit solutions improve the rider's experience by operating small-scale, on-demand public transit services that can offer fixed routes and schedules as well as flexible routes and on-demand scheduling.

Microtransit service can be operated publicly or privately using smaller vehicles, like shuttles and vans, to provide service. Service can either be on-demand, with routes that vary based on passenger requests, or fixed routes that circulate a neighborhood and connect to bus priority corridors or rail. This transit framework is an emerging mobility option to reduce the need and reliance on the car in transit station areas and support our mode shift goal.

Microtransit Areas

Microtransit can provide access in places that lack the population density necessary for efficient fixed route transit. The Bus Priority Program identifies microtransit areas to create connections for new and existing passengers with more flexible microtransit service. In these areas, microtransit can fill in these gaps to connect people to bus corridors and stations and achieve the goal of greater transit connectivity. These areas were identified in neighborhoods throughout Charlotte and prioritized by demographic, destination, and community density indicators.

Characteristics:

Neighborhood Circulator Service

Neighborhood circulators and on-demand service provides curb to curb access to neighborhood destinations.

First/Last Mile Connections

Microtransit provides connections to high frequency bus service, bus priority corridors, and rail transit stations, supplementing fixed routes that feed into the high frequency bus network.

Fixed-Route Replacement

Microtransit uses dynamic routing to increase coverage to replace or supplement existing, low-performing fixed route service with an equal or higher level of service.

18

Proposed Microtransit Areas

130

Square Miles of Proposed
Microtransit Areas

Supporting Framework Actions

Microtransit Pilot Project

Support CATS and develop partnerships with area employers and supporting organizations (University City Partners, Charlotte Center City Partners, SouthPark Community Partners) to implement a microtransit pilot in prioritized areas, developing area mobility plans that identify and implement supporting pedestrian and operational infrastructure.

Comprehensive Transportation Review (CTR) Guidelines

Utilize the CTR process to identify and encourage private development support and service partnerships to implement microtransit in prioritized areas.

Transportation Demand Management (TDM)

Incorporate microtransit solutions as part of TDM strategies, working with public and private partners in activity centers and municipal service districts (Uptown, University City, SouthPark) to plot and implement microtransit service.

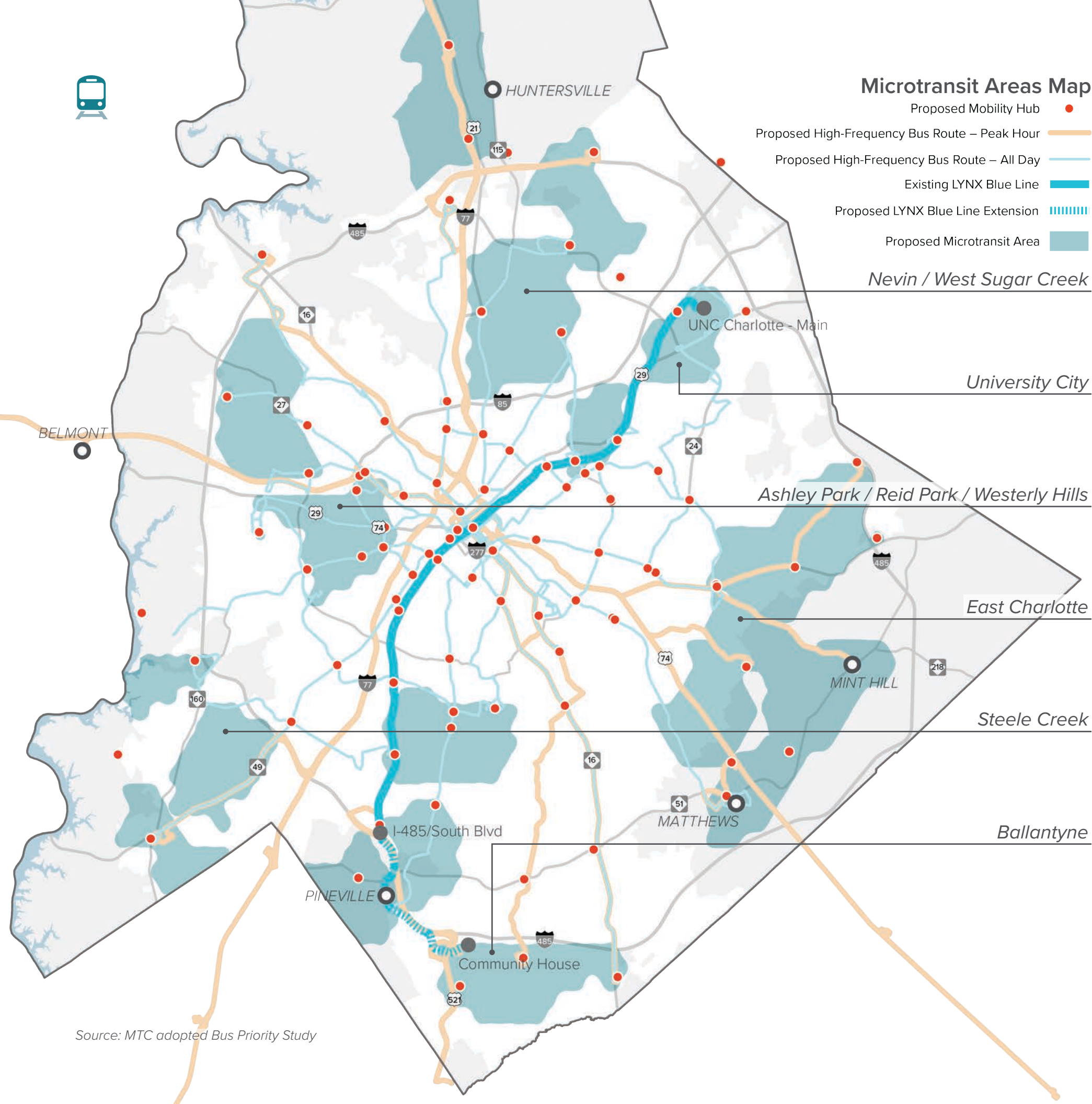
First/Last Mile Infrastructure

Identify pedestrian and bicycle connections to transit stations, mobility hubs and other transit stops, through bicycle, urban trail, and greenway connections (partnering with Mecklenburg County Park and Recreation) and work with CATS to plan and prioritize projects to support transit accessibility.



Metropolitan Transit Commission Resolution related to microtransit areas (May 25th, 2022)

Microtransit zones to support on demand transit services as well as first/last mile connectivity to frequent transit routes and key destinations;
CATS establish a microtransit strategy that includes on-demand services within recommended zones along with first/last mile connections to the LYNX Blue Line.





BICYCLE FRAMEWORK

A Bicycle & Mobility System

Bicyclists are a key indicator of the health of a city. When our streets are safe and comfortable enough to travel by bicycle, and bicycling is considered a normal, routine choice for getting around, we will earn the benefits of a healthier and happier community.

The Bicycle Framework focuses on establishing a complete, citywide network designed to create connected corridors for bicycle travel and emerging micromobility options, such as scooters or electric-assist bicycles. The framework will extend bike connections between major mobility hubs and employment centers, provide key links to existing and proposed greenways, and fill important gaps in the network to better connect people to jobs and other critical needs.



Vision

Our vision is for Charlotte to offer an inclusive bicycling environment, where people of all ages and abilities can use their bikes for transportation, fitness, and fun. We will work to extend bicycle infrastructure, educational opportunities, and promotional events to all neighborhoods and households, striving for equitable and affordable mobility options that improve public health, support the local economy, and reduce automobile dependency.

This Framework focuses on dramatically expanding bicycle and micromobility access to people of All Ages and Abilities (AAA) to create a bicycle and micromobility system that can accommodate a family with young children, a seasoned commuter going to work, or friends meeting at a local store or restaurant. Overall, the Bicycle Framework will help transform cycling and micromobility into a transportation mode that is integral to daily commutes and everyday life.

Mode Share

Successful advancement of the citywide bicycle and micromobility system not only makes bicycle and micromobility travel safer and more accessible, but it also encourages transportation choices that will help Charlotte shift from a dependence on single-occupancy vehicles. Currently, approximately 76% of Charlotteans commute to work by driving alone, and only about 1% commute by bicycle. Providing safe and accessible bicycle infrastructure is a critical part of our larger mode shift strategy and goal.

Building on Our Bicycle Planning & Investment

The Bicycle Framework, which also includes micromobility, is an essential step in advancing our established plans, policies, and achievements in building a comprehensive system of bicycle infrastructure in Charlotte. The Charlotte BIKES Plan (2017) built on previous planning efforts and established a robust and progressive vision of policies and actions that have firmly integrated bicycling into Charlotte’s mobility framework. Charlotte BIKES established the importance of bicycle mobility as an affordable and equitable transportation option and the need for an All Ages and Abilities (AAA) network to expand accessibility.



Micromobility & Adaptive Vehicles

Micromobility is a term that encompasses relatively small and low-speed mobility options that are typically either human or electric powered, including, scooters, electric-assist bicycles, and skateboards. Most micromobility options fit and function well within bicycle facilities and are used for shorter trips. Constructing and improving bicycle infrastructure is not only important for bicycles, but also provides opportunities for emerging micromobility options.

Micromobility also includes adaptive vehicles that help provide accessible mobility options and expand access for residents to utilize the bike network. Several of these options are currently being deployed within Charlotte:

- *Adaptive Scooter — two- and three-wheeled device with sit-down option to provide additional stability support.*
- *Handcycle — three-wheeled tricycle controlled and guided by hand.*
- *E-Mobility Wheelchair Attachment — battery powered attachment to wheelchair users’ personal mobility device.*
- *Side-by-Side Tandem Tricycle — two-seat tricycle with ability for a guide to control the device.*
- *Tricycle — one-seat tricycle with basket to provide additional stability support.*





Streets Map: Bicycle Facilities Map

- Shared-Use Path
- Two-Way Separated Bike Lane
- Buffered/Separated Bike Lane
- Standard Bike Lane
- Shared Lane Markings

THE FOUNDATION

The Charlotte Streets Map

The Charlotte Streets Map (Streets Map) establishes the long-range vision for bicycle infrastructure on our arterial street network, ensuring that adequate right-of-way is protected and provided for as private development occurs. The Bicycle Framework then guides and directs our capital investment in bicycle infrastructure.

Streets Map Bicycle Facility Types

The Streets Map defines the type and corridor-specific bicycle facility envisioned for each street, and they include:

Shared Use Path

Bi-directional path shared with pedestrians and located behind the curb.

Separated Bike Lane

One-way dedicated bike facility that can be located on-street or behind the curb and is physically separated from motor vehicles.

Buffered Bike Lane

On-street dedicated bike facility with buffered space between bikes and motor vehicles.

Two-Way Separated Bike Lane

On-street dedicated bi-directional bike facility, separated from motor vehicles. Also referred to as a two-way cycle track.

Standard Bike Lane

On-street dedicated bike facility without any separation or buffer from motor vehicles.

Greenway Trail

Primarily off-street, shared use trails (on-street greenway trails are shown on the Streets Map).

BELMONT

HUNTERSVILLE

MINT HILL

MATTHEWS

PINEVILLE



Greenway Master Plan Map

- Existing Greenway
- Proposed Greenway
- Existing Urban Trail
- Proposed Urban Trail

Mallard Creek Greenway

Long Creek Greenway

Little Sugar Creek Greenway (XCLT)

Blue Line Rail Trail

Little Sugar Creek Greenway (XCLT)

McAlpine Creek Greenway

Meck Playbook Greenway Master Plan

Mecklenburg County Park and Recreation is implementing a county-wide greenway trail system that serves an important role in Charlotte’s bicycle network by creating comfortable and accessible off-street facilities for all ages and abilities. Greenway trails also play an important role in achieving Mecklenburg County’s vision to protect irreplaceable environmental resources, to foster health and wellness, and to create transformative experiences.

Our bicycle system is envisioned to build on and connect seamlessly with the county-wide greenway system, and, together, these two systems will create a complete network that consists of both the creek-based greenway system alongside the City’s street-based bicycle system.



Urban Trails

Urban trails are multi-use public transportation paths along a road, rail corridor, or through a developed urban area. They create the connections between the greenway network by providing on-street connections where off-street connections are not possible. The streets identified as urban trails provide important connections within the greenway network, while also providing key facilities for the greater bicycle network.

Greenway Master Plan

The Greenway Master Plan includes 61 miles of existing greenway trails, 46 miles of funded greenway trails, and proposes an additional 237 miles of greenway trails. In total, the complete Greenway Master Plan includes approximately 344 miles of total greenway trails and 282 miles of urban trails. The County will prioritize projects that connect to existing trails, require limited land acquisition, serve priority communities, and expand partner projects.

The Cross Charlotte Trail will be the first complete county-wide greenway trail, connecting from Pineville to UNC Charlotte.



Facility Types

A safe and usable bicycle network is made up of multiple facility types. The preferred facility type of a given roadway is generally based on roadway speed and traffic volume as well as the presence of on-street parking, available roadway space, intersection and driveway density, and surrounding land uses.

The Charlotte Streets Map, future community area plans, corridor plans, and capital project planning will be used to determine what facility is appropriate for each street.



Two-Way Separated Bike Lane

Dedicated bike facilities that are designed for bi-directional use and typically occur on only one side of the street. These facilities are physically separated from motor vehicles and are commonly referred to as cycle tracks. Two-way separated bike lanes are a preferred facility on one-way streets with limited access points (to provide two-way bicycle access) and in other configurations where two-way bicycle travel is desired on one side of a street and shared use paths are not feasible.



One-Way Separated Bike Lane

Dedicated bike facilities that are located on-street or behind the curb, are physically separated from motor vehicles, and typically occur on both sides of the street. This facility can include several configurations, based on the specific characteristics of the street and on the adjacent context. Separated bike lanes are a preferred facility where high pedestrian volumes are present and on corridors where significant bicycle volumes are expected.



Shared Use Path

A non-motorized, bi-directional path that is designed for both pedestrians and bicyclists, located parallel to a roadway, behind the curb, and between the street and private development. Shared use paths are a preferred facility type along higher-speed streets with longer block lengths and infrequent driveways.



Buffered Bike Lane

Dedicated on-street bike facilities that include additional buffered space between bikes and motor vehicles, and typically occur on both sides of the street. Buffered bike lanes are a preferred facility when traffic speeds and volumes are too high for a standard bike lane to be comfortable, and a separated bike lane is not feasible due to block and driveway spacing. Additional space is needed to place a buffered bike lane adjacent to on-street parking to account for the door zone of parked motor vehicles.



Standard Bike Lane

Dedicated bike facilities that designate an exclusive space for bicyclists through the use of pavement markings and signage along the street. There is no additional buffer between bicyclists and motor vehicles. Standard bike lanes should only be used when space is extremely constrained, or when traffic volumes and speeds are low. Additional space is needed to place a standard bike lane adjacent to on-street parking to account for the door zone of parked motor vehicles.



Bicycle Boulevard

Bicycle boulevards are low-volume, low-speed streets designed to prioritize bicyclist travel. Also known as “neighborhood greenways,” “quiet streets,” etc. Bicycle boulevards can be found as part of a larger bikeway corridor (when the bikeway must traverse through a neighborhood), an Urban Trail connection, or function as a standalone bikeway to connect neighborhoods to destinations.



Greenway Trails

Off-street, shared use trails that form a critical part of the pedestrian and bicycle network, and are generally planned for and maintained by Mecklenburg County. Occasionally, greenway sections occur along a street, such as with certain sections of the Cross Charlotte Trail.



BICYCLE PRIORITY NETWORK

The Bicycle Priority Network is a subset of the overall envisioned citywide network. It establishes a citywide system of bicycle facilities and greenway connections and serves as a guide for ongoing project identification, design, and prioritization of capital investment. This citywide network is for users of All Ages and Abilities (AAA), connecting people to jobs, services, and education. The network builds on our existing plans and current bike and greenway corridors to fill existing gaps, overcome barriers, and create a multimodal network of greenways and bikeways.

The goal of this network is to establish a comprehensive but prioritized framework of reliable bikeways that provide and encourage alternative modes of transportation for frequent trips. It represents a subset of the long-term goal of providing a complete system of bicycle facilities on every arterial corridor. The Bicycle Priority Network leverages ongoing public and private investments in bicycle infrastructure and includes all of Charlotte's existing AAA facilities. The network will serve as the starting point for developing and prioritizing CIP-funded bicycle projects, including those funded by the Bicycle Program specifically.

The criteria used to create our Bicycle Priority Network includes:

- **Population and Employment Density** — *Connecting areas with our highest job and population density*
- **Cost-Burdened Households** — *Serving households with higher housing and transportation costs relative to income*
- **Household Vehicle Access** — *Serving households with limited or no access to a motor vehicle*
- **Access to Transit** — *Creating first/last mile connections to our rapid transit and high-frequency bus system*
- **Leveraging Existing Investment** — *Building on and connecting all existing AAA facilities and planned corridors for capital investment*
- **Future Greenway Priorities** — *Building on and connecting the planned priorities for future greenways*

On the Horizon & Ongoing Investment

Charlotte, along with our partners, has already made significant progress in funding and constructing bicycle infrastructure throughout the city. In addition to our existing facilities, there are over 80 miles of funded capital projects that include bicycle facilities, which are helping to create new AAA bicycle connections throughout Charlotte and implement the Bicycle Priority Network.

Mecklenburg County Greenway System

Our public greenways are an extension of our bicycle network. Working together, these two systems create a highly functional multimodal transportation network connecting neighborhoods to employment and activity centers. Mecklenburg County is currently implementing 46 miles of funded new greenways that are planned to function as a critical part of the Bicycle Priority Network.

Bicycle Program Capital Investment

The Bicycle Program funds expansion of the bicycle network creating new bike connections and repurposing existing infrastructure to create facilities for cyclists. Bicycle Program funding is part of the City's ongoing capital investment program financed through public bonds approved by Charlotte voters every two years. The Proposed FY 2023 Budget includes \$8 million for the Bicycle Program, with an additional \$8 million planned in both the 2024 and 2026 Bonds.



All Existing Bicycle Facilities

The City and County have invested in bicycle facilities resulting in 154 miles of existing bikeways and 40 miles of existing greenways throughout the city.

Examples of Future Capital Projects

- **Cross Charlotte Trail** – *26 miles of greenway currently in planning and construction*
- **Bryant Farms Road** – *1.65 miles of new street with shared use path*
- **Robinson Church Road** – *2.65 miles of redesigned street with shared use path*
- **Westinghouse Boulevard** – *3 miles of new shared use path*
- **Brown Grier Road** – *3 miles of new shared use path*
- **J.W. Clay Boulevard & I-85 Bridge** – *0.81 miles of new cycle track connecting to Blue Line J.W. Clay Station and new 1-mile connection across I-85*
- **McCullough Drive** – *0.85 miles of buffered bike lanes connecting to Blue Line McCullough Station*
- **DeArmon Road** – *0.8 miles of redesigned street with bike facilities and connection to Clark's Creek Greenway*
- **West Boulevard** - *1 mile of raised bike facilities connecting from I-485 to the developing River District*

Bicycle Priority Network Map

- Existing Bikeway
- Proposed Bikeway
- Existing Greenway
- Proposed Greenway

Rozzelles Ferry Road

Beatties Ford Road

West Boulevard

Silver Line Rail Trail

Steele Creek Road

Bryant Farms Road

Building Complete Streets

Our ongoing capital investment in transportation for new street connections and multimodal street expansion incorporates safe and accessible bicycle facilities on every project throughout our city. The Bicycle Priority Network includes the streets and corridors necessary to establish bicycling as an accessible mobility option and will be used to prioritize our ongoing complete street investment.

Facilities within Bicycle Priority Network

	Existing	Proposed
Bikeway Miles	70	173
Greenway Miles	41	97
Total Miles	111	270



Uptown CycleLink

The Uptown CycleLink is an example of Bicycle Program investment creating the two-way cycle track connecting Little Sugar Creek and Irwin/Stewart greenway trails through Uptown.





The Central Framework

The central framework of the Bicycle Priority Network is envisioned as two cross-County spines that extend north-south and east-west from Uptown. From this framework, a network of existing and future bicycle facilities will extend to create a functional and recreational mobility network connecting neighborhoods, activity and employment centers, and open space.

Silver Line Rail Trail East-West Spine

The Lynx Silver Line light rail corridor will start at I-485, travel along Wilkinson Boulevard, advance through Uptown, and end in the Town of Matthews. This east-west transit corridor will include a continuous shared use trail extending across the County. In addition, a parallel east-west trail corridor is being planned with a preliminary alignment that connects the Whitewater Center to the Town of Matthews. Together these trail corridors will provide needed east-west connectivity and link east side and west side neighborhoods to employment, health, and educational destinations.

Cross Charlotte Trail North-South Spine

Mecklenburg County and the City of Charlotte are building over 30 miles of greenway trail stretching from Cabarrus County to York County and linking Pineville to UNC Charlotte. Once completed, the Cross Charlotte Trail (XCLT) will create a 110-mile network of connected trails, bicycle facilities, and greenways touching over 80,000 residents (within one half mile).

Key Connections & Supporting Projects

University City

Connecting University Research Park and UNC Charlotte (over 30,000 students) with current bicycle investment, including the J.W. Clay cycle track, McCullough buffered bike lanes, and new I-85 bridge cycle track.

Uptown

Connecting institutional, educational, and employment destinations representing over 100,000 jobs, 5.5 million square feet of planned office space, and over 67,000 residents. The completion of the Uptown CycleLink will link the Irwin and Stewart Creek Greenways, Rail Trail, and Cross Charlotte Trail.

SouthPark

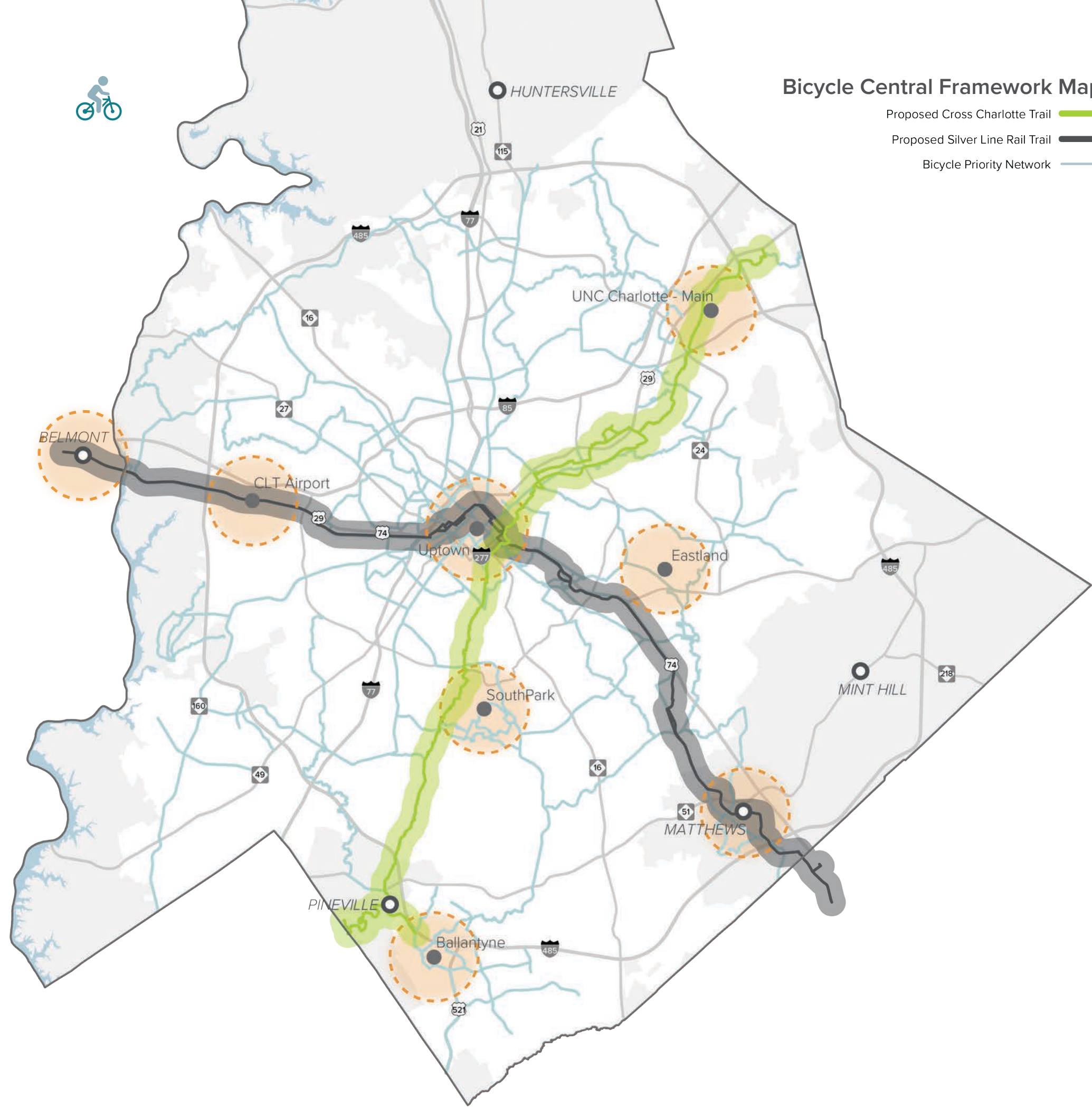
Connecting SouthPark Mall and one of our largest suburban employment centers that is transforming into a mixed-use center with over 40,000 jobs. Planned projects include the SouthPark Loop and Backlot Trail connecting to the Cross Charlotte Trail.

Ballantyne

Connecting to Ballantyne, a redeveloping suburban employment center that will be a walkable, mixed-use center with future rapid transit access provided by the planned extension of the Blue Line. A planned greenway extension from the center of Ballantyne will connect to the Lower McAlpine Creek Greenway and ultimately to the Cross Charlotte Trail.

Bicycle Central Framework Map

- Proposed Cross Charlotte Trail
- Proposed Silver Line Rail Trail
- Bicycle Priority Network





Transforming Existing Infrastructure

In much of our urban areas, our streets and right-of-way are built out and constrained by existing development. Many of these existing streets are designed primarily for vehicular travel, leaving little to no space for bicycle facilities. Implementing the Bicycle Priority Network will require us to evaluate trade-offs that may include reallocating lanes and curb space dedicated to vehicles and transit on our existing streets.

While evaluation and trade-off analysis will be necessary corridor by corridor to determine mode priority and feasibility, the multimodal transformation of our existing streets is necessary to implement our Bicycle Priority Network vision. Successful examples of some of Charlotte's multimodal street transformations include The Plaza, Parkwood Avenue, and East Boulevard.

The Plaza

The Plaza street conversion repurposed an existing travel lane into a separated and buffered bike lane from Central Avenue to Parkwood Avenue. This road diet project addressed safety concerns for cyclists and pedestrians on the corridor and provided an important connection to the surrounding bike network.

Parkwood Avenue

Parkwood Avenue converted four travel lanes to three (with median and center turn lanes) and created buffered bike lanes (separating bicyclists from the travel lanes) to provide a continuous bike connection from the Plaza street to North Davidson Street.

East Boulevard

East Boulevard was a road diet that converted the street into a three-lane cross section with on-street parking and bicycle lanes to support bicycle and pedestrian activity on this mixed-use corridor in the Dilworth Neighborhood. This bicycle facility now creates an east-west connection from the Cross Charlotte Trail to South End and the Rail trail.



Bicycle Advisory Committee

The Bicycle Advisory Committee (BAC) reviews bicycle plans and makes recommendations to City Council on implementing bicycle transportation strategies and policies, such as Charlotte BIKES. The BAC, in existence since 1999, consists of 11 members of the community who have expressed an interest in making Charlotte a more bicycle-friendly community. The Mayor, Charlotte City Council, and the Mecklenburg County Board of Commissioners appoint members. The BAC will be an important resource and stakeholder in the implementation of the Bicycle Priority Strategy to further policies and investments in bicycle infrastructure, education, and outreach.





Connecting Uptown

Ultimately, the success of our overall Bicycle Priority Network starts with Uptown. Uptown Charlotte is the region’s economic and cultural center, is home to over 100,000 jobs and 70,000 residents, and is the region’s most transit-accessible place. This concentration of people, destinations, and services demands a complete and prioritized system of multimodal infrastructure to make bicycle and micromobility travel a natural part of daily life in Uptown and its surrounding neighborhoods. A complete Uptown bicycle network, coupled with its regional transit access, will support the All In 2040 Center City Vision Plan and make Uptown the most successful demonstration of our mode shift aspirations.



Bicycle Signals

Bicycle signals are used to separate bicycle movements at an intersection from conflicting car movements, which leads to improved intersection operations, safety, and comfort for all users. Bicycle signals have the same red, yellow, and green lenses used in traditional traffic signals, but use an illuminated bicycle shape on the signal face. These signals are often considered for installation in locations with two-way or contra-flow bicycle movements, locations with unique or high-volume bicycle movements, or locations with high volumes of turning traffic.

The Uptown CycleLink Vision

The vision and plan to complete this Uptown bicycle network is already in place and being implemented. The Uptown CycleLink is a continuous, 7-mile network of All Ages and Abilities (AAA) bicycle facilities that fills the missing links between the Rail Trail, Cross Charlotte Trail (Little Sugar Creek Greenway), and the Irwin and Stewart Creek Greenways. When completed, the CycleLink will connect over 40 miles of existing bikeways outside of Uptown, including greenway trails, shared use paths, and bicycle lanes. Additionally, the Cross Charlotte Trail will connect an additional 64 miles of bikeway facilities. Together, the CycleLink and the Cross Charlotte Trail will create a total ride shed of over 110 miles.

Completed Projects

6th Street Cycle Track

This two-way separated bicycle facility (cycle track) along 5th, 6th, and 11th Street created an east-west dedicated route through Uptown, connecting the Irwin and Stewart Greenways to the Cross Charlotte Trail (Little Sugar Creek Greenway).

MLK Boulevard & Davidson Street

Through repaving and street reconfiguration, this cycle track project built an important segment of the CycleLink network adjacent to the future redevelopment of Brooklyn Village.

Pearl Park Way/Belk Trail

Through the public/private partnership that resulted in the Midtown mixed-use development and the redevelopment and renovation of Pearl Park, the design and implementation of Pearl Park Way incorporated the first segment of cycle track that will become the Belk Trail and connect into the CycleLink network.

Funded Projects

Belk Trail

The Belk Trail is the southeastern leg of the Uptown CycleLink that extends from MLK Boulevard to Pearl Park Way and provides an important connection to the Midtown area of Uptown, Pearl Park, and the Little Sugar Creek Greenway. This project will be implemented in partnership with the development of The Pearl innovation district, a mixed-use redevelopment that will include Charlotte’s first four-year medical school.

The Rail Trail Pedestrian Bridge

This new pedestrian bridge over I-277 will connect Charlotte’s Uptown and South End neighborhoods. This public/private partnership will provide a new bicycle and pedestrian connection from the Blue Line Brooklyn Village Station to the existing Rail Trail under the East Morehead Street bridge, creating a valuable multimodal link between the growing employment hub of South End and Uptown. The iconic design includes 40-foot-tall double arches and a 16-foot-wide bridge, making it the widest section of the Rail Trail.

Future Projects

College Street & MLK Boulevard Corridor

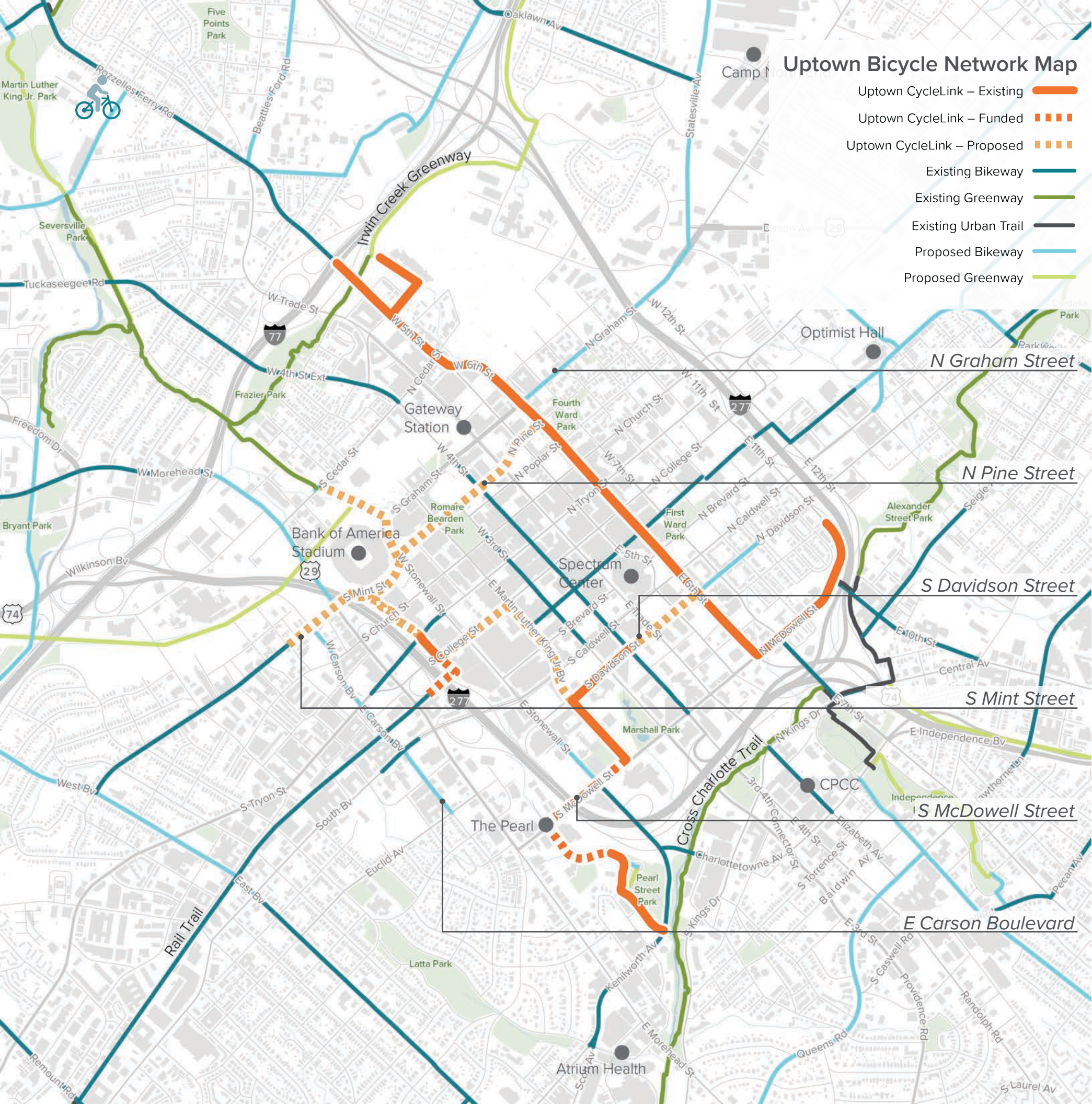
This segment will complete the missing Rail Trail connection in Uptown, connecting from the Rail Trail Pedestrian Bridge to the existing Rail Trail and MLK Boulevard Cycle Track, and directly link the Charlotte Convention Center and NASCAR Hall of Fame to the Uptown CycleLink network.

North Davidson Corridor

This segment will connect the existing Davidson Street Cycle Track to the 6th Street Cycle Track, forming an important north-south corridor of the Uptown CycleLink connecting the First and Second Ward Neighborhoods.

South Mint & Pine Street Corridor

This segment will connect the existing 6th Street Cycle Track to South End’s Gold District, connecting directly to Bank of America Stadium, and create an additional connection to the Irwin and Stewart Creek Greenways and Uptown’s Third Ward Neighborhood.





PEDESTRIAN FRAMEWORK

Creating a Complete Pedestrian System

Charlotte's signature place is Tryon Street, one of the most walkable main streets in the Southeast. Our many walkable neighborhoods offer beautiful tree-lined streets, providing delightful pedestrian experiences. Yet, our greatest period of growth occurred from 1950 to 2000 (expanding by 220 square miles and doubling in population twice), at a time when our roads were designed and built with a single focus—to move cars. The result is that many places in Charlotte lack the infrastructure necessary to encourage walking and to protect our mobility network's most vulnerable users—pedestrians.

Since the 1990s, Charlotte has refocused and prioritized investment to expand pedestrian facilities and safety through new capital projects and new expectations for private development. Our approach to street design has also been transformed to create complete streets, which provide mobility choices to users of all ages and abilities. A complete multimodal network relies on complete streets with safe pedestrian facilities that connect us to transit, work, education, healthcare, and our daily activities. Walking should be a natural and safe way to move through our city.



Vision

We are all pedestrians. Our vision is to be a city of streets and neighborhoods where people love to walk. This vision is all about providing better transportation choices and improving walkability throughout Charlotte—providing pedestrian experiences that are safe, useful, and inviting. The Pedestrian Framework is a recommitment that builds on Charlotte’s past investments to ensure that we can all enjoy a safe walk, regardless of where we live or where we’re going.

The greatest places in Charlotte tend to be our most walkable places, where people of all ages and abilities can enjoy a safe and pleasant walk, and investments in pedestrian infrastructure will help create the foundation for more great places in Charlotte.

Building on Our Pedestrian Planning & Investment

The Pedestrian Framework is the next step in advancing and building on our established plans, policies, and investments to expand pedestrian infrastructure throughout Charlotte. Since the 1990s, we have adopted a series of pedestrian-focused policies, plans, and development requirements. Most recently, our Charlotte WALKS Pedestrian Plan (2017) established our first comprehensive pedestrian plan, bringing together existing initiatives and identifying new strategies for pedestrian safety and walkability. Our Vision Zero Action Plan (2019) established a commitment to traffic and pedestrian safety, focused on pedestrian safety along streets. These plans created an essential foundation from which to prioritize and advance pedestrian design and investment within our multimodal network.

Mode Share

Everyone begins and ends each trip as a pedestrian and creating a walkable city is necessary to meet our mode share aspiration. Pedestrian infrastructure establishes critical first/last mile connections to transit and allows residents to complete short trips entirely by walking or rolling. The Pedestrian Framework is designed to identify the infrastructure and actions necessary to make walking a more accessible transportation option (in addition to a valuable recreational activity), helping to shift our reliance on cars for every trip.



Capital Investment Plan Programs that Support Pedestrian Infrastructure

Corridors of Opportunity

Capital investment on six key corridors with a focus on affordable housing, community safety, infrastructure, transportation, workforce and business development, and urban design.

Vision Zero

Capital investment on educational programs and targeted street improvements with a focus on eliminating serious injuries and fatal crashes. Improvements can include pedestrian crossings and infrastructure, traffic calming, and speed reduction.

Sidewalk and Pedestrian Safety

Capital investment focused on the planning, design, and construction of sidewalk gaps along our arterial street network and Americans with Disabilities Act (ADA) accessibility improvements to curb ramps, sidewalks, and traffic signals.



Over the Years | Pedestrian Planning in Charlotte

1990s

- *Adoption of the Centers, Corridors, and Wedges growth framework to focus growth around walkable areas*
- *Adoption of private development regulations to require sidewalks on both sides of all new streets*
- *Creation of the Pedestrian Safety Program to install sidewalks and pedestrian crossings throughout the city*

2000s

- *Adoption of the Transportation Action Plan to set goals for making Charlotte a more pedestrian-friendly community*
- *Adoption of the Urban Street Design Guidelines to support complete streets*
- *Update of development ordinance to require street and block connectivity to create more walkability*

2010s

- *Completion of the first Pedestrian Safety Action Plan*
- *Adoption of the Charlotte WALKS Pedestrian Plan and Sidewalk Installation Policy*
- *Adoption of first Streets Map to require pedestrian facilities tailored to individual street types*
- *Adoption of the Vision Zero Action Plan to focus and prioritize investments and programs on street safety*

PEDESTRIAN PRIORITY NETWORK

The Pedestrian Framework establishes a comprehensive but prioritized network to expand investment in pedestrian facilities. This Priority Network is a citywide geographic translation of pedestrian accessibility metrics that are based on the objectives of the SMP and support the development of 10-minute neighborhoods. The Priority Network serves as the foundation for prioritizing pedestrian capital investment.

The pedestrian accessibility metrics define areas of need and prioritize proximity to jobs, high-frequency transit corridors, and services. The Priority Network identifies the areas across our city where pedestrian investment will have the most impact by connecting more people to transit, jobs, and daily needs within one quarter mile (and about a five-minute walk).

Supporting 10-Minute Neighborhoods

10-minute neighborhoods are places designed to provide multimodal 10-minute access to a mix of uses and services. The creation of 10-minute neighborhoods starts with a well-connected pedestrian network to create a safe, useful, and inviting pedestrian environment to encourage more walking trips. The 2040 Policy Map defines and maps the Place Types intended to be 10-minute neighborhoods based on the goals of the 2040 Plan.

The priority network builds on the 2040 Policy Map and identifies the areas near Regional, Community, and Neighborhood Centers, schools, services, and greenways to focus pedestrian investment as a functional and equitable mobility option and support the development and expansion of 10-minute neighborhoods throughout our city.

Connecting to Transit

The lack of equitable access to transit is a barrier to economic mobility, limiting employment, educational, social, and health opportunities. Barriers to walkability are barriers to transit. The easier it is to access the transit system on foot, the more likely people are to use it. The first/last mile of all transit trips depends on a walkable environment. The foundation of our transit system is based on a pedestrian network that is accessible and connected to provide convenient access to our bus, light rail, and streetcar systems.

The priority framework identifies and prioritizes the areas with proximity to light rail and high frequency bus routes, areas with a higher percentage of households without access to a vehicle, and land uses that serve the elderly and people with disabilities, with the goal of eliminating barriers to transit.

Safety

Pedestrians are the most vulnerable users of our streets and walkability is influenced by more than the design and existence of pedestrian facilities. The pedestrian safety and comfort of our streets is a dynamic condition that includes traffic volume, traffic speed, and crash history. It is necessary to utilize and update current safety and operational data, such as the High Injury Network, to prioritize our pedestrian investment.

The priority network is guided by physical and operational characteristics and will be regularly updated and refined to reflect dynamic pedestrian conditions and prioritize individual projects.



Pedestrian Fatalities

The chance of a person dying as a result of being struck by a vehicle decreases 5 percent when the speed of the vehicle is just five miles per hour (mph) lower. This results in a one percentage point drop for every reduced mile of speed. However, if vehicle speed is doubled from 20 mph to 40 mph, the chance of death doesn't merely double from 7 percent to 14 percent—it actually skyrockets to 85 percent according to a National Transportation Safety Board 2017 study.

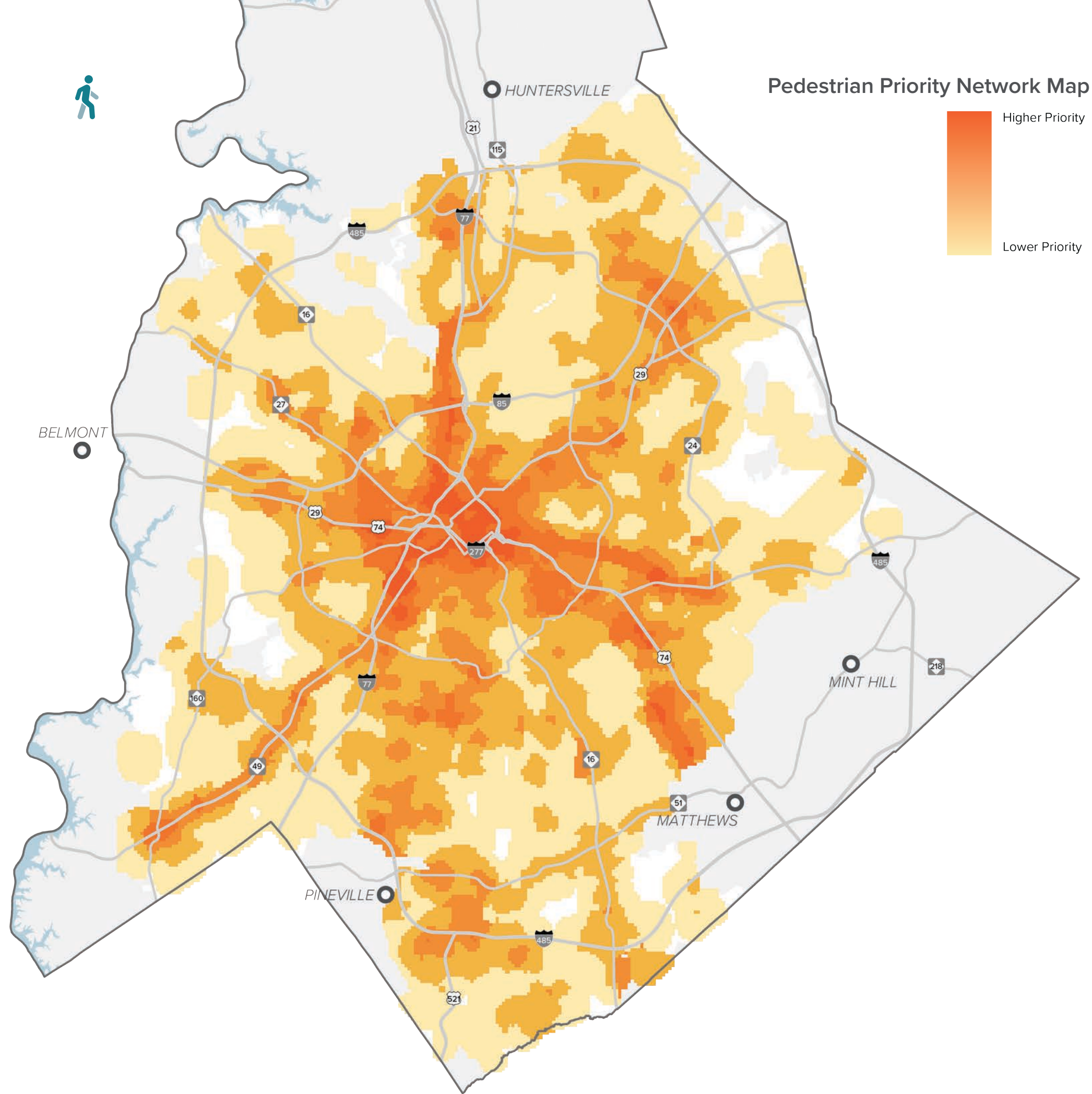
Pedestrian deaths from speeding increase exponentially as vehicle speed increases. Once cars reach a certain speed (just above 20 mph), they rapidly become more deadly.

When a pedestrian is hit by a vehicle traveling at:

20 miles per hour
85% of pedestrians survive

30 miles per hour
50% of pedestrians survive

40 miles per hour
Only 10% of pedestrians survive





Completing Our Sidewalk Network

The sidewalk network is the foundation of our pedestrian framework. Our arterial streets are the primary and vital component of that network providing access to our bus and rail transit system and linking neighborhoods and activity centers. Yet, arterials can sometimes present dangerous and uncomfortable conditions for pedestrians when they lack adequate sidewalks.

On our arterial street network alone, there are over 250 miles of streets that lack sidewalks on at least one side of the street. An incomplete sidewalk network not only disrupts pedestrian connectivity, but creates safety and accessibility issues for strollers, wheelchairs, and other pedestrians needing assistance. These sidewalk gaps are often in our more suburban areas where the existing street connectivity is limited and/or still being completed through development, further constraining pedestrian access.

The Pedestrian Framework primarily focuses on constructing sidewalks in gaps along our higher-volume streets. Investment will be prioritized on arterial streets to help complete this fundamental part of our sidewalk network and help alleviate safety risks for pedestrians because of higher traffic volumes and speeds. Sidewalk investments may also be prioritized along collector streets. Collector streets provide key connections between arterial streets within our citywide network, and often include public and service facilities, such as schools, where safe pedestrian facilities are especially important.

Charlotte Streets Map

The Charlotte Streets Map (Streets Map) establishes the long-range vision of our arterial street network by identifying the future cross-section of each street. The Streets Map establishes the width and placement of sidewalks and shared use paths to ensure that public and private investment protects the space and constructs the pedestrian facilities as development and public investment occurs. In addition to the defined Street Type from the Streets Map, the width and design of sidewalks and shared use paths is determined based on corridor-specific characteristics, such as traffic volume, transit service, and the envisioned Place Type (character, intensity, and mix of use) as defined in the 2040 Policy Map.

The Streets Map defines a range of pedestrian facility types:

Sidewalks

Sidewalks range in width depending on Place and Street Type. Sidewalks are separated and buffered from the street by a planting strip or amenity zone for street trees.

Shared Use Paths

Shared use paths serve both pedestrians and bicyclists and are separated and buffered from the street by a planting strip or amenity zone for street trees. Shared use paths are typically the preferred facility type along higher-speed streets with longer block lengths and infrequent driveways.

On-Street Greenways

These are sections of a larger planned greenway trail system that may run along a street. They are typically wider than shared use paths and the width varies depending on the location’s physical constraints.

Filling in the Gaps

Sidewalk gaps are filled through both public and private investment and include ongoing improvements in the public right-of-way and removal of barriers in compliance with the Americans with Disabilities Act (ADA).

263
Miles of Identified Priority
Sidewalk Gaps

Public Investment

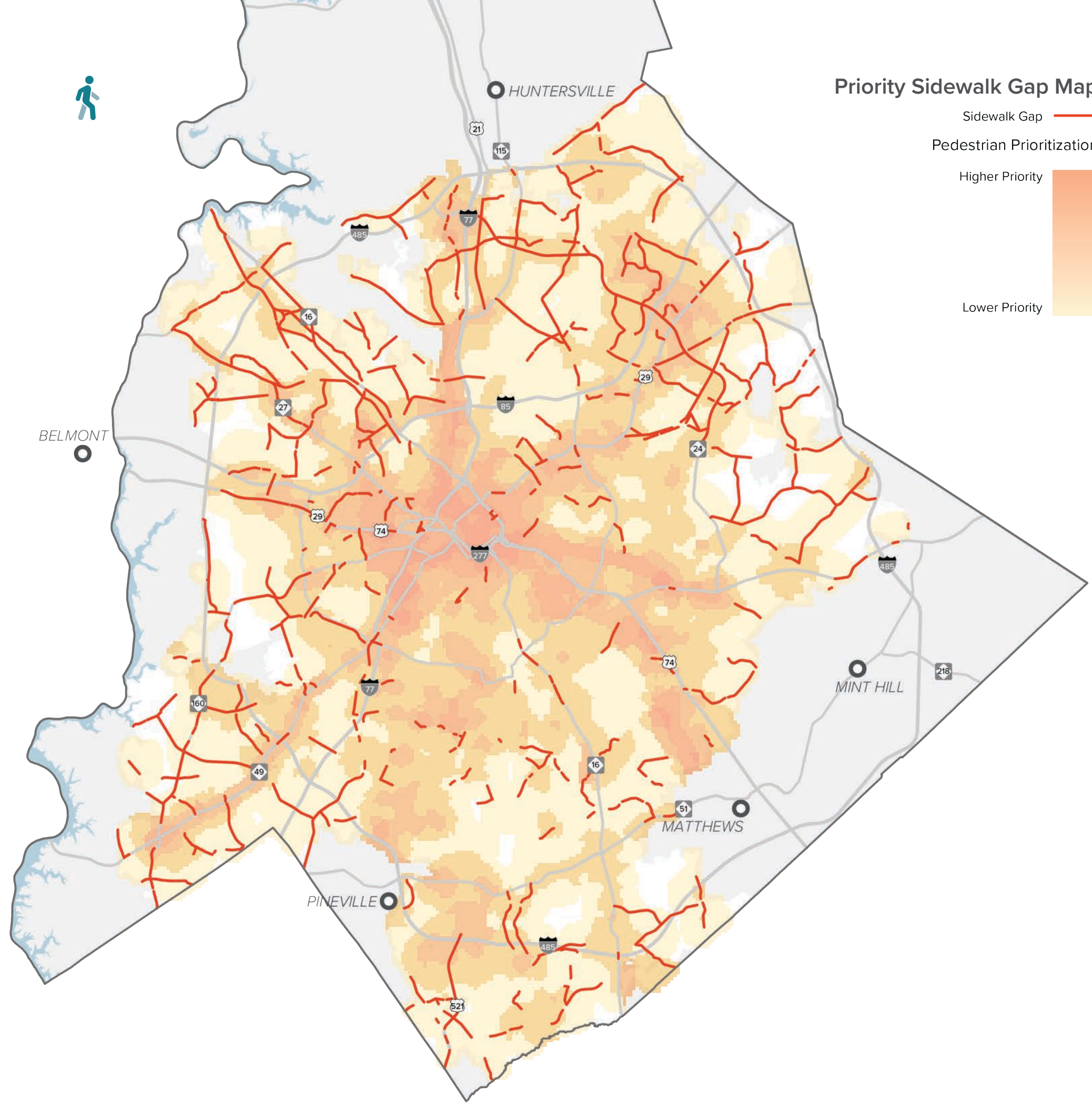
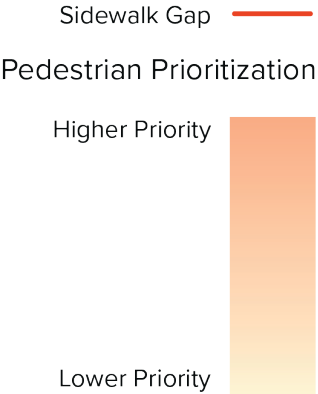
The priority network serves as the first assessment tool to identify priority areas for public capital investment to fill sidewalk gaps on our arterial streets. Individual sidewalk projects are then identified and prioritized based on general feasibility and specific metrics based on the criteria of the priority network. In addition, sidewalks gaps are filled with larger capital investment projects that build new streets or complete existing streets.

Private Investment

Many of our arterial street corridors are experiencing growth and redevelopment, providing a significant opportunity to fill sidewalk gaps. Most private development and redevelopment along our arterial street network is required to construct new sidewalks and reconstruct inadequate sidewalks as defined by the Streets Map and our development ordinances.



Priority Sidewalk Gap Map





Making Our Streets Pedestrian Friendly

Safe and comfortable pedestrian facilities along and across our streets are necessary to achieve our vision for a walkable city. The ease and safety of walking along and crossing our streets as pedestrians is critical to making our sidewalk network effective and connected.

There are a range of options available to improve our streets to make them safe and comfortable for pedestrians. The priority network will be used to prioritize pedestrian investment with a focus on connecting to transit stops, schools, parks, and within places of high pedestrian activity, such as activity centers.

Neighborhood Traffic Calming

Changing the Behavior of Vehicles

The City’s Neighborhood Traffic Calming program is a joint effort between residents and the city to help minimize speeding and improve safety in neighborhoods. Typical measures include speed limit reductions, speed humps and cushions (raised sections of roadways to reduce vehicular speeds), and multi-way stop signs. Traffic calming measures are evaluated based on site specific criteria and street conditions and initiated through a neighborhood request process implemented by the City’s Neighborhood Traffic Calming Policy.

Mid-Block Pedestrian Crossings

Mid-block pedestrian crossings provide connections across streets with limited street connectivity and significant space between signalized intersections allowing pedestrians to safely cross.

Rectangular Rapid-Flashing Beacons (RRFBs)

These are pedestrian crosswalks (both mid-block and at unsignalized intersections) that include pedestrian-activated yellow flashing lights used to increase driver awareness to yield to pedestrians crossing the street.

Pedestrian Hybrid Beacons

These are mid-block pedestrian crosswalks that utilize a pedestrian-activated traffic signal to stop traffic for pedestrians crossing the street.

Pedestrian Refuge Islands

These are constructed islands located in the middle of streets to protect pedestrians from vehicle traffic by providing a rest point between traffic lanes. Refuge islands allow pedestrians to cross half a street at a time, yielding to traffic in each direction. Islands may include curbs, bollards, signage, and/or landscaping and may be signalized and accompanied by painted crosswalks.

Enhanced Crosswalks Pedestrian Crossings

Enhanced crosswalks and intersections increase driver awareness and give additional visual interest to pedestrian crossings.

Paint the Pavement

This is a community-based program that supports neighborhoods to paint crosswalks with unique designs by either a selected artist or a facilitated community event. These are grant funded and facilitated through the City’s Placemaking Hub.

Raised Crosswalks

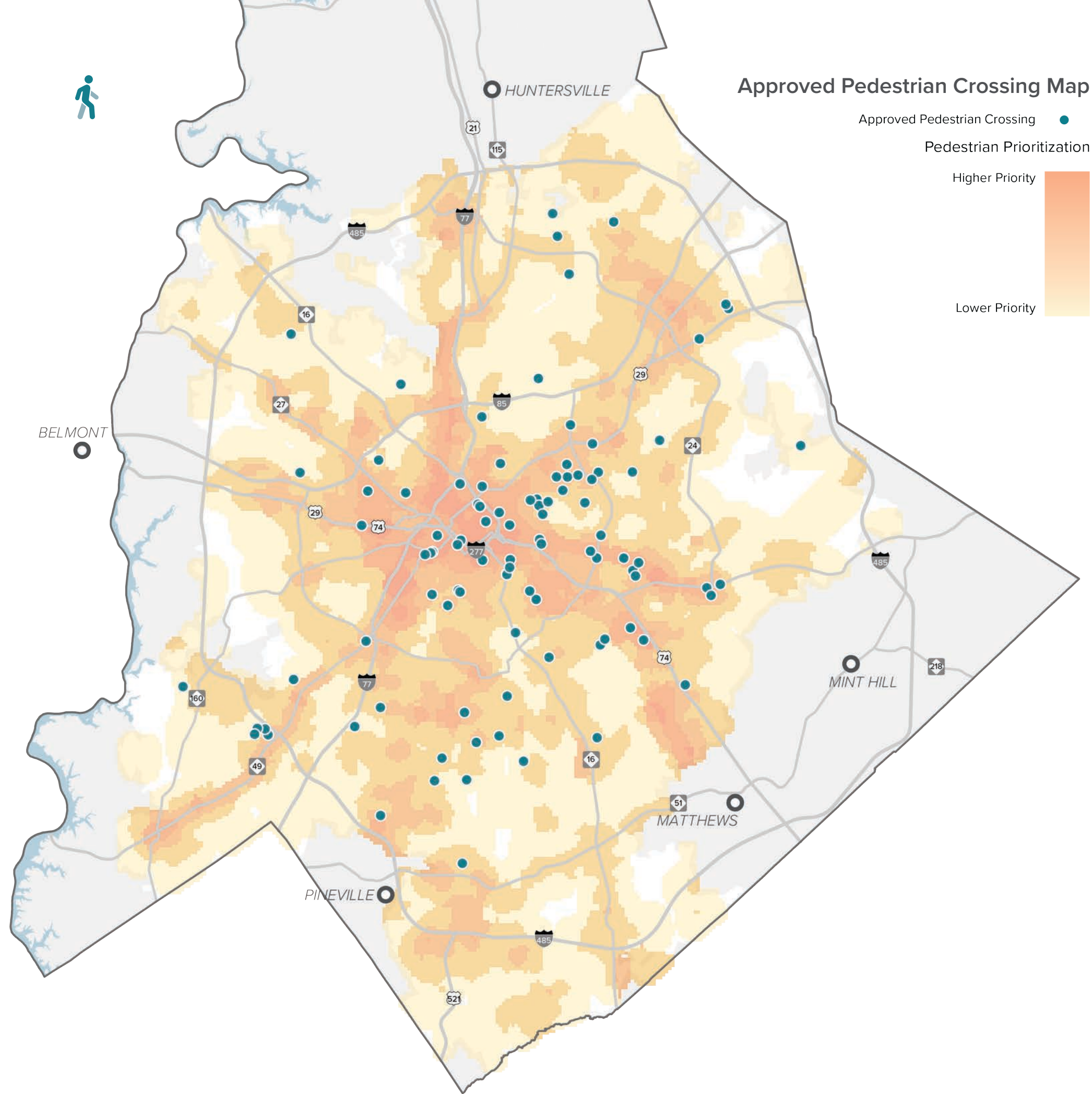
These are physically raised crossings that increase pedestrian visibility while slowing traffic typically located on neighborhood streets as part of a traffic calming strategy.



Crossing Improvements

There are currently 97 planned pedestrian crossings approved for implementation:

- *Funded – Currently in planning, design, or construction (35)*
- *Un-Funded – Identified and awaiting funding (62)*



OPERATION, ACCESSIBILITY, & LIGHTING

The Pedestrian Framework involves more than the physical infrastructure of sidewalks and crossings. The operation, accessibility, and lighting of our streets is an integral part of walkability and pedestrian safety.

The timing and operation of our intersections and traffic signals has historically prioritized the efficient movement of cars over pedestrians. Many of our intersections lack the needed accessibility infrastructure to accommodate pedestrians with visual, auditory, and mobility limitations. And not all streets and roadways are lighted to ensure adequate visibility for pedestrians and drivers.

The priority network will be used to prioritize operational, accessibility, and lighting investments in our street network informed by ongoing monitoring of crash data and the High Injury Network to ensure projects target pedestrian safety and access needs.



South End Safety Pilot *TravelSafely Smartphone App*

The City is launching the TravelSafely Smartphone app pilot in South End as a tool to prevent crashes by pairing police enforcement with community awareness. The app provides real-time audio notifications to inform users when cars nearby are speeding and when emergency vehicles are approaching as well as to warn drivers if they are hitting high speeds near school zones, cycle lanes, or pedestrian crosswalks.

Intersections

Pedestrian Prioritization & Accessibility

The timing and operation of our intersections and traffic signals can be calibrated to better balance the movement and safety of people walking with people driving.

581

Number of Signal Upgrade Projects

Leading Pedestrian Intervals (LPI)

This signal timing strategy gives pedestrians a 3- to 10-second head start before vehicles receive a green signal. This accommodation has been shown to reduce crashes between vehicles and pedestrians by as much as 60% by allowing pedestrians to better establish their presence in the crosswalk before vehicles move.

Additional measures can include extended or exclusive pedestrian walk phases to support pedestrian ease and safety at wide intersections with higher volumes of traffic and pedestrians, and blank out signs (combined with LPIs) that automatically restrict right turns when pedestrians are present to minimize conflicts between turning vehicles and pedestrian crossings.

Accessible Pedestrian Signals (APS)

This additional signal improvement provides pedestrians with an auditory cue that communicates the walk and don't walk intervals at signalized intersections. These auditory cues may be in the form of a chirping or beeping noise or they may be words. APS are a critical safety tool for pedestrians with visual impairment and expand upon the tactile cues already found at intersections to identify the barrier between sidewalk and street.

Street Lighting

Increasing Pedestrian & Vehicular Visibility

New Street Corridor Lighting & LED Upgrades

Some of our street corridors lack existing street lighting. Implementing new street lighting projects prioritized along the High Injury Network street corridors will increase visibility and improve safety. In addition, Duke Energy is converting all new street lighting projects and replacements to LED, providing increased visibility and energy efficiency. Corridors on the High Injury Network could be prioritized for LED upgrades through the City's Vision Zero Program.

Smart Street Lights

Duke Energy is implementing "smart" street light device technology that senses light levels and automatically reports light outages. This upgrade is included in ongoing individual street light replacements. This advancement makes street light outage replacement more efficient to minimize outage time and increase visibility and safety.

Pedestrian-Scaled Lighting

On select streets and in mixed-use centers with a public/private partnership, pedestrian-scaled street lighting can be used to more effectively light sidewalks, pedestrian crossings, and other pedestrian pathways. Pedestrian-scaled lighting is effective in areas with high pedestrian traffic or where a mature tree canopy reduces the ability of streetlights to illuminate pedestrian facilities.

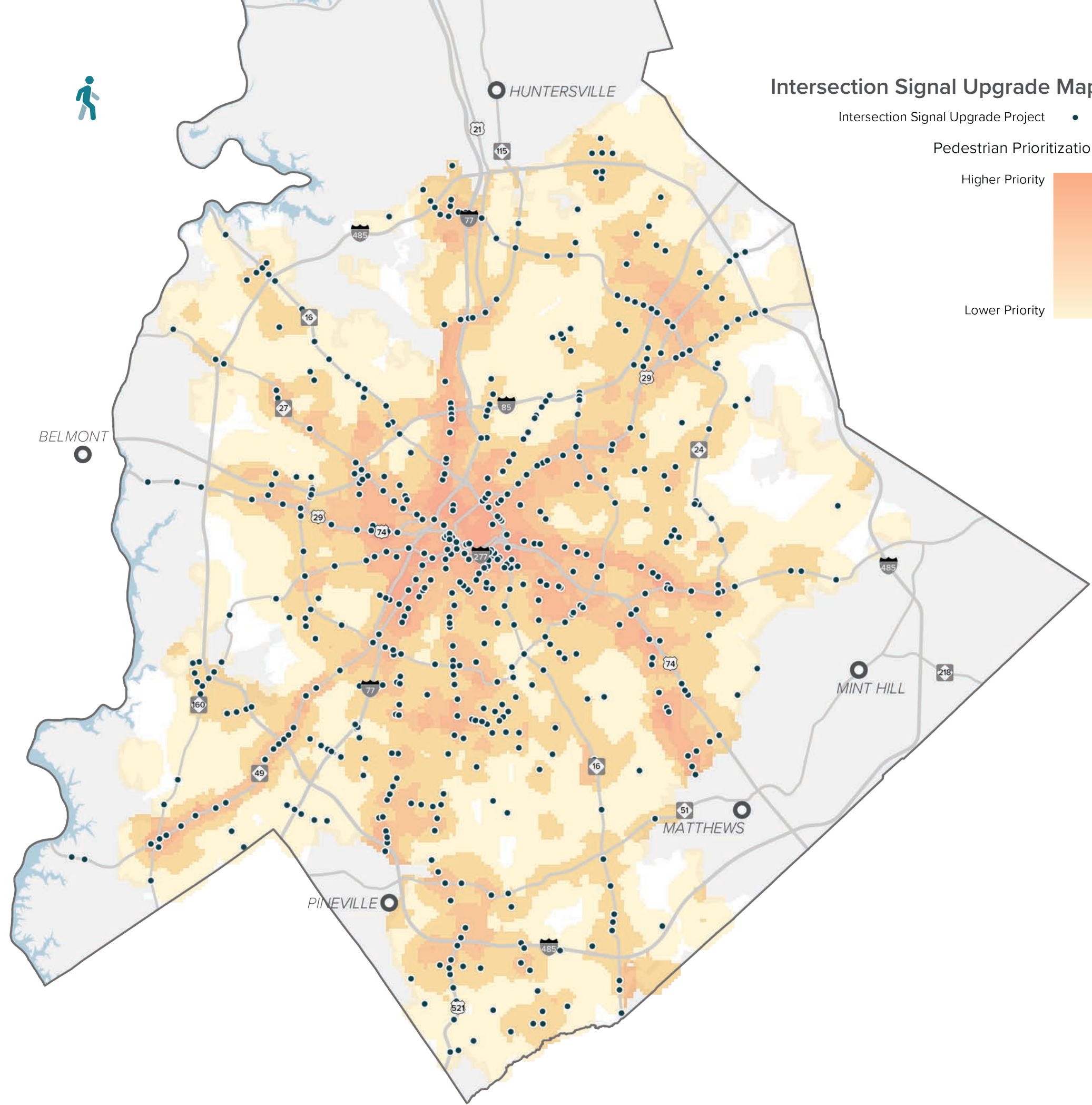
Intersection Signal Upgrade Map

Intersection Signal Upgrade Project •

Pedestrian Prioritization

Higher Priority

Lower Priority





STREET & ROADWAY FRAMEWORK

Completing Our Streets & Roadways

Our streets and roadways are the foundation of our mobility system. We are one of the largest and fastest growing cities in the country, yet our network of streets and roadways is still not complete. While it is imperative that we expand our multimodal options to support our growth, vehicular travel will continue to be a significant part of our mobility strategy.

The Street and Roadway Framework focuses on building out our street and roadway network. This framework includes managing vehicle travel and congestion through new street connectivity, targeted capacity investment, multimodal corridor investment, and overall demand and system management.



Vision

The vision for our street and roadway system is to expand and complete our network while managing our existing infrastructure as efficiently as possible. We are in a period of urban mobility transformation. The evolution of technology to connect and expand how we move people and goods is offering new and unanticipated opportunities to improve how we live and move about our city.

In addition, as street and roadway investment opportunities grow more limited and costly, we will need to be targeted in our priorities and collaborative in our partnerships. The Street and Roadway Framework defines a broad and holistic approach to meet these challenges and shape our actions, partnerships, and investments.

Managing our System

Our ability to leverage technology to manage our traffic operations in real time and with precise data is ever increasing. Our Intelligent Transportation System (ITS) infrastructure and Automated Traffic Signal Performance Measures (ATSPM) allow us to maximize signal efficiency for all users to improve safety and corridor capacity. Our Street and Roadway Framework will capitalize on the emerging technology tools and resources available to maximize the utility of our mobility infrastructure.

Balancing Tradeoffs

Our approach to street design, operation, and right-of-way management will need to evolve to include public space and street design standards that recognize the need to balance the role and function of our streets and navigate the tradeoff decisions necessary to support a range of community goals and mobility options. Our Street and Roadway Framework will shape the prioritization of the use and design of streets based on purpose, context, and safety, while balancing the tradeoffs of mode priority - walk, bike, transit, and car.

Regional Investment & Partnerships

The importance of our role in the region and the pace of our growth requires a mobility strategy that is regional in scale. Key regional mobility investments can only be achieved with regional, state, and federal partners and funding sources. The Street and Roadway Framework will support our regional partners and the exploration of new and innovative funding strategies to address our regional mobility needs.

Mobility Corridors & Growing Centers

Some of our most pressing mobility needs are in our growing corridors and activity centers. The growth and redevelopment of urban and suburban places and centers will offer opportunities to concentrate development to reduce trip length and need while expanding vehicular, bicycle, pedestrian, and transit connectivity and access. The Street and Roadway Framework will center on establishing “mobility playbooks” for our growing corridors and centers that define short and long-term mobility investment.

Reducing Demand

Our strategy for growth and mobility cannot focus only on investing in more supply (roadway capacity). Reducing overall travel demand will be a critical component to achieving our mode share aspiration and managing our existing resources and infrastructure responsibly. Our Street and Roadway Framework will develop and partner on regional and local approaches for travel demand management (TDM) with the goal of reducing vehicle trips.



Transportation Demand Management (TDM)

TDM maximizes the efficient use of various transportation options to better utilize a multimodal network. TDM seeks to understand and respond to how people make their transportation decisions for the purposes of encouraging a mode shift away from the single-occupancy vehicle and towards other options like transit, ridesharing, walking, biking, and even teleworking.



MTP Projects Map

MTP Project —

REGIONAL CONNECTIVITY

Metropolitan Transportation Plan

The Charlotte Regional Transportation Planning Organization (CRTPO) is the Metropolitan Planning Organization (MPO) for the Charlotte Urbanized Area. The CRTPO provides leadership and collaboration with member communities and partners to develop a regional vision for a connected and equitable transportation system that provides mobility choices for the region.

Comprehensive Transportation Plan (CTP)

Envision | 50 Years

The CTP envisions the region's multimodal transportation vision over a 50-year horizon looking at roadways, transit, bicycle, and pedestrian needs unconstrained by funding limitations.

Metropolitan Transportation Plan (MTP)

Prioritize | 20 Years

The MTP prioritizes the region's multimodal transportation vision over a 20-year horizon, specifically identifying and prioritizing project funding, and establishing metrics to measure progress.

Centralina Region

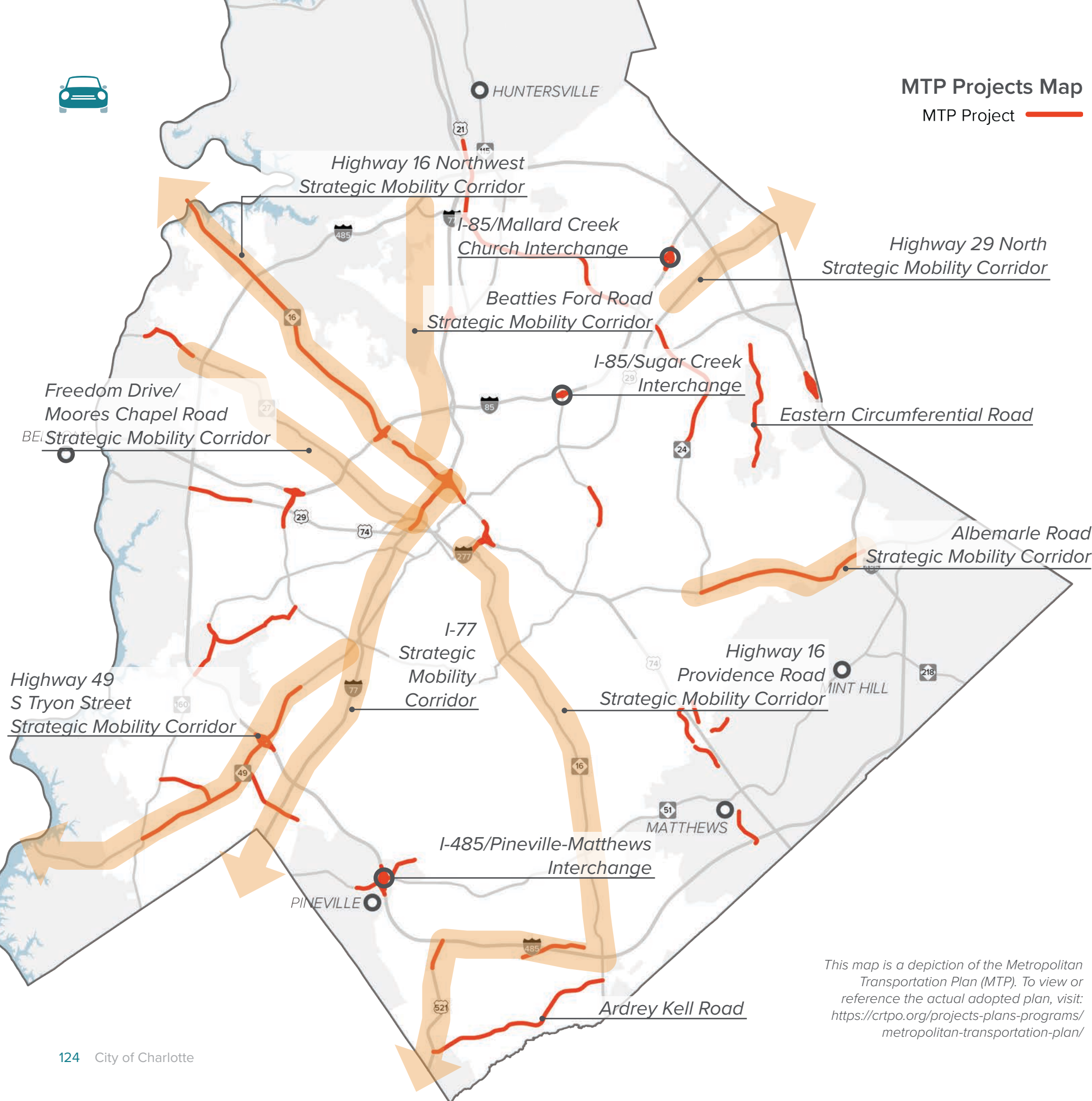
The Centralina Regional Council is a regional organization that supports local governments and partners in shaping strategic regional and local initiatives over a nine-county region covering the greater Charlotte area. By 2050, this region is projected to almost double in population, adding roughly 1.8 million residents and 860,000 jobs.

CONNECT Beyond – Regional Mobility Plan

The Centralina Region's vision for mobility is established in CONNECT Beyond, the first regional effort to create a single, coordinated transit system that includes multiple transit modes.

CONNECT Beyond - Strategic Mobility Corridors

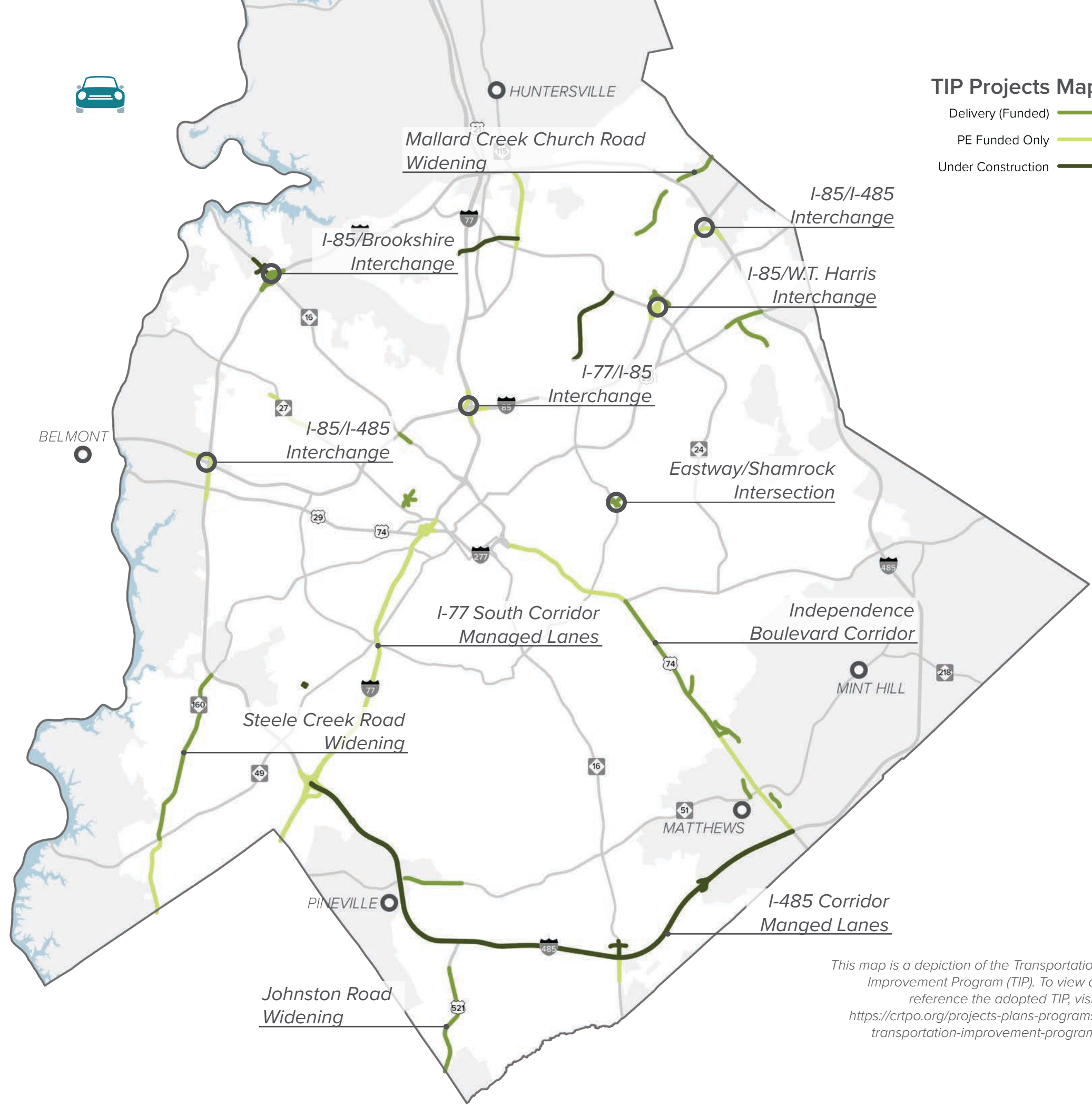
CONNECT Beyond defined Strategic Mobility Corridors throughout the region that are ready for the next steps in high-capacity transit investment. These are corridors with potential for high-capacity transit and would provide the greatest mobility benefit. The corridors are transit mode agnostic and more detailed study will be needed to identify the transit mode/technology that best suits each corridor.





TIP Projects Map

- Delivery (Funded)
- PE Funded Only
- Under Construction



Transportation Improvement Program (TIP)

10-Year Horizon
The Transportation Improvement Program (TIP) develops and identifies the region’s specific transportation projects to undertake over a 10-year horizon, allocating available transportation funding among projects prioritized based on an established set of short-term goals.

State Transportation Funding
Our Current Challenge
The current state-wide revenue shortfall for transportation projects with committed funding in the current 2020-2029 State Transportation Improvement Program (STIP) will delay the implementation of funded projects and require the re-prioritization of planned projects in our regional TIP. Regardless of funding timeframe, these projects continue to represent our regional mobility priorities for multimodal investment.

NCDOT Partnership
The City partners with NCDOT to implement and fund key projects that support both regional and city-level mobility goals. This strategy is a valuable way to leverage the City’s capital investment with state funding to achieve mutual interests.

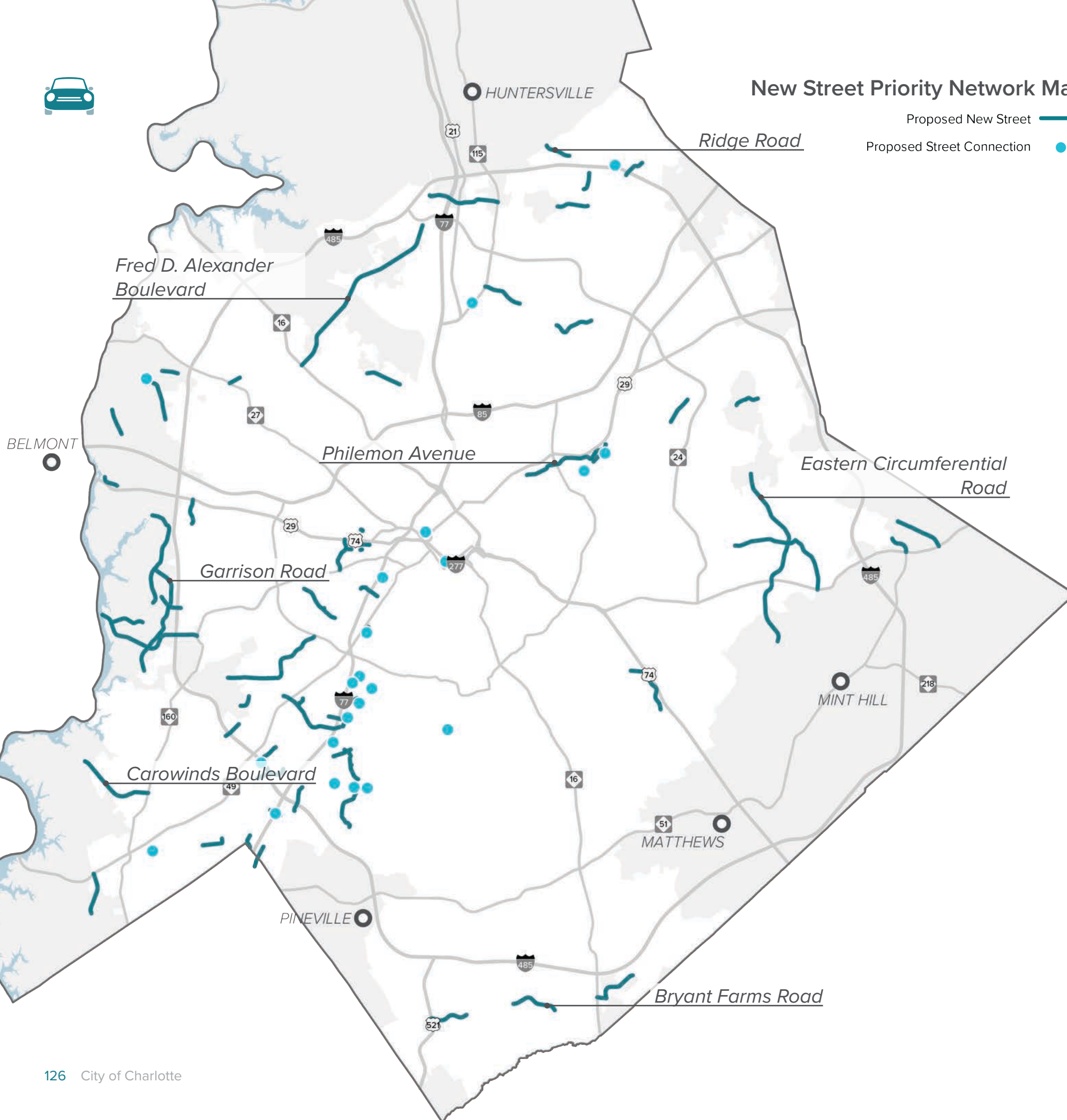
Example | Eastway Drive/Shamrock Drive Intersection
This intersection project is being funded in partnership with NCDOT and CRTPO to redesign the intersection to improve safety (High Injury Network) for drivers, pedestrians, and bicyclists.

This map is a depiction of the Transportation Improvement Program (TIP). To view or reference the adopted TIP, visit: <https://crtpo.org/projects-plans-programs/transportation-improvement-program/>



New Street Priority Network Map

Proposed New Street —
Proposed Street Connection ●



STREET PRIORITY NETWORK

New Streets

New Street Priority Network

Charlotte's street network is continuing to expand. In our growing suburban areas, new streets lay the framework for neighborhoods and centers providing needed access and connectivity. In our redeveloping urban areas, new streets connect and weave development into the surrounding urban fabric. Along and across our freeways, new streets and bridges repair severed connectivity and reconnect neighborhoods and districts.

The New Street Priority Network represents important additions to our arterial and collector street network, adding multimodal street capacity and increasing city-wide connectivity and access.

How Do We Get There?

State Partnerships

Key streets on this network that provide regional connectivity are included in our regional Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) setting up long-term opportunity for State transportation funding.

Capital Investment

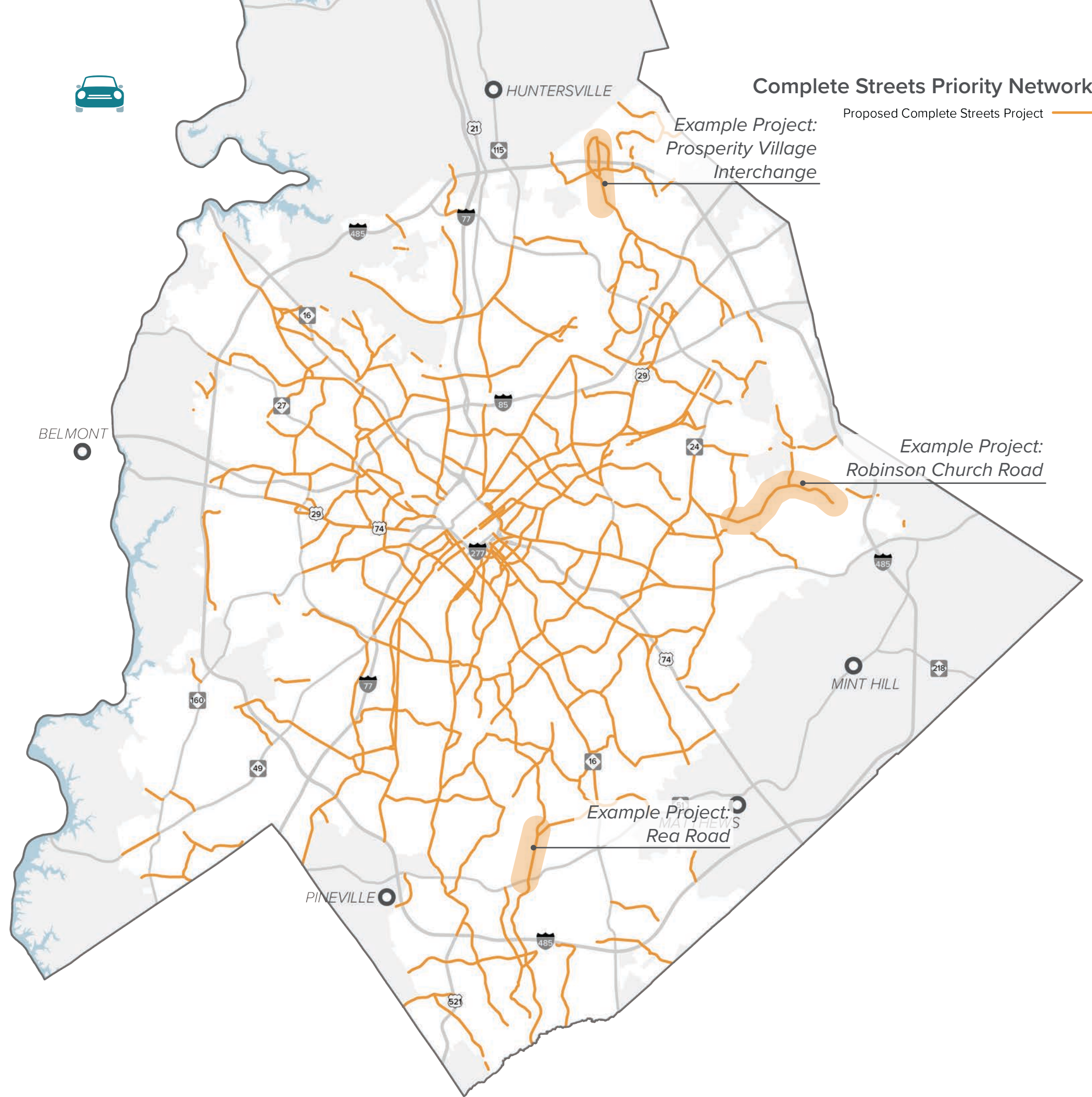
Critical city-wide connections on this network can be funded with the Capital Investment Plan (CIP) and built by the City as a public project.

Public/Private Partnerships

In some cases, new public street connectivity can be built by private development through public/private partnership reimbursement agreements using Capital Investment Plan (CIP) and Tax Increment Grant (TIG) funding.

Protecting Future Corridors

The protection of corridor right-of-way is an important tool to ensure the long-term ability to implement future streets. The streets from the New Street Priority Network are included on the Comprehensive Transportation Plan (CTP) and the Charlotte Streets Map to protect corridors through the land development process.



Complete Streets

Evolution of Our Complete Streets Approach

Charlotte’s complete streets approach and policies have evolved significantly over the past 20 years. Charlotte’s first comprehensive complete streets policies were adopted in the early 2000s with the Transportation Action Plan (TAP) and the Urban Street Design Guidelines (USDG). Most recently, the adoption of the Charlotte WALKS and Charlotte BIKES plans focused new policies and priority investment in bicycle and pedestrian infrastructure.

Complete Streets Priority Network

Our existing street network is still evolving and many of our streets and corridors do not offer a “complete” set of mobility choices. Some were built in a time focused almost exclusively on accommodating the car. Others are still simply two-lane “farm to market” roads from Charlotte’s early rural development pattern which have yet to be widened for growth and improved with sidewalk and bicycle facilities.

Charlotte is committed to creating complete streets for safe and equitable mobility throughout the city. Complete streets include facilities for all users including bicycle, pedestrian, and transit. The Complete Street Priority Network represents the streets and corridors with the greatest need and deficiencies from which investment will be identified and prioritized.

How Do We Get There?

Charlotte Streets Map (Streets Map)

Defines the expected future multimodal cross-section for the arterial street network to ensure that streets will be improved over time through private development and investment.

Capital Investment

Complete street projects and needs will continue to be identified and prioritized for design, feasibility and advance planning, and considered for future capital investment.

Charlotte Street Design Guide

We will develop a new comprehensive Street Design Guide that will allow us to respond to changing needs, ensure that tradeoff decisions are considered, and implement the latest thinking in multimodal street design.



STREETS AS PLACES

Managing the Right-of-Way & Placemaking

Our streets and rights-of-way represent our most abundant public space. Our strategy for key streets in our activity centers and neighborhoods is focused on managing our rights-of-way to support economic vibrancy and access while balancing the needs and quality of life of surrounding neighborhoods.

Curb Lane Management & Parking

Curb lanes are a valuable and quickly evolving resource within the public right-of-way. The demand for curb space has grown to include delivery, food trucks, outdoor dining, rideshare, car-share, on-demand delivery, and a wide variety of micromobility uses.

Park It Program Update

The City's on-street parking program, Park It, manages metered spaces in Uptown and several other districts with the objective to provide equitable on-street parking access to shop, dine, attend sporting and entertainment events, conduct business, and live in an urban environment.

An update to our current on-street parking and curb lane management program will include a comprehensive approach incorporating new technology to manage parking and access more dynamically for the wide range of necessary but competing demands on our curb space. In addition, new approaches to managing on-street parking in neighborhoods and surrounding districts and transit stations will be explored.





Main Streets

Our main streets serve as centers of civic, social, and commercial activity, and are designed to prioritize the highest level of pedestrian comfort and support mixed-use activity. Main streets are low speed two-lane streets with on-street parking, and wide sidewalks for pedestrians and outdoor street activity.

The Charlotte Streets Map identifies and maps our existing main streets and defines the intended design and cross-section with additional development standards to support street activity specified in the Unified Development Ordinance (UDO). Through future community area and activity center planning, new main streets will be identified to support emerging mixed-use centers and districts.

Placemaking

Our streets are great places for community activity and can be a valuable tool for supporting the social life of our city. We will continue to collaborate with other City departments and community partners to support placemaking and street activation opportunities on our streets and in our activity centers.

Placemaking Hub

The City's Placemaking Hub is a one-stop-shop for public realm enhancement tools, from sidewalk dining, to bicycle parking, to street activation, and signal cabinet wraps. It consolidates the tools available across City departments to provide communities and neighborhoods with direct access to the specific processes, procedures, and permitting necessary to enhance their streets and public spaces with a range of public realm tools to enhance places that matter to residents.

Parklets Pilot Program

The City launched a successful Parklets pilot program which has become a permanent fixture in the Placemaking Hub. Parklets are small public spaces serving as an extension of the sidewalk over an on-street parking space. Parklets offer a way to reclaim a small amount of public space to contribute to an active, accessible, and vibrant urban environment. Parklets may provide amenities like bicycle parking, green space, or places to stop, sit, and rest while enjoying the activity of the street.

Open Streets 704

Open Streets 704 is an event that temporarily closes streets to vehicle traffic and opens them up for residents to reimagine our streets as places for exploration and fun. The event aims to build a better, healthier, more connected community by encouraging area residents to walk, scoot, bike, and experience the city together in a way that's just not possible in a car. Supported by the Knight Foundation, Mecklenburg County, Partners for Parks, and the City of Charlotte, the event gives residents "a day of car(e) free streets."





MOBILITY IMPROVEMENT CORRIDORS & CENTERS

Mobility Improvement

Our mobility needs will continue to evolve and increase and many opportunities for mobility improvement exist beyond our currently identified plans and projects. These mobility improvement opportunities will need to be identified and evaluated to define and prioritize potential projects. Our mobility improvement strategy will be focused on growing corridors and centers to establish comprehensive multimodal playbooks for mobility investment.

Mobility Improvement Playbooks

Mobility Improvement Playbooks will define short, medium, and long-term investment and project recommendations to improve safety, mobility, and connectivity for identified corridor and centers. The playbooks will prepare us to prioritize short and long-term projects for advance planning and design, and potential future CIP funding.

The corridors and centers for study will be prioritized based on land use context, emerging growth and development activity, geographic equity, historical investment, and safety (high injury network).

The scope of the playbooks will include a comprehensive mobility review and analysis to shape a multimodal strategy and package of investments focusing on the items to the right and on the adjacent page.

Corridor Growth & Development

The land use and development of a corridor is a significant determinant to the type and behavior of traffic patterns and travel mode (bike, walk, transit). Long term growth and land use change should be quantified and evaluated to understand trip generation and cumulative outcomes and suggest the right mix, intensity, and design of development along a corridor to manage traffic, support transit, encourage bicycling, and promote walkability.

Transit & Bus Priority

Many of the potential corridors are part of the Bus Priority Network and are envisioned to include short and long-term investments to our street network to support more frequent and efficient bus service, and bus stop and mobility hub improvements for rider experience. The planning, design, and implementation of bus priority investment should be balanced with long-term corridor land use, mode priority, and operational considerations.

Safety

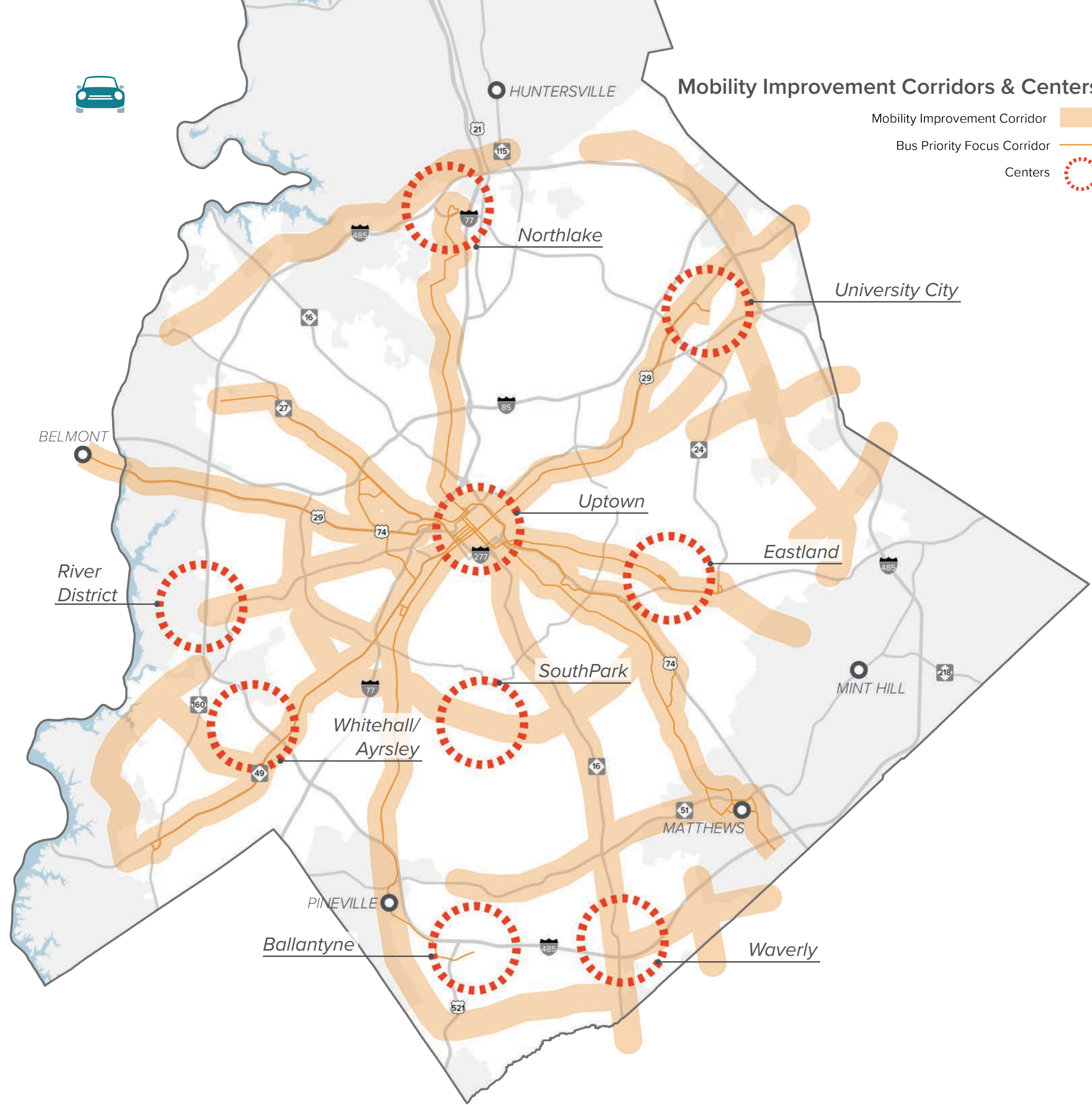
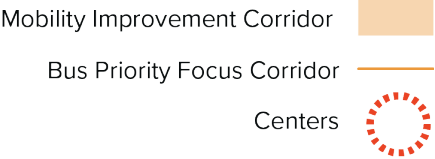
Safety is our first priority. Safety improvements should be identified using crash data and the identified HIN locations. Projects could include neighborhood traffic calming efforts, spot safety treatments, pedestrian crossings, or signal technology solutions such as Accessible Pedestrian Signal push buttons, flashing beacons, and Leading Pedestrian Intervals.

Mode Priority and Tradeoffs

Successfully balancing tradeoffs to support greater transportation equity will be a defining challenge for our mobility investment. As Charlotte grows and mobility needs increase, our available roadway space becomes more constrained and the tradeoffs necessary to support transportation equity interests (mode vs. mode) are more challenging. Each corridor and center should be evaluated and tested against potential car, bicycle, bus, and pedestrian priorities to determine the appropriate mode strategy.



Mobility Improvement Corridors & Centers



Connectivity

New street connections, access and parallel connectivity can be an important part of a mobility strategy. Opportunities for new street connectivity should be anticipated by identifying redevelopment potential and evaluating the feasibility of new connections. Identified projects may occur with development (or in partnership) and through public investment.

Access Management & Driveway Design

Corridor access management can improve safety and operational efficiency by removing unnecessary conflicts between all users of the street. Increased mobility and access are achieved by providing cross-access between development, minimizing and consolidating driveways, and planning for overall corridor access and turning movements.

Congestion Mitigation & Vehicular Capacity

Charlotte's growing population (local and regional) puts added stress on our transportation network and corridors in the form of traffic congestion and delay. The identification of congestion mitigation and vehicular capacity projects is intended to improve traffic flow in targeted areas through small-scale, quick infrastructure projects. Projects could include adding turn lanes at intersections, extending existing lanes, or making new road connections to enhance the street grid.

Intersections

The high congested intersections along corridors and in centers are locations for potential expansion or redesign. Project identification and evaluation should consider feasibility, cost/benefit, and impacts to bicycle, transit, and pedestrian travel and comfort.

Traffic Operations

Each corridor and center has a unique traffic pattern and characteristic including varying intersection delay and mix of local and regional trips. Our Intelligent Transportation System (ITS) infrastructure (fiber-optic connected real-time traffic management cameras) coupled with Automated Traffic Signal Performance Measures (ATSPM) to analyze complex operational data can be used to identify signal efficiency for all users to improve safety and maximize system capacity.

Comprehensive Transportation Review Guidelines (CTR)

The CTR Guidelines will identify the impact and appropriate mobility and transportation mitigation for land development projects. The CTR process will provide a valuable tool for tracking development growth and identifying multimodal investment projects in growing corridors and centers.

6

OUR ROLES AND ACTIONS



Our Roles and Actions define how to measure and account for progress toward our objectives.



REACHING OUR GOALS

Reaching our goals requires strategic and coordinated action.

These actions range from creating or updating programs, implementing regulatory changes, establishing new partnerships, improving processes, investing in capital projects, and more. The list of actions is not comprehensive. It is essential that the City and our partners use this plan as a foundation to continue to update policies and target new investment that will help us create a safe and equitable mobility network.

The SMP is also a complex, living document, and some actions in the plan may take years to progress from plan to implementation. CDOT as a department will lead implementation of many of the SMP actions and will need to adapt new processes and policies to ensure that our day-to-day activities contribute to the implementation of this plan.

The SMP not only creates a new policy framework and investment strategy for our mobility network, but also sets the foundation and direction of mobility planning, policymaking, and capital investment in the decades to come.

Our Roles

Charlotte Department of Transportation

The mission, role, and operation of the City's Department of Transportation in providing safe and equitable mobility.

Collaboration

Mobility Partnerships

The City's local, regional, state, and federal partners in planning, designing, and investing in mobility.

Supporting Plans

Taking the Next Step

The critical supporting plans and actions of partners in shaping land use, growth, and mobility policy.

Action Plan

A Guide for Implementation

The consolidated guide for implementation that defines partnerships and measurable actions.

OUR ROLES *Charlotte Department of Transportation*

CDOT’s mission is to provide safe and equitable mobility through the maintenance, operation, management, planning, and design of our public right-of-way.

Maintaining Our Mobility Assets

Ensures our mobility infrastructure is safe and sustainable. Areas of focus include:

- **Street Resurfacing** — Repaving streets and repairing curbs and drainage structures to maintain the sustainable pavement condition of our overall street system.
- **Street Repair** — Repairing potholes, cracking, and rutting as well as preparing streets for resurfacing.
- **Sidewalk Repair** — Inspecting and repairing unsafe conditions of our sidewalk system.
- **Utility Cut Repair** — Ensuring streets are properly restored once utility company repairs are complete.
- **Storm Drainage Maintenance** — Cleaning and maintaining storm drain catch basins, roadway ditches, and curb and gutters to prevent street degradation.
- **Minor Street Construction** — Constructing and grading shoulders, widening strips, and removing debris or obstructions from the right-of-way.
- **Emergency Response** — Providing critical services in emergencies, responding to weather events and unscheduled maintenance needs.

Operating Our Mobility System

Promotes safe and efficient movement of all modes. Areas of focus include:

- **Customer Service** — Working with residents to investigate and address operation issues, including parking, traffic calming, right-of-way obstructions, and signal operations.
- **Safety** — Implementing our Vision Zero initiative by targeting design, enforcement, and educational strategies to ensure the safe use of our streets.
- **Traffic Signals** — Maintaining, upgrading, installing, and operating our system of over 740 signalized intersections.
- **Traffic Operations** — Real-time monitoring and management of our overall traffic operations, including signal timing adjustments and coordination.
- **Street Lighting** — Installing and supporting street lighting on our thoroughfares and neighborhood streets.
- **Signs and Pavement Markings** — Maintaining, fabricating, and installing signs and pavement markings.
- **Accessibility** — Improving our system so that it is accessible for all users and compliant with the Americans with Disability Act.



Traffic Management Center

CDOT’s Traffic Management Center (TMC), co-located with CMPD at Police Headquarters, allows staff to remotely monitor traffic conditions using hundreds of cameras throughout the city. The TMC is staffed during weekday morning and afternoon rush hour (6:30-9:30 AM and 3:30-7:00 PM) and special events, such as concerts and large sporting events, where changes to signal timing may be beneficial to traffic flow. This real-time communication using Intelligent Transportation System (ITS) infrastructure allows TMC staff to send incident alerts to inform the media and other stakeholders of live conditions that may disrupt traffic.

Managing Our Public Right-of-Way

Applies good stewardship of our right-of-way. Areas of focus include:

- **Land Development Review** — Reviewing and monitoring development activity to identify, evaluate, and manage the transportation impacts of growth and development.
- **Right-of-Way Use** — Facilitating the planning, coordination, approval, and permitting of work and construction within the right-of-way.
- **Special Events** — Supporting activities that contribute to a vibrant city through the review, approval, and coordination of parades, protests, and special events.
- **On-Street Parking and Curb Lane Management** — Providing shared use of our curb lanes to support thriving business districts and neighborhoods by managing on-street parking, services, and deliveries.
- **Emerging Micromobility Solutions** — Supporting and managing the operation of shared micromobility services, including bicycles, e-scooters, and other emerging mobility solutions.

Designing Our Mobility Strategy

Promotes safe and efficient movement of all modes. Areas of focus include:

- **Regional Planning** — Supporting the planning and evaluation of regional transportation investment (through the CRTPO), utilizing the regional travel forecasting model to plan and evaluate future investment.
- **Strategic Mobility** — Engaging the community to develop plans, policies, and projects to advance the City’s strategic mobility goals.
- **Infrastructure Design and Planning** — Leading the multimodal planning and design of transportation capital investment projects to accommodate growth and expand mobility choice.
- **Infrastructure Implementation** — Supporting the programming and implementation of capital investment programs in Sidewalks and Pedestrian Safety, Vision Zero, and Bicycle Mobility.

COLLABORATION *Mobility Partnerships*

The Charlotte Strategic Mobility Plan (SMP) sets the long-range vision for Charlotte’s mobility network. As Charlotte continues to grow, the SMP will be used to guide investment in transit, bicycle, pedestrian, and street infrastructure, and set a policy framework that guides daily decisions to shape our mobility network into a safer and more equitable future. While CDOT will lead the implementation of many of our strategies, actions, and mobility investments, we will depend on strong collaboration with other City departments and with our public partners. These relationships will help create more effective policies, programs, and projects. Some of our key partners include:

City of Charlotte Departments

Charlotte Area Transit System (CATS)

Leads the planning and implementation of the region’s transit system with the collaboration and support of Charlotte and the towns and cities of Mecklenburg County. Transit is integral to our equitable mobility goals, providing an affordable option that completes a true multimodal network, and CDOT works closely with CATS to support the creation of a transit-oriented city.

Planning, Design & Development (PPD)

Performs long-range and strategic planning alongside CDOT’s Strategic Mobility Division and will continue to be a key partner in developing and implementing plans that fully integrate mobility planning and land use planning. The department also serves as a key partner in Land Development review to ensure that our policies are being implemented through new development and redevelopment.

Economic Development

Shapes places and provides resources to empower Charlotte’s residents and businesses to thrive. This work is accomplished through the lens of Equitable Economic Development using our uncommon perspective of and service to Charlotte’s increasingly diverse residents, built environment, and industry sectors.

Housing & Neighborhood Services

Focuses on creating vibrant, diverse neighborhoods through community engagement, code enforcement, housing services, and customer service. The department also creates welcoming communities through immigrant integration efforts and furthers equity and mobility opportunities for residents and employees.

Office of Sustainability

Helps to lead Charlotte in environmental sustainability and recognizes that protecting our natural resources, promoting conservation, and improving the environment is fundamentally important to our quality of life and essential to maintaining a vibrant economy.

Office of Equity, Mobility & Immigrant Integration (EMII)

EMII was created to help address systemic and community barriers that limit opportunities for Charlotte's vulnerable communities by focusing on diversity, equity, inclusion, economic mobility, and immigrant integration.

Charlotte-Mecklenburg Storm Water Services

Created as a joint City of Charlotte/Mecklenburg County storm water utility that serves as a key partner in helping manage drainage within our mobility network.

General Services

Handles design and construction of City infrastructure projects, including our mobility projects, and regulates development, cares for the tree canopy and landscaping, and manages real estate and facilities portfolios.

Aviation

Operates Charlotte Douglas International Airport (CLT), which is a key economic driver for the Charlotte metro area.

Charlotte Fire Department & Charlotte-Mecklenburg Police Department (CMPD)

Help keep our communities safe, and CDOT partners with both departments to ensure that emergency vehicles are prioritized within the right-of-way.

Public Partners

Charlotte Neighborhood Organizations & Coalitions

Represents the diverse range of neighborhood leaders and organizations across the city that promote and sustain the character and quality of life of Charlotte’s neighborhoods and districts.

Charlotte Advocacy Organizations

These organizations represent various interests across Charlotte and partner with the City to support and advocate for change on issues such as smart growth, sustainability, equity, climate change, and mobility.

The Charlotte Regional Transportation Planning Organization (CRTPO)

CRTPO is the federally designated Metropolitan Planning Organization (MPO) for the Charlotte Urbanized Area and is housed within the Planning, Design and Development (PPD) department. The organization primarily develops regional transportation plans and programs for the urbanized area.

North Carolina Department of Transportation (NCDOT)

NCDOT is a multimodal state agency committed to supporting travelers throughout the state and builds and maintains the freeways and interstates that serve the Charlotte metro area as well as many of the larger arterial streets.

Mecklenburg County Park & Recreation

Manages 230 parks and facilities located on more than 21,000 acres of parkland throughout Mecklenburg County. The department builds and maintains greenway trails, which are a key part of our city’s mobility network.

Charlotte Center City Partners (CCCP)

CCCP is a nonprofit organization that focuses on facilitating and promoting the economic, cultural, and residential development of Charlotte’s urban core. The organization serves as a key partner with the City to help plan and implement projects and plans for Uptown.

University City Partners (UCP)

UCP is a nonprofit organization that envisions and implements strategies and actions that drive University City’s long-term vision of being a center for employment, living, education, commerce, and entertainment.

SouthPark Community Partners

SouthPark Community Partners is a nonprofit organization that aims to strengthen SouthPark’s ability to attract and retain employment opportunities and generate new property and retail sales tax revenue for the City by implementing projects that enhance the area’s locational advantages for both employment and residential living.

Centralina Regional Council

The Centralina Regional Council was established in 1968 and was created to serve the nine-county region of Anson, Cabarrus, Gaston, Lincoln, Iredell, Mecklenburg, Rowan, Stanly, and Union. The regional framework offers a neutral platform where local governments from all nine counties can come together and shape area-wide planning.





The State of Mobility

Setting the Stage

Our State of Mobility is a snapshot of our current transportation and mobility reality.

The “State of Mobility Report” is a foundational assessment of the physical conditions and socio-demographic trends that affect how Charlotte moves, documenting our successes and taking stock of our weaknesses. It is not a full accounting of our infrastructure or all information relevant to Charlotte’s mobility. It is simply intended to set the stage for defining and shaping a new mobility future.

Chapter 2 of the SMP contains meaningful highlights from the State of Mobility Report. To view the entire report, scan the QR code or visit the link below:

<https://charlottenc.gov/Transportation/Charlotte-smp/Documents/Charlotte-State-of-Mobility-2022-Update-Pages.pdf>



SUPPORTING PLANS *Taking the Next Step*

The Strategic Mobility Plan (SMP) builds off of and aligns with several other long-range plans for both the City of Charlotte and the surrounding region. Some of the key plans include:

Key Plans

Charlotte Future 2040 Comprehensive Plan

This plan is the foundational long-range plan guiding the development and investment made in our city over the next two decades. The SMP furthers and is organized around Goal 5 of the 2040 Plan, Safe and Equitable Mobility. The policies included within this framework continue and advance existing policies while updating and defining new policies to support the Charlotte Future 2040 Comprehensive Plan.

Strategic Energy Action Plan

The SEAP sets the framework for delivering a 100% zero-carbon city fleet by 2030, and for becoming a low carbon city by 2050 through significant reduction in greenhouse gas emissions. The internal and external actions are focused on transportation, buildings, energy generation, and workforce development and equity.

CONNECT Beyond Regional Mobility Initiative

This Initiative is a regional mobility plan that sets the vision for connecting rural, suburban, and urban communities for the 12 counties within the greater Charlotte metro area. The plan is the first regional effort to create a single, coordinated transit system that includes multiple transit modes. This mobility initiative envisions how individuals will move from place to place across the region to get to work, school, and daily needs and services by public transportation.

Center City 2040 Vision Plan

This plan is a comprehensive and strategic plan providing a unifying vision for Center City growth and development in Charlotte. The plan builds on and complements previous planning efforts for Center City and provides innovative and transformative strategies and recommendations.

Meck Playbook: Mecklenburg County Park & Recreation 2020 Master Plan

Establishes achievable ways for the County to respond to future recreation trends, adapt to the needs of an evolving community, and align maintenance investment with capital spending. The Playbook includes plans for future greenway trails and urban trails, which are both key in the city’s multimodal network.

2030 Transit Corridor System Plan

This plan was adopted by the Metropolitan Transit Commission (MTC) and represents the City’s long-range vision for rapid transit. The foundation of this vision is a system of five high-capacity rapid transit corridors that include light rail, commuter rail, bus rapid transit (BRT), and streetcar, planned and tailored to our regional travel needs and each unique corridor.

Envision My Ride: Bus Priority Study

This planning initiative focuses on increasing the reliability of the current bus system and lays the groundwork for a major infrastructure investment program for Charlotte’s bus system. It recommends specific bus treatments and high frequency service along high priority corridors and will also be used to pursue federal funding for capital investment in stations, corridors, and new service types.

ACTION PLAN

A Guide for Implementation

The action tables on the following pages highlight all of the measurable actions from Chapter 4: Our Policy, and provides a consolidated guide for implementation of the SMP.



Vision Zero Task Force

The Vision Zero Task Force, chaired by CDOT, has more than 60 members, with representatives from public health, transportation, police, fire, medic, policy makers, and community advocates. The Task Force holds quarterly working meetings to provide feedback and input on the implementation of the City's Vision Zero Action Plan and its strategies.



Safe Action Table

1 Create Safe Streets for all Users

1.1 Design for Safety

Action Item	Description
1.11 Street and Pedestrian Lighting	Implement and prioritize new street lighting for the safety of all users; support Duke Energy in the LED conversion of existing street lighting; and ensure that streetlights are located in places that effectively light sidewalks, pathways, and pedestrian crossings.
1.12 Intersections and Traffic Signals	Identify, prioritize, and improve pedestrian safety at intersections and traffic signals, including Leading Pedestrian Intervals (LPI) and LPI Plus treatments, exclusive pedestrian phase, raised intersections, etc.
1.13 Intersection Design	Design intersections to prioritize pedestrians and bicyclists by minimizing crossings distances, maximizing visibility between vulnerable users and motorists, and incorporating geometric design and traffic signal technology that slows vehicular traffic and manages conflict points between vulnerable users and motorists.
1.14 Traffic Calming	Expand our traffic calming toolbox and implement neighborhood traffic calming to help minimize speeding and prioritize traffic calming needs based on the High Injury Network.
1.15 Street Design Guide	Incorporate design guidance on safety for all street users.
1.16 Transit Stops	Coordinate with CATS to prioritize safety and enhance the public realm around rapid transit stops and bus stops.

1.2 Plan for Safety

Action Item	Description
1.21 Vision Zero Action Plan	Maintain and regularly update the Vision Zero Action Plan to identify and prioritize Vision Zero investment, updating programs, activities, and the High Injury Network.
1.22 Speed Mitigation	Conduct speed surveys on High Injury Network streets and evaluate reducing speed limits for arterials and collectors where appropriate. Evaluate reducing speed limits on local streets where traffic calming need is identified and on the Bicycle Priority Network.
1.23 Signal Timing	Ensure that signal timing and progression along arterial corridors reflects speed limits/target speeds.
1.24 Equity	Identify, measure, and evaluate areas of our community that may be experiencing higher rates of crashes resulting in serious injury or fatality. Explore older adult mobility and safety issues identified in Sustain Charlotte’s Senior Mobility Report.
1.25 State and Regional Partnerships	Work with the Charlotte Regional Transportation Planning Organization (CRTPO), NCDOT, and other regional partners to ensure that state and regional transportation funding is used to implement projects that support Vision Zero.



Safe Action Table

2 Shape a Community Culture of Safety					
2.1 Support Education & Outreach		2.2 Analyze the Data		2.3 Shape Policy & Legislation	
Action Item	Description	Action Item	Description	Action Item	Description
2.11 Education	Support education campaigns, programs, and partnerships, including participating in Watch for Me NC and town halls, implementing a community ambassador program, and developing a Vision Zero curriculum for safety events.	2.21 Before and After Studies	Complete before and after studies for transportation safety projects and HIN enforcement areas to assess the effectiveness of infrastructure improvements and enforcement efforts.	2.31 School Zone Policy	Coordinate with CMS and Mecklenburg County to identify and pursue collaborative projects that improve pedestrian and bicycle access to schools, including conducting a School Safety Study, updating School Zone Policy, and developing a Safe Routes to School District Policy.
2.12 Enforcement	Seek enforcement partnerships, strategies, and tools, including conducting enforcement events on the High Injury Network (HIN), tracking citations specific to speeding, and reporting Vision Zero statistics at CMPD division safety meetings and quarterly staff meetings.	2.22 Annual Vision Zero Progress Report	Publish an annual progress report to track and report the results of safety improvement programs and projects. Include data from the updated HIN and before and after studies.	2.32 CATS Bus Stop Policy	Coordinate with CATS to incorporate safety reviews in the design and location of bus stops.
2.13 Placemaking	Collaborate across departments to expand the Placemaking Hub toolbox to promote traffic safety and consider piloting a grant program to fund neighborhood traffic calming placemaking initiatives.	2.23 Crash Investigations	Conduct fatal crash investigations by CMPD and CDOT Traffic Safety, begin serious injury crash investigations for bicyclists and pedestrians, and provide quality assurance reviews of crash coding.	2.33 City Fleet Policy	Coordinate across departments to upgrade safety features on City fleet vehicles, including automatic vehicle locators (AVL), underguard protection on large vehicles, and back up cameras.
2.14 Vision Zero Task Force	Chair the Vision Zero Task Force to receive feedback and input on the implementation of the City's Vision Zero Action Plan.	2.24 Data Collection	Expand data collection, including updating the HIN annually, conducting interviews for unsafe location identification with stakeholder groups, and implementing a Pedestrian and Bicycle Crash Assessment Tool.	2.34 State Traffic Safety and Speeding Policy	Advocate for traffic safety policies by monitoring state legislation and researching national policies and best practices regarding speeding and traffic violations that contribute to crashes and emerging technology impacting safety, such as autonomous vehicles and legislation that unfairly burdens vulnerable users.
2.15 Safety Training	Conduct crash report trainings for CMPD Recruit Classes and develop training on importance of data for all CMPD patrol officers. Identify other educational partners and opportunities (e.g., CMS, CATS).	2.25 Share the Data	Maintain and share data including publishing HIN data, participating in the NCDOT/Institute for Transportation Research and Education (ITRE) non-motorized vehicle data project, and data sharing with the Highway Safety Information System (HSIS) managed by the Federal Highway Administration (FHWA).		
2.16 Marketing and Public Relations	Expand the role of Vision Zero in marketing the importance of traffic safety at City events and include Vision Zero messaging in media briefs.				



Connected Action Table

1 Improve the Street & Roadway System			
1.1 Increase Street Connectivity & Capacity		1.2 Support Regional Connectivity & Investment	
Action Item	Description	Action Item	Description
1.11 New Streets	Invest in and protect new future street connections through capital investment and land development projects, prioritizing opportunities to increase network capacity in growing areas, expand our multimodal network, complete critical creek crossings, and partner with new development.	1.21 Regional Highway Capacity	Collaborate with NCDOT and CRTPO to increase the ability of the highway system to carry more people, pursuing strategies to minimize local trips on the highway system and managing new and existing capacity by incorporating strategies and investments in demand management, transit, and managed lanes in key corridors.
1.12 Connectivity and Access	Require and incentivize connectivity in new development and redevelopment through cross access, connecting and restoring existing streets, block length and connectivity standards, and alternative pedestrian and bicycle connections.	1.22 Removing Community Barriers	Collaborate with NCDOT to identify and target opportunities to redesign and reinvest in removing and mitigating the negative impacts of our past highway investment that separated and displaced neighborhoods.
1.13 Street and Roadway Framework	Utilize the Street and Roadway Framework (as defined in the SMP) to guide capital investment in streets, corridors, and intersection improvements.	1.23 Access and Connectivity	Collaborate with NCDOT to reinvest and reimagine highway access and connectivity at key highway interchanges in our fast-growing activity and employment centers to manage and increase access and connectivity.
1.14 Streets Map	Maintain a citywide Streets Map to identify, protect, and prioritize future street connections for arterials and collectors.	1.24 Reconnect Streets and Railroads	Re-establish severed connections across highways and railroads via new bridges, underpasses, etc., and prevent the further disconnection of the street network in new highway and railroad projects.
1.15 Congestion Management	Target congestion management investment and strategies in key areas of growth and areas with limited capacity. In addition to targeted capacity improvements, strategies may include infrastructure to support mode shift, disperse traffic, or better manage traffic flow. Identify opportunities for private partnerships and focus on short-term and feasible improvements to corridors and intersections.	1.25 Freight	Ensure that the street and highway network accommodates freight, as appropriate, to allow for efficient delivery of goods.
1.16 Intersections and Traffic Signals	Identify and evaluate technologies, signal phasing, and other traffic control innovations intended to promote intersection safety and congestion mitigation for all users.		
1.17 Collector Streets	Identify collector streets to prioritize neighborhood improvements within the street network, such as creek crossings, pedestrian and bicycle facilities, traffic calming, and microtransit connections.		





Connected Action Table

2 Expand the Bicycle System		
2.1 Increase the Availability & Safety of Bicycling & Micromobility		2.2 Advance Bicycle Facility Design & Maintenance
Action Item	Description	
2.11 Bicycle Framework	Utilize the Bicycle Framework to target and prioritize capital investments that expand access to facilities for All Ages and Abilities (AAA).	2.21 Bicycle Design Guide Develop a Bicycle Design Guide using the latest bikeway design guidance from AASHTO, FHWA, and NACTO to be incorporated into an overall update of the Urban Street Design Guidelines (USDG), and include updated designs for shared use path crossings at driveways and intersections.
2.12 Advance and Support the Greenway System	Support the greenway system as an integral part of the transportation network and partner with Mecklenburg County Park and Recreation to prioritize bicycle investments that provide connections between greenway trails and nearby destinations.	2.22 End-of-Trip Facilities Invest in, partner to create, and require or incentivize facilities that meet end-of-trip needs, including bike parking that is abundant and convenient, a place to shower and change clothing, and stands for repairs.
2.13 Streets Map	Implement bicycle facilities as defined on the Streets Map on all new or reconstructed roadways and resurfacing projects in the city and ensure that regulations provide adequate space for safe bicycle facilities.	2.23 Bicycle Facility Maintenance Maintain bicycle facilities by keeping pavement, barriers, markings, signage, and signal detection in good condition and free of debris.
2.14 Bicycle Signal Detection	Increase the number of signalized intersections that detect bicyclists.	2.24 Intersection Design Identify and invest in intersection improvements on the Bicycle Priority Network that support bicycle connectivity and access, including signal detection, lane protection, and protected bicycle signals.
2.15 Bicycle Program	Support and fund the Bicycle Program to manage the Bicycle Advisory Committee, maintain and update a Charlotte Bikes Action Plan that identifies and prioritizes program and project investment, and sponsor education activities and events that raise awareness of bicycling.	
		2.3 Create a Culture that Educates, Promotes, & Welcomes Bicycling
		Action ItemDescription
		2.31 Bicycle Advisory Committee Support the Bicycle Advisory Committee as the chief citizens' advisory group for bicycle related issues and receive recommendations in accordance with its mission.
		2.32 Bicycle/Pedestrian Counters Expand existing bicycle/pedestrian volume counters into a systematic inventory of bicycling use trends and add bicycle/pedestrian counters at key locations of the network as new facilities are built to capture before and after counts, and track user trends over time.
		2.33 Education Support education campaigns and programs and partnerships, including participating in Watch for Me NC and sponsoring events to promote and raise awareness of bicycling.
		2.34 Enforcement Identify and support enforcement campaigns, training, and data collection of bicycle-related crashes to foster a culture of safety and accountability on Charlotte's streets through the enforcement of traffic laws.
		2.35 Silver Bicycle Friendly Community Work toward achieving a Silver-Level designation from the League of American Bicyclists (currently Bronze Level) and Bicycle Friendly Business Status.
		2.36 Bike Share Support partners in efforts to operate, sustain, and expand bike share in Charlotte.



Micromobility in Charlotte

The City launched its first bike share system in 2012 with the rollout of the Charlotte Joy Rides (formerly Charlotte B-Cycle) system. Private dockless bike share companies began operating in Charlotte in 2017 and quickly pivoted to e-scooters. Lime, Bird, and Spin are Charlotte's current e-scooter operators. They are part of an ongoing pilot program that has been continuously evaluated and reformulated with a focus on encouraging responsible rider behavior and closing first/last mile gaps for transit riders. Charlotte has innovated in this field through a unique, data-driven approach to dynamic pricing that supports first/last mile connections and discourages overcrowding in Uptown.



Connected Action Table

3 Strengthen the Pedestrian System					
3.1 Provide a Safe Walk		3.2 Provide a Useful Walk		3.3 Provide an Inviting Walk	
Action Item	Description	Action Item	Description	Action Item	Description
3.11 Pedestrian Framework	Utilize the Pedestrian Framework (as defined in the SMP) to guide capital investment in pedestrian infrastructure and advance programs that prioritize the completion of sidewalk gaps along our arterial network.	3.21 10-Minute Neighborhoods	Support the 2040 Plan goal of creating places that have an accessible mix of uses and services, prioritizing pedestrian investments in and to activity centers identified in the 2040 Policy Map.	3.31 Streets Map	Apply and regularly update the Streets Map to align sidewalk widths with the 2040 Policy Map (Place Types) and ensure that the recommended sidewalk locations and widths are implemented through private development and capital investment.
3.12 Street Design Guide	Assign modal priority to pedestrians in street designs for high intensity activity centers and transit corridors.	3.22 Access to Transit	Identify and prioritize new sidewalks, pedestrian crossings, and other pedestrian improvements near transit stations and high frequency priority bus corridors.	3.32 Street Design Guide	Refine urban street tree planting standards to ensure that the use and design of hardscaped amenity zones protects the long-term viability of street trees, while providing safe and unobstructed access to and along sidewalks.
3.13 Intersections and Traffic Signals	Identify, prioritize, and improve pedestrian safety at intersections and traffic signals, including Leading Pedestrian Intervals and LPI Plus treatments (specifically at heavy right turn locations), exclusive pedestrian phase, raised intersections, etc., and ensure that pedestrian improvements align with Americans with Disabilities Act (ADA) standards.	3.23 Access to Community Services	Coordinate with CMS and Mecklenburg County to identify and prioritize improvements to pedestrian access near schools, parks, recreation centers, and other County service destinations.	3.33 On-Street Parking	Promote and encourage the use of on-street parking in retail districts, Main Streets, and activity centers to improve walkability and support commercial activity.
3.14 Pedestrian Crossings	Identify, prioritize, and construct new or improved pedestrian crossings focusing on arterials and the HIN and seek out partnership opportunities for new crossings through private development.	3.24 Expand Connectivity	Support opportunities to create new pedestrian connections, encourage private development to create public access to adjacent trails, and enforce maximum block sizes to expand pedestrian connectivity.	3.34 Parklets and Placemaking	Collaborate with other City departments and private partners to support and expand parklets and placemaking opportunities to activate existing streets and places.
3.15 Pedestrian Realm	Ensure that development regulations support pedestrian-friendly design with buildings oriented to the street, usable doors, and active ground floors with windows.	3.25 Pedestrian Counts	Expand our program of pedestrian and bicycle counts to raise awareness, document our mode shift progress, and inform the prioritization of future capital investment.		



Connected Action Table

4 Support the Transit System			
4.1 Implement the 2030 Transit System Plan		4.2 Implement the Bus Priority System	
Action Item	Description	Action Item	Description
4.11 Transit-Oriented Development	Support CATS and the Planning, Design and Development (PDD) Department in proactive station area planning along new and existing mobility corridors, focusing on identifying the critical mobility infrastructure investment necessary to support transit-oriented development.	4.21 Bus Priority Network	Support CATS in implementing the Bus Priority Study to improve the speed and reliability of bus service. Evaluate transit signal priority, queue jumps, dedicated lanes, and other operational or street design improvements.
4.12 LYNX Silver Line	Support CATS and the Planning, Design and Development (PDD) Department in the preliminary engineering and station planning of the Silver Line corridor to coordinate implementing the corridor within our existing transportation network.	4.22 Mobility Hubs and Improved Transit Experience	Support CATS to develop mobility hubs and other corridor infrastructure to create an attractive, comfortable, and convenient transit experience.
4.13 CityLYNX Gold Line	Support CATS and the Planning, Design and Development (PDD) Department in the preliminary engineering of the Gold Line Corridor Phase 3 to ensure integration of the expanded streetcar within our existing street right-of-way.	4.23 Technology	Support CATS in connecting multimodal trip information to developing mobile payment/trip planning applications to enable easier and more reliable multimodal trip planning and vehicle tracking for users.
4.14 CONNECT Beyond	Support CATS and the Centralina Regional Council in implementing the regional transit initiatives of CONNECT Beyond – A Regional Mobility Plan – and promote a regional network of commuter transit bus corridors and vanpool facilities to connect employment areas and enhance regional air quality and multimodal travel choices.	4.24 Street Design Guide	Develop and incorporate bus priority and transit design options and standards.
		4.25 Transit Stops and Stations	Support CATS to ensure all bus stops are fully accessible per the ADA and consider opportunities to improve access to bus stops, including new pedestrian crossings, improving sidewalk and bicycle connections, and stop amenities to improve comfort and safety (i.e., shelters, real-time signage, seating, lighting).
		4.26 Microtransit	Support CATS in implementing microtransit zones to support on demand transit services as well as first/last mile connectivity to frequent transit routes and key destinations.



Equitable Action Table

1 Create Accessible & Equitable Mobility			
1.1 Provide Accessible & Affordable Mobility		1.2 Advance Equitable Mobility	
Action Item	Description	Action Item	Description
1.11 ADA Transition Plan	Implement the ADA Transition Plan, review inventory, and track progress of public and private investments in compliance with current federal regulations.	1.21 Equitable Growth Framework	Support the Equitable Growth Framework by defining transportation equity and develop metrics to guide the prioritization of programs and projects that ensure that people of all ages, abilities, and backgrounds have access to high-quality, affordable transportation choices.
1.12 Multimodal Accessibility	Set goals and measure and track the population served by the Transit, Bicycle, Pedestrian, and Street Priority Networks (as defined in the SMP), employing this data to prioritize ongoing mobility investments and expand multimodal accessibility.	1.22 Diversity, Equity, and Inclusion (DEI)	Partner with the Office of Equity, Mobility and Immigrant Integration (EMII) to update department work plans and performance review measures to ensure our mobility planning activities meet the City's DEI values.
1.13 Affordable Housing	Support the Housing and Neighborhood Services Department to protect and increase affordable housing near major transportation investments and mobility corridors, and support the development of affordable housing with pedestrian and multimodal access to provide safe and affordable travel options.	1.23 Economic Mobility	Support the work of EMII to create a neighborhood level strategy for economic mobility, focusing on the role of transportation and mobility.
1.14 Affordability and Displacement	Support City efforts to analyze, evaluate, and reduce displacement and ensure existing residents and businesses benefit from transportation investments.	1.24 Equitable Mobility Analysis	Evaluate historic resource investment and disinvestment, considering the locations and populations benefited or burdened to better understand future mobility needs through an equity lens. Identify criteria, geographies, and factors to help focus efforts on communities that have historically been marginalized.
1.15 Paratransit	Support CATS in further implementing paratransit services to individuals within three-quarters of a mile of fixed route bus routes.	1.25 Equitable Transit-Oriented Development (ETOD)	Work with CATS and other City departments to advance ETOD planning efforts and implementation steps.
		1.26 Equitable Micromobility Access	Support the creation of equity requirements for micromobility providers and vendors to address adequate service to underserved areas and transaction opportunities for unbanked users.





Equitable Action Table

2 Engage Our Community					
2.1 Strengthen Meaningful Engagement & Communication		2.2 Build & Maintain Community Relationships		2.3 Provide High-Quality Customer Service	
Action Item	Description	Action Item	Description	Action Item	Description
2.11 Public Engagement Program	Develop a Public Engagement Program to proactively create, maintain, and improve community-informed transportation decisions. Include performance metrics to measure public involvement in transportation decisions and a toolbox of inclusive outreach formats, including how to identify impacted community groups.	2.21 Existing and New Relationships	Work with neighborhood organizations, community leaders, and community-based organizations to maintain and expand collaboration and partnerships on mobility planning and investment, especially in historically marginalized and underinvested areas of the city.	2.31 Digital Engagement	Utilize the resources of the City's Innovation & Technology Department (I&T) to expand the accessibility of services digitally "from the palm of their hands," coordinating mobile offerings and advancing digital equity.
2.12 State of Mobility Report	Prepare an annual report that details activities, accomplishments, and challenges as well as the status and performance of the existing transportation system.	2.22 2040 Planning Academy	Support the City's Planning, Development and Design (PDD) Department with the 2040 Planning Academy to build community capacity and partnerships in mobility planning.	2.32 Service Request	Audit and analyze 311 calls and service requests considering calls per capita in various areas of Charlotte to track and improve service response time, outcomes, and geographic equity for the community.
2.13 Mobility Survey	Conduct a biennial mobility survey to measure and track public attitudes and behaviors related to mobility.	2.23 Immigrant Integration	Support the creation and implementation of the City's Language Access Plan (through the EMII) to ensure our mobility engagement activities reach our existing and growing immigrant communities.	2.33 Equitable Communication	Collaborate with EMII to provide the utmost in customer service via language interpreters and writers.
2.14 Virtual and Online	Expand online resources, virtual engagement events, and social media activities to make information and engagement opportunities more accessible to the public.	2.24 Bicycle Advisory Committee (BAC)	Support the BAC as an important citizen advisory group to communicate the City's bicycle vision to local organizations and residents, and advocate, promote, and educate the community on the value of bicycle mobility.	2.34 Resident Concerns	Provide timely and engaged responses to resident concerns regarding Charlotte's streets, rights-of-way, and other public infrastructure.
2.15 Focus Groups	Regularly utilize focus groups that target specific social and economic groups and communities that historically have not been engaged in transportation decisions.	2.25 Charlotte's Equity Policy and Equity Action Plan	Support the development of Charlotte's Equity Policy and Equity Action Plan to remove barriers to inclusion and prioritize an equity lens in decision-making.	2.35 Land Development Process	Continue to process and review land development plans and applications in a timely and efficient manner, and seek out ways to improve the overall review process.



Sustainable Action Table

1 Shift Mode Choice & Access		2 Support Asset Stewardship	
1.1 Increase the Share of Walking, Biking, & Transit Trips		2.1 Maintain Our Mobility Assets	
Action Item	Description	Action Item	Description
1.11 Frameworks	Maintain and advance the Transit, Bicycle, Pedestrian, and Street and Roadway Frameworks (as defined in the SMP) to prioritize the multimodal projects that will most effectively increase mode choice and accessibility.	2.11 Resurfacing	Resurface City streets on a regular cycle, and identify opportunities to increase the frequency of street resurfacing when funding allows. Maintain existing sidewalks, pavement markings, signage, and curb and gutter.
1.12 Track Goals	Set and track specific goals by geographic area for investment in infrastructure, strategies, and education programs to increase the mode share of walking, biking, micromobility, and transit.	2.12 Innovation	Evaluate new and emerging techniques in utilizing pavement materials and other public infrastructure to increase longevity, reduce the lifecycle carbon footprint, and support other environmental objectives.
1.13 Integrated Planning	Work to ensure that all planning efforts consider the effects of land use and development on the transportation system and vice versa. Set targets and measures for high intensity places and track developments occurring in these places to maintain our ability to most effectively prioritize our mobility investments.	2.13 Bridges	Inspect, maintain, repair, and replace City-maintained bridges.
1.14 Monitor and Measure	Expand data collection on pedestrian and bicycle use into a systematic inventory of trends to monitor and communicate shifting mobility preferences, behaviors, and patterns.	2.14 Coordination and Partnership	Seek to maintain and protect our transportation assets to achieve a state of good repair in a cost-effective and minimally disruptive manner by coordinating utility work and other street improvements when possible.
1.15 Travel Surveys	Use data collected from the City's biennial transportation survey, U.S. Census data, and the Household Travel Survey to assess mode shift in regular increments.	2.15 Retrofit	Coordinate and evaluate resurfacing to identify opportunities to retrofit existing streets to improve bicycling and pedestrian facilities. Maintain a list of, and evaluate opportunities for, potential street conversions to utilize existing facilities as complete streets.
		2.16 Pavement Markings	Ensure pavement markings are legible, sensible, and conspicuous for all users and vehicles, including driverless vehicles.
		2.17 Signals	Maintain the physical and operational components of traffic signals to promote proper messaging to all users at all times. Evaluate new and emerging traffic signal technologies to enhance the experience for all users and mitigate incidents such as power outages.
		2.18 Inventory	Maintain an inventory of the City's mobility assets and monitor the condition of facilities, such as sidewalks, pavement markings, signage, curb and gutter, and City streets.



Rideshare and Transportation Network Companies (TNC)

One of the leading market disruptors in recent years has been TNCs, such as Uber and Lyft, which have grown rapidly since launching in the 2000s. These services provide an alternative to driving single-occupancy vehicles, taking transit, biking, or walking to and from destinations. TNCs have drastically changed the mobility landscape and how we plan our transportation systems. The top Uber destinations in Charlotte include Charlotte Douglas International Airport, music/entertainment venues, restaurants/bars/breweries, sports stadiums, Uptown hotels, and light rail stations.

First/Last Mile

First/last mile connections are the first and last connection between a travel origin and destination, such as the walk from home or work to a transit stop. Often, this is the most critical barrier to accessing public transit. Prioritizing investment in first/last mile will help connect more people to transit options, increasing accessibility and an equitable mode distribution. Micromobility options, robust bicycle and pedestrian networks that prioritizes transit connections, and private rideshare options like Uber and Lyft are examples of options that can also fill first/last mile gaps.



Sustainable Action Table

3 Minimize Environmental Impact

3.1 Reduce Vehicle Miles Traveled & Emissions

Action Item	Description
3.11 Strategic Energy Action Plan (SEAP)	Support the implementation efforts of the SEAP to make Charlotte a low carbon city, focusing on encouraging sustainable modes of transportation.
3.12 Regional Collaboration	Collaborate with local and regional partners to ensure that transportation investment is prioritized to achieve the region's vision for transportation and land use, air quality, reduction in greenhouse gas emissions, quality, and long-term regional sustainability.
3.13 Land Use	Support the development of mixed-use activity centers with targeted improvements to the multimodal network that will best remove obstacles between the places we live, work, and play—particularly in communities that have historically lacked investment.
3.14 First/Last Mile	Increase access to zero carbon transportation options for first/last mile trips and provide new and adapt existing transportation infrastructure to support a range of tree-shaded, sustainable transportation choices.
3.15 Carbon Neutral Travel	Encourage carbon neutral travel options and supporting infrastructure, including electric vehicles, shared mobility services, and e-charging infrastructure for vehicles, bikes, and scooters.
3.16 Measures and Metrics	Develop tools to measure the VMT impact of transportation projects, development plans, and land use plans and consider VMT and vehicle trip reduction targets for evaluation.

3.2 Implement Sustainable Street Design

Action Item	Description
3.21 Green Streets and Storm Water	Explore street design techniques that detain and filter storm water runoff (i.e., green streets) to manage runoff, protect water quality and stream health, and increase natural landscape design in the urban environment.
3.22 Street Design Materials	Investigate and implement design standards and new street design materials to reduce urban heat island effects and storm water runoff.
3.23 Tree Canopy	Increase the canopy of our right-of-way for safety, health, and aesthetic value through standards that ensure the viability of street trees, prioritize street trees in the design of capital projects, and coordinate to accommodate street trees on state-maintained roads.



Prosperous Action Table

1 Plan & Design for People			
1.1 Plan for Places & Corridors		1.2 Design & Operate Streets as Places	
Action Item	Description	Action Item	Description
1.11 Community Area Planning	Support the Planning, Design and Development (PDD) Department in area planning to identify, design, and prioritize mobility needs and investments.	1.21 Street Design Guide	Update the Urban Street Design Guidelines (USDG) to be a tool that guides mode priority and trade-off decisions on street design and space usage in the public right-of-way.
1.12 Activity Center Mobility Plans	Conduct specific mobility plans for existing and emerging activity centers to assess future growth and traffic conditions and identify multimodal transportation and mobility strategies, programs, and investments.	1.22 Placemaking	Support creative placemaking in the public right-of-way.
1.13 Corridor Mobility Playbooks	Develop corridor mobility playbooks on key corridors to define short- and long-term mobility investments. Prioritize corridor studies based on land use context, emerging developments, geographic equity, historical investment, and the HIN.	1.23 Street Activity and Vitality	Support the active use of the public right-of-way for sidewalk dining, parklets, valet stands, food trucks, vendors, and other activities that enhance the vitality of city streets.
1.14 Parking	Support and encourage the reduction, elimination, or sharing of off-street parking requirements in places with transit options and as part of TDM measures to reduce vehicle trips and the cost of development.	1.24 Special Events	Support special events on City streets that promote economic and cultural vitality in a manner that manages transportation and access impacts while supporting the equitable distribution of such events in places and neighborhoods throughout the city.
		1.25 Open Streets	Partner with key stakeholders to continue the Open Streets 704 program and encourage active, healthy transportation.





Prosperous Action Table

2 Manage the Right-of-Way		
2.1 Manage the Use of the Curb		
Action Item	Description	
2.11 Curb Lane Strategic Action Plan	Develop a dynamic curb lane management strategy to manage and create flexible curbside space for different uses, including loading and unloading of people and goods and the storage/ parking of all types of vehicle and mobility options.	
2.12 On-Street Parking Expansion	Evaluate expanding priced/metered on-street parking to more corridors and activity centers. Collaborate inter-departmentally and externally to develop and refine shared parking solutions (i.e., shared parking lots or garages, municipal parking).	
2.13 Technology	Utilize technology to manage and incentivize desired uses and access of curb lanes in activity centers and Main Streets.	
2.14 Neighborhood Parking Program	Expand strategies to manage on-street parking needs in neighborhoods as on-site parking is reduced or eliminated.	
2.2 Manage Right-of-Way as a Public Resource		
Action Item	Description	
2.21 Right-of-Way Leasing	Allow for the temporary leasing of public right-of-way for the construction and staging of private facilities subject to the adopted Right-of-Way Lease Policy.	
2.22 Utility Easements	Require new development to place streetscape and curb and gutter in the right-of-way whenever possible, and develop standardized easement language when utilities and infrastructure must be installed outside the right-of-way.	
2.23 Encroachment Agreements	Allow for enhancements to the public right-of-way by private entities and individuals through encroachment agreements.	
2.24 Utility Management	Manage the use of public right-of-way by utility companies in a manner that minimizes disruption due to construction, protects the City’s assets in the right-of-way, minimizes the permanent visual impact of utilities, and encourages collocation of utilities wherever possible.	
2.25 ROW Abandonments	Retain street rights-of-way as assets and only relinquish unless they can serve no future City use or are being replaced concurrently by a more-beneficial street right-of-way instead.	
2.26 Driveway Access	Ensure that regulations about access to the right-of-way are context-based and support safe multimodal streets.	
2.27 Maintaining Multimodal Access	Require development construction activities to maintain pedestrian and bicycle access through the public right-of-way. Work with development to make the appropriate trade-off decisions to maintain access for all users.	

3 Expand Collaborative Partnerships		
3.1 Support Our Regional Mobility Partners		
Action Item	Description	
3.11 Centralina Regional Council	Support the implementation of regional mobility planning initiatives, including CONNECT Beyond – A Regional Mobility Plan and CONNECT Our Future – A Regional Growth Framework.	
3.12 Charlotte Regional Transportation Planning Organization (CRTPO)	Support CRTPO planning efforts, such as the Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP), and the implementation of the Beyond 77 Study and ensure that the regional travel model is maintained and utilized to evaluate regional transportation and land use scenarios.	
3.13 North Carolina Department of Transportation (NCDOT)	Collaborate with NCDOT to implement regional mobility investment and City mobility infrastructure needs.	
3.14 Mecklenburg County	Support the County’s implementation of the Meck Playbook, Greenway Master Plan, and Livable Communities Plan to connect to greenways for expanded mobility and accessibility to parks and open space and needed County services.	
3.15 Charlotte Douglas International Airport	Support access and connectivity to and around the airport as a significant multimodal transportation facility, major employment center, and important regional economic generator.	
3.16 Regional Railroads	Partner with regional railroad companies to develop collaborative plans for use of existing and future rail lines.	



Prosperous Action Table

4 Invest in Our Mobility Future					
4.1 Protect Our Future Mobility Needs		4.2 Fund Mobility Investment		4.3 Prioritize Mobility Investment	
Action Item	Description	Action Item	Description	Action Item	Description
4.11 Strategic Mobility Plan	Update the SMP at least every five years to ensure that Charlotte residents are provided the latest information regarding the City's short-term and long-term transportation conditions, objectives, and accomplishments.	4.21 Metropolitan Transportation Plan (MTP)	Work through the CRTPO MTP process to recommend and evaluate local projects so that they can be included in the MTP and eventually the Transportation Improvement Program (TIP).	4.31 2040 Plan Implementation	Collaborate across departments to ensure that mobility investment is prioritized and evaluated to achieve the goals of the 2040 Comprehensive Plan.
4.12 Streets Map	Maintain a citywide streets map that protects the future cross-section and rights-of-way for our multimodal network of arterial streets and guides the planning and design of capital investment, reflecting the context and constraints of individual projects.	4.22 Community Investment Plan (CIP)	Utilize the City's CIP Bond funding to plan and gain public support for investment in mobility.	4.32 Frameworks	Maintain and advance the Transit, Bicycle, Pedestrian, and Street and Roadway Frameworks (as defined in the SMP) to identify projects for feasibility, design, prioritization, and implementation.
4.13 Track Growth Conditions	Annually review and track levels of development and transportation conditions in areas of growth and congestion to assess and identify transportation needs and to ensure that our land use framework supports our mobility investments.	4.23 Private Partnerships	Identify and support public-private partnerships to implement transportation investment.	4.33 Prioritization Methodology	Update the prioritization of mobility projects to support the 2040 Plan while incorporating metrics on congestion, safety, accessibility, freight and goods movement, funding partnerships, and equity.
4.14 Feasibility and Project Development	Conduct feasibility and mobility planning studies to identify, evaluate, and define future mobility investment projects and right-of-way needs.	4.24 Public Partnerships	Seek federal and state grants and funding partnerships to implement shared transportation goals.		
4.15 Comprehensive Transportation Plan (CTP)	Coordinate with the CRTPO to maintain and update the CTP as an assessment and catalog of transportation network conditions and needs for motorists, pedestrians, bicyclists, transit, and freight.	4.25 New Funding Sources	Seek out, evaluate, and support new funding sources, partnerships, and strategies.		



Innovative Action Table

1 Support Shared Mobility Solutions		
1.1 Increase Access to Shared Mobility Services		1.2 Support the Creation of Mobility Hubs
Action Item	Description	
1.11 Expand Options	Maintain and support the expansion of a range of shared mobility options, including bikeshare (dockless and dock-based) and rideshare (e.g., Lyft, Uber, ZipCar.)	
1.12 Manage Micromobility	Collaborate with e-scooter and other micromobility service providers to incentivize expanded and equitable access while managing their safe use and parking.	
1.13 Invest in Infrastructure	Adapt and design street space for shared mobility services (i.e., connected bicycle/micromobility network) to support e-scooter use and other emerging low-powered micromobility vehicles.	
1.14 Urban Delivery	Encourage multimodal and electric-powered urban delivery services, such as e-cargo bikes.	

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Scooter Mobility Pilot

The City of Charlotte piloted a successful e-scooter program in 2018 and established a permanent program for the use of e-scooters in public rights-of-way in 2019. Since May 2018, riders have taken more than 3.6 million trips on e-scooters in Charlotte, resulting in over 4.1 million miles traveled on e-scooters. Early in 2020, the City partnered with Passport, a transportation software company, to launch a dynamic pricing e-scooter program. The City’s innovative approach to managing shared mobility allows for better monitoring of fleet performance and provides valuable planning information to inform policy and support continued mobility infrastructure investments.

2 Prepare for a Connected Mobility Environment		
2.1 Support Connected Infrastructure		
Action Item	Description	
2.11 Connected Infrastructure	Ensure our traffic signal system supports next generation communications systems to build a vehicle-to-infrastructure/vehicle/everything (V2X) communications infrastructure.	
2.12 Microtransit	Support CATS in deploying microtransit—automated and on-demand services—in identified microtransit areas.	
2.13 Street Design Guide	Evaluate the impacts of automated vehicles on street design and develop maintenance and infrastructure standards to ensure street readiness.	
2.14 Electric Vehicle Infrastructure	Assess the demand and supply of the electric vehicle charging network and implement expanded charging locations through infrastructure investment and private partnerships.	
2.15 Pilot Programs	Support and encourage pilot programs and partnerships to lay the groundwork for and evaluate the effectiveness of various new technologies.	
2.16 Policy Development	Develop and monitor policies to manage the potential impacts of autonomous mobility (i.e., increase in zero-passenger miles, incentivizing shared use).	



Innovative Action Table

3 Employ Emerging Technology			
3.1 Maximize Signal System Technologies		3.2 Expand Our Data-Driven Decision-Making Culture	
Action Item	Description	Action Item	Description
3.11 Coordinated ITS Network	Maintain, upgrade, and complete a fully coordinated ITS signal network to improve the efficiency and safety of our mobility network for all users.	3.21 Automated Traffic Signal Performance Measures	Develop performance measures and review/refine data collection methods to track improvements in network function.
3.12 Transit and Emergency Signal Priority	Expand and support existing transit signal priority (TSP) and emergency vehicle preemption (EVP) technologies to support safety and transit efficiencies.	3.12 Multimodal Data	Monitor levels of service and trip counts for motorists, bicyclists, and pedestrians at signalized intersections.
3.13 Multimodal Detection	Incorporate signal infrastructure and technology to expand detection for all modes, including the number of signalized intersections that detect bicyclists.	3.13 Data Analysis	Expand mobility data collection and analysis to support project planning, programming, delivery, and monitoring.
		3.14 Publish Multimodal Data	Regularly collect, analyze, and publish transportation data, including monitored counts, crashes, and routing data for all modes of transportation.



Autonomous Mobility Pilot – Personal Delivery Device (PDD)

The City has worked with Tiny Mile, a Canadian company, to pilot PDDs, an autonomous device that delivers items, from food to packages, to residents in the Queen City. This technology is on the cutting edge of a fundamental shift in how goods travel the last mile to their destination. This is the first use of a PDD in the state of North Carolina and represents the City’s commitment to partnering with the autonomous industry and incorporating new technologies as they emerge.



ADDITIONAL RESOURCES

Mode Share

Many cities throughout the U.S. are establishing mode share goals to identify and measure the impact of supporting multimodal investments and integrated land use solutions. This section further explains how Charlotte calculated the 50-50 mode share goal and compares that goal to several fast-growing cities.

What is Mode Share?

Mode share (the distribution of travel across the spectrum of travel choices) is often shaped by a variety of factors including:

- *Transportation Infrastructure and Transportation Services (transportation supply)*
- *Development Patterns (the mixture, proximity, and design of places)*
- *Travel Choices (decisions made by travelers, influenced by access, convenience, cost, reliability, and opportunity)*

A city’s influence on mode share is often reflective of local policies, regional influences, transportation cost, infrastructure investments and service levels, and the ability to direct new growth into patterns and places that support the desired mode share outcome.

Charlotte’s Mode Share Goal

The SMP is centered on the goal of “safe and equitable mobility,” and equitable mobility cannot be achieved without a more balanced mode split between single-occupancy vehicles (SOV) and non-SOV options. A 50-50 mode share provides a clear, aspirational target, based on analysis of population growth and travel patterns. The ability to define this goal and measure our success provides the City with evidence that we’re making progress towards our objectives, policies, and strategies.

Goal Details

The 50-50 mode share goal seeks to achieve single-occupancy vehicle (SOV) travel levels that don’t exceed 50% of total travel by 2040 during peak commuting periods. This means that in the future, half of our commuting travel would be accomplished by means other than driving alone in a car. This would be accomplished through a variety of non-SOV options including, walking, rolling (bikes, scooters, and everything else that rolls), carpooling, telecommuting, and transit. It’s also supported by other travel demand strategies that offer workers staggered work hours and modified work from home options during a typical work week.

By the Numbers

The SMP uses a 2040 horizon year to align with the goals of the 2040 Comprehensive Plan. A 2045 horizon year is used in this analysis to reflect the most recent update of the Regional Travel Demand Model and is assumed for the purposes of this analysis as a close approximation of a 2040 horizon year.

Data related to current mode share is limited to commuting trips only (as opposed to all citywide trips). However, the highest concentration of single-occupancy trips occurs during peak travel periods (commuting to work). Therefore, commuting mode share provides the clearest understanding of citywide performance. Our current mode share can be described by observing commuting trends reported from two different sources: The U.S. Census American Community Survey (ACS) and the Metrolina Regional Household Travel Survey. Each of these sources offers commuting data that showcases the breakdown and distribution of the daily commute travel mode for Charlotteans. The SMP evaluated Charlotte’s current and forecasted travel trends to identify a target mode share. To aid this effort, travel time and congestion were considered universally relevant variables. The most relevant data available at the time of this analysis was from the Metrolina Regional Travel Model (2019 v1.0). These data sets reveal:

Future 2045 Total Trips	2,680,894 trips
Current Total Trips	- 1,466,649 trips
Increment of Travel Growth (future - current)	= 1,214,245 trips

Given the increment of travel growth by 2045, the analysis tested the mode share and corresponding vehicle miles traveled required to maintain current citywide levels of congestion (net zero increase to VMT). The results reveal a maximum 50% SOV mode share in 2045 to maintain current levels of congestion with all remaining travel accomplished through non-SOV means. The resulting 50-50 target mode share is therefore a goal designed as a benchmark for measuring progress.

Currently, 76.6% of Charlotteans drive alone to work for their daily commute.

U.S. Census American Community Survey (ACS)

2045 Illustrative Mode Share Calculations

	Current Mode Share		2045 50/50 Mode Share		
	Mode Share	Trips	Illustrative Mode Share	2045 Peak Trips	Change in Trips
Single-Occupancy Vehicle (SOV)	76.6%	1,123,453	50%	1,340,447	216,994
Transit	3.4%	49,866	12%	321,707	271,841
Walk/Bike/Other	3.4%	49,866	7%	187,663	137,797
High-Occupancy Vehicle (HOV)	9.8%	143,732	18%	482,561	338,829
Work from Home	6.8%	99,732	13%	348,516	248,784
Total	100%	1,466,649	100%	2,680,894	1,214,245

Based on the Illustrative 2045 Mode Share:

- *SOV travel in 2045 would still increase under a 50-50 mode share (but only by ~216,994 trips)*
- *Transit travel would need to increase nearly 9% (from 3.4% to 12%)*
- *Carpooling (HOV) needs to almost double (from 9.8% to 18 %)*
- *Working from home needs to become the norm for ~13% of our workforce (a 6.2% increase)*

Monitoring Progress

To achieve our goal of creating a safe and equitable transportation system, we need to measure our progress towards a 50-50 mode share as we implement the recommendations of the Strategic Mobility Plan. Monitoring this progress is critical to understanding the impact of new projects, policies, and programs on mode share. Progress can be measured in a variety of ways, including:

- *Changes in commute trips (US Census, American Community Survey and Household Survey)*
 - *Changes in vehicle miles traveled (VMT)*
 - *Car ownership rates*
 - *Bicycle and pedestrian counts*
- *Transit ridership*
 - *Air quality (greenhouse gas emissions)*
 - *Miles of sidewalks and bike lanes added*
 - *Transit service additions and expansions*

Outcomes and Opportunities

Anticipated Outcomes

The 50% goal makes possible a variety of opportunities including: maintaining overall levels of congestion and delay, improving transportation equity, reducing greenhouse gas emissions, improving public health, and maintaining our economic competitiveness. If managing congestion, achieving carbon reduction goals, and creating equitable outcomes is important, Charlotte will need at least half of travel to be accommodated through means other than the single-occupancy vehicle (SOV). It’s a win for current drivers and for future residents.

50-50 Partners

CDOT is well positioned to promote, monitor, and implement programs designed to support the mode-share goal but success will require compatible actions by many:

Transportation Supply

To keep up with our changing and increasing travel demand, we’ll need to adequately fund programs designed to implement our plans. This will require city investment in conjunction with funding partnerships with NCDOT, FHWA, and FTA.

Supportive Development Patterns

Building the right mixture and design of places that promote non-SOV travel requires effective application of the 2040 Comprehensive Plan, 2040 Policy Map and Unified Development Ordinance (UDO), a supportive market, and a development community that invest in places with the greatest efficiency for absorbing new growth and where travel efficiency is greatest (along existing and future transit corridor and activity centers).

Access to Travel Choices

Adding more transportation choices is part of the solution but making effective, well-designed, and safe connections to these choices is a key to success. We also need members of the community to embrace these choices as they emerge in order to experience desired outcomes.

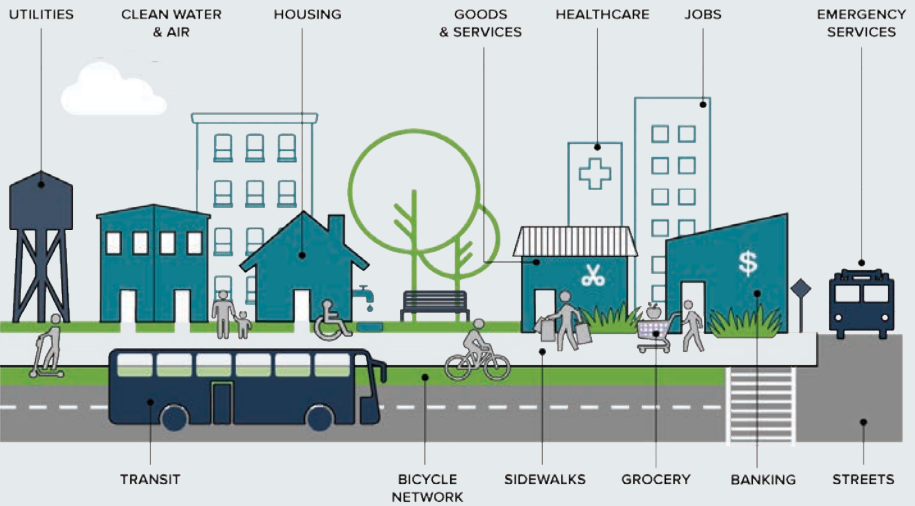
Where are our Greatest Opportunities to Shift?

While achieving a 50-50 Mode Share requires an emphasis on walking, biking, and using transit, it also requires an understanding of where in our community mode-shift is most likely to occur. When considering the 2040 Comprehensive Plan there are numerous locations (Place Types) where mode shift has the greatest opportunity to occur. These places include land use, density, and proximities to transit and other supporting infrastructure that creates greater opportunities for non-SOV travel when compared to other more auto-dependent places in our community. The place types with the greatest opportunity to experience mode shift include:

- *Campus*
- *Innovation Mixed-Use*
- *Neighborhood Centers*
- *Community Activity Centers*
- *Regional Activity Centers, including Uptown*

It’s reasonable to expect that investments in non-SOV travel infrastructure will be concentrated in places with the greatest opportunity for mode shift while other places in our community will benefit from emphasizing a combination of mobility investments that includes strategic investment in vehicular capacity (e.g., turn lanes and technology), safety, and improved connectivity.

Complete Places: Charlotte Future 2040 Comprehensive Plan



Is this Unique to Charlotte?

Over the last 50 years, many fast-growing cities have prioritized vehicular capacity, leaving their cities with widened arterials, congestion, safety hazards, and barriers to connecting their communities. Many of these same places are now seeking integrated solutions that align transportation and land use policies, and making strategic investments in intersection capacity, efficiency, and safety, while expanding their multimodal infrastructure and services. The table below provides a sample of large cities setting mode-share goals to measure the impact of policy and investments.

City	Current Drive Alone	Drive Alone Goal
Washington, DC	34.2%	25%
Seattle, WA	44.4%	25%
Denver, CO	69.6%	50%
Austin, TX	74.1%	50%
Charlotte, NC	76.6%	50%

Each of these communities has developed a strategy designed to support their mode share goals. A few examples of their actions include:

- **Washington, DC** updated their transportation plan (moveDC) to offer clear policy guidance for how to prioritize projects and advance their coordinated transportation and growth strategy. They’re bringing balance to their mode share by replacing general purpose travel lanes with premium transit and new mobility options.
- **Seattle** is coordinating updates to their Comprehensive Plan and Transportation Plan ahead of a new transportation levy. They’re also developing a mode-prioritization approach to their remaining networks and the region is advancing the expansion of their light rail through a combination of regional, state, and federal funding.
- **Denver** adopted a Mobility Action plan that seeks to prioritize \$2 billion over the next 12 years to advance their mode share, climate, and safety goals. This includes prioritizing safety and transit over investments in general purpose driving lanes.
- **Austin** voters supported a funding strategy to implement the Project Connect transit plan and supportive mobility projects. The referendum also included funding for anti-displacement measures. In addition, they aligned their transportation plan and comprehensive plans followed by an updated their Unified Development Ordinance.

Glossary

Arterial Streets

The four types of surface streets—Main Streets, Avenues, Boulevards, and Parkways—that provide for both short distance and citywide travel, and are included on the Charlotte Streets Map. The Streets Map also includes an expected cross-section for each arterial street. The arterial cross-sections are based on adopted policies for designing streets to serve all users.

Bus Rapid Transit (BRT)

A high-quality, bus-based transit system that delivers faster, more reliable service through the provision of dedicated lanes, with bus lanes and stations typically aligned to the center of the road, off-board fare collection, and more frequent operations. Because BRT contains features similar to a light rail system, it is more reliable, convenient, and faster than regular bus service.

Capital Investment Plan (CIP)

The City’s long-range investment plan that funds the highest priority capital investments required to maintain the growth and economic vitality of the growing community. The CIP invests in projects that generate the most benefit and impact to the entire community, through creating jobs and growing the tax base, leveraging public and private investments, enhancing public safety, enhancing transportation choices and mobility, ensuring housing diversity, and providing integrated neighborhood improvements. The CIP encompasses investments in roads, neighborhoods, housing diversity, storm water projects, transit, water and sewer projects, the airport, and government facilities.

Collector Streets

Streets that collect traffic from local streets and other collectors and distribute the traffic to higher volume streets and roads.

Comprehensive Transportation Review (CTR)

The CTR Guidelines define the process and methods that the Charlotte Department of Transportation (CDOT) will use to review, assess and identify the impact and appropriate mobility and transportation mitigation for land development projects.

Dedicated Bus Lanes

A tool that provides a clear separation between vehicles, buses, and bikes, and helps transit vehicles maintain an efficient and reliable schedule by reducing the need for buses to re-enter traffic.

Equitable Growth Framework

2040 Plan Framework for measuring access, environmental justice, and equity to help identify areas where residents and businesses may not have access to daily needs, choices for housing, a diversity of employment, or safe and healthy environments.

Equitable Transit-Oriented Development (ETOD)

The use of an equity lens in the application of Transit- Oriented Development (TOD) policies to ensure that individuals at all income levels can participate in the benefits of living near high-performance transit. Key benefits to lower-income households are a reduction in transportation costs and an increase in access to jobs and essential goods and services. ETOD policies also are designed to minimize potential displacement of lower-income persons who live near major transit investments.

Greenway Trail

A critical part of the pedestrian/bicycle network that is typically located along greenways, land set aside for recreation, transportation, and/or environmental protection.

High-Capacity Public Transportation

Transit with the goal of providing faster, more convenient, and more reliable service for a larger number of passengers. It may use larger vehicles or have more frequent service than a standard fixed route bus system. High-capacity transit can operate on exclusive rights-of-way, such as a rail track or dedicated pathway.

High-Frequency Transit

Transit service that operates every 15 minutes (or more frequently) throughout most of the day.

High Injury Network

Charlotte’s focus on a data-driven approach with Vision Zero led to the development of a High Injury Network that identifies locations where investments in safety are most urgent. 10% of all streets in Charlotte account for the High Injury Network. Of those streets, 66% are arterial streets, which are higher traffic volume and higher speed streets.

Micromobility

Encompasses relatively small and low-speed mobility options that are typically either human or electric powered, including scooters, electric-assist bicycles, and skateboards. Most micromobility options fit and function well within bicycle facilities and are used for shorter trips. Constructing and improving bicycle infrastructure is not only important for bicycles, but also provides opportunities for emerging micromobility options.

Mobility Hubs

A defined center for clustered transportation options and amenities, including walking, biking, transit, and micromobility. Mobility hubs are often where transportation routes come together and they provide an integrated set of services, facilities, and supporting technologies. The location of mobility hubs will be defined through the SMP and Envision my Ride studies conducted by the City of Charlotte.

Mode Share

The percentage of trips taken by each type of transportation.

Mode Shift

A change in the percentage of people using a particular way of getting around (walking, biking, taking transit, driving alone, carpooling, etc.) to another way of getting around. Mode shift tends to result when a new option becomes available or more attractive, or when another comparative advantage is created or promoted (less cost, less time, more usable time, etc.).

Multimodal

Refers to various modes of transportation (walking, biking, bus transit, rail transit, e-scooters and micromobility devices, shared mobility services, personal automobile, etc.) and emphasizes the importance of providing transportation choices beyond single-occupancy vehicles.

Placemaking

Placemaking inspires people to collectively reimagine and reinvent public spaces as the heart of every community. Strengthening the connection between people and the places they share, placemaking refers to a collaborative process by which we can shape our public realm to maximize shared value. More than just promoting better urban design, placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution.

Queue Jumps

A tool that allows transit to advance through an intersection ahead of traffic and/or bypass traffic at congested intersections.

Transportation Demand Management (TDM)

An approach to tackling congestion through the application of strategies and policies that more quickly reduce our impact on the transportation network rather than adding costly capacity.

Transit-Oriented Development (TOD)

A pattern of higher-density residential, commercial, office, and civic uses with an urban design and high-quality support for walking, biking, transit use and other forms of non-vehicular transportation, developed near high-performance transit stations. Transit-oriented development (TOD) is often encouraged using special development regulations around transit stations, which require a higher-quality public realm, limited parking, and connections to adjoining neighborhoods. The City’s zoning ordinance was amended in 2019 to include new Transit-Oriented Development Districts that are applied to land around stations along the CATS Lynx Blue Line.

Transit Signal Priority

A tool that gives special treatment to transit modes at an intersection and extends green light for buses approaching an intersection and allows approaching buses to request a green light. It can be a powerful tool to improve transportation network reliability and travel time.

Urban Trail

A multi-use public transportation path along a road, rail corridor, or through a developed urban area. Urban trails are a critical part of the overall pedestrian/bicycle network and intended to complement and connect greenway trails.

Walkability

A measure of how friendly an area is to walking. Leading park and recreation, planning, and design organizations define “equitable” access as one where a person can walk to the amenities they need within 10 minutes.

Acronyms

Acronym	Definition
AAA	All Ages and Abilities
AADT	Annual average daily traffic
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ATSPM	Automated Traffic Signal Performance Measures
AV	Autonomous Vehicle
AVL	Automatic Vehicle Locators
BAC	Bicycle Advisory Committee
BRT	Bus Rapid Transit
CATS	Charlotte Area Transit System

Acronym	Definition
CCCP	Charlotte Center City Partners
CDOT	Charlotte Department of Transportation
CIP	Community Investment Plan
CMPD	Charlotte-Mecklenburg Police Department
CMS	Charlotte-Mecklenburg Schools
CO2e	Carbon Dioxide Equivalent
CPCC	Central Piedmont Community College
CRTPO	Charlotte Regional Transportation Planning Organization
SMP	Strategic Mobility Plan
CTP	Comprehensive Transportation Plan

Acronym	Definition
CTR	Comprehensive Transportation Review
CV	Connected Vehicles
DEI	Diversity, Equity, and Inclusion
EMII	City of Charlotte’s Office of Equity, Mobility and Immigrant Integration
EPA	U.S. Environmental Protection Agency
ETOD	Equitable Transit-Oriented Development
FHWA	Federal Highway Administration
HIN	High Injury Network
HSIS	Highway Safety Information System
HTA	Housing & Transportation Affordability Index

Acronym	Definition
HUD	U.S. Department of Housing and Urban Development
I&T	City of Charlotte’s Innovation & Technology Department
ITRE	Institute for Transportation Research
ITS	Intelligent Transportation System
LPI	Leading Pedestrian Intervals
MaaS	Mobility as a Service
MSA	Metropolitan Statistical Area
MTC	Metropolitan Transit Commission
MTP	Metropolitan Transportation Plan
NACTO	National Association of City Transportation Officials

Acronym	Definition
NCDOT	North Carolina Department of Transportation
PDD	City of Charlotte’s Planning, Design and Development Department
PDD	Autonomous Mobility Pilot of Personal Delivery Device (PDD)
QoL	Quality of Life Explorer
SEAP	Charlotte’s Strategic Energy Action Plan
SOV	Single-occupancy vehicle
TDM	Transportation Demand Management
TIP	Transportation Improvement Program
TNC	Transportation Network Company
TOD	Transit-oriented Development

Acronym	Definition
TSP	Transit Signal Priority
UCP	University City Partners
UNC	University of North Carolina
USDG	Urban Street Design Guidelines
V2I	Vehicle to infrastructure
V2V	Vehicle to Vehicle
V2X	Vehicle to Everything
VMT	Vehicle Miles Traveled

Data Sources

The data in the SMP leverage a variety of data sources that provide unique and foundational data relating to mobility in Charlotte. Those sources that provided a bulk of the data are identified and described below:

Equity Atlas

Developed as part of the Charlotte Future 2040 Comprehensive Plan, the Equity Atlas looks at built aspects of the City of Charlotte through an equity lens to identify what may need to be added and where. Much of the data in the Equity Atlas utilizes the Mecklenburg County QoL Explorer and U.S. Census data.

ESRI Business Analyst Online (BAO)

ESRI BAO is a demographic mapping software that combines population, business, lifestyle, spending, and census data with map-based analytics.

Housing & Transportation Affordability (HTA) Index

The HTA Index provides data on housing and transportation costs for population and households across the U.S. at the regional level down to the block group level. Estimated cost burdens are provided based on the average regional household and illustrate how costs vary between and within regions based on locational characteristics.

Mecklenburg County Quality of Life (QoL) Explorer

The QoL Explorer is an interactive database of more than 80 variables on social, housing, economic, environmental, and safety conditions for 462 neighborhood profile areas (NPAs) that was created in partnership by Mecklenburg County, the City, and UNC Charlotte Urban Institute.

U.S. Census American Community Survey (ACS)

The ACS is an ongoing survey by the U.S. Census Bureau that collects detailed population and housing information on a yearly basis down to the block group level.

U.S. Census Longitudinal Employer-Household Dynamics (LEHD) OnTheMap

LEHD OnTheMap is a web-based mapping platform that provides information on employment that is compiled from several sources, including from the Quarterly Census for Employment and Wages, Office of Personnel Management, and Unemployment Insurance Wage Records.

Vision Zero

Vision Zero is a comprehensive traffic safety initiative focused on eliminating traffic fatalities and serious injuries. Charlotte’s Vision Zero Action Plan was developed using a collaborative process that convened a Task Force of over 50 members from 25 organizations representing a breadth of safety professions and advocates.

Walk Score

Walk Score, owned by Redfin real estate brokerage, provides ratings between 0 and 100 that measure the walkability, bikeability, and public transit access for a specific location using patented methods of analysis. The scores are based on data from Google, Open Street Map, U.S. Census, U.S. Geological Survey (USGS), and others.

Zillow Research

Zillow Research, which is independent of Zillow’s business goals, provides housing data, including their proprietary Zillow Home Value Index and Zillow Observed Rent Index, which offer smoothed measures of typical home values and market rate rents from a regional scale down to the neighborhood level.

Acknowledgments

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