CITY of Statesville
NORTH CAROLINA

Mobility + Development Plan

August 2019

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CITY of Statesville
NORTH CAROLINA

Mobility + Development Plan

Introduction | Chapter 1

Introduction

Transportation is a central component of life that most of us rely on every day. Planning for transportation affects everyone, from deciding the shape of manmade structures to tying together social networks. The *Statesville Mobility + Development Plan (MDP)* outlines the community's process for creating a comprehensive transportation strategy that addresses today's mobility needs and future needs for decades to come. The plan also represents an important step in fulfilling the North Carolina Department of Transportation's (NCDOT) requirements for a Comprehensive Transportation Plan (CTP).

Reason for the Plan

The Charlotte Regional Transportation Planning Organization (CRTPO) is the federally designated Metropolitan Planning Organization (MPO) for the Charlotte Urbanized Area. Federal legislation requires Urbanized Areas with populations larger than 50,000 to have an MPO that administers the transportation planning process among the member jurisdictions within its established planning area boundary. The planning process serves as the basis for spending the region's state and federal transportation funds for improvements to roadways, bridges, public transit, and bicycle and pedestrian networks. Following the 2010 U.S. Census, the MPO planning area was expanded to reflect growth in the Charlotte Urbanized Area. This expansion included the City of Statesville and most of Iredell County.

The *Statesville MDP* uses a cooperative planning process to establish multimodal transportation priorities for the City and surrounding area. The plan reflects an update to the 1997 Thoroughfare Plan. The intent is to fold the recommendations of the *Statesville MDP* into the region's ongoing update to its Comprehensive Transportation Plan. The *Statesville MDP* addresses transportation needs in the study area by identifying improvements, recommendations, and strategies to support a diversified system that considers users of all modes. The plan is unique because it blends considerations for growth and land development (i.e. transportation demand) into a process traditionally only focused on transportation supply. The Land Use Focus Areas in Chapter 7 illustrate how land use, urban design, and transportation can work in concert to reduce the stress on the City's major transportation corridors.

What is a Mobility + Development Plan?

A Mobility + Development Plan (MDP) combines a traditional transportation plan with considerations for land development (use, form, and location). The *Statesville Mobility + Development Plan* shifts the focus toward livable transportation, which 1) creates safe and attractive streets through better planning and design and 2) strategically connects various transportation modes. The result is a transportation network with sufficient balance and connectivity throughout the city and surrounding areas.

The quality, design, and location of transportation facilities also helps achieve broader community goals. In Statesville, these goals include a safe and efficient transportation system for all users. Guiding documents such as the Land Development Plan (June 2004) and Downtown & NC 115 Streetscape-Land Use Master Plan (April 2009) point to walkability and accessibility as defining characteristics of the City's transportation system. While the transportation plan identifies facility needs, the land use focus areas in Chapter 7 reflect the necessary characteristics of these places (narrow streets, slow traffic, and a pedestrian realm that is clearly defined and protected from motor vehicles).

Study Area

The City of Statesville has grown steadily from its roots as a small village in the back country on the western edge of the North Carolina piedmont. Today, Statesville is a full-service city at the confluence of two major interstate highways. Served by highway, rail, and air, the City of Statesville's transportation system contributes to the area's economic vitality and its quality of life.

Study Area at a Glance

The study area extends beyond the city limits to rural, unincorporated portions of Iredell County (Figure 1.1). The area was selected to better blend previous transportation plans for Troutman and the larger county with the changing needs of the center city.

Study Area | 261.1 square miles / 167,124.7 acres

City Limits | 36.4 square miles / 23,303.6 acres

Major Corridors | I-40, I-77, US 70, US 64, US 21

Natural Resources | Fourth Creek, Third Creek

Dominant Land Uses | Within the city, medium density residential with commercial and industrial along highways and railroads; Outside the city, rural residential

Rail Corridors | Norfolk Southern, Alexander

Notable Features | Statesville Regional Airport

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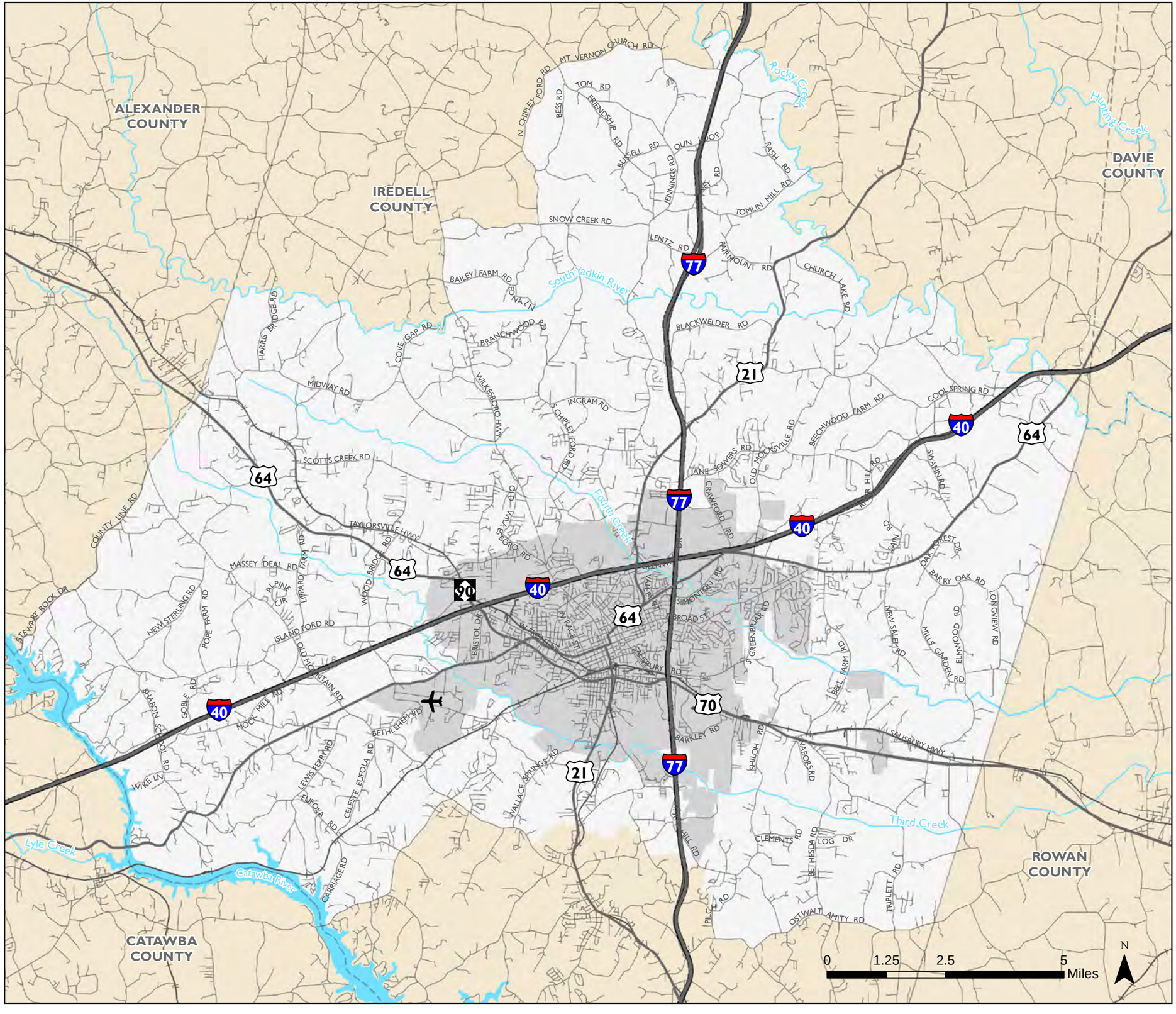
Study Area

Figure 1.1



- Interstate Highways
- US Highways
- City of Statesville
- Study Area
- County Boundary
- Statesville Municipal Airport
- Railroad Tracks

Planning Process

At its best, community-based transportation planning evolves from a collaborative process led by local stakeholders, including staff, elected officials, and community representatives. The Management Committee engaged these stakeholders through multiple channels of communication and several rounds of feedback. The planning process for plans such as the *Statesville MDP* needed to be rooted in an outreach platform that gathered, processed, and applied a diversity of opinions from the community. The data collection and analysis process culminated with a community outreach event that focused on the logical presentation of recommendations and a step-by-step approach to implementation.

Major Transportation Project Process

Major transportation projects using state funds require patience and consistency. This diagram outlines the typical process that would unfold.

Planning

Programming

The process begins with a planning effort, such as the *Statesville MDP,* to express the need and set the project as a priority. The programming phase includes additional planning and public input to get the project placed on the statewide list of funded projects (i.e. the State Transportation Improvement Plan, or STIP).

Project Development

Design

Right-of-Way

Prior to construction, additional environmental documentation may be required during the project development phase ahead of detailed designs and right-of-way acquisition. The process includes additional public participation via informational workshops and hearings. This input can have a direct bearing on the designs. Once the designs are set, the state goes through a process to obtain the necessary right-of-way.

Construction

Maintenance & Operation

Construction is coordinated by NCDOT. Maintenance and Operation is a continuous process carried out post construction that will ensure the longevity of the project.

The *Statesville MDP* process was led by a Management Committee comprised of staff and elected officials. The committee met throughout the process to provide strategic direction and offer a deeper understanding of the general consensus held by local stakeholders and the general public. For some larger transportation recommendations, the MDP represented the first step in a longer progression toward construction. Because one outcome of the process is a Comprehensive Transportation Plan (CTP) for the City, attention was given throughout to address the CTP elements.

Comprehensive Transportation Plan

North Carolina requires Metropolitan Planning Organizations to develop a Comprehensive Transportation Plan (CTP) in cooperation with NCDOT. The CTP is not financially constrained, and serves existing and expected travel demand within the planning area. The Statesville MDP will provide project recommendations and information necessary for the Charlotte Regional Transportation Organization (CRTPO) to complete its required CTP. The associated GIS data will be provided to the Charlotte Regional Transportation Planning Organization for inclusion in the ongoing update to the region's CTP.

Long Range Transportation Plan / Transportation Improvement Program

Because the recommendations included in the *Statesville MDP* are not financially constrained, only a small portion of the plan will be included in region's federally-mandated financially constrained plan, or long range transportation plan. Transportation recommendations from the *Statesville MDP* will be forwarded to CRTPO for consideration in the Metropolitan Transportation Plan (MTP) that aims to meet regional transportation needs over the next 25 to 30 years. Through the State Transportation Improvement Program (STIP), CRTPO identifies specific projects to be funded over the next four years. All projects receiving federal funding must be in the STIP.

Community Involvement

Transportation planning at its best is collaborative and relies on the unique perspectives of the community. Community involvement for the *Statesville MDP* was based on the premise that staff, elected officials, and stakeholders should direct a process that includes opportunities for the public to review and offer feedback on recommendations. This process is more likely to yield a feasible plan championed by the community as a whole. Community involvement occurred through a variety of small- and large-group meetings that held fast to two principles:

1. The community understands the transportation network and are affected directly and daily by the decisions made on their behalf.
2. The community can share in the collective vision for a project even as they hold differing opinions on how this vision should be fulfilled.

With respect to these two principles, the planning process was designed to create an open dialogue about the needs of residents, business owners, and visitors. Along the way, several overarching issues emerged:

- Residents frequently described Statesville as "stagnant," and wished to see the community become more "progressive."
- Travel choices should become a priority of the planning process, including transit, bicycle and pedestrian facilities.
- Safety is a frequently cited concern in Statesville, particularly for active transportation and along the plan's selected strategic corridors.

These themes, and others, surfaced during stakeholder engagement activities and community outreach events.

Management Committee

At the outset of the project, a group of staff and elected officials formed a committee to act as a sounding board throughout the planning process. The Management Committee ensured the *Statesville MDP* recognized previous planning efforts and incorporated the variety of perspectives found throughout the study area. The committee met throughout the planning process to assist with the development of the Guiding Statements, which: help convey existing conditions, review preliminary recommendations, and offer feedback on implementation strategies.

Committee Members

Costi Kutteh – Mayor
Michael Johnson – Mayor Pro Tem
William Morgan – Council Member
Michael Schlesinger – Council Member
Larry Pressley – City Manager
David Currier – Planning Director
Sherry Ashley – Assistant Planning Director
Andrew Ventresca – Senior Planner
Brent Cornelison – Recreation and Parks Director
Scott Harrell – Public Works Director
Bo Walker – Planning Board Member

Stakeholder Engagement Activities

A series of stakeholder interviews were conducted early in the planning process to engage in a meaningful conversation about the purpose, goals, and outcomes of the plan. The one-day, drop-in session was held at Statesville City Hall on December 2, 2015. Four focus areas were identified for study as part of the *Statesville MDP* to more deeply evaluate the relationship between land use, design, and transportation using the principles of urban form. The Statesville focus areas include: Stamey Farm; Barium Springs; Broad Street; and the Jane Sowers Northern Area. Major landowners from each area were invited to provide feedback to the plan's project team.

The Management Committee identified nearly 30 property owners that control key tracts within the four focus areas. Stakeholders were invited to come to City Hall at a time most convenient to their schedules. Ultimately, feedback obtained during the stakeholder engagement session was used in conjunction with existing conditions and market research to shape the development of land use concepts. The following represent some of the more frequently heard feedback throughout the day:

- Historical perspective of transportation, growth, and development
- Land prices and property ownership patterns
- Environmentally sensitive or challenging areas within each focus area that would shape the form and pattern of development (streams, wetlands, topography, etc.)
- Development proposals that could influence how the focus areas grow
- Personal opinions and preferences for how each focus area should grow in the future (what types of land uses, and at what densities)

Community Outreach Workshop

A workshop on June 2nd, 2016 drew more than 80 members of the Statesville community. Taking place at the Statesville Civic Center, the workshop allowed attendees to learn more about the planning process as well as provide input on their personal priorities for the community.

Feedback provided through dialogue with participants, as well as formal data collected through the six interactive work stations, served three purposes:

- Validate the study area's existing conditions
- Offer feedback on preliminary recommendations
- Provide input on project priorities

Agenda:

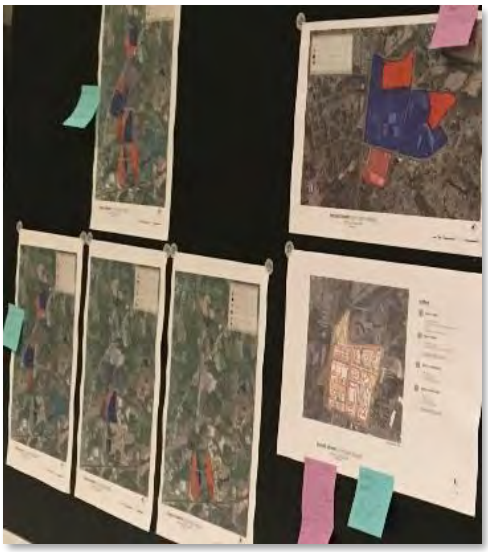
Interactive Work Stations:

- Information Wall
- One Word
- Priority Pyramid
- Future Transportation System
- Strategic Corridor Priorities
- Focus Area Concepts

Exit Questionnaire

Several valuable insights emerged throughout the evening that informed the development of the Statesville MDP. For instance, it was revealed during the "One Word" exercise that the community has a desire to see more economic growth in the future. Additionally, the community repeatedly expressed a desire for increased travel choices, including more bicycle and pedestrian facilities within the community.

Both of these insights, as well as other community feedback, helped shape the plan's project and policy recommendations, and are directly reflected in the plan's guiding statements (on the next page).



Vision and Guiding Statements

An important step in developing a long range community-based transportation plan, such as the *Statesville MDP,* is to create a vision and guiding statements to provide direction for the planning process and implementation. The vision and guiding statements that follow were created based on feedback from the Management Committee and presented at the community outreach events. They reflect a vision for the study area transportation system, and more importantly provide guidance as potential recommendations are prioritized.

Vision

Given the City's place in a large and diverse region, it was important to clearly communicate the intent of the plan to participants and policy makers.

> The vision of the *Statesville Mobility + Development Plan* is to provide an integrated community-based transportation plan that improves **traffic flow**, provides **travel choices**, enhances **safety**, promotes **economic growth**, and considers the **future ambitions** of the City and its people.

Guiding Statements

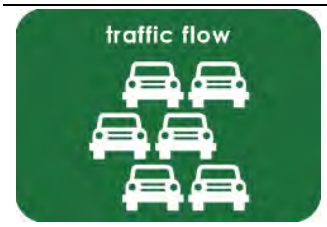
The guiding statements represent a set of interrelated thoughts that express the major priorities of the *Statesville MDP*. The statements add depth to the vision by building upon five key concepts contained within:

Traffic Flow | Travel Choices | Safety | Economic Growth | Future Ambitions

Each statement consists of a key phrase with further clarification provided through a pair of planning goals. Collectively, these thoughts represent a set of value statements for priorities identified early in the planning process. As transportation strategies were identified and evaluated, the project team revisited the guiding statements to determine which principles a given project or strategy addresses.

Transportation infrastructure in the Statesville area offers a significant resource that can be leveraged in a competitive marketplace. The challenge is to enhance transportation infrastructure by making thoughtful decisions regarding needs today and those that can realistically be anticipated in the future. Over the past decade, roads have been improved, the greenway network has expanded, and the area's economy has expanded.

Given the increasing competition for limited transportation funds, it is imperative to outline a list of community-supported projects and develop an implementation plan to help those projects be realized. The *Statesville Mobility + Development Plan* intentionally combines transportation considerations with a broader discussion of development trends, particularly for critical focus areas likely to develop or redevelop in the coming years.



Create a more efficient transportation system that reduces travel delay.

1. Reduce recurring congestion through transportation capacity, access management, and policy improvements.
2. Reduce vehicle miles traveled through enhanced integration and connectivity of the transportation system, across and between modes, for people and freight.

Connect people to destinations with facilities designed for all modes.

1. Provide desirable and user-friendly transportation options for all user groups regardless of socioeconomic status or physical ability.
2. Expand and maintain a network of bicycle and pedestrian facilities with right-sized transit service to connect homes, businesses, parks, and other key destinations.

Promote a safer transportation system through crash reduction and enhanced predictability.

1. Increase the reliability, predictability, and efficiency of the transportation experience for all users through system improvements.
2. Implement safety measures at high priority crash locations, along critical corridors, and at likely conflict points between motorists, bicyclists, and pedestrians.

Preserve and expand the economy with enhancements to the transportation system.

1. Prioritize transportation improvements that enable global competitiveness, productivity, and efficiency.
2. Increase the accessibility and mobility of people and freight within the study area and beyond.

Create a transportation vision plan that addresses reasonable expectations for future growth.

1. Blend previous planning efforts with new input and analysis to implement short- and long-term transportation solutions.
2. Maximize existing streets and make strategic investments in new facilities to more efficiently move people and goods.

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CITY of Statesville
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Mobility + Development Plan

State of the City | Chapter 2

Introduction

Decisions made as part of the longer view transportation planning processes must consider the study area's existing resources, including unique social, cultural, and natural elements as well as characteristics of the transportation system. Identifying potential impacts as transportation options are contemplated helps to balance the often competing interests of improving mobility and preserving a community's important natural and historical features. The earlier these features are identified, the more likely sustainable solutions will arise to minimize or avoid impacts and reduce unnecessary delays and expenses.

The State of the City provides a snapshot of the various elements of the city. This chapter includes four sections:

A review of existing conditions in the *Statesville MDP* study area provides an understanding from which transportation recommendations can be identified and evaluated. When considered with proposed transportation projects, this information provides a frame of reference to help assess the relative impacts (and benefits) of these projects on the community. Assessing projects early in the planning process helps lessen environmental impacts and minimizes potential conflicts during more detailed planning, permitting, and construction phases. Several best practices should continue to factor into the decision-making process for new roadways and major widening projects:

- Minimize impacts to the natural and built environments.
- Avoid unnecessary or disproportionate impacts to minority and low-income communities.
- Minimize impacts to parks, designated open spaces, schools, and historic resources.
- Capitalize on street connectivity opportunities.
- Promote pedestrian, bicycle, and transit networks.
- Minimize stream, wetland, and watershed impacts.
- Avoid FEMA designated floodplains.
- Minimize impacts to threatened and endangered species.

The *Statesville Mobility + Development Plan* takes a strategic approach in coordinating multimodal transportation options to foster economic prosperity and improve the quality of life for its residents. The goal is to promote mobility and enhance economic vitality while taking into account a diversity of development forms. This chapter of the *Statesville MDP* provides a careful investigation of the conditions and trends as one input toward the formulation of the future vision.

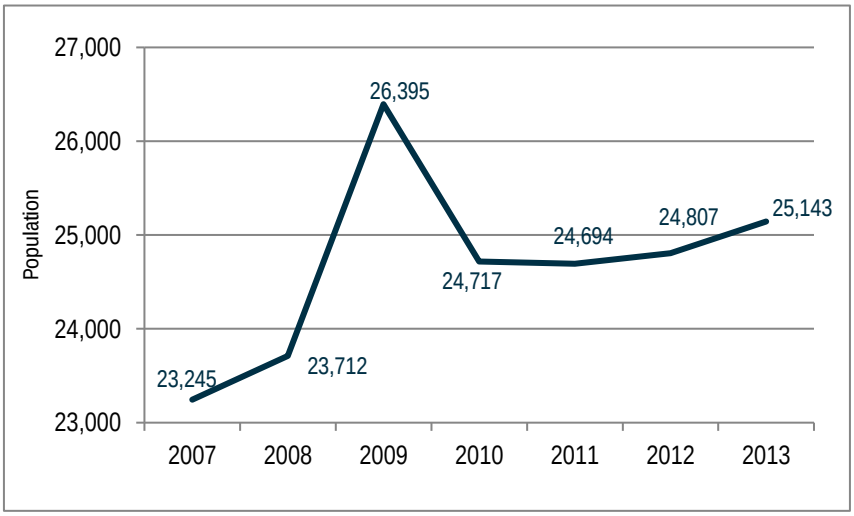
People

This section highlights key demographic and social trends that are driving change and impacting mobility and development in the Statesville area. It is important to understand these trends in order to make better informed planning decisions.

Trends

Population (Figures 2.1, 2.2)

The center of Statesville currently is the densest part of the city (more than 2,000 people per square mile) followed by the area to the east (between 1,000 and 2,000 people per square mile). Statesville currently has a population of 25,432, which is the highest that the population has been since it began decreasing in 2009. The adjacent graph shows the population change from 2007 to 2013. A sharp increase and spike can be seen leading up through 2009, with a precipitous decline thereafter of roughly 7% in the following year.



Much of the area within the ETJ is fully developed and is not projected to change in population. According to Traffic Analysis Zone (TAZ) data, most of Statesville's growth is projected to occur at the edges of the ETJ. The CBD also is projected to grow, presumably through redevelopment. The TAZs with the fastest growth have the population increasing by more than 200% over the 30-year timeframe.

Race and Ethnicity (Figure 2.3)

Approximately 33.8 percent of the Statesville population is comprised of people who represent races other than white alone. The non-white population is primarily located in the southwestern and northeastern parts of the city. Approximately 10.4 percent of the Statesville population identifies as Hispanic or Latino population. This population is concentrated primarily in the southwestern part of the city.

Minority populations also are located primarily in the southwestern and northeastern parts of the city. South of Salisbury Highway east of I-77 are the least diverse parts of the city and is primarily composed of a non-Hispanic white population.

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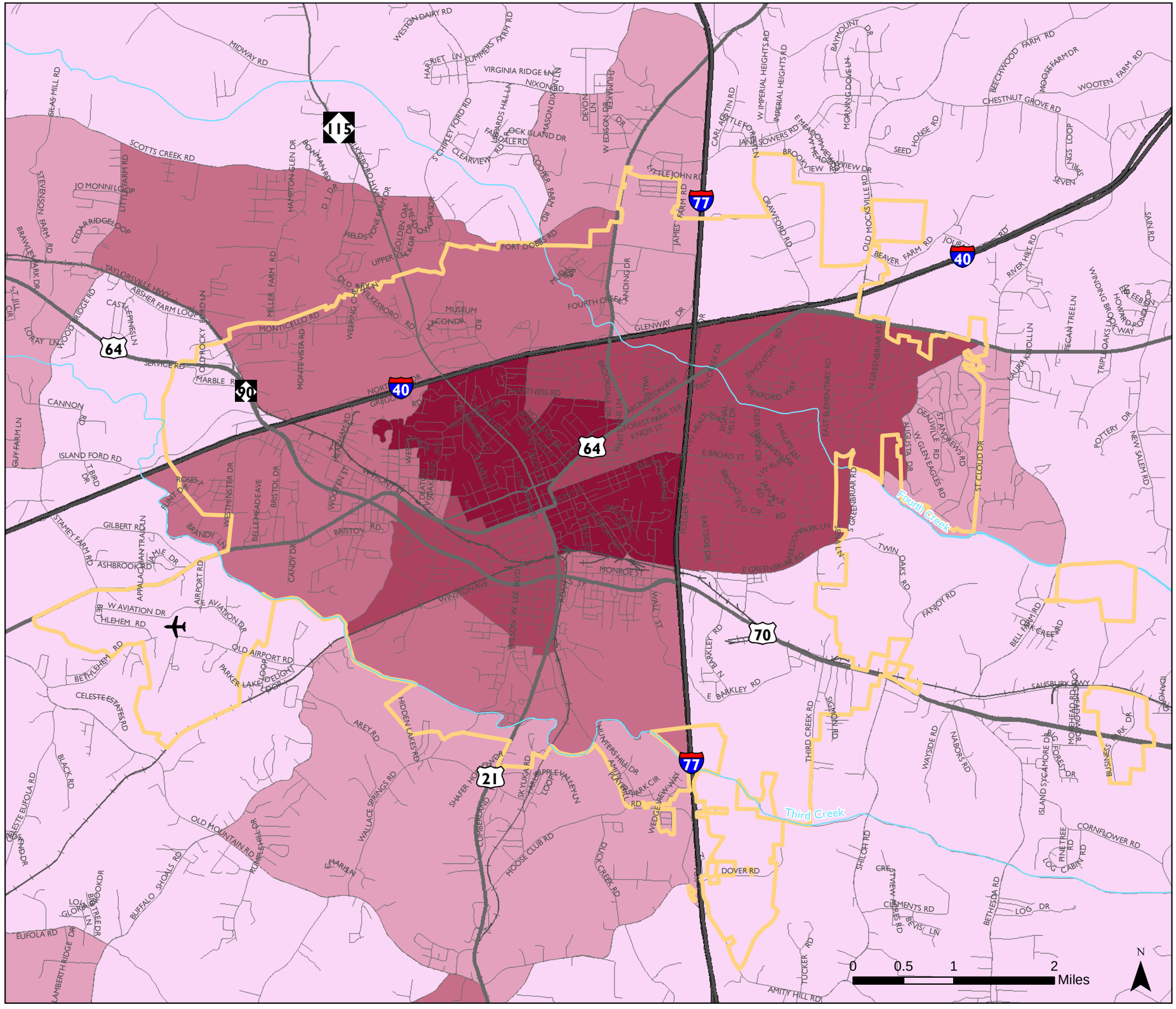
Population Density

Figure 2.1

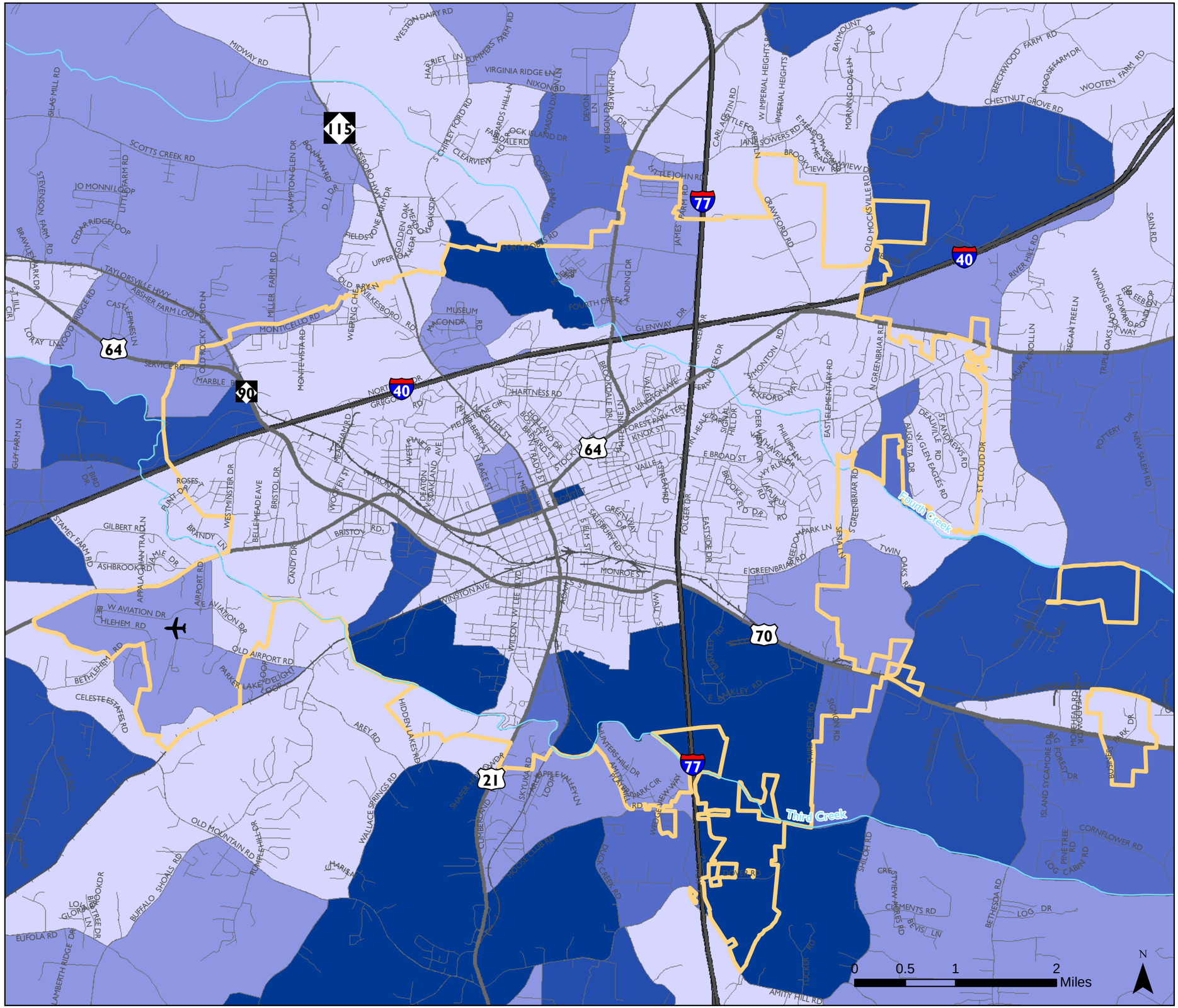
People per Square Mile

- Less than 250
- 250-500
- 500-1,000
- 1,000-2,000
- Greater than 2,000
- City of Statesville ETJ Boundary



Population Growth

Figure 2.2



Minority Population

Figure 2.3

Percent Minority Population

- Up to 5%
- 5% to 15%
- 15% to 30%
- 30% to 50%
- Greater than 50%
- City of Statesville ETJ Boundary

0 0.5 1 2 Miles

N

Economics

Employment (Figures 2.4, 2.5)

Several major employers and industries call Statesville home. Most of these job centers are located along the city's major highways and interstates. More specifically, major employers are clustered close to the I-77/I-40 junction. This makes sense given the ease of travel, from all directions, to this area for employees in the region. The top three employers in the Statesville region are:

- Iredell/Statesville Schools
  - 2,720 Employees
- Iredell Memorial Hospital
  - 1,626 Employees
- Iredell County Government
  - 1,134 Employees

It's worth noting that two of the top five major employers in the area are healthcare related (Iredell Memorial Hospital, Piedmont HealthCare).

According to TAZ data, which was used to project employment growth up to 2040, Statesville's employment growth is projected to be broad-based within the ETJ with pockets of particularly strong growth at the edges and in or near the CBD. The TAZs with the fastest growth have employment increasing over 200%, and are predominantly located on the southern and eastern edges of the ETJ. It's worth noting that currently, none of the top 15 major employers in the area are located on the eastern edge of the ETJ, where much of this growth is expected to take place.

Low Income Households

Poverty Status (Figure 2.6)

The poverty threshold for a family of four in 2013 was an annual income of $23,624. The three census block groups in Statesville with median household incomes less than this threshold also have more than 50 percent of their population composed of minority populations. Other block groups have a range of median incomes, with wealthier populations on the edges of and outside of the Statesville ETJ and lower income households live within the ETJ.

The three census block groups within the Statesville ETJ with median incomes below the poverty line also meet the definition of concentrated poverty (more than 40 percent of their populations living below the poverty line). Between 10 and 40 percent of the remainder of the population inside of Statesville's ETJ is living in poverty.

Vehicle Access (Figure 2.7)

Most households in Statesville have access to a vehicle for transportation. The southern region of the Statesville ETJ has a greater percentage of households without access to a vehicle. Two census block groups have more than 25 percent of the households without access to a vehicle. These block groups also are identified as areas of concentrated poverty, which shows the relationship of poverty to vehicle access and overall transportation issues.

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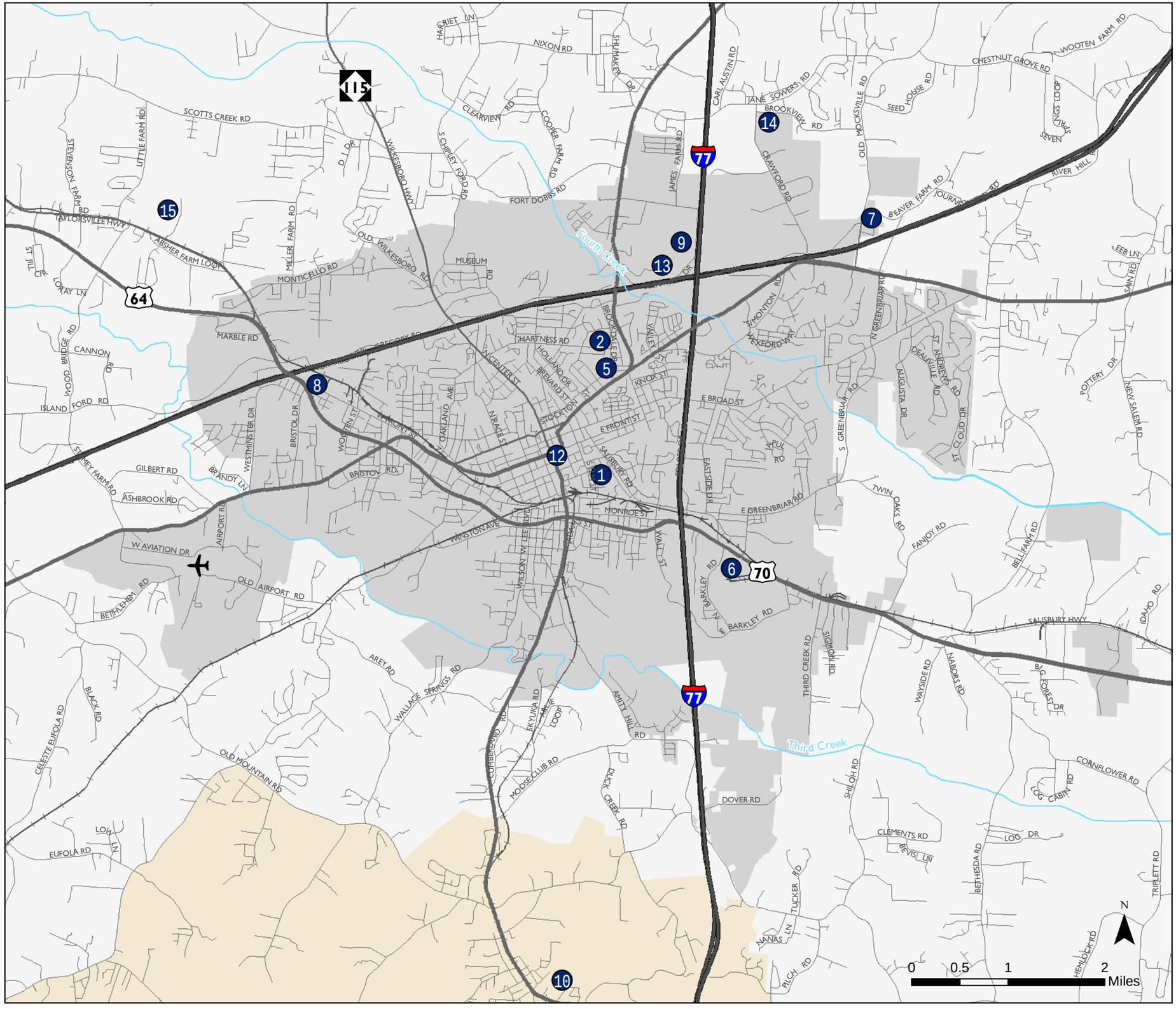
Major Area Employers and Industries

Figure 2.4



Major Employers

Map ID	Employer	No. of Employees
1*	Iredell/Statesville Schools	2,720
2	Iredell Memorial Hospital	1,626
3*	Iredell County Government	1.134
4**	Lowe's Regional Distribution Center	823
5*	Piedmont HealthCare	720
6	J.C.P. Logistics	620
7	Davis Regional Medical Center	492
8	Kewaunee Scientific	480
9	Doosan Infracore-Portable Power	474
10***	Engineered Sintered Components	450
11**	Manheim Statesville	443
12	City of Statesville	416
13	Walmart	397
14	ASMO on NC, Inc.	307
15	Pratt Industries	240

* Various Locations throughout the Study Area
** Location outside of map area
*** Location in Troutman

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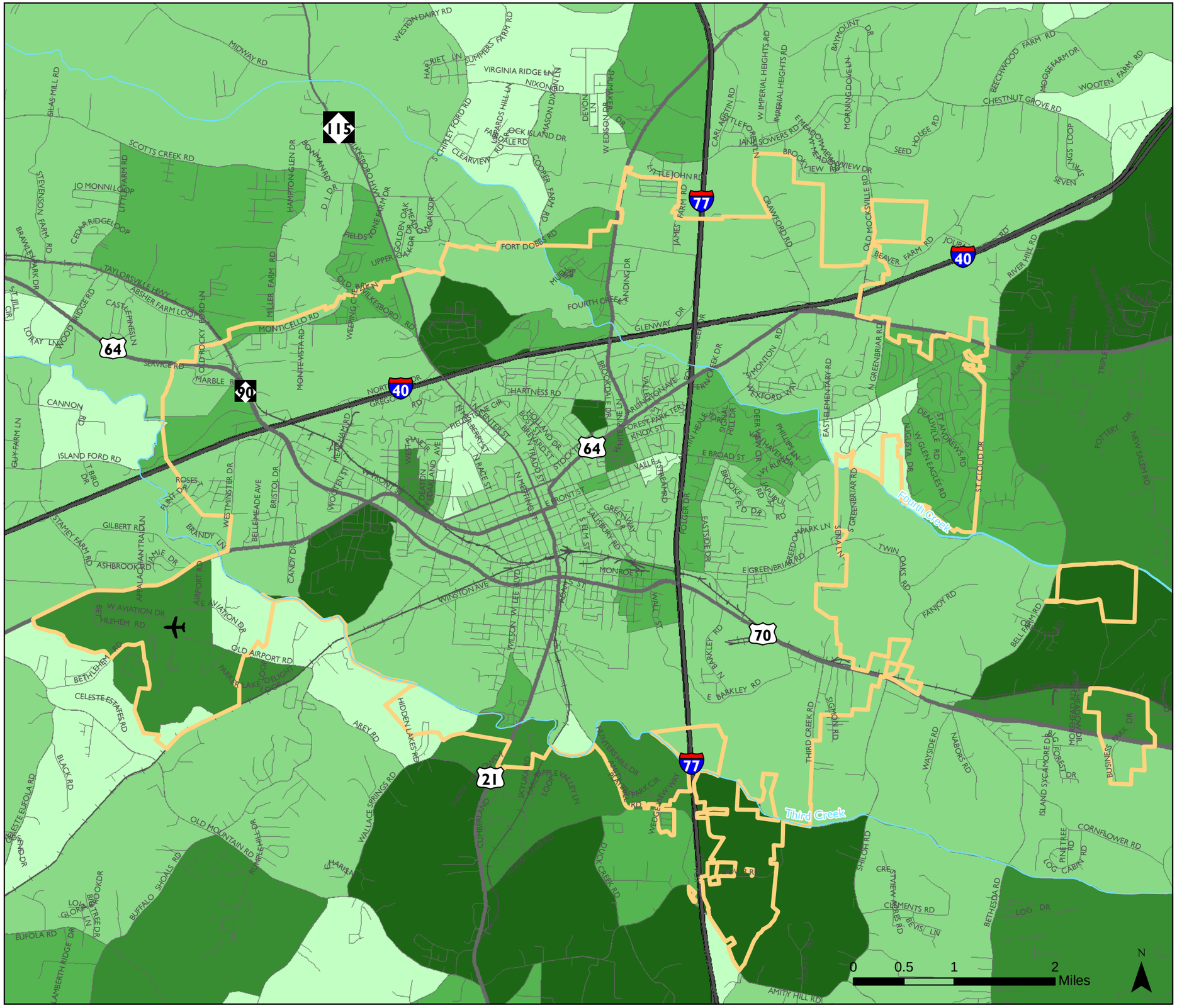
Employment Growth

Figure 2.5



Poverty Status

Figure 2.6

Population living in Poverty

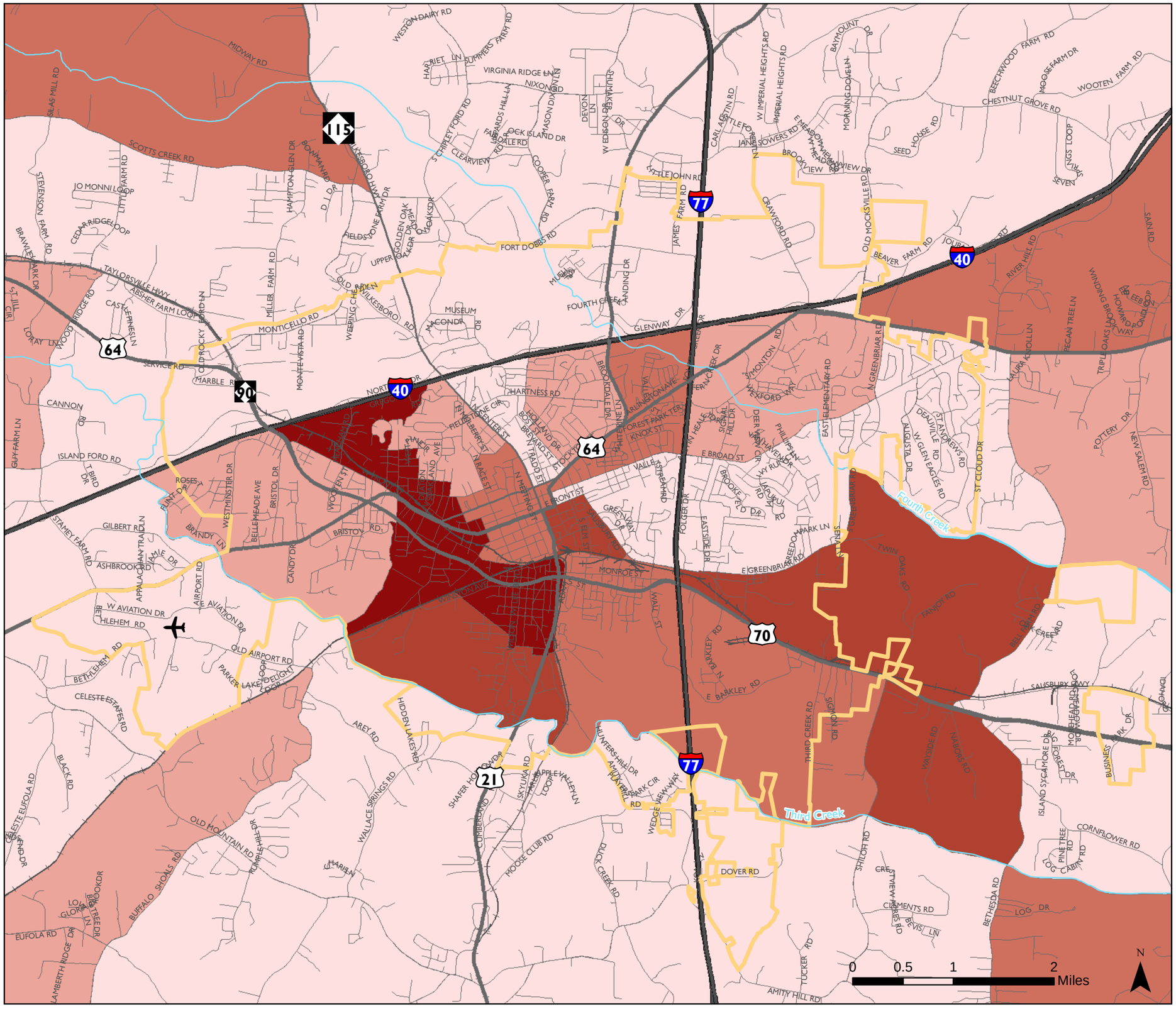
- Up to 10%
- 10% to 20%
- 20% to 30%
- 30% to 40%
- 40% to 50%
- City of Statesville ETJ Boundary

Poverty Status

In the map at left, darker colored areas show places where a higher percentage of the population lives below the federal poverty level. In 2017, poverty is defined as having an income below $12,060 for a single person, or $24,600 for a four-person household.

Households without access to Vehicles

Figure 2.7



Zero-Vehicle Households

In the map at left, darker colored areas show places where many households do not have access to a vehicle, and are therefore reliant on alternate means of transportation.

Resources

Natural and Historic Resources

Historic/Environmental Areas (Figure 2.8)

Four historic districts and several natural heritage areas are located within and around Statesville. Most of the historic districts are located in the center of the city, while the natural heritage areas are on the periphery.

Most of the environmental resources in Statesville are located on the periphery of the city. Fourth Creek bisects the northern part of the city, and Third Creek runs along Statesville's southern border. Other creeks in the City include Back Creek, Duck Creek, Gregory Creek, and Morrison Creek. Wetlands, scattered throughout the edges of the ETJ, include freshwater ponds, freshwater emergent wetlands and freshwater forested shrub wetlands. Cumulatively these water bodies cover 107.3 acres.

Parks (Figure 2.8)

Statesville is also home to several parks and conservation districts. Most of the parks, while relatively small in size, are located in the center of the city. Three larger parks are located toward the northern part of the city. Parks and park access can have strong implications for bicycle and pedestrian networks as well has larger transportation issues.

Public Schools (Figure 2.9)

Seventeen public schools or public school related facilities are located in Statesville, including ten elementary schools, three middle schools, three high schools, and one community college (Mitchell Community College). Statesville also is home to five private schools. Most of the schools are located in the center of the city. It's worth noting that Statesville High School and community college are both located close to or within the CBD. Presumably, more people/students will be trying to access these facilities on a regular basis which has strong transportation implications.

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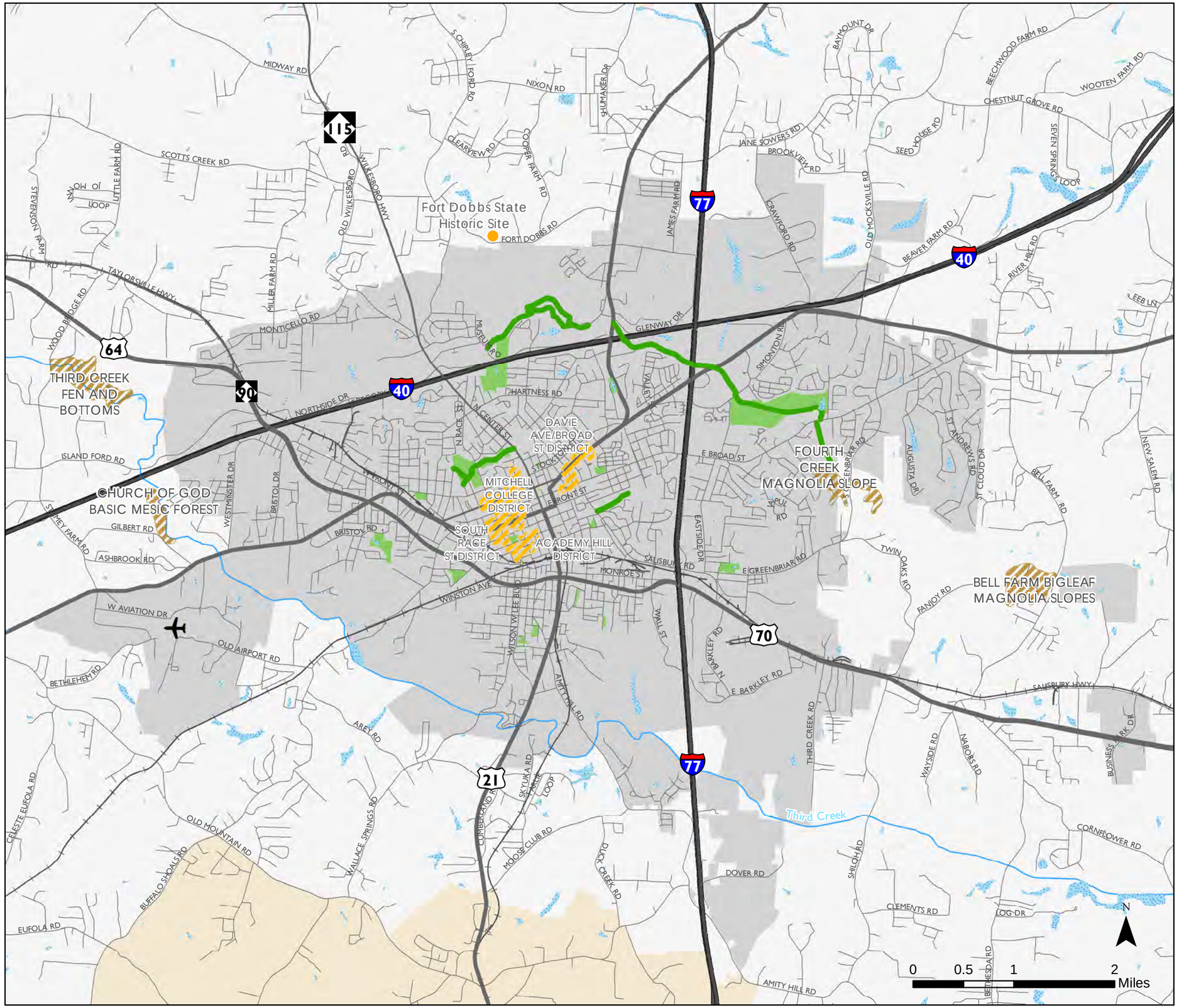
Natural and Historic Resources

Figure 2.8



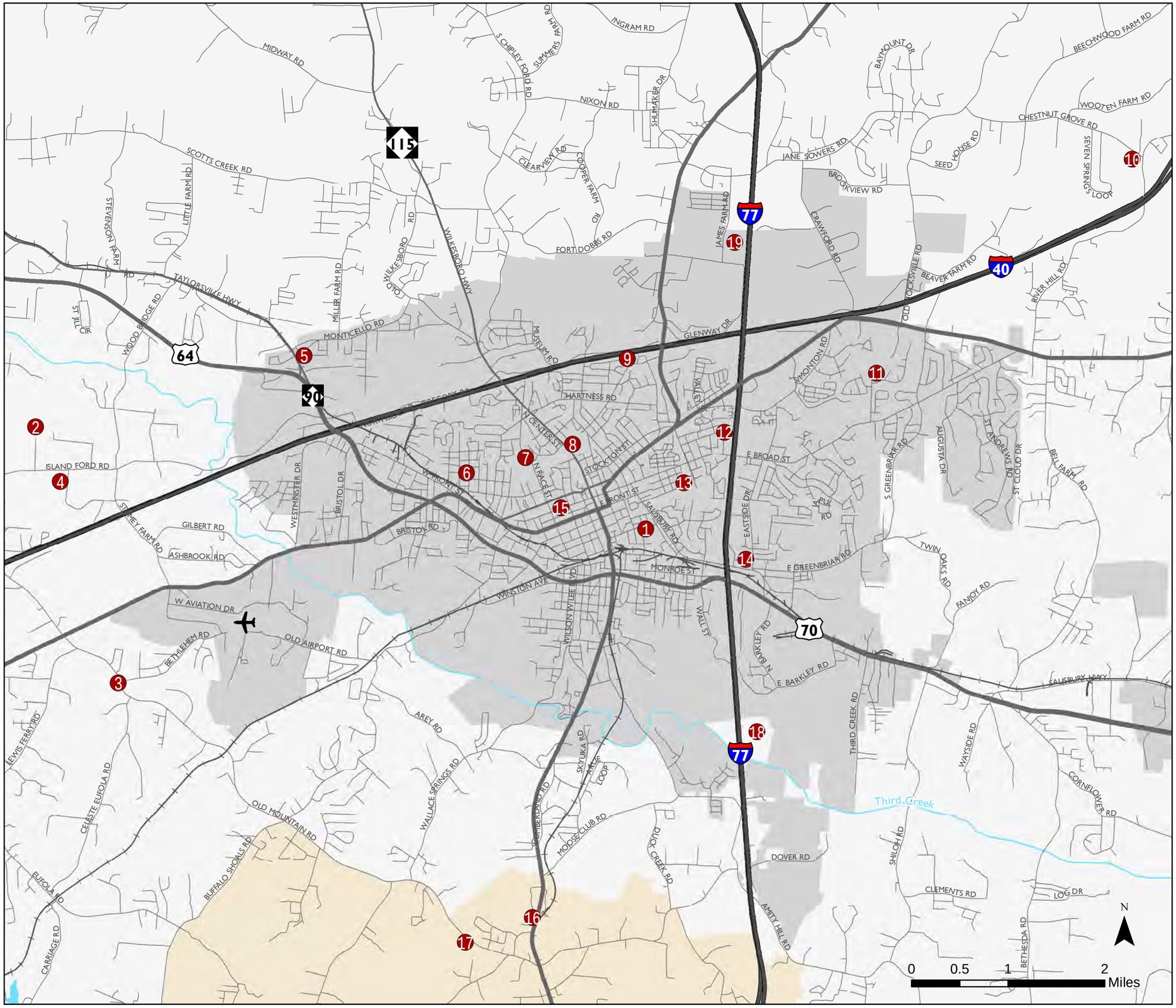
- Historic Sites
- Historic Districts
- Significant Natural Heritage Areas
- Parks
- Wetlands
- Statesville Greenway

Existing Parks

Name	Acres
Abernathy Ballfield	4.7
Albert B. McClure Park	16.1
Alex Cooper Park	1.4
Bristol Road Recreation Center and Park	21.2
Caldwell Park	4.7
Cochran Street Ballfield	7.4
Garfield Park	2.2
Kimbrough Park	10.3
MacAnderson Park	36.1
Martin Luther King, Jr. Park	36.1
Newtonville Community Park	7.4
Statesville Fitness & Activity Center	63.8
Pecan Park	0.3
Ralph Bentley Community Center	4.3
Richard Harris Park	1.9
South Statesville Park	2.6
Statesville Park and Soccer Complex	76.4
Tradd Street Park	0.9

Area Public Schools

Figure 2.9



Area Public Schools

ID	Name
1	AD Rutherford
2	West Iredell High School
3	Celeste Henkel Elementary School
4	West Iredell Middle School
5	Monticello Elementary School
6	NB Mills Elementary School
7	Iredell/Statesville School Offices
8	Statesville High School
9	Northview Middle School
10	East Iredell Middle School
11	East Iredell Elementary School
12	Pressley Elementary School
13	Statesville Middle School
14	Annex School Building
15	Mitchell Community College
16	Springs Academy
17	South Iredell High School
18	Third Creek Elementary School
19	Cloverleaf Elementary School

Existing Plans

A high-level review of existing planning efforts and policies influencing mobility and development within the study area offered insight into what already is in motion as well as the forces that influence how people and goods move within and through Statesville. A focus of the review was identifying vision statements, guiding principles, and goals that could help shape the direction of the Statesville MDP.

Land Development Plan
(June 2004)

A long-range built environment vision for Statesville that will guide development, transportation policy decisions, and community enhancement tactics through the year 2020.

Major Recommendations

- Maintain a sustainable mix of land uses in and around the city through effective, coordinated growth management.
- Foster compatible redevelopment, revitalization and/or changes of use in designated special planning areas.
- Enhance the appearance of community gateways, corridors, and neighborhoods through effective partnerships between the city, state, and private property owners.
- Foster a vibrant mixed-use downtown that retains the historic character of existing commercial and residential neighborhoods, while providing increased opportunities for residents who wish to live within walking distance of neighborhood amenities and work places.
- Coordinate development and street improvements to maintain acceptable traffic flows and to minimize delays due to traffic congestion.
- Develop a street system that safely and effectively serves all users, including drivers, pedestrians, bicyclists, and adjacent property owners.
- Increase the capacity of the Statesville Municipal Airport to serve as an economic and transportation center through continued economic development partnerships and protection of approach zones from incompatible residential encroachment.
- Develop and maintain adequate water supplies, treatment capacity, and distribution capacity to efficiently meet the needs of growth within the City's service area.
- Develop a system of greenways along the City's streams that serve the community's recreational and mobility goals, in addition to protecting water quality and property from degradation or damage from stormwater runoff.

Downtown & NC 115 Streetscape – Land Use Master Plan *(April 2009)* A plan to maintain and develop downtown Statesville as the cultural, economic, social, and historic center of the community.	Major Recommendations • Continue defining, branding, and signing downtown Statesville as the community activity center for the area. • Support established civic uses that maintain downtown Statesville as a primary zone for municipal government uses, and support civic centers like the Iredell County Public Library and the various churches near downtown. • Existing historic buildings within downtown should be retained and rehabilitation and adaptive reuse encouraged. Barriers to rehabilitation and adaptively reusing historic buildings should be removed. • Modify the Statesville Land Development Plan and current zoning districts to reflect land uses shown on the Proposed Land Use Plan. • Attract new restaurants, shops, and artists to downtown. Revitalize the Historic Depot for mixed use and for potential future passenger service. • Increase well designed affordable housing downtown. • Continue to modify various downtown streets to be more pedestrian friendly. Use techniques such as road diets and lane narrowing to add sidewalks and tree space. Discourage trucks from driving through downtown. Develop on-street metering system as revitalization occurs. • Continue to add various urban design elements to streets in order to attract pedestrians and businesses. • Promote downtown Statesville as a tourist destination. • Create loop trails and new green space, such as a linear park between NC-115 and the railroad ROW, in and near downtown.
Brookdale Drive, Oakdale Drive and Hartness Road Corridors (2011) A general policy guide for land use and infrastructure decisions in the area.	Major Recommendations • Establish firm growth boundaries for future medical expansion in the area • Maintain the area as a desirable place to live and work • Achieve compatibility between existing neighborhoods and future medical uses

Bristol Drive / Westminster Road Area Plan *(March 1989)* A plan to guide unified development in the Bristol Road area	Major Recommendations • Include buffer zones along the southern boundaries of the transitional areas • Place limitations on permitted uses to assure quality retail and service development
Old Wilkesboro Road Small Area Plan *(April 2004)* A plan with development policies for properties on Old Wilkesboro Road	Major Recommendations • Carry out minimal changes to existing terrain and environmental features • Protect two lakes at the western edge of the study area • Promote neighborhood vitality of the Old Wilkesboro Road area
Eastside Drive Corridor Small Area Plan A guide for land use decisions for Eastside Drive	Major Recommendations • Assure protection of non-residential for existing residential establishments • Conditional use zoning should be used to guarantee policies • Encourage unified development and enforce sensitive relationships between residential/non-residential districts
East Broad Street Extension Corridor Small Area Plan A general policy guide for land use decisions in the corridor	Major Recommendations • Transition East Broad Street from residential to nonresidential zones • Encourage transitional buffer concept by zoning districts • Strongly discourage strip development along East Broad Street • Encourage unified or combined lot development

In addition to more a more in-depth look at the above plans, the following are also important documents to understanding what is in motion in Statesville: **Carolina Thread Trail Masterplan**, **Parks and Recreation Masterplan**, **Statesville Thoroughfare Plan**, **Town of Troutman CTP**, **Iredell County CT, Airport Layout Plan.**

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CITY of Statesville
NORTH CAROLINA

Mobility + Development Plan

Roadway Element | Chapter 3

Introduction and Overview

As residential, commercial, and industrial growth occurs and more vehicles take to the road, roadway improvements are needed to reduce traffic congestion and improve safety. These roadway improvements often enhance access, thus raising land values and attracting more development.

The interaction between activity centers and the transportation corridors that link them is important, as are the mobility choices provided within the center. Often neighborhoods and activity centers rely on a few transportation corridors to provide essential links between home, school, employment, shopping, social, and recreational destinations. Activity centers in Statesville includes Downtown Statesville, Broad Street (Signal Hill Mall), Statesville Regional Airport, Turnersburg Highway Commercial Corridor (Crossroads Center), and Taylorsville Road Corridor (Westpark Shopping Center).

A unique challenge in creating a successful transportation system for the Statesville area is blending local and regional connectivity and access functions with preservation of natural features and its unique character. To develop a set of realistic and effective roadway recommendations for the *Statesville Mobility + Development Plan*, it was necessary to look beyond simply congestion relief to consider other important factors. Each of the following criteria was considered during the formulation of recommendations.

- Mobility and safety - Congestion relief and safety improvements often serve as the primary motivating factors for roadway projects. The project's impact on local and regional congestion and safety should be considered. Also, the project's benefit for the overall connectivity of the region and the enhancement of multimodal linkages should be considered.
- Land use and development – Identifying areas with projected or targeted growth in future years helps identify roadway projects that could address future demand.
- Environmental and cultural features: Neighboring features such as floodplains, wetlands, and community resources must be identified. In the case of community features that serve destination points, consideration should be given on how best to connect potential users to these areas.

Existing Conditions

Transportation System

Statesville's central location places it an important regional crossroads. This location presents many opportunities, but also challenges, and has influenced local decision-making for decades. When planning for the future, it is important to understand the current condition of the local system, including traffic congestion, traffic volumes, and safety. A series of maps are presented on the following pages to help provide context to current network conditions.

Federal Functional Classification (Figure 3.1)

Statesville is served with a robust regional roadway network, including I-40, I-77, and US-70. These interstates are supplemented by a network of minor arterials that intersect in Statesville's CBD and radiate in the cardinal directions. Lower classification roadways provide access to lesser developed areas of the ETJ.

Average Daily Traffic (Figure 3.2)

Average annual daily traffic (AADT) volumes in Statesville generally are related to the functional classification of the corresponding roadways. In 2013, I-77 and I-40 had the highest AADTs with volumes ranging from 38,000 to 64,000 within the ETJ.

Vehicle Congestion (Figure 3.3)

Traffic congestion in Statesville was analyzed using the regional travel demand model and reported with volume-to-capacity ratios. The I-40 and I-77 interchange areas, as well as segments of Garner Bagnal Boulevard (US-70) through the ETJ, experience the highest levels of congestion.

Crash History (Figure 3.4)

Crash history was analyzed using GIS data from NCDOT for the three-year period ending in December 31, 2014. A crash density analysis shows a relationship between major interchanges and accidents. In particular, the areas around the interchanges at US-21 and I-40, I-40 and I-77, East Broad Street and I-77, US 70 and I-77, and I-40 and Wilkesboro Highway (NC 115) have a disproportionately higher incidence of accidents.

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CITY of Statesville NORTH CAROLINA | Mobility & Development Plan

Federal Functional Classification

Figure 3.1

- Interstate
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector

Interstates

Provide most mobility and least access to serve long-distance travel

Local examples: I-40. I-77

Principal Arterials

Provide mobility for medium distance travel and connect major activity centers and urban areas

Local examples: Garner Bagnal Boulevard

Minor Arterials

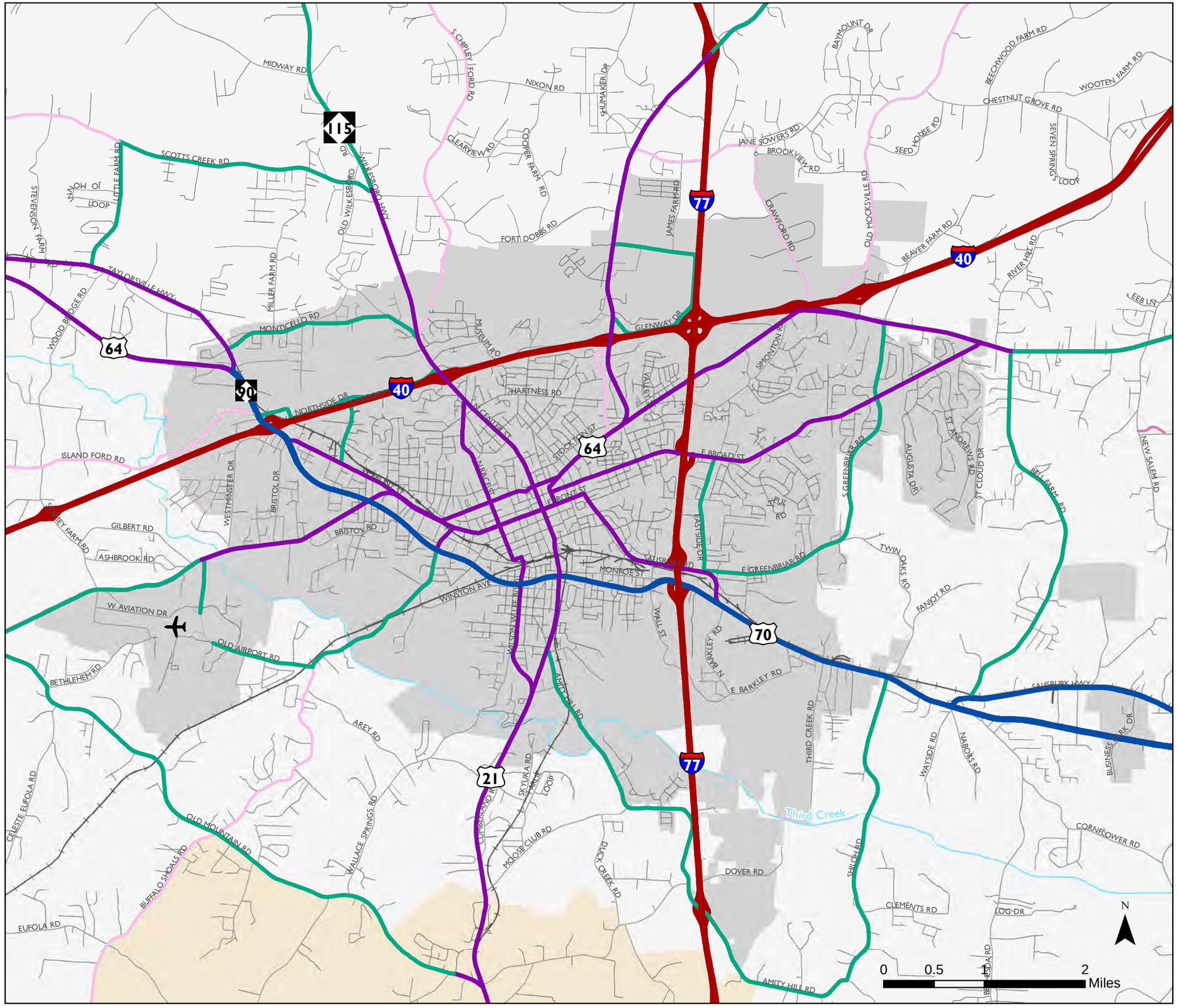
Provide access to adjacent land and are intended to serve travel within a local area

Local examples: Front Street, Center Street

Collectors (Major/Minor)

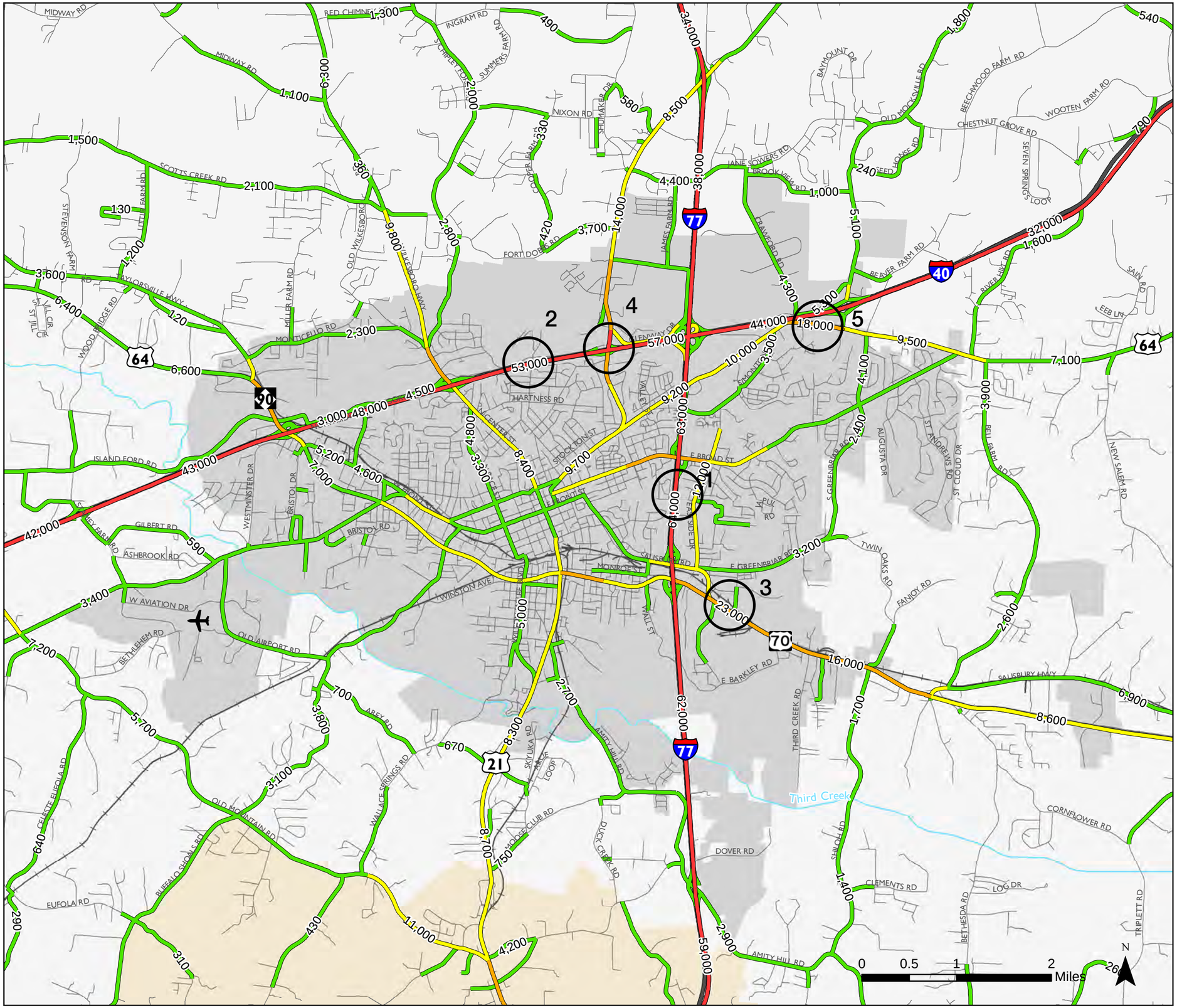
Provide the most access with the least potential for mobility and typically serve short-distance trips

Local examples: Amity Hill Road, Bell Farm Road



Average Daily Traffic, 2013

Figure 3.2



Traffic Volumes

Traffic volumes signify the total number of vehicles traveling along a roadway segment on an average day. Overall, traffic volumes on facilities classified as collector streets are lower than those on minor arterials, and traffic volumes on minor arterials are lower than those on principal arterials. This tendency reflects the purpose and function of each roadway class design and location.

High Traffic Spots

1. I-77 - 64,000 vehicles

2. I-40 - 53,000 vehicles

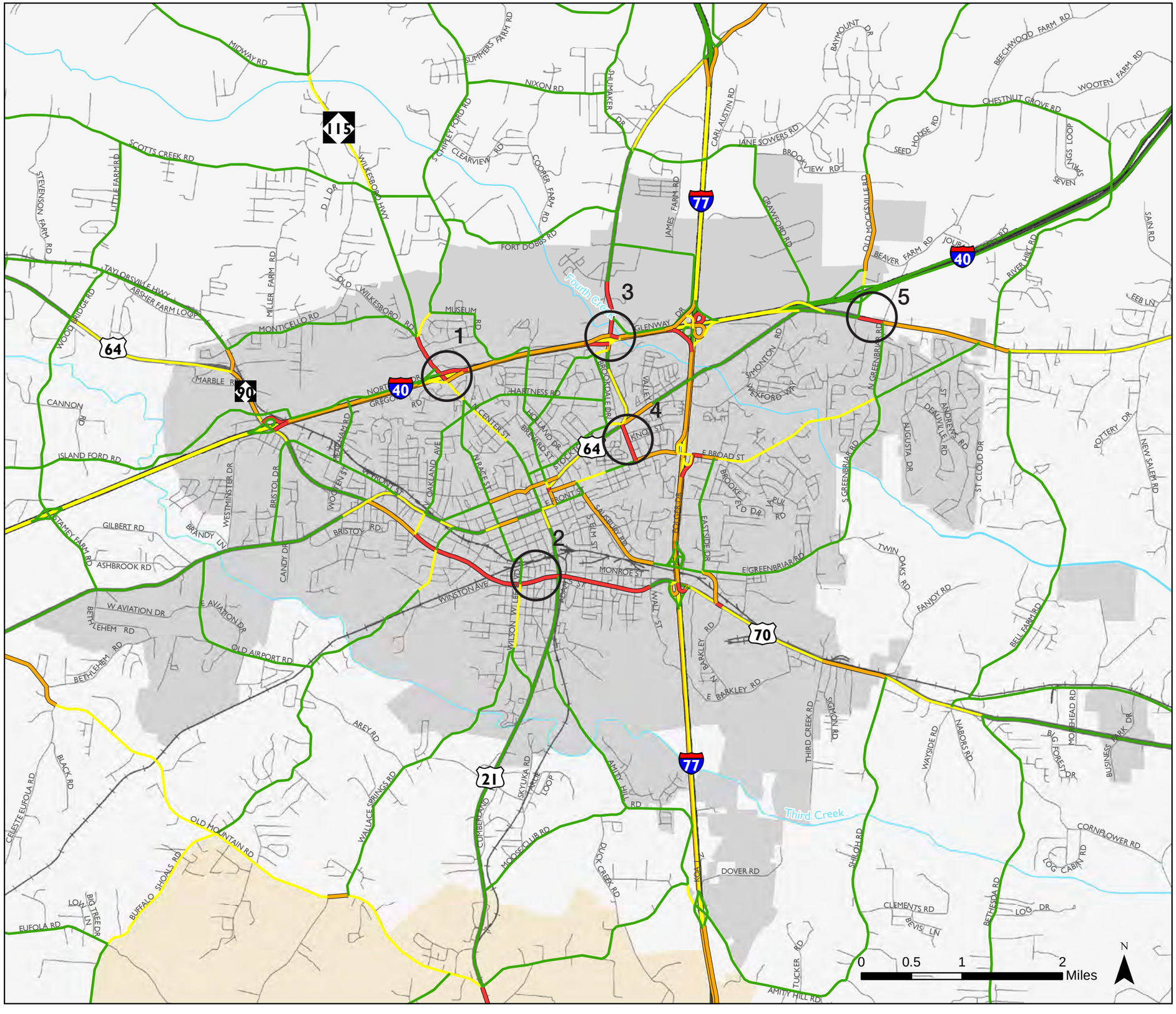
3. Garner Bagnal Boulevard - 23,000 vehicles

4. Turnersburg Highway - 18,000 vehicles

5. Mocksville Highway - 18,000 vehicles

Vehicle Congestion

Figure 3.3



V/C Ratio

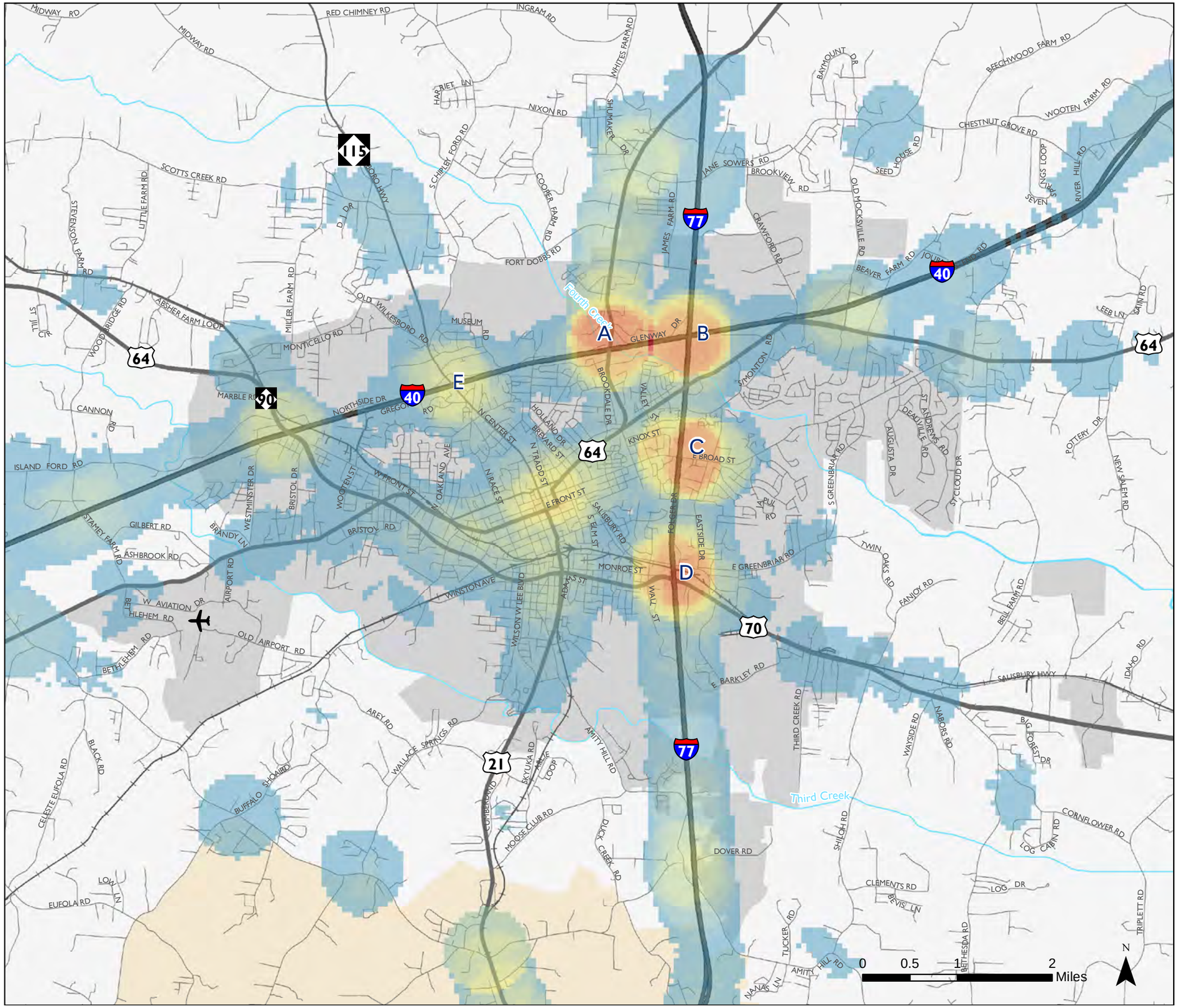
Volume-to-capacity (V/C) ratios often are used to assess the status of traffic on a given roadway. V/C ratios can vary from a low of near 0 (free flow of traffic) to greater than 1 (severely/heavily congested). Typically, a V/C ratio of less than 0.85 indicates adequate capacity for vehicles and that vehicles likely will not experience significant delays.

Top Congestion Spots

1. **Wilkesboro Highway** - 1.48
2. **Garner Bagnal Boulevard** - 1.46
3. **Turnersburg Highway** - 1.12
4. **East End Avenue** - 1.06
5. **Mocksville Highway** - 1.22

Crash History

Figure 3.4



Crash History

Analysis of crash history along with an examination of existing traffic patterns help determine where safety improvements would benefit the community. Contributing factors to a location's high crash frequency can include intersection design, access considerations, and traffic congestion. Many locations with high crash frequencies also have higher congestion levels, so roadway projects that reduce traffic congestion also should have safety benefits. Driveway access in proximity to intersections and interchanges typically contribute to crash frequency by increasing unexpected conflict points.

Top Frequent Crash Locations

A. I-40/Turnersburg Highway

B. I-40/I-77

C. I-77/Broad Street

D. I-77/Salisbury Road/Garner Bagnal Boulevard

E. I-40/Wilkesboro Highway

Travel and Transportation Trends

The 2013 American Community Survey, administered by the United States Census Bureau, provides detailed economic data about households and individuals across the country. The following travel trends were observed at the census tract level in the Statesville area.

Travel Time to Work (Figure 3.5)

Most of the Statesville population has a commute to work of half an hour or less. Those living in the northern part of the ETJ have the longest commutes, with a mean travel time between 35 and 45 minutes.

Mode Choice to Work (Figure 3.6)

A significant portion of Statesville residents commute to work with a mode other than a single-occupancy vehicle including, but not limited to, biking, walking, carpooling, or public transit. The census blocks to the southwest and the northeast have the most people commuting in a single-occupancy vehicle, which coincides with the block groups having the highest incomes.

Commuting Patterns

Longitudinal Employer-Household Dynamics (LEHD), provided by the United States Census Bureau, displays where people live and work by census tract. The most recent LEHD data available is from 2011.

Where People Who Live in Statesville Work (Figure 3.7)

According to LEHD data, most people who live in Statesville also work in Statesville. Some residents work in census tracts to the north, southwest, and southeast of the Statesville ETJ.

Where People Who Work in Statesville Live (Figure 3.8)

The home distribution for those who work in Statesville is fairly even throughout the area, which suggests that Statesville is a job center for the region.

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Travel Time to Work

Figure 3.5

Mean Travel Time to Work

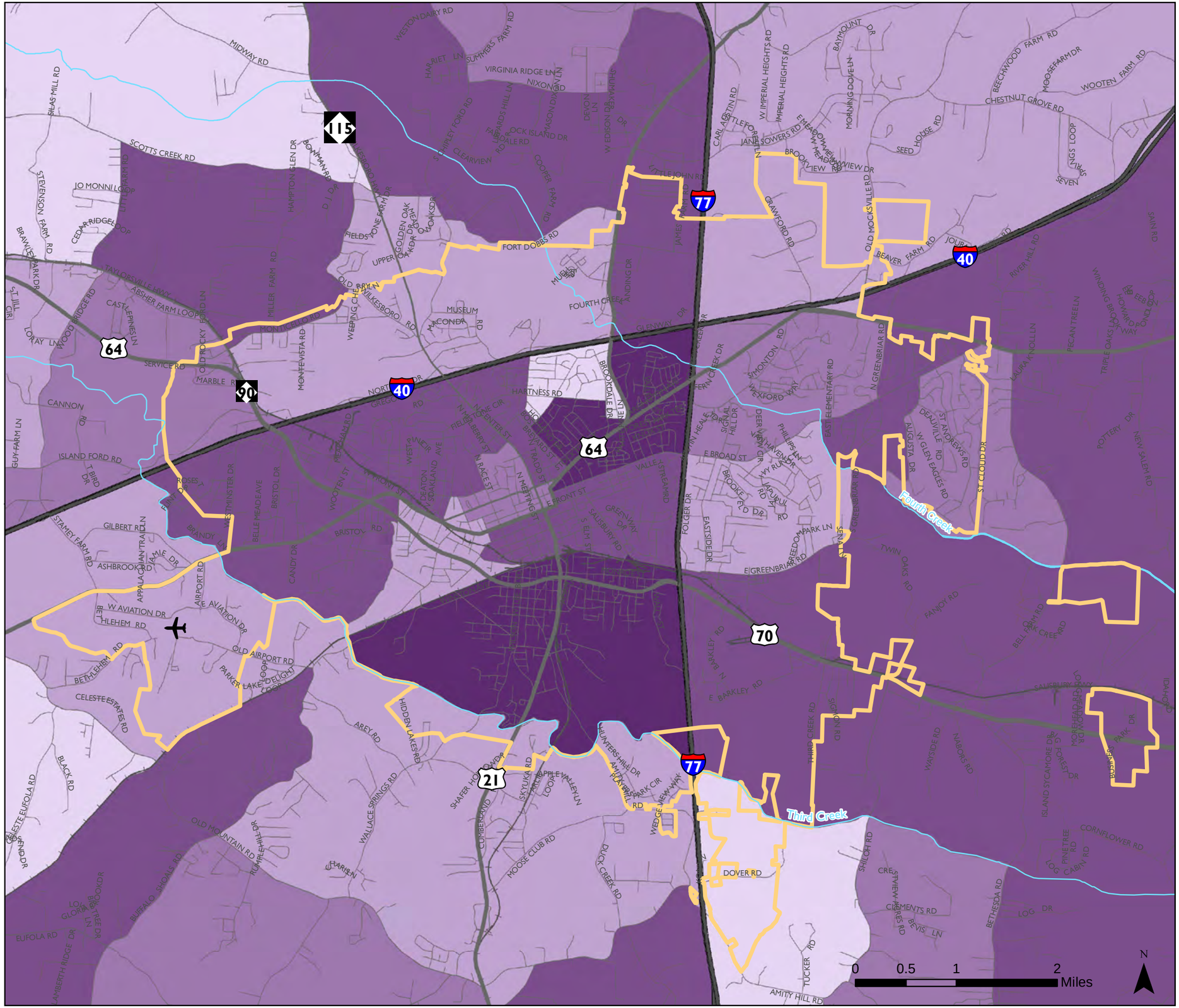
- Under 20 minutes
- 20 - 25 minutes
- 25 - 30 minutes
- 30 - 35 minutes
- Greater than 35 minutes
- City of Statesville ETJ Boundary

0 0.5 1 2 Miles

N

Mode Choice to Work

Figure 3.6

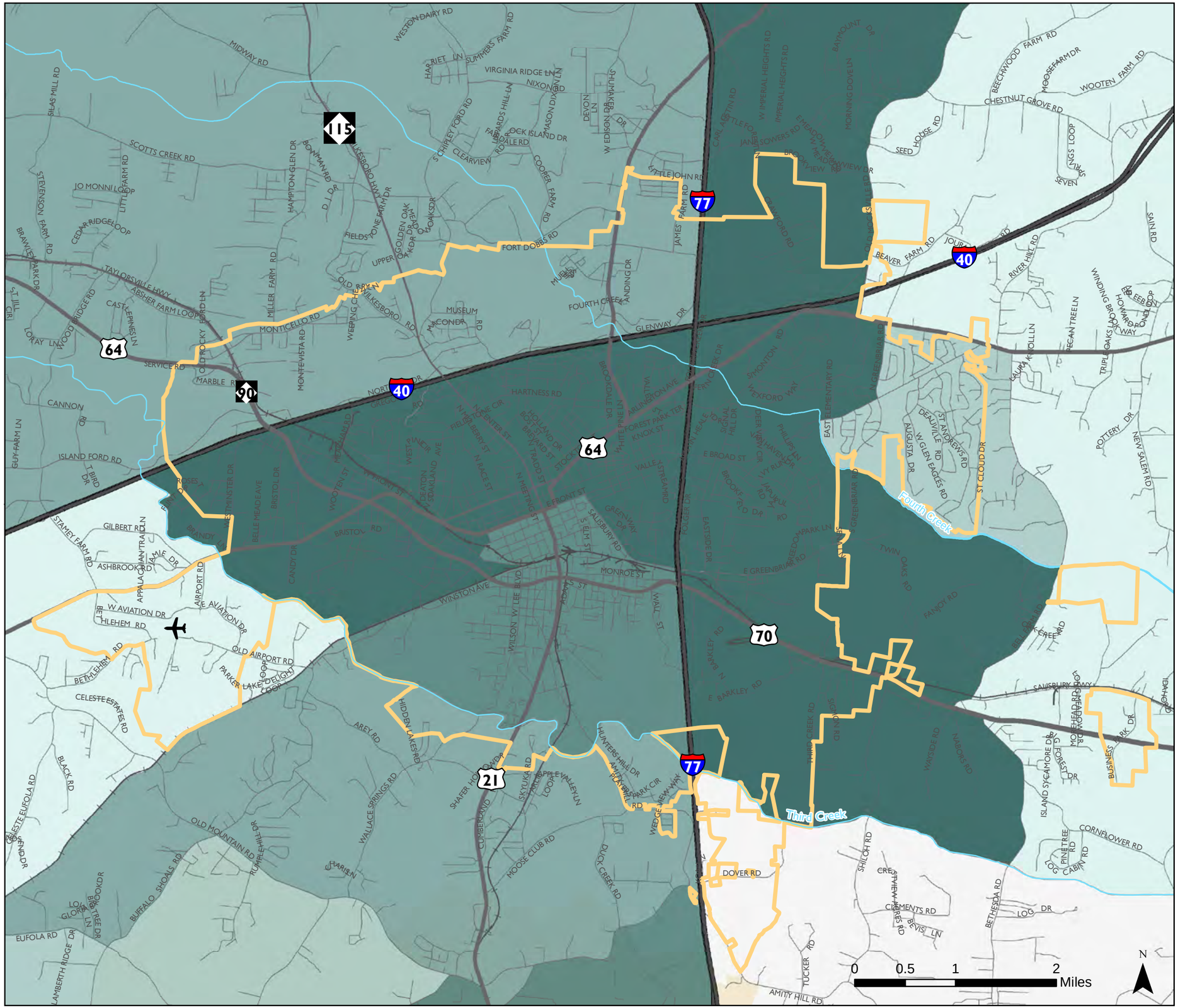


Mode Choice to Work

In the map at left, darker areas show neighborhoods where a higher proportion of workers commute to work by a mode other than driving alone. This can include carpooling, transit, biking, walking, or working from home. Overall, 81% of Statesville commuters drive to work alone in a personal vehicle.

Where Statesville Residents Work

Figure 3.7



Work Locations

The map at left shows the distribution of jobs held by workers who live within the City of Statesville planning area. As shown, many Statesville residents work in the census tracts near downtown Statesville bordering the interstates. The key reflects the percentages of all Statesville residents who are employed, regardless of whether they work within the study area, as opposed to the percentage of jobs within the study area. Areas without data do not host a significant number of resident workers.

Where Statesville Workers Live

Figure 3.8

Percent of Total Workforce

- Less than 0.5%
- 0.5% to 1%
- 1% to 2%
- 2% to 3%
- More than 3%
- City of Statesville ETJ Boundary

Home Locations

The map at left shows the distribution of home locations for workers who are employed within the City of Statesville planning area. As shown, many Statesville workers live in the census tracts north of downtown Statesville. The key reflects the percentages of all Statesville workers, regardless of where they live, as opposed to the study area's population.

0 0.5 1 2 Miles

N

Planned Roadway Projects (STIP)

The State Transportation Improvement Plan (STIP) is North Carolina's 10-year State and Federal-mandated plan that identifies the construction funding for and scheduling of transportation projects throughout the state. The 2018-2027 STIP was adopted by the NCDOT Board of Transportation in Summer 2017. Thus, a number of projects are already slated for construction with funding support from NCDOT. The following table lists the projects that are funded in the TIP during the 2018-2027 time period. The projects included in the list are within Statesville's city limits or immediately surrounding its municipal limits.

State Transportation Improvement Program (2018-2027)

ID	Year (ROW, Construction)	Location	Description	Cost
B-5846	2021 (ROW), 2022	Jennings Road (South Yadkin Road)	Bridge replacement	$4,300,000
I-3819B	2018, 2018	I-40/I-77 Interchange	Interchange Improvements	$203,300,000
I-5772	N/A, 2019	I-40 to Ward Road	Pavement Rehabilitation	$10,250,000
I-5804	N/A, 2021	I-40 (Meacham Rd to US 21)	Pavement Rehabilitation	$3,500,000
I-5805	N/A, 2019	I-40 (Ward Road to Davie County)	Pavement Rehabilitation	$6,400,000
I-5813	N/A, 2020	I-77 (East Broad to Jennings Road)	Pavement Rehabilitation	$1,900,000
I-5917	N/A, 2024	I-40 (Mile 193 to US 64)	Pavement Rehabilitation	$4,600,000
U-5779 (SPOT ID – H11176)	2020, 2022	NC-115 (Old Wilkesboro Road to Hartness Road)	Road widening	$14,200,000
U-5799 (SPOT ID – H090363)	2019, 2021	US-21 (SR 1933 to Fort Dobbs Road)	Road widening, realignment of intersections (SR 1922, SR 2171)	$17,200,000
U-5964	2019, 2020	Davie Avenue and Sullivan Rd	Roundabout	$1,100,000
U-6039	2022, 2024	East Broad Street (Vine Street to Signal Hill Drive)	Corridor Improvements	$13,400,000
U-6054	2018, 2019	Brookdale Drive-US 21 Connector	New Roadway	$2,720,000
EB-5788	2018, 2019	Shelton Avenue Multiuse Path	Bicycle/Pedestrian	$754,000
EB-5818	2018, 2019	US-21 (Underneath highway)	Greenway Connector	$1,670,000

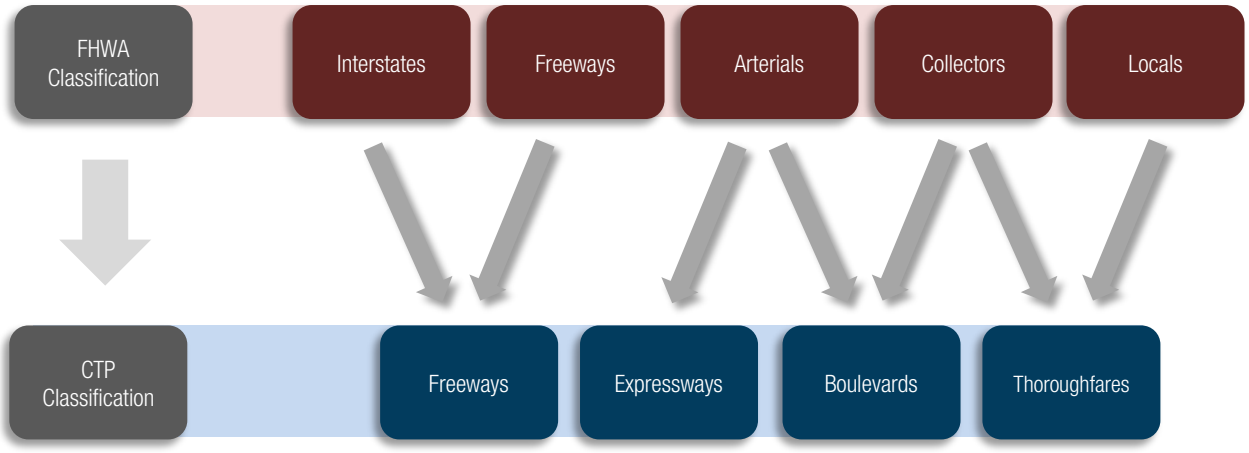
Recommended Projects

The future highway network for the *Statesville MDP* includes a total of 350.5 miles of roadways. These include existing roadways plus recommendations in five major categories, including general improvements, widenings, new roadways or realignments, road diets, and access management. The recommended roadway improvements for the Statesville study area represent an inclusive process that considered the 1997 City of Statesville Thoroughfare Plan, existing and planned land uses, environmental constraints, projected future travel demand, and public input. One major input was NCDOT's CTP roadway classifications, as explained below.

CTP Roadway Classification

Roadway classification can be represented in a variety of ways. The industry standard functional classification, used by the Federal Highway Administration, is taken from the American Association of State Highway and Transportation Officials (AASHTO) and includes the following classes of roadways: Interstates; Freeways; Arterials; Collectors; and Locals.

The roadway classification system represented in a CTP is based on NCDOT facility types that are dependent on a given roadway's mobility function. The CTP classifications include: Freeways; Expressways; Boulevards; and Thoroughfares. The diagram below shows how the CTP classifications correspond to the FHWA classifications. This classification system is standardized across the state, and is primarily based on the function of the roadway, level of mobility and access, and whether the facility has traffic signals, driveways, and/or medians.



Roadway Improvements (Figures 3.9a and 3.9b)

Each segment of roadway was identified by NCDOT CTP Classifications and determined to be existing (no capacity improvements needed), needs improvement (capacity improvements recommended), or recommended (new location). The CTP recommendations in this plan aim to address future capacity and system deficiencies and should be implemented incrementally as growth occurs and funding is available. The future highway network for the Statesville study area includes a total of 350.5 miles of roadways.

Future Highway Network (miles)

	Freeways & Expressways	Boulevards	Thoroughfares	
			Major	Minor
Existing	0	6.8	39.8	173.3
Needs Improvement	39.8	32.2	10.1	17.1
Recommended	0	0	2.21	11.2
Total	39.82	39.0	70.1	201.6

Intersection & Interchange Improvements (Figure 3.10)

The recommended roadway improvements for the Statesville area also included a consideration for needed spot improvements. Spot improvements for the Statesville Roadway Element are separated into two categories: general spot improvements and intersection improvements. For the purposes of the CTP, existing interchanges and grade separations were inventoried and assessed for whether or not improvements were needed. Areas that represented future development opportunities were also considered for inclusion in spot improvements as potential new facilities. The plan also includes intersection improvements, the vast majority of which are within Statesville city limits to account for the higher levels of multimodal activity.

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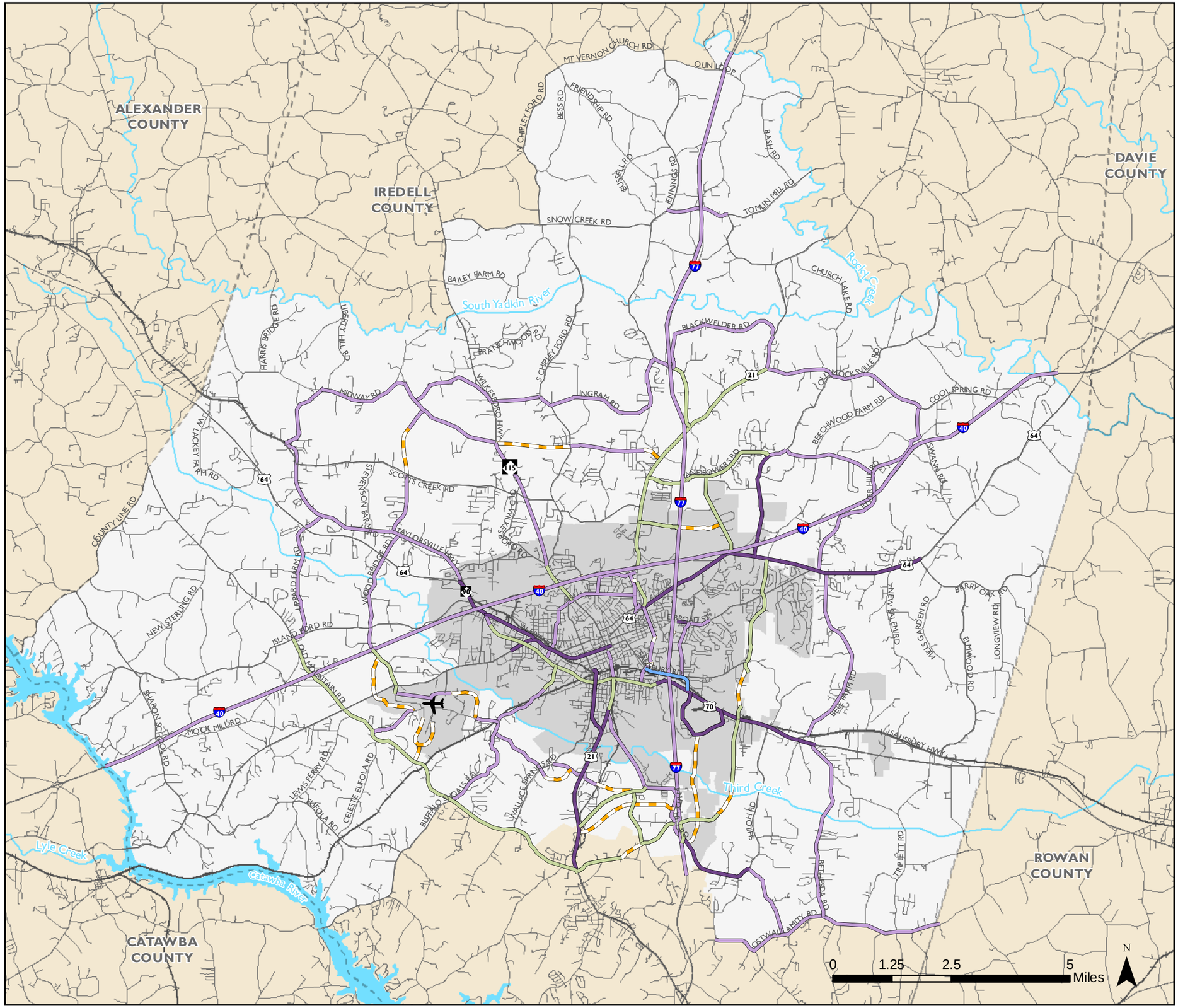
Roadway Improvements

Figure 3.9a



- Existing Roadways
- Road Diet (Recommended)
- Widening (Recommended)
- Access Management (Recommended)
- General Improvements (Recommended)
- New Minor Thoroughfare (Recommended)
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary

Road Diet

Reallocating right-of-way to better accomodate bicycles and pedestrians or slow traffic.

Widening

Construction additional travel lanes to address congestion or safety issues.

Access Management

Installing medians that limit turns and consolidating driveways to improve safety and flow.

General Improvements

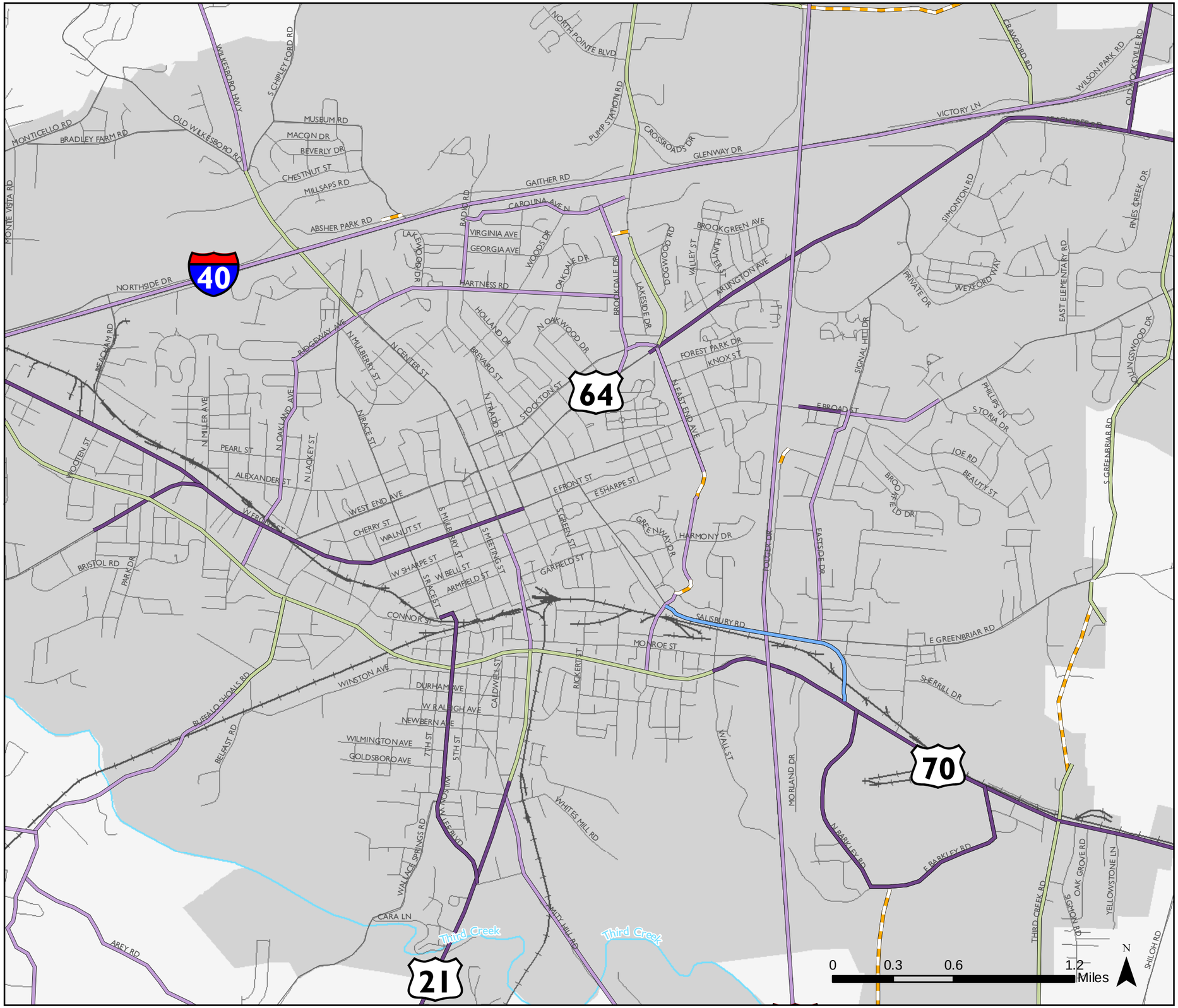
Repaving, rehabbing or restriping, pavement, and other improvements that do not require changes to the existing right-of-way.

City of Statesville NORTH CAROLINA | Mobility & Development Plan

Roadway Improvements

Figure 3.9b

- Existing Roadways
- Road Diet (Recommended)
- Widening (Recommended)
- Access Management (Recommended)
- General Improvements (Recommended)
- New Minor Thoroughfare (Recommended)
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary



City of Statesville NORTH CAROLINA | Mobility & Development Plan

Intersection & Interchange Improvements

Figure 3.10

- Grade Separation Improvement
- Proposed Grade Separation
- Interchange Improvement
- Proposed Interchange
- Bridge Replacement
- Bicycle/Pedestrian Crossing
- Multi-Use Path Crossing
- Traffic Signal
- Realignment
- Roundabout
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary

Future Cross Sections

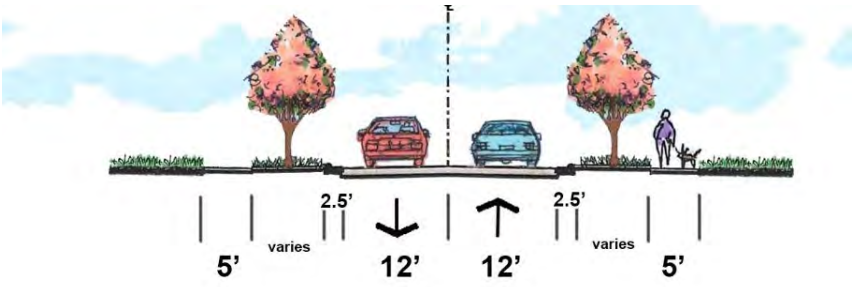
Once completed, the roadway projects will change the look, feel, and function of Statesville's transportation system. Changes will not only impact the number of lanes, but also the availability and type of bicycle facilities and presence of medians and turning movements. To illustrate the many ways a streetscape can serve differing functions, a set of example best case cross-sections are provided. This palate is designed to provide a wide variety of options based on the surrounding land use context and transportation goals and to show how bicycle and pedestrian facilities can fit into the existing transportation context.

The Table of Improvements in Chapter 8 notes the recommended cross-section for each recommended roadway project.

A: Two lane with sidewalks

60' ROW MIN

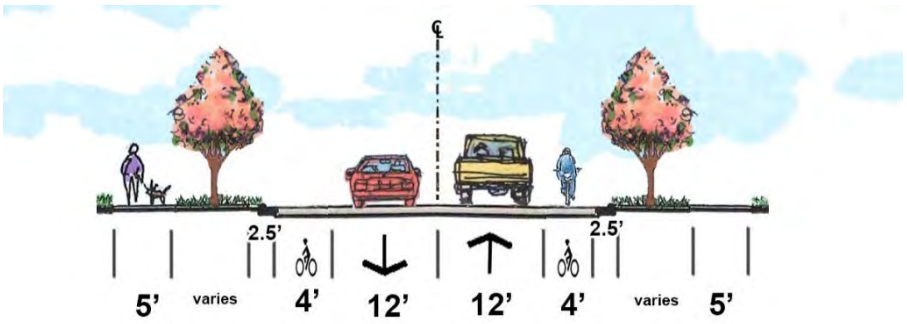
Example:
Brookdale Drive
(Hartness Rd to Carolina Ave)



B: Two lane with sidewalks and bike lanes

80' ROW MIN

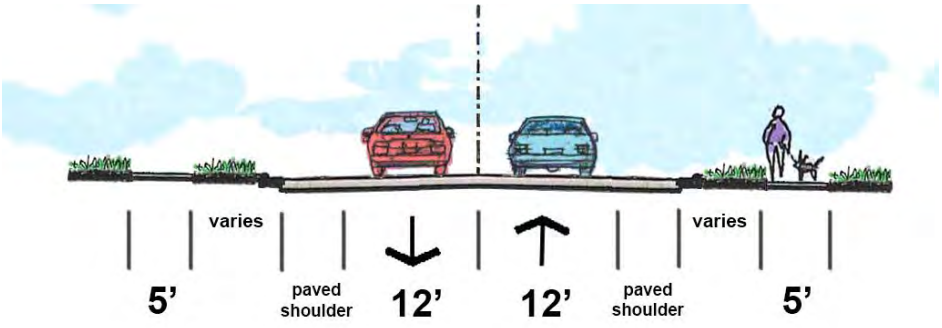
Example:
East End Ave
(Davie Ave to end)



C: Two lane with sidewalks and paved shoulders

90' ROW MIN

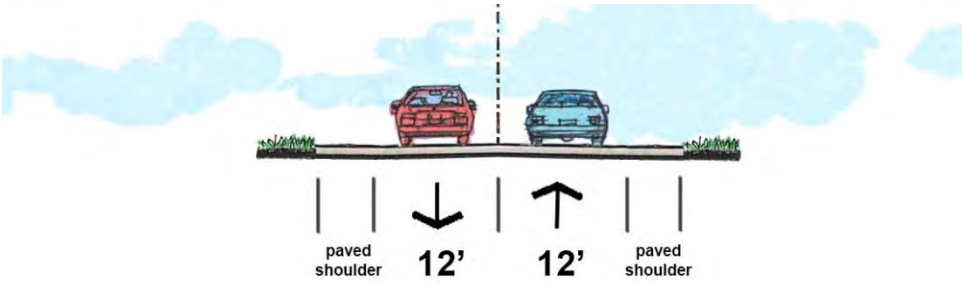
Example:
Amity Hill Rd
(US 21 to I-77)



D: Two lane with paved shoulders

60' ROW MIN

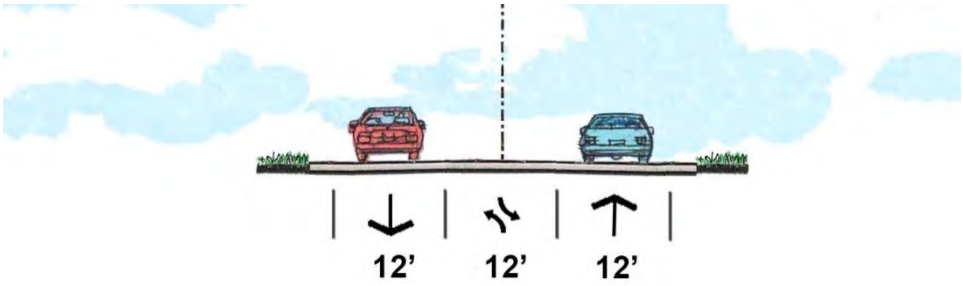
Example:
Old Mocksville Rd
(Jane Sowers Rd to Chesnut Grove Rd)



E: Three lane

60' ROW MIN

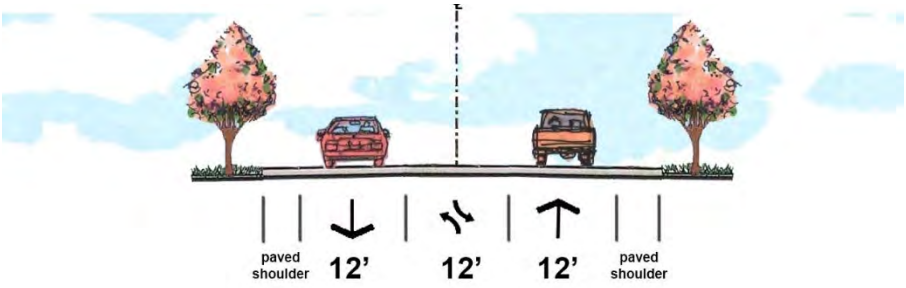
Example:
Murdock Rd
(Shelton Ave to Amity Hill Rd)



F: Three lane with paved shoulders

80' ROW MIN

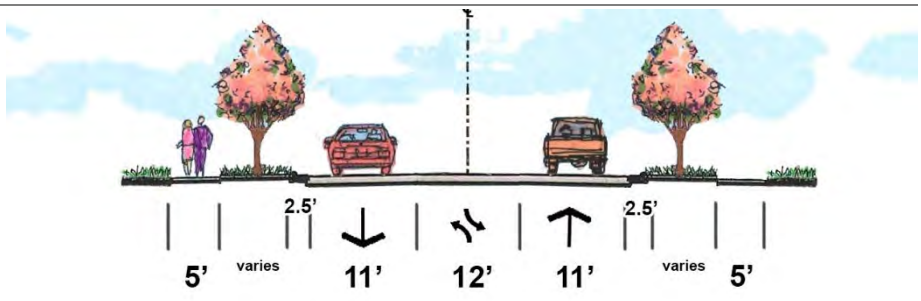
Example:
Stamey Farm Rd
(I-40 to W Aviation Dr)



G: Three lane with sidewalks

80' ROW MIN

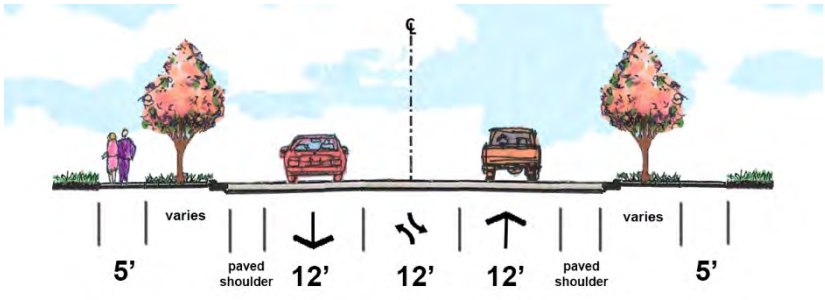
Example:
Salisbury Rd
(Fox Ave to Salisbury Hwy)



H: Three lane with sidewalks and paved shoulders

80' ROW MIN

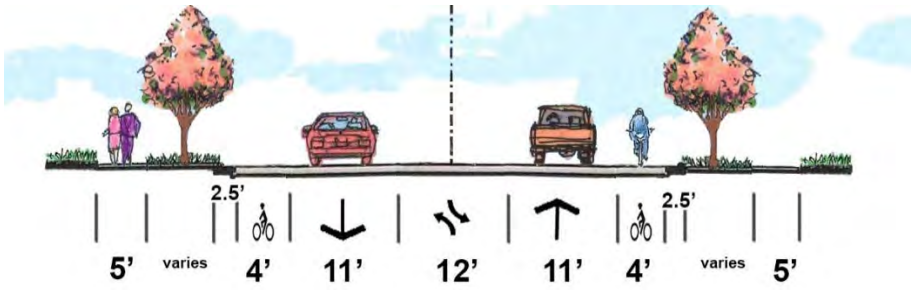
Example:
Dover Road
(Amity Hill Rd to End)



I: Three lane with sidewalks and bike lanes

80' ROW MIN

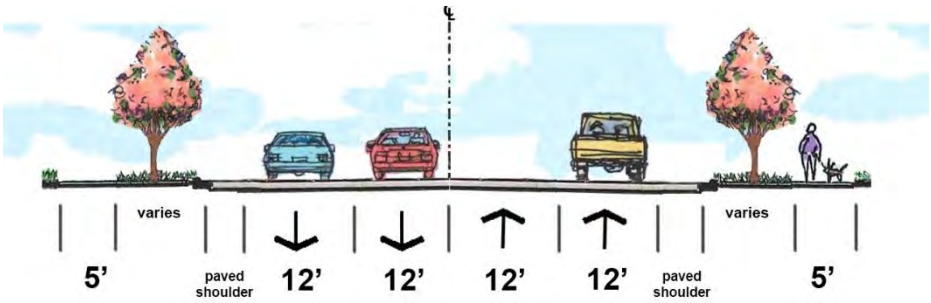
Example:
Buffalo Shoals Rd
(Slingshot Rd to Garner Bagnal Blvd)



J: Four lane with paved shoulder and sidewalk

110' ROW MIN

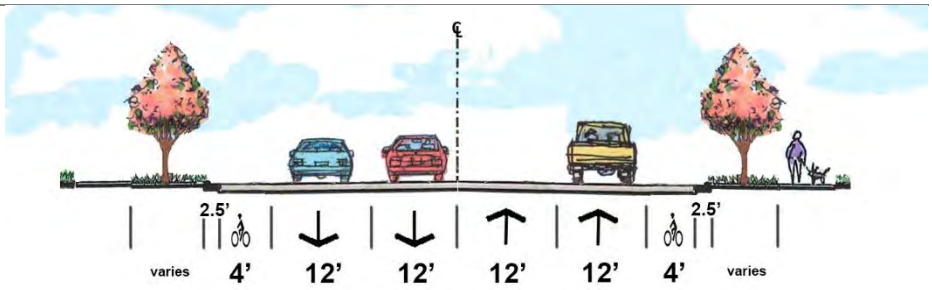
Example:
Jane Sowers Rd
(I-77 to Old Mocksville Rd)



K: Four lane with bike lane and sidewalk

110' ROW MIN

Example:
Center St (NC 115)
(Old Wilkesboro Rd to Harness Rd)

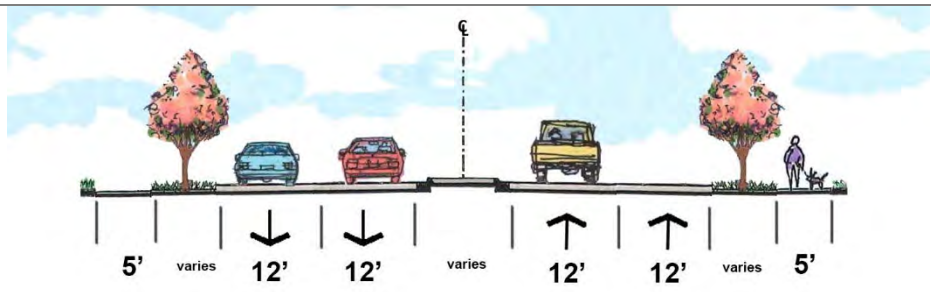


L: Four lane divided with sidewalk

100' ROW MIN

Example:
Broad Street
(Eastside Dr to Toria Dr)

*Median may be concrete or grass, based on context

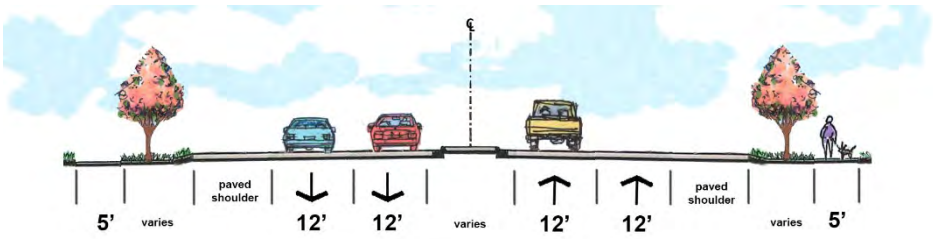


M: Four lane divided with sidewalks and paved shoulder

110' ROW MIN

Example:
Old Mocksville Road
(Mocksville Highway to Beaver Farm Road)

*Median may be concrete or grass, based on context

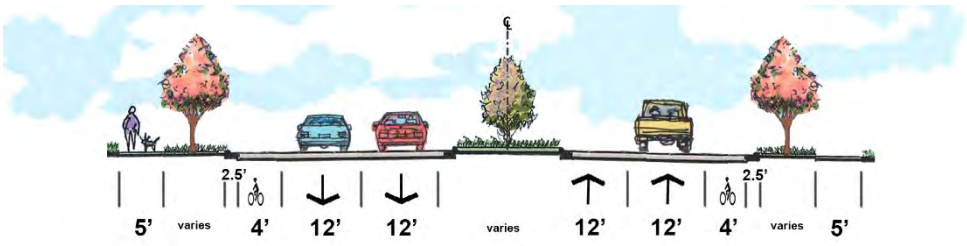


N: Four lane divided with sidewalks and bike lanes

110' ROW MIN

Example:
Old Mountain Rd
(Island Ford Rd to US 21)

*Median may be concrete or grass, based on context

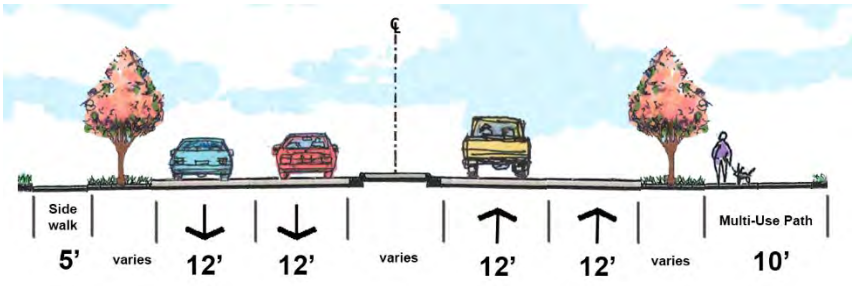


O: Four lane divided with Sidewalk and Multi-Use path

180' ROW MIN

Example:
Garner Bagnal Blvd
(Oakland Ave to Wall St)

*Median may be concrete or grass, based on context



Special Cross Sections

Two roadways outlined in the MDP have detailed recommendations based on previous planning studies or development projects already under way. These cross sections are shown below for easy reference, and may be used as a guide for future projects within the city to maintain consistency in street design and pursue a connected bicycle and pedestrian mobility network.

Larkin Parkway

100' ROW MIN

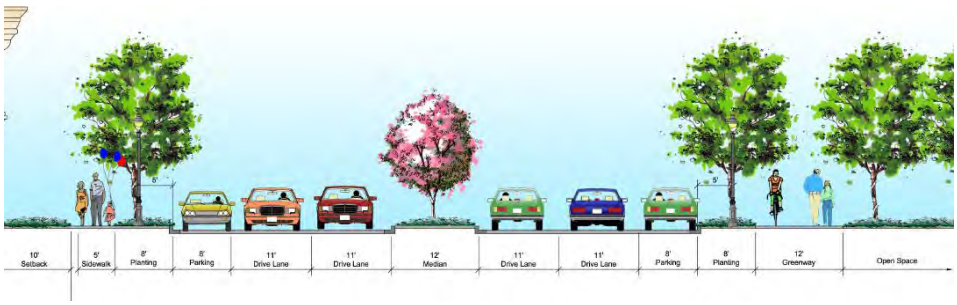
4 lanes, divided, with sidewalk on one side and multi-use path

Refer to rezoning for current cross section

Shelton Ave from Garner Bagnal Blvd to Amity Hill Rd

100' ROW MIN

4 lanes divided, on-street parking, with sidewalk on one side and multi-use path



Statesville Loop Network (Figure 3.11)

The City of Statesville's location at the crossroads of I-40 and I-77 puts pressure on the freeway network. As the heart of Iredell County and a significant economic engine where the state's western and piedmont regions connect, the City's network of major roadways is forced to balance the role of regional mobility and local accessibility. For this reason, the City's previous thoroughfare plans have emphasized a network of loops to relieve pressure on east-west and north-south travel and to provide options for local traffic.

The *Statesville Mobility + Development Plan* continues this legacy by proposing a series of three loop networks. The loops include existing roads, a variety roads slated for improvements, and a few new facilities.

- Loop A – The inner loop uses a network of lower speed, lower volume streets to provide enhanced connectivity to the urban core. This loop also proposes bicycle- and pedestrian-friendly options in the heart of the city, and utilizes Gardner Bagnal Boulevard as the southern portion of the loop.
- Loop B – The middle loop offers enhanced travel options for local traffic through a network of minor thoroughfares just beyond the city limits.
- Loop C – The outer loop provides strategic connections between I-77 north of the city and I-40 and provides parallel routes to the interstate highways.

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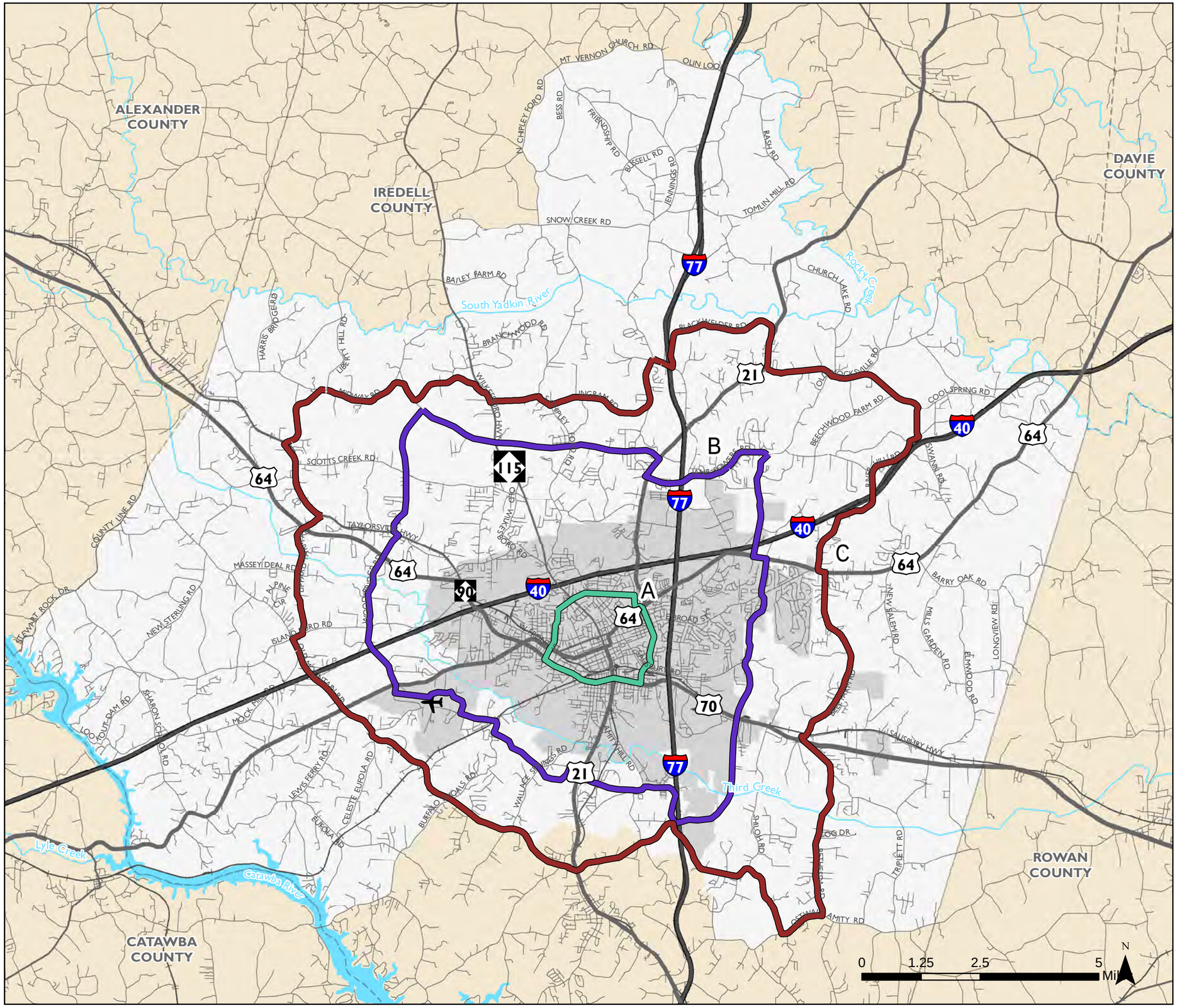

CITY of Statesville NORTH CAROLINA | Mobility & Development Plan

Statesville Loop Network

Figure 3.11

- Loop A
- Loop B
- Loop C
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary

Collector Street Recommendations

Expanding Statesville's transportation system with an increased number of collector streets will enhance travel between local streets and arterials. The primary purpose of a collector street is to collect traffic from neighborhood level streets and distribute it to minor and major thoroughfares. Responsibility for building a collector street system is typically on the agreements between the local government and the developers for funding, design and construction. A properly implemented policy can improve accessibility to activity centers and minimize harmful impacts to sensitive areas. The local and through-traffic can and will benefit from the reduced reliance on minor and major thoroughfares.

Best Practices

Assessment of Collector Street Spacing Needs

Street spacing needs differ based on the land use and type of street. In the case of local and collector streets:

- **Local Streets** – One connection should be in place every 750 to 1,500 feet.
- **Collector Streets** – One public street intersection along a collector or an arterial should be in place every 1,200 – 2,000 feet in a suburban context and every 500 to 1,000 feet in heavily developed areas or the central business district.

Collector Street Spacing Standards

Land Use/Street Type	Intensity	Access Function	Approximate Street Spacing
Very Low Intensity Residential	<2 dwelling units per acre	High	3,000 to 6,000 feet
Low Intensity Residential	2 to 4 dwelling units per acre	High	1,500 to 3,000 feet
Medium and High Intensity Residential	4+ dwelling units per acre	High	750 to 1,500 feet
Activity Center	Mixed-use residential/commercial	Medium	750 to 1,500 feet

Very Low Intensity Land Use

Medium Intensity Land Use

High Intensity Land Use

Identification of Future Collector Street Connectors

The following guidelines were used to develop the Statesville collector street network:

- Avoid steep slopes and otherwise unsuitable topography
- Minimize impact to the built environment
- Avoid FEMA designated floodplains
- Minimize the number and amount of wetland impacts
- Minimize the frequency of stream crossings
- Minimize the number of high-quality (larger) stream crossings
- Minimize the length of stream crossings
- Minimize school impacts
- Minimize number and size of each impact to other environmental and cultural features
- Avoid impacts to park and designated open spaces
- Minimize the number of new facilities in critical watershed areas
- Be responsive to existing and planned development patterns
- Maximize usage of existing stub streets
- Consider the Land Use Plan goals for area development
- Consider land use potential and plan collectors according to established spacing guidelines
- Improve connectivity

Design Guidelines

Designing streets with appropriate horizontal and vertical alignment is important. The following horizontal and vertical design features are recommended for the design of future collector streets: Design speed should be 35 miles per hour, and the maximum recommended grade is 8%. The maximum degree of horizontal curvature is 10 degrees (Rmin = 573 feet). These are based on standards published in A Policy on Geometric Design of Highways and Streets, 2001, by American Association of State Highway and Transportation Officials (AASHTO).

Future Collector Street Network (Figure 3.12a and Figure 3.12b)

A future collector street network was developed using the guidelines discussed above. Key goals of this network included improving accessibility to higher intensity residential areas and activity centers and avoiding or minimizing impacts to sensitive areas for the preservation of the natural environment. Although environmental and built constraints (such as creeks, wetlands, and I-40) limited the number of collector streets that could be identified, the general policy recommendations will provide local staff with the ability to encourage connectivity as future development occurs. Ultimately, the future collector street network will provide a greater level of connectivity and mobility for the residents by reducing the travel time between local streets and arterial streets.

General Policy Recommendations

The following general policy recommendations are offered for consideration in an effort to increase the number of collector streets to better facilitate travel between local streets and arterials:

- Use the future collector street network as a tool to review proposed development projects and plans as they locate and design future collector streets and connections
- Amend the collector street network to include new streets as they are identified during the development review process
- Work with the development and real estate community to increase public awareness of future collector street connections through enhanced signage
- Provide temporary turnaround accommodations for collector street stub-outs to allow access by maintenance and emergency vehicles; right-of-way needed for these turnarounds would revert back to property owners once the connection is made
- Require that new developments reserve right-of-way for, and in some cases construct, future collector streets

Facility Recommendations

The future collector street network for Statesville consists of 52.91 miles of existing, upgraded, or brand new roadway facilities. Existing collector facilities are roadways that are currently classified as collector streets according to NCDOT's database of the current functional classification of roadways in North Carolina. Upgraded facilities describe streets that are currently classified as local streets but are recommended to be reclassified as collector streets. New facilities are parts of the network that currently do not exist but are recommended to be built as land use intensities shift.

Future Collector Street Network (miles)	
	Collectors
Existing Facility	5.4
Upgrade Facility	46.1
New Facility	1.4
Total	52.9

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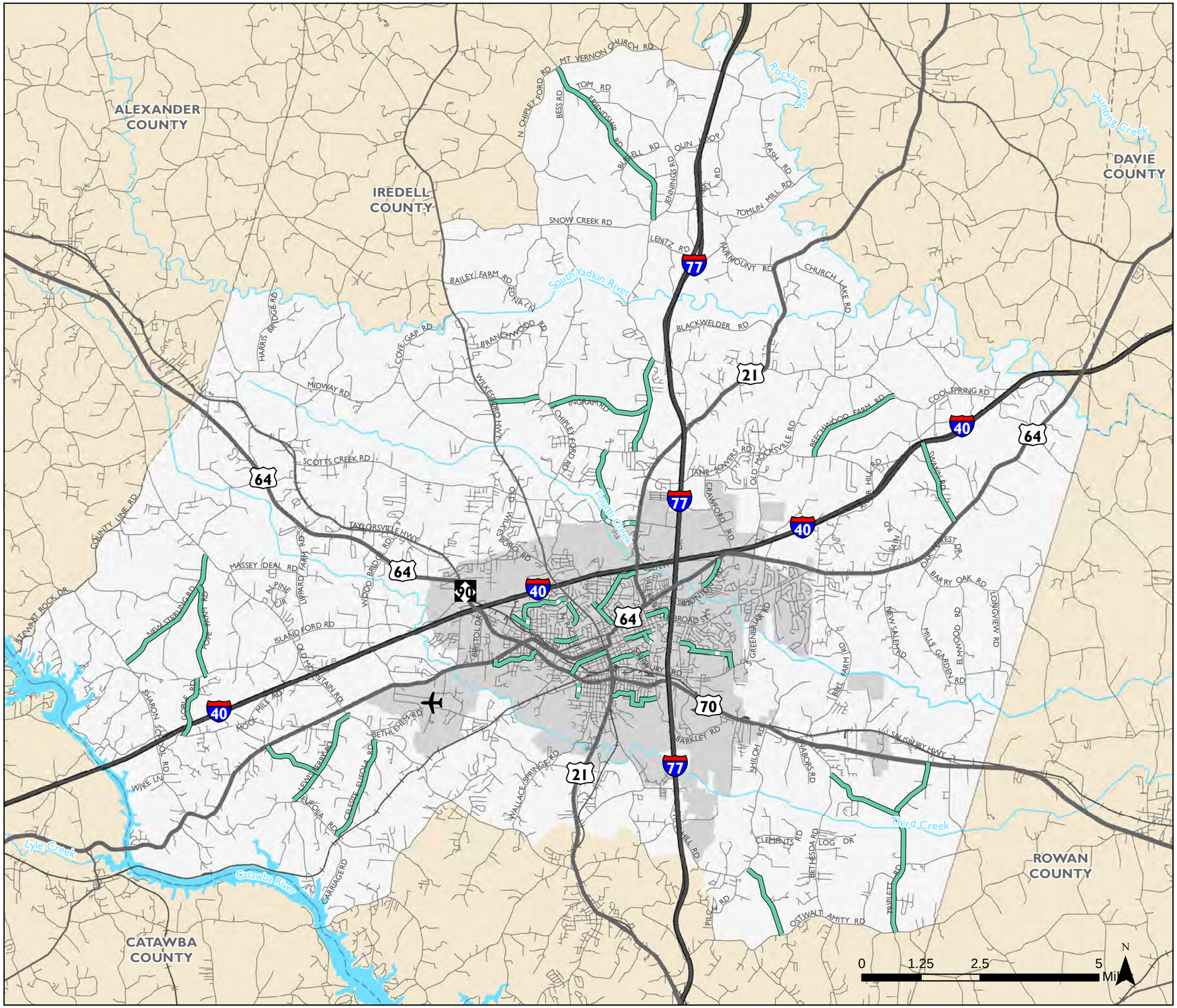


CITY of Statesville NORTH CAROLINA | Mobility & Development Plan

Collector Street Plan

Figure 3.12a

- Upgrade to Collector Street
- Proposed Collector Street
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary

Collector Streets

Expanding Statesville's collector street system will enhance travel between local streets and arterials, and relieve pressure from major thoroughfares. The collector streets shown were identified using a number of criteria that minimized environmental and community impact, while simultaneously maximizing the potential for increased connectivity.

Several streets currently classified as local streets are recommended to be upgraded to collector streets. This likely includes improvements such as the addition of turn lanes and paved shoulders and modern intersection design.

CITY of Statesville NORTH CAROLINA | Mobility & Development Plan

Collector Street Plan Inset

Figure 3.12b

- Upgrade to Collector Street
- Proposed Collector Street
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary

0 0.5 1 2 Miles

N

CITY of Statesville
NORTH CAROLINA

Mobility + Development Plan

Bicycle and Pedestrian Element | Chapter 4

Introduction

Communities with successful transportation networks balance multimodal accommodations for different types of trips – recreational and utilitarian. To take a closer look at multimodal elements that would enhance the region's overall livability, the *Statesville Mobility and Development Plan (MDP*) used a transportation planning process that took a closer look at the movement of people regardless of chosen mode. This active transportation focus embodies how local decisions can enhance the overall mobility and safety for bicyclists and pedestrians.

The recommended plan incorporates information from previous plans, discussions with stakeholders, and feedback from the community. According to these sources, demand for bicycle and pedestrian facilities by users of all levels and types in the Statesville area is growing. Underlying concepts of modal integration, livability, and connectivity are consistent themes in the strategies that follow. The plan for bicyclists and pedestrians coordinates closely with other elements, notably through an emphasis on incidental projects tied to roadway recommendations presented in Chapter 3.

The E's of Bicycle and Pedestrian Planning

Successful bicycle and pedestrian planning requires consideration of five interrelated components: Engineering, Education, Encouragement, Enforcement, and Evaluation/Planning.

ENGINEERING | Refers to the design and planning of on-road and off-road facilities. To create a successful, well-integrated pathway network, design and route choices must be established and properly implemented so as to create a safe and enjoyable experience.

EDUCATION | Refers to the resources available for all users, including cyclists and motorists. Cyclists and motorists, new and experienced, need to know how to ride safely in all networks (from off-road multi-use paths to congested arterials) as well as how to share multimodal facilities with other pedestrians, cyclists, or motorists.

ENCOURAGEMENT | Refers to various ways to promote bicycling and walking. Cyclists and pedestrians need access to programs and a cycling or walking culture that comes by focusing planning efforts on specific facilities suitable for cyclists or pedestrians. This can be as simple as providing the means for desirable, attractive destinations that people want to visit.

ENFORCEMENT | Refers to intentional actions that protect the safety of all users. It includes the cycling and pedestrian communities. Targeted enforcement can encourage cyclists and motorists to more safely use multimodal facilities.

EDUCATION/PLANNING | Refers to the periodic review of existing and planned facilities. The friendliest communities for cyclists and pedestrians have a system in place to assess existing programs and outline steps for future expansion. The facilities recommended as part of the Statesville MDP should be supplemented with coordinated programs and policies that instruct and encourage cyclists and pedestrians in the full and proper use of the non-motorized transportation network.

Benefits of Cycling and Walking

Cycling and walking are key elements to a healthy community's transportation system. When an environment is conducive to active transportation, these modes offer a practical transportation choice that provides benefits for both individuals and their communities. The potential for increased walking, in particular, is large since 25% of all trips in the United States are less than one mile in length.

Features that contribute to making transportation more active include a healthy mix of land uses, appropriately sized and located facilities, accessibility features such as curb ramps, buffers between vehicular traffic and non-motorized modes (where suitable), and trees to shade walking routes where possible. Slowing traffic, reducing unnecessary exposure to vehicles, and incorporating active transportation features (i.e., signage, crosswalks, and adequate pedestrian phasing at signals) into future roadway design plans also enhance bikeability and walkability.

The bicycle and pedestrian recommendations shown in figures 4.1 and 4.2 at the end of the chapter, place an emphasis on physical features, destinations, and barriers. This focus recognizes the variety of benefits of active transportation and how it contributes to the community. These benefits include:

- **Health benefits** – Regular physical activity helps prevent or reduce the risk of heart disease, obesity, high blood pressure, type 2 diabetes, osteoporosis, and mental health problems such as depression.
- **Transportation benefits** – Many streets carry more traffic than they were designed to handle, resulting in gridlock, wasted time and energy, pollution, and driver frustration. Many of the trips that Americans make every day are short enough to be accomplished on foot, by bike, or via wheelchair.
- **Environmental/Energy benefits** - Motor vehicles create substantial air pollution. According to the EPA, transportation is responsible for nearly 80% of carbon monoxide and 55% of nitrogen oxide emissions in the U.S.
- **Economic benefits** – Car ownership consumes a major portion of many family incomes. When safe facilities are provided for cyclists and pedestrians, people can bike or walk more and spend less on transportation, meaning they have more money to save or spend on other things.
- **Quality of life benefits** – The walkability and bikeability of a community is an indicator of its livability, which helps grow tourism-related activity and attract businesses. By providing appropriate bicycle and pedestrian facilities and amenities, communities enable the interaction between neighbors and other citizens that can strengthen relationships and contribute to a healthy sense of identity and sense of place.
- **Social justice** – Perhaps the most important factor in non-motorized travel and social justice is choice. When providing bicycle and pedestrian facilities such as sidewalks and bike lanes, communities allow people to choose how they want to travel. For those who do not have the option to drive, such as adolescents, elderly, those unable to afford a car, and people with certain disabilities, this lack of choice in transportation creates an inconvenient and socially unjust barrier to mobility.

Resources on the topic of walking and biking and their benefits may be found here: www.bikewalk.org/ncbw_pubs.php.

Types of Users

To integrate the bicycle and pedestrian network into the overarching vision for the transportation system, the types of users and facilities must be understood. Types of users can be described in terms of trip purpose and skill level. Different reasons for traveling by bike or foot, combined with the varying levels of skill, require a flexible and responsive approach to bicycle and pedestrian planning.

Skill Level

Both types of trip purposes require a complete network of bicycle and pedestrian facilities and programs that educate and encourage current and future users. Bicyclists can be further grouped by skill level.

Advanced Cyclists

- Typically the most experienced on the road
- Can safely ride on typical arterials that have higher traffic volumes and speeds
- Most prefer shared roadways in lieu of striped bike lanes and paths
- Represent about 20% of adult cyclists but account for nearly 80% of annual bicycle miles traveled

Basic Adult Cyclists

- Less experience on the road
- Less secure in their ability to ride in traffic without special accommodations
- Casual or new adult and teenage riders
- Typically prefer multi-use paths or bike lanes to reduce exposure to fast-moving and heavy traffic
- Represent approximately 80% of adult cvclists

Child Cyclists

- Little to no experience on the road
- Limited field of vision while riding
- Generally keep to neighborhood streets and greenways
- Likely will ride on sidewalks along busier streets

Trip Purpose

Utilitarian

- Discretionary travel
- Those who prefer a healthy, active lifestyle regardless of access to personal vehicles
- Typically includes persons of all ages and abilities
- Varying skill level

Recreational

- Non-discretionary travel
- Those without access to or ability to drive personal vehicles
- Often includes the elderly, children, and persons with disabilities
- Varying skill level

Types of Facilities

Careful attention must be given to each facility type, particularly how each type and its users fit into the overall system-wide multimodal transportation network.

On-Street

Striped Bike Lane

Description

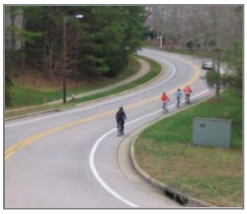
- Exclusive-use area adjacent to the outer most travel lane
- Typical width: 4' to 5' (preferred)

Target User

- Basic and Intermediate Cyclists

Estimated Cost

- $2,000 per mile (striping only)



Wide Outside Lane/ Paved Shoulder

Description

- Extra width in outermost travel lane
- Best on roadways with speed limits of 35 mph or higher and moderate to high daily traffic volumes
- Typical width: 14' outside lane preferred

Target User

- Advanced Cyclists

Estimated Cost

- $2,000 per mile (striping only)

Sharrows

Description

- Delineate space for bicyclists
- Used in lanes shared by bicyclists and motorists without sufficient width for a bicycle lane
- Typically placed 4 feet from edge of pavement if no on-street parking is present
- Typically placed every 150'

Target User

- All Cyclists

Estimated Cost

- $300 each

Sidewalk

Description

- Dedicated space within right-of-way for pedestrians
- Should include a landscaped buffer from roadway
- Typical width: 5' preferred

Target User

- Pedestrians

Estimated Cost

- $150,000 per mile

Off-Street

Multiuse Path

Description

- Separated from traffic and located in open space (greenway) or adjacent to road with more setback and width than sidewalks (sidepath)
- Typical width: 10' preferred; 8' in constrained areas
- Existing Greenways are 10' – 12'

Target User

- All Cyclists; Pedestrians

Estimated Cost

- $220,000 per mile

Existing Conditions

The City of Statesville has fairly extensive sidewalk and greenway networks. With funding availability and regional partnerships in place for these two facility types, the City is in a great position to further invest in these networks. While Statesville does not currently have a network of bicycle facilities, the level of investment in sidewalk and greenway infrastructure provides the framework to create a well-connected bicycle network.

Sidewalks

The City of Statesville has approximately 230 total miles of sidewalks. According to the Statesville Unified Development Ordinance (UDO), developers building new residential or commercial properties along public streets in Statesville must build curbs, gutters, and sidewalks or pay a fee to the city. This equates to approximately 100 miles of roadways that will require pedestrian facilities on both sides. Smaller secondary roads only require sidewalks on one side. The Statesville MDP notes where current pedestrian connections are needed and where future pedestrian connections may be required based on future development potential.

Greenway Crossing at Davie Avenue

Bikeways

Statesville does not currently have an extensive network of bicycle facilities and routes. However, the extensive sidewalk network and number of lower volume streets, plus historic investments in park and greenway facilities offer opportunities for Statesville to begin growing their bikeways. The recommendations that are provided in the Statesville MDP include a consideration for a system that utilizes a variety of bicycle facilities to connect major activity centers.

Greenway

Statesville currently has 5.8 miles of greenways. Although the greenway trail currently exists as separate sections, the trails will eventually connect to become one continuous trail system. Plans for a more extensive greenway system for Statesville include consideration for the Carolina Thread Trail, which plans to utilize existing greenway facilities in Statesville to provide a regional greenway connection for the Carolinas.

Challenges

There are significant challenges that exist for Statesville that pertain to both the environment and built infrastructure. Connections for sidewalk, bikeway, and greenway networks will have to take into account the hydrology of Statesville, which includes a significant number of streams and creeks. Additionally, as the home of the I-40 and I-77 interchange, Statesville will have to continue to prioritize safe connections that cross the interstates when building out a multimodal facility network.

Recommendations (Figure 4.1)

Bicycling and walking are available to people of all ages and socioeconomic backgrounds. In urban areas such as downtown Statesville, the modes are more efficient and convenient options. Throughout the study area, recreational bicycling is gaining in popularity as expert and novice cyclists take to the scenic rural roads. Regardless of the trip purpose, bicycling and walking provide a high level of independence, flexibility, and freedom of choice relative to where you want to go and when you want to get there. A complete network of bicycle and pedestrian facilities as well as programs that educate and encourage current and future users is necessary for cycling and walking to reach its potential as a transportation alternative in the region. The challenge is overcoming physical and manmade barriers that inhibit the flow of cyclists and pedestrians.

The recommended bicycle and pedestrian facilities will provide additional connections to a variety of destinations:

- Schools
- Commercial nodes, particularly along Broad Street, US 64, US 70 and in the downtown area
- Parks and recreation centers
- Public facilities (e.g. libraries and museums)

Connections to Destinations

Establishing additional connections to existing greenways and filling gaps in the sidewalk network within the city limits are key considerations. These improvements will improve access to key destination points. The recommendations should make biking and walking to activity centers safer and more attractive. As roads become more congested, it is important to identify better ways to move people from place to place. Because roads cannot be expanded infinitely, bikeways and sidewalks are important and critical ways to provide transportation choices. A complete network of bicycle and pedestrian facilities as well as programs that educate and encourage current and future users is necessary for bicycling and walking to reach its potential as a transportation alternative in Statesville and the surrounding area.

Upon completion, the bicycle and pedestrian network in the Statesville area will include approximately 228 miles of sidewalks, 98 miles of multiuse paths, and 49 miles of on-street bicycle facilities (bicycle lanes, sharrows, and wide outside lanes). Nearly 181 miles of paved shoulders (minimum 4 feet wide) are recommended, mostly in rural areas. The majority of the bicycle and pedestrian network likely would be constructed as incidental enhancements associated with larger improvements to the roadways and through development.

Bicycle Network

North Carolina law considers bicycles as vehicles and therefore lawful for cyclists to ride on any public road unless it is designated as a limited or controlled-access highway. However, some roads are more suitable than others for bicyclists. To address overall pedestrian needs for the Statesville area, several prevailing themes emerged.

1. Focus on connectivity between residences and destinations.
2. Create a coordinated network that matches facility types with the anticipated user profile and context of the corridor.
3. Perform regular maintenance of on- and off-street bicycle facilities to maximize safety and encourage the full use of the investment.

The recommended bicycle network for the *Statesville MDP* includes both on- and off-street facilities. The planning process vetted previous plans (e.g. corridor studies and small area plans) with the updated roadway recommendations. This emphasis was necessary given the limited funds available for standalone bicycle and pedestrian projects.

The facility recommendations shown in
Figure 4.1 are coordinated with the roadway recommendations that are provided in Chapter 3.

Priority Corridors

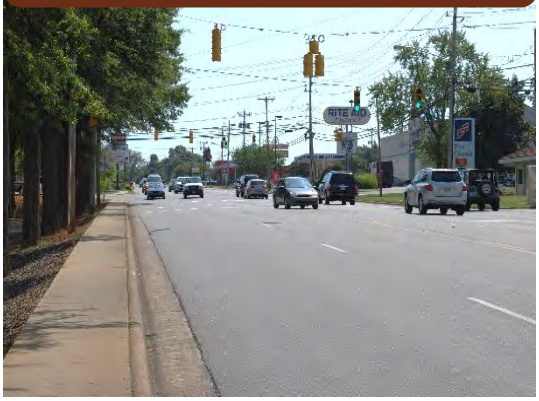
Broad Street | Greenbriar Road to Tradd Street

Improved bicycle facilities on Broad Street will provide a critical connection for bicycle mobility to and from the Broad Street Retail and Commercial corridor from Downtown Statesville. Because of the inherent safety issues with crossing I-77, it is necessary to offer a bicycle-friendly environment. Once concrete medians are added to the corridor, the City may need to reevaluate available right-of-way and consider installing sharrows instead of wide outside lanes or paved shoulders on the western portion of the corridor.

Garner Bagnal Boulevard (US 70)

A multi-use path is recommended as a long-term vision along Garner Bagnal Boulevard. As a primary east-west connection from I-40 to I-77, this route offers pedestrians and bicyclists an enhanced means of travel for the larger downtown Statesville area. The Statesville CTP includes roadway widenings for the portions of US-70, where bicycle improvements would occur as incidental projects occurring in tandem with the roadway improvements.

Broad Street

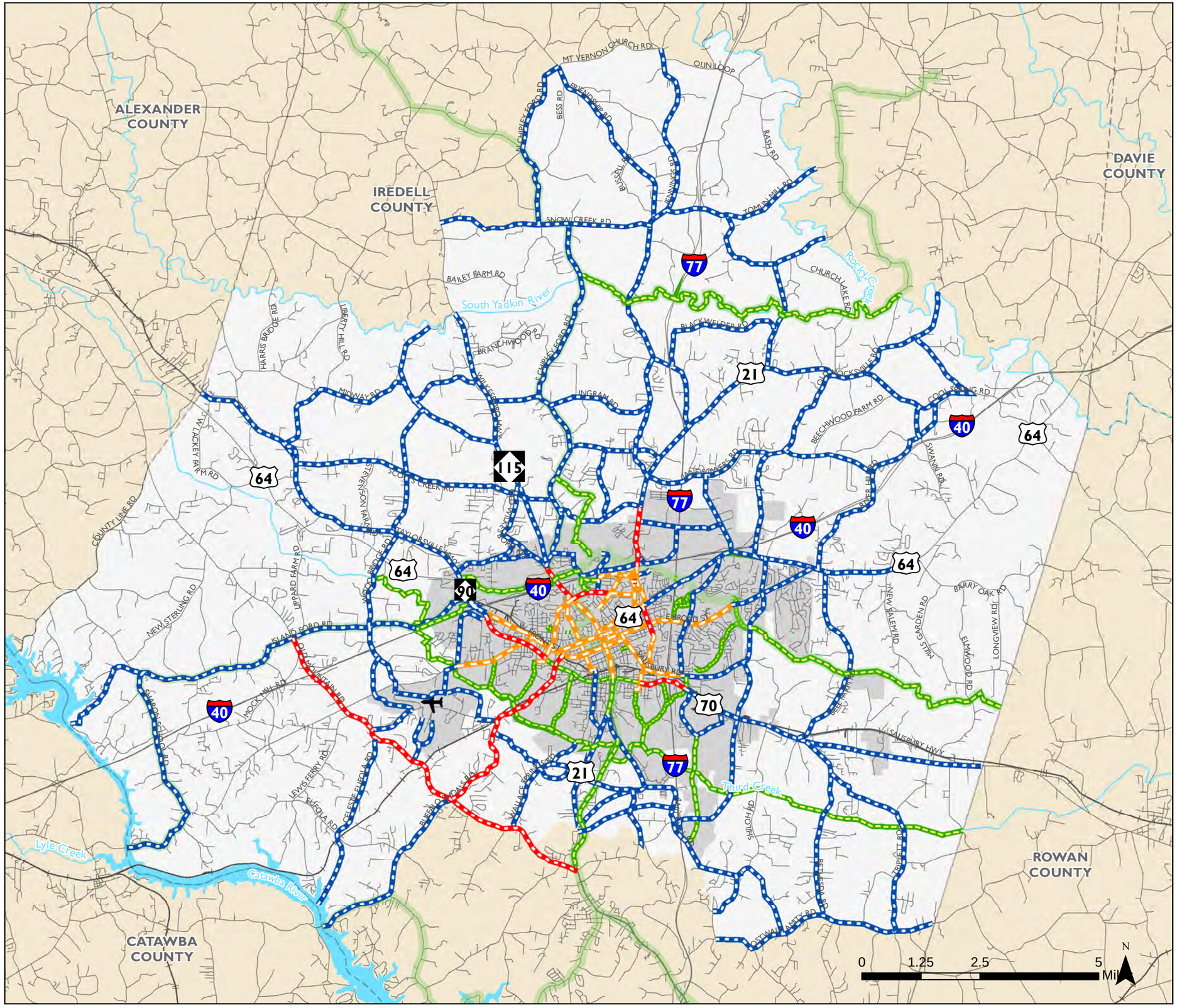


Garner Bagnal Boulevard at Salisbury Road

City of Statesville NORTH CAROLINA | Mobility & Development Plan

Bicycle Recommendations

Figure 4.1a



Proposed Facilities

- Bike Lane
- Paved Shoulder
- Sharrow
- Multi-Use Path
- Proposed Carolina Thread Trail
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary

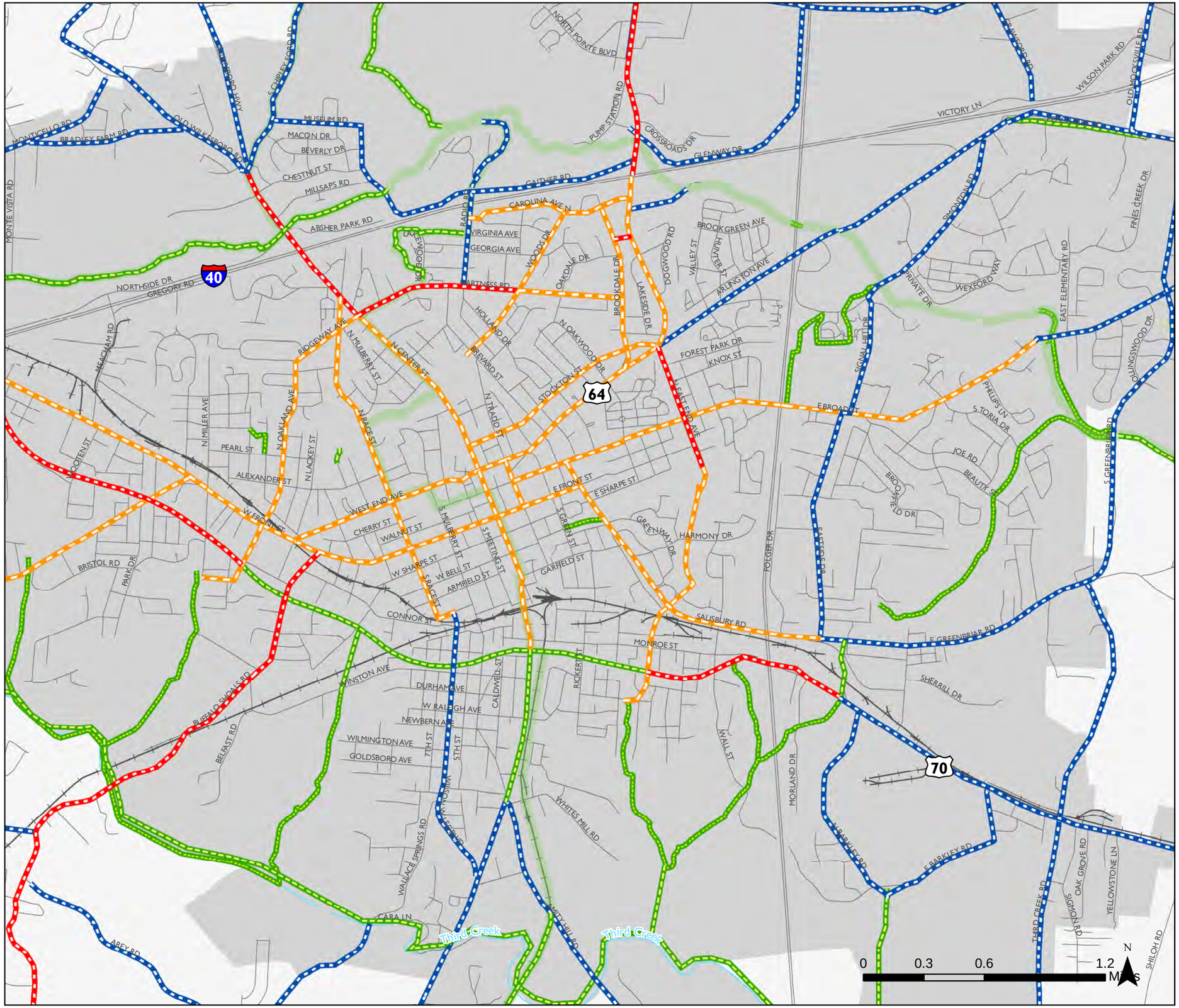
CITY of Statesville NORTH CAROLINA | Mobility & Development Plan

Bicycle Recommendations

Figure 4.1b

Proposed Facilities

- Bike Lane
- Paved Shoulder
- Sharrow
- Multi-Use Path
- Proposed Carolina Thread Trail
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary



Pedestrian and Greenway Network (Figure 4.2)

Sidewalks

Walking is a key element to a healthy community's transportation system. Every trip begins and ends as a walking trip; yet walking often remains a lower priority mode. When a proper pedestrian environment exists, walking offers a practical transportation choice with benefits for individuals and their communities. The availability of pedestrian facilities and amenities plays an important role in encouraging the use of alternative modes of travel to the automobile. To address overall pedestrian needs for the Statesville area, several prevailing themes emerged.

1. **Close gaps in the pedestrian network to promote greater use of the existing network.**
2. **Enhance pedestrian access to activity centers from residences or other activity centers.**
3. **Perform regular maintenance of existing and future pedestrian facilities to maximize the effectiveness of the infrastructure.**

In total, approximately 132 miles of new sidewalks are recommended. The recommended network assumes pedestrians will be served by paved shoulders in unincorporated rural areas where construction and maintenance funds are less available.

Priority Corridors

Davie Avenue | Sullivan Road to Mocksville Highway

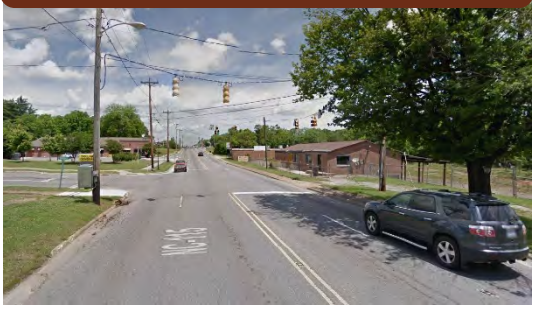
As a gateway into downtown, improving pedestrian facilities along Davie Ave will help tether the corridor to downtown Statesville. Davie Ave is envisioned by the City to become a medical corridor that transitions into residential uses. Mocksville Road also connects to an existing greenway trail that runs along Fourth Creek. Providing pedestrian investments in this corridor will create alternative mobility choices for residents and visitors to the corridor.

Shelton Avenue | Amity Hill Rd to Garner Bagnal Boulevard

Shelton Avenue is an important gateway to downtown Statesville, and is primed for strategic investments to improve mobility and connectivity. Streetscaping and a future multi-use path is planned between Garner Bagnal Boulevard and Amity Hill Road. These investments, outlined in the city's Downtown and NC-115 Streetscape/Land Use Master Plan, should be a major priority to realize the corridor's potential.

Davie Avenue

Shelton Avenue



Multi-Use Paths and Greenways

Multi-use trails (or greenways) bridge both recreation and transportation. They offer practical ways to safely and efficiently move between destinations in an enjoyable way that protects users from the vehicle traffic of a normal roadway. These trails provide crucial opportunities to bikers who may not be comfortable using on-road bike facilities as well as an enjoyable, natural experience for joggers, walkers, and dog-walkers. Trails and greenway systems are traditionally designed to connect parks with surrounding neighborhoods, increasing the population's overall access to active recreational opportunities, as well as safe transportation options.

Carolina Thread Trail

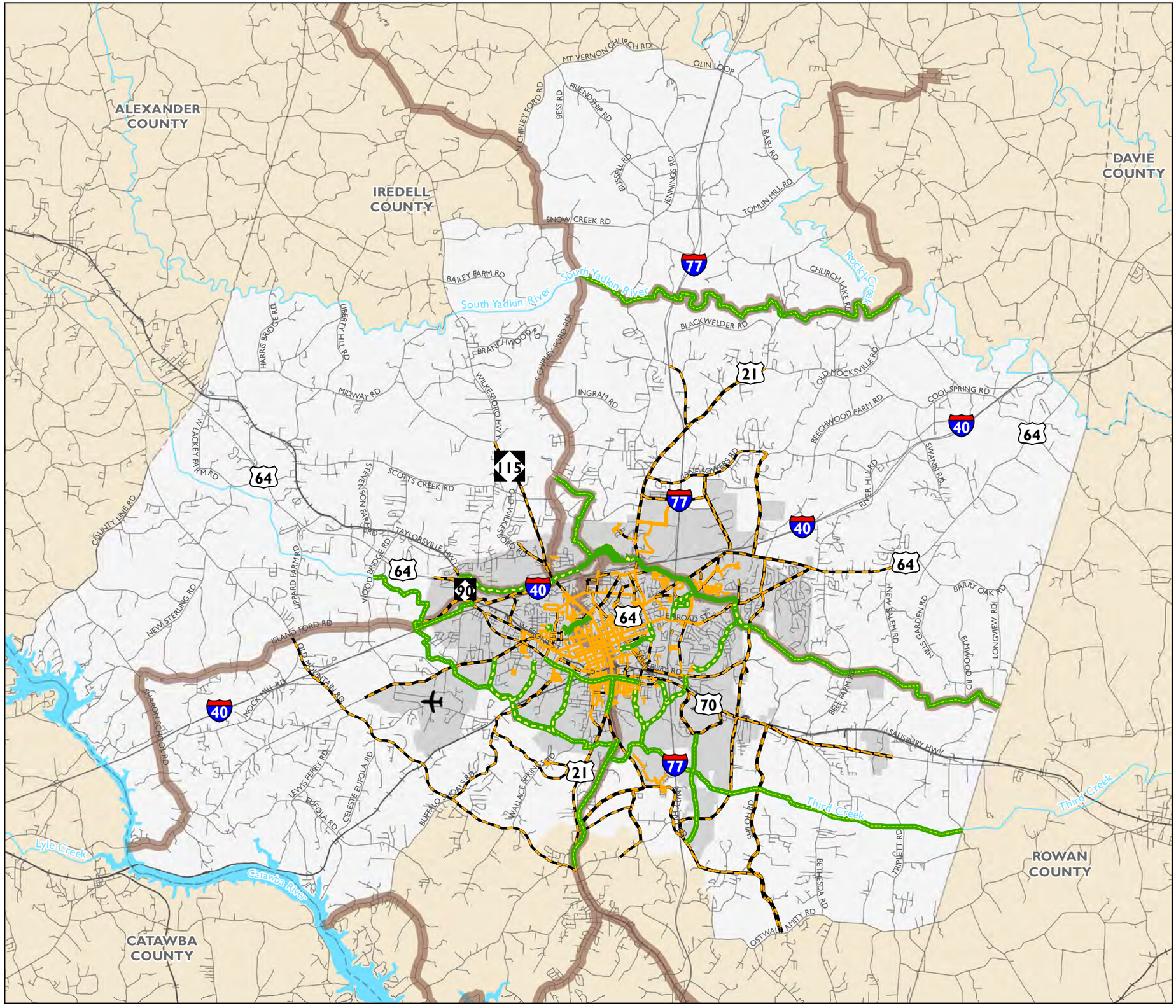
The Carolina Thread Trail is a regional network of greenways, trails, and blueways that reaches 15 counties in North Carolina's south-central piedmont and the north-central portion of South Carolina. The Thread Trail preserves natural areas and provides a place for exploring nature, culture, science, and history. More than 220 miles of trails currently are open to the public and link people, places, cities, towns, and attractions. The Thread Trail provides a variety of public and community benefits, including enhancing the local and regional economy. In Statesville and greater Iredell County, the Thread Trail is a central component of a broader strategy to encourage people to take trips on foot or on bike.

The Statesville area already is home to the Fourth Creek branch of the Carolina Thread Trail system on the city's north side. Other small sections in Mulberry Park and Statesville Middle School bring the total mileage of existing greenway in Statesville to approximately 6.25 miles.

In total, an additional 67 miles of multi-use trail are included in the *Statesville MDP* recommendations. This includes a local system of greenways to connect local parks and neighborhoods, as well as a comprehensive expansion of the Carolina Thread Trail system, which would link Statesville with the surrounding communities.

Pedestrian & Greenway Recommendation

Figure 4.2a



- Existing Multi-Use Path
- Proposed Multi-Use Path
- Existing Sidewalk
- Proposed Sidewalk
- Carolina Thread Trail (Proposed)
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary

Pedestrian & Greenway Recommendation

Figure 4.2b

- Existing Multi-Use Path
- Proposed Multi-Use Path
- Existing Sidewalk
- Proposed Sidewalk
- Carolina Thread Trail (Proposed)
- Statesville Municipal Airport
- City of Statesville
- Study Area
- County Boundary

CITY of Statesville
NORTH CAROLINA

Mobility + Development Plan

Transit, Freight, and Aviation Element | Chapter 5

Introduction and Overview

A key purpose of the *Statesville Mobility + Development Plan* is to deliver recommendations that provide efficient and cost-effective movement of people and goods within and through the City. Fulfilling this purpose will enhance the economy and trading environment at the local and regional level. Addressing roadway, bicycle, and pedestrian needs combined with continued attention to public transportation will help people move efficiently between destinations. Likewise, the movement of goods relies on a dependable freight network that maximizes usage of existing facilities.

Freight movement is vital in our economy, which is becoming increasingly dependent on our ability to transfer goods to market efficiently. At the same time, the movement of goods continues to be one of the most expensive parts of the production cycle. One way to reduce costs for end users is to ensure the efficient movement of goods through air, rail, and roadways. Improvements described in the Roadway Element combined with the freight and aviation considerations in this chapter provide a coordinated approach to enhance the movement of goods. Identifying these coordinated improvements within the CTP process will help to facilitate safe and efficient movement of goods.

The Fixing America's Surface Transportation Act, or FAST Act, reauthorizes the federal highway and public transportation programs through Fiscal Year 2020. The legislation includes two programs focused on freight.

1. National Freight Program (~$6.3 billion in formula funds).
2. Nationally Significant Freight and Highway Projects Program.

These two programs focus on establishing formula and discretionary grant programs to fund critical freight transportation projects that would benefit freight movements. Through the FAST Act, freight projects are provided a dedicated source of Federal funding for the first time, including multimodal projects.

Additional considerations for planning these elements is provided throughout the chapter.

Transit

As a critical component of a complete transportation system, transit is closely tied to land use and economic development decisions. Public transit services should be a viable mobility option for those who need it most — senior citizens, the physically or economically disadvantaged, and commuters who choose to ride. And while many of these trips can be accommodated with demand responsive service, fixed route service is more likely to attract those that have other options but choose to take transit. As is the case with other city's similar in size and population distribution, making transit practical in less dense areas is more difficult and typically incurs higher costs and lower ridership. The transit recommendations in this chapter consider this context.

Freight

Freight planning—regardless of mode—differs from planning other transportation modes. For modes such as highways, bicycle and pedestrian facilities, and transit service, key facilities fall under the jurisdiction of government agencies responsible for developing and maintaining the facilities for the entire community's benefit. Freight remains the only mode in which a significant portion of the main facilities is privately controlled. Public information typically available for other modes often is considered proprietary and held confidential by private entities. As a result, information and analysis conducted for freight is less extensive than that of other modes. The NCDOT Freight Plan is a great resource for freight planning information applicable to Statesville.

Aviation

The system of airports in North Carolina is an important part of the statewide transportation system as well as the state's economy. The needs of the flying public in North Carolina (both passengers on an airline and those piloting a private aircraft) and the transport of air freight is fulfilled through a combination of large airports and smaller facilities. These airport facilities can be divided into two major categories. General Aviation airports, such as Statesville Regional Airport, are smaller facilities that typically provide services for businesses seeking to avoid larger airports and minimize air travel lag time. They also have proven useful in attracting business to communities throughout the state. Commercial Service airports are larger facilities with regularly scheduled passenger service. Charlotte-Douglas International Airport is the state's largest airport and one of the busiest in the nation.

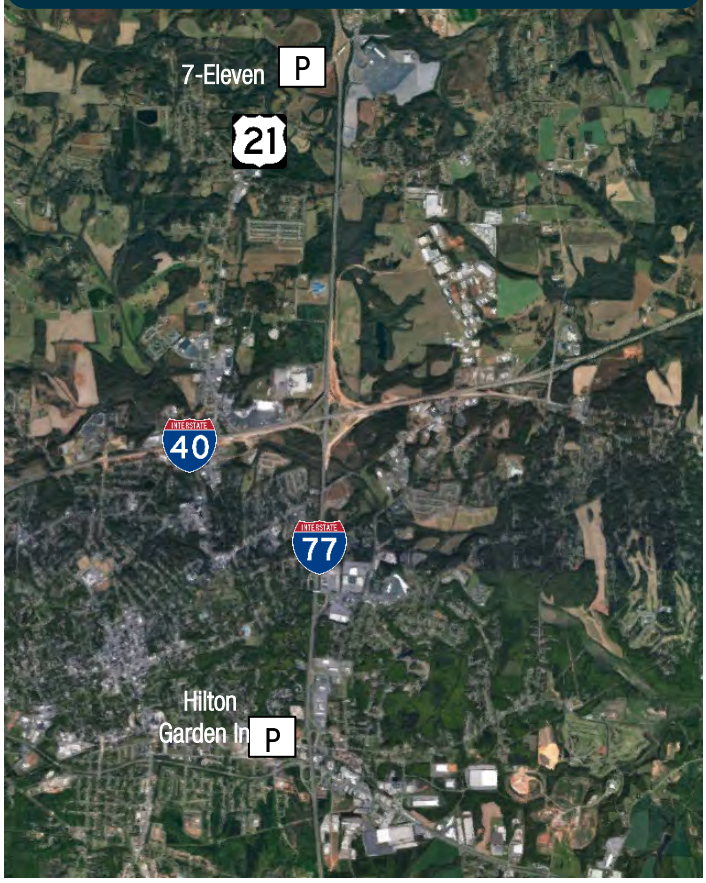
Transit

Existing Conditions (Figure 5.1)

Most people acknowledge that they would use transit if service was fast, frequent, dependable, and easy to use. Like a complete system of roads, sidewalks, and bikeways, transit must provide connections to the places people need or want to go at a time when they need to get there. As shown in Chapter 2, Statesville's public transit system consists of a deviated fixed route circulator bus called the Bloom that has 14 regular stops. The route, operated by Iredell County Area Transportation System (ICATS) and recently modified to the current configuration shown in the map to the left, operates weekdays from 5:00 a.m. to 7:00 p.m. with a $1 fare per ride. Requested deviations from the route cannot be more than ¾ of a mile off the route and must be scheduled at least 2 business days in advanced. A dial-a-ride service is also available and provides additional services for those needing door-to-door specialized service. On-demand trips must be arranged in advance with ICATS.

ICATS also offers express bus service from Iredell County, with stops in Statesville at the two recently created park and ride lots. The bus service originates at a park and ride lot at a 7-Eleven on US-21 near I-77/Exit 54 and also stops at Statesville's other park and ride lot near the recently built Hilton Garden Inn along the Bloom and directly adjacent to I-77/Exit 49B. Both park and ride lots provide convenient highway access. The service terminates at the Northcross park and ride lot at I-77/Exit 25 in Huntersville where riders can transfer to CATS buses. Service runs peak weekday commute times, offering 3 round trips in the morning and 3 in the afternoon.

Park and Ride Lots



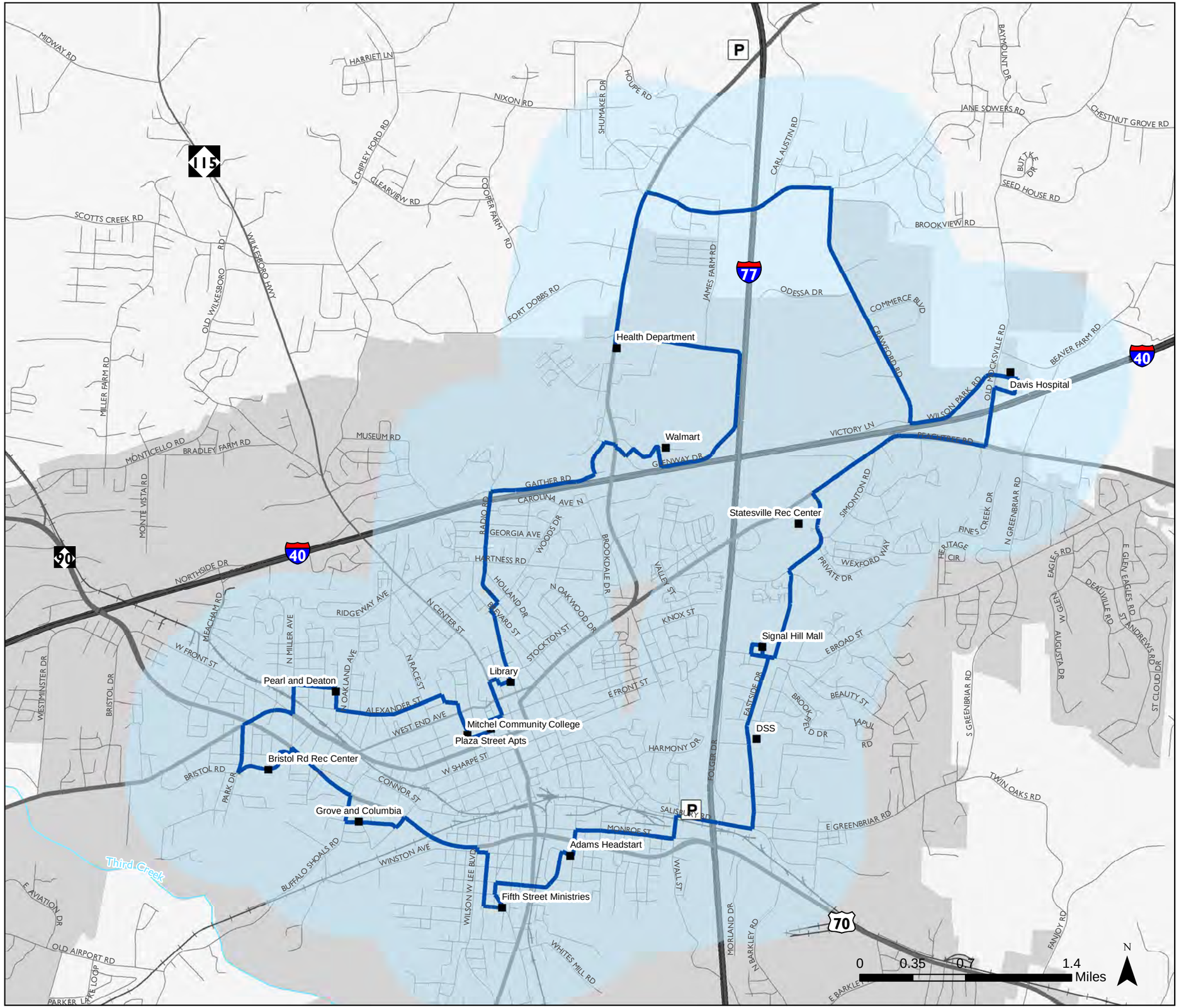
Recommendations

Federal legislation requires MPOs to consider all modes of transportation in the analysis of region-wide mobility and the creation of long-range transportation plans. The collective result of the various modal elements of the *Statesville MDP* should be an integrated, balanced intermodal transportation system that safely and efficiently moves people and goods.

Continued coordination with the Charlotte Area Transportation System (CATS) is recommended to improve regional service such as commuter rail or express service, which will require ongoing dialogue between city, state and regional entities.

Existing Transit Service

Figure 5.1



- Park and Ride Lots
- Bus Stops
- Route
- Alternative Stop Area

Regional Connections

ICATS buses connect Statesville-area commuters to the Charlotte area through an express service. The ICATS express bus picks up passengers at each of the Park and Rides noted on the map at left, and travels down I-77 to the Northcross Park and Ride in Huntersville, where passengers transfer to a Charlotte Area Transit System (CATS) bus. The route terminates at the CATS Transit Center in Uptown Charlotte.

Upon the opening of the I-77 toll lanes, the ICATS express route will utilize the express toll lanes to allow for faster travel.

Freight

Existing Conditions (Figure 5.2)

Rail Crossing at Salisbury Road

The inherent challenges for freight planning due to the private sector's control over a significant portion of the main facilities does not undermine the importance of freight planning but rather underscores the need for coordination. Different elements operate in unique organizational and governing environments. City and county zoning boards dictate the location of trucking facilities while the operation of the trucks is controlled by state departments of transportation. Rail primarily is regulated at the federal level, but private corporations determine the use or abandonment of railroad right-of-way. Local or regional jurisdictions typically operate airports and maritime facilities, but actual freight service is provided by private corporations operating under federal regulation.

Designated truck routes within Statesville city limits include I-40, I-77, and the portion of Garner Bagnal Boulevard (US-70) east of I-77. In the study area, there are also truck routes designated as having reasonable access. These routes include portions of Turnersburg Highway (US-21), Garner Bagnal Boulevard (US-70), US-64, and Taylorsville Highway (NC 90). Non-designated primary trucking routes include many major corridors in Statesville such as Mocksville Highway (US-64), Hickory Highway (US-70) and Shelton Avenue (US-21). Major CTP highway recommendations along truck routes have been noted on the following Figure 5.2.

Rail facilities in Statesville are owned by two different companies: Alexander Railroad Company (ARC) and Norfolk Southern (NS). ARC is a Class III railroad that runs from Statesville to Taylorsville, North Carolina. ARC has one connection with NS just south of downtown Statesville. NS is a Class I railroad, and operates about 77% of North Carolina's rail system. NS owns and operates approximately 9,000 miles of rail in the southern portion of the Statesville study area.

Recommendations

The City of Statesville is served by two main rail lines and three major trucking corridors. With numerous business and industrial areas in Statesville and its surrounding areas, truck and rail freight will both play significant roles in shaping the transportation network. The roadway improvements outlined in the Roadway Element (Chapter 3) help to minimize the effect of commercial trucks and therefore, create a more coordinated strategy for a truly multimodal system.

Trucking

The *Statesville MDP* recommends the widening of Garner Bagnal Boulevard (US 70) from Front Street to Wall Street from a 2-lane highway to a 4-lane highway with paved shoulders, with future considerations for pedestrian-safe connections to South Statesville. As one of the primary east-west connections in Statesville, Garner Bagnal Boulevard is also one of the most congested corridors in Statesville, with a V/C ratio of 1.5 (See Chapter 2 for details). The improvement should provide a less-congested route to and from the industries along US 70. Additional improvements along US 70 include access management recommendations. With further study, improved access management strategies along US 70 will provide a more convenient, and safer alternative in the future.

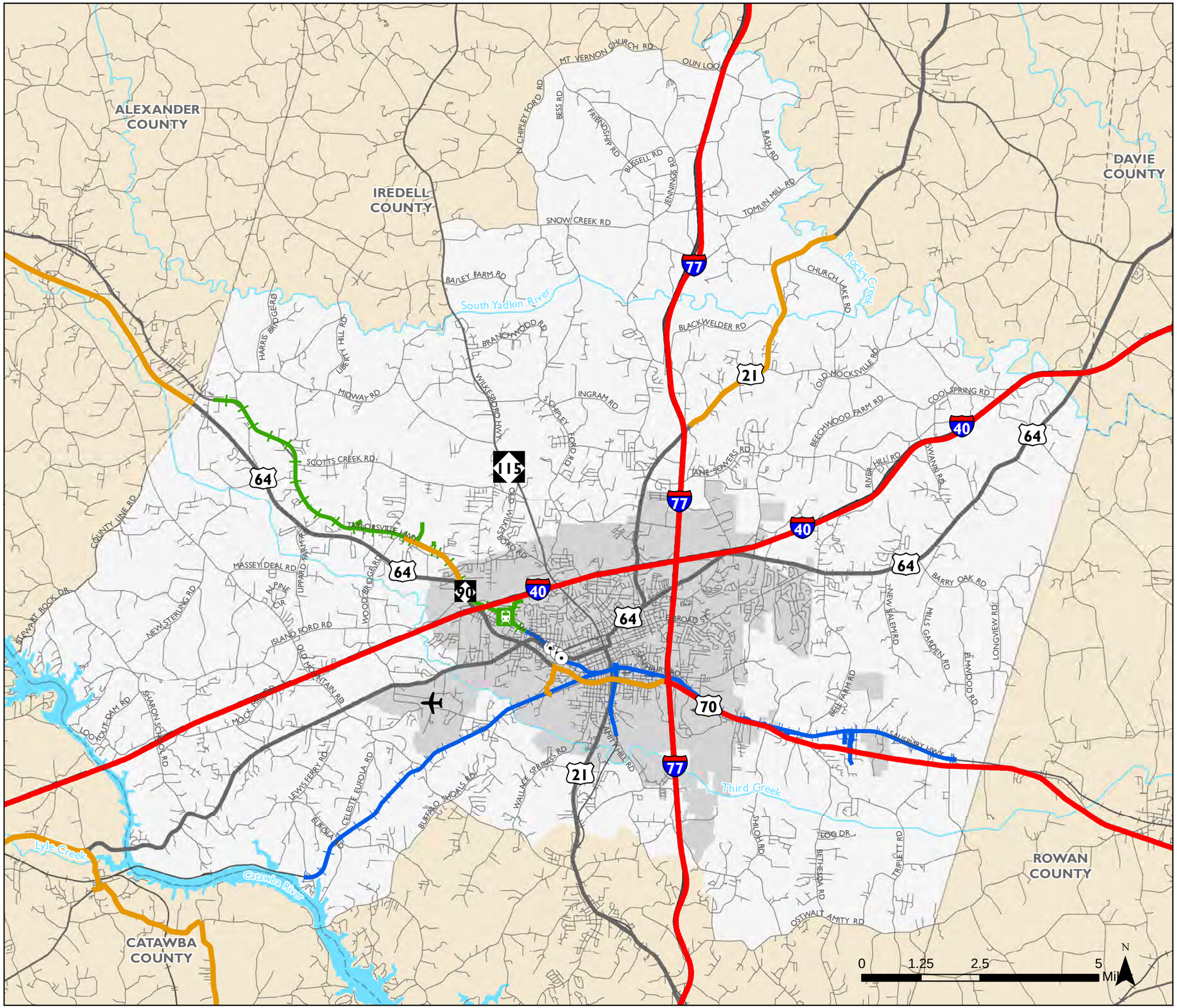
Rail (Figure 5.2)

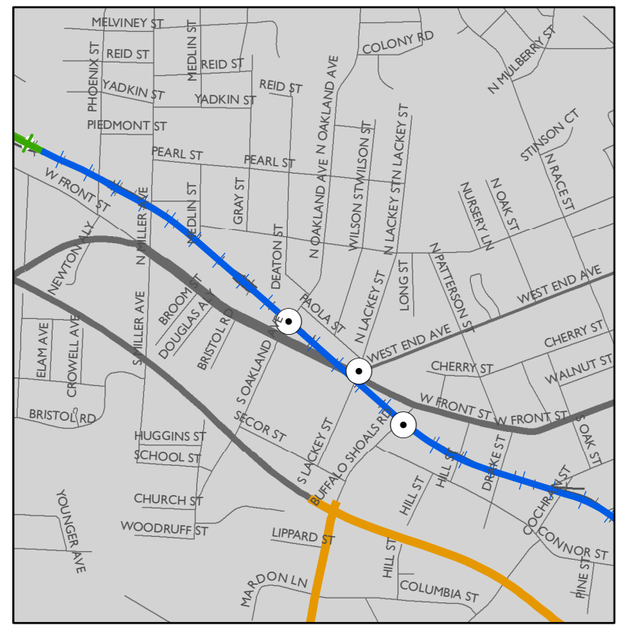
The *Statesville MDP* recommends the City of Statesville to continue to invest in bicycle and pedestrian crossing improvements along all rail corridors in Statesville. Crossing improvements should be incidental if any grade crossing improvements occur along the rail corridor (e.g., Wilson W. Lee Boulevard). The Statesville MDP recommends strategic crossing improvements at the following locations:

- West Front Street and West End Avenue
- Oakland Avenue near Front Street
- Buffalo Shoals Avenue near Front Street

Freight and Aviation Network

Figure 5.2





- Recommended Crossing Improvements
- Rail Yard
- All Trucks
- Oversize Vehicles with NCDOT Approval Letter
- Norfolk Southern Railroad
- Alexander Railroad
- Statesville Municipal Airport

Aviation

Existing Conditions (Figure 5.2)

Aerial View of Statesville Regional Airport

The Statesville Regional Airport (KSVH) is classified as a General Aviation (GA) airport owned by the City of Statesville. General Aviation airports serve anywhere from 0.05% to 0.25% of the total enplanements in a domestic area.

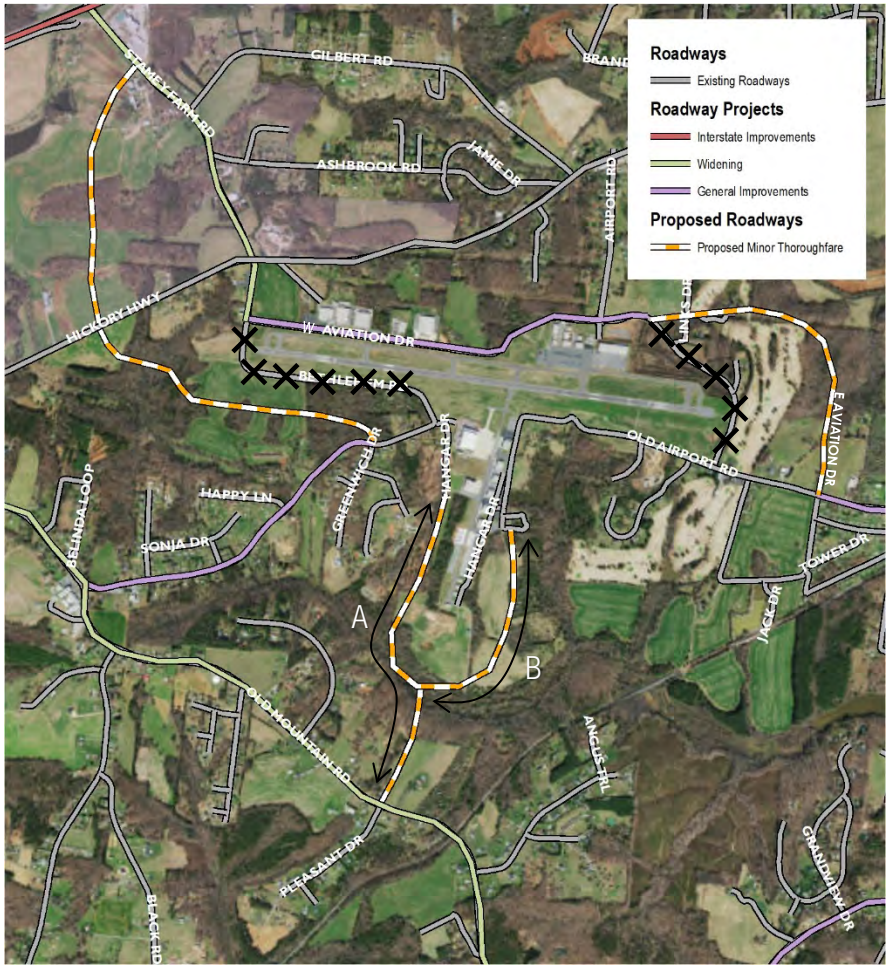
Serving the residents of Iredell County and the general surrounding areas, KSVH offers advantages related to transportation accessibility and proximity to Charlotte. These qualities make the airport an attractive and cost-effective location for corporate aviation facilities for industrial and corporate companies like Lowe's and NASCAR. Within the last decade, KSVH's tax base has increased from $41 million to over $160 million. Another key feature of KSVH is that the airport is under regulation of Atlanta airspace, which means that KSVH departures are relatively unaffected by airport departure delays due to Charlotte-Douglas Airport traffic.

The City of Statesville partners with Iredell County for the funding of KSVH, particularly for airport improvement projects. Through local support and statewide funding measures, KSVH has implemented a myriad of capital improvements in the past decade. The most recent improvement was funded primarily through a federal Airport Improvement Program (AIP) grant.

- **2004** - Runway extension from 5000 ft to 7000 ft; Installation of a full Instrument Landing System (ILS)
- **2009** – Strengthening of runway, taxiways, and apron to accommodate larger aircraft
- **2015** – Runway grooving completed for safety measures
- **2017** – LED lighting added
- **Future plans** – Installation of a future taxiway parallel to the south of the runway; Development of pad ready corporate hangar sites.

Recommendations

The Statesville Airport Layout Plan (ALP) is currently adopted. The aviation recommendations for the Statesville MDP include preliminary projects listed in the Layout Plan and are subject to change depending on the final recommendations of the Statesville Airport Layout Plan. The larger-scale projects, shown in the ALP and other regional plans, are listed below. The relocation of Bethlehem Road, as well as new southern access from Old Mountain Road are the most significant roadway improvements recommended for the Statesville Airport area. These projects are also reflected in the roadway recommendations of the *Statesville MDP.*



Proposed Project List
Proposed Stamey Farm Road Connection
Bethlehem Road Realignment
Relocated East Aviation Drive
Eastside Parallel Taxiway
Land Acquisition – Corporate Apron Development
South Corporate Area Development Phase 1
South Corporate Area Development Phase 1
Replace MALSR
Replace Glideslope and Localizer
Runway 10 Safety Area Improvements
Land Acquisition - Runway Protection Zone
South Parallel Taxiway (West End)
Runway Protection Zone – Runway 28
Runway 10 and 28 Obstruction Removal
Runway 28 Extension to 8000’
✕ Roadway to be removed
A: New Southern Airport Access Road #1
B: New Southern Airport Access Road #2

CITY of Statesville
NORTH CAROLINA

Mobility + Development Plan

Strategic Corridors | Chapter 6

Introduction and Overview

As discussed in Chapter 2, Statesville is poised for steady growth. The impact of future growth will affect services and reshape geographies throughout the study area. However, the City's most vulnerable asset very well may be one of the driving factors behind the growth—major transportation corridors. In the future, these streets and highways will serve as the backdrop for strategies associated with transportation, land use, urban design, and economic development.

Profiles for the City's strategic corridors were designed to provide more detail for these important assets, including a deeper understanding of existing conditions and an assessment of growth and development along and adjacent to the corridors. This information helped shape potential solutions to ease congestion, increase safety, and reflect the vision and goals for a balanced transportation system.

The six corridors shown on Figure 6.1 represent conditions found throughout the area, including typical roadway cross sections, heavy traffic congestion particularly during peak hours, commercial development adjacent to the roadway, and in most cases the potential for significant growth. As a result, the recommendations and access management solutions illustrated in the pages that follow can be applied to other corridors. By taking the proper steps now, strategic corridors can promote new growth, accommodate increases in traffic, and contribute to the success of the overall transportation system.

Strategic Corridors – Chapter Overview (Figure 6.1)

Members of the Management Committee were actively involved in determining the context and establishing a vision for each of the strategic corridors. The following pages present the strategic corridors in two parts. The left page includes a context map, roadway characteristics, and overview of potential recommendations. The recommendations are visualized in a map on the right page.

Corridor Context

Issues Identification: More detailed review of existing conditions

- Existing and proposed land use
- Planned developments
- Traffic volumes and crash history
- Functional classification
- Bicycle & pedestrian issues
- Environmental constraints

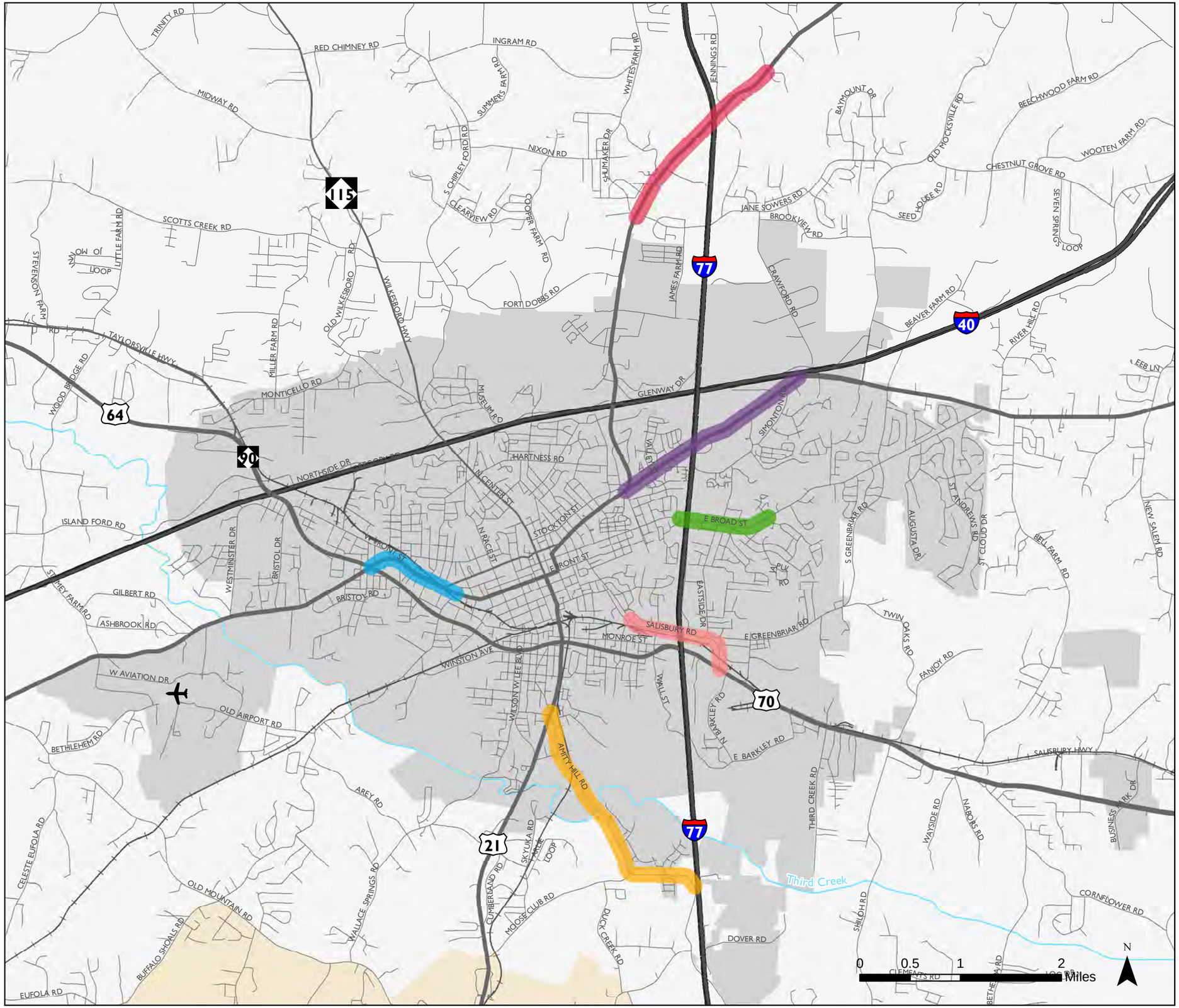
Corridor Vision

Recommendations: Integrated presentation of recommendations

- Typical cross section
- Community vision for corridor
- Roadway enhancements
- Network connections
- Bicycle and pedestrian facilities
- Cross-referenced recommendations

Strategic Corridors

Figure 6.1



- Amity Hill Road
- Broad Street
- Davie Ave
- Front Street
- Salisbury Road
- Turnersburg Highway
- City of Statesville

Amity Hill Road | Hugo Lane to Shelton Avenue (US 21)

Major Collector • 2.5 miles • 2,300 AADT (2013)

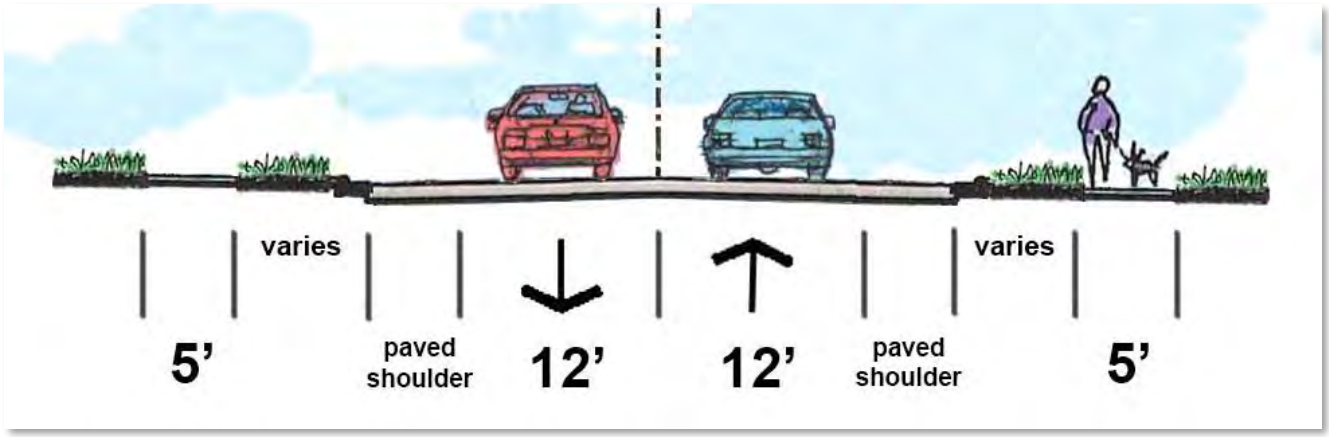
Existing Roadway Characteristics	
Travel Lanes	2-lane
Speed (mph)	50;35
Volume (vpd)	3,500
Capacity	15,000
Volume/Capacity	0.23
Crashes (NCDOT)	16
Fatalities	*0*
Injuries	*8*
Property Damage	*8*
Median	None
Bike/Ped Facilities	None
Parking	None
Community Impacts	
Environmental	Wetlands
Bodies of Water	Yes
Historic Districts/Site	None

Amity Hill Road from Hugo Lane to Shelton Avenue (US 21) is categorized as a Major Collector in the Statesville CTP. The corridor has been identified as a future gateway into the City of Statesville from I-77. Recommendations for this corridor have been reinforced by the Larkin Area Traffic Impact Study, where several intersections of the corridor have been identified as needing improvement. Recommendations for the corridor include:

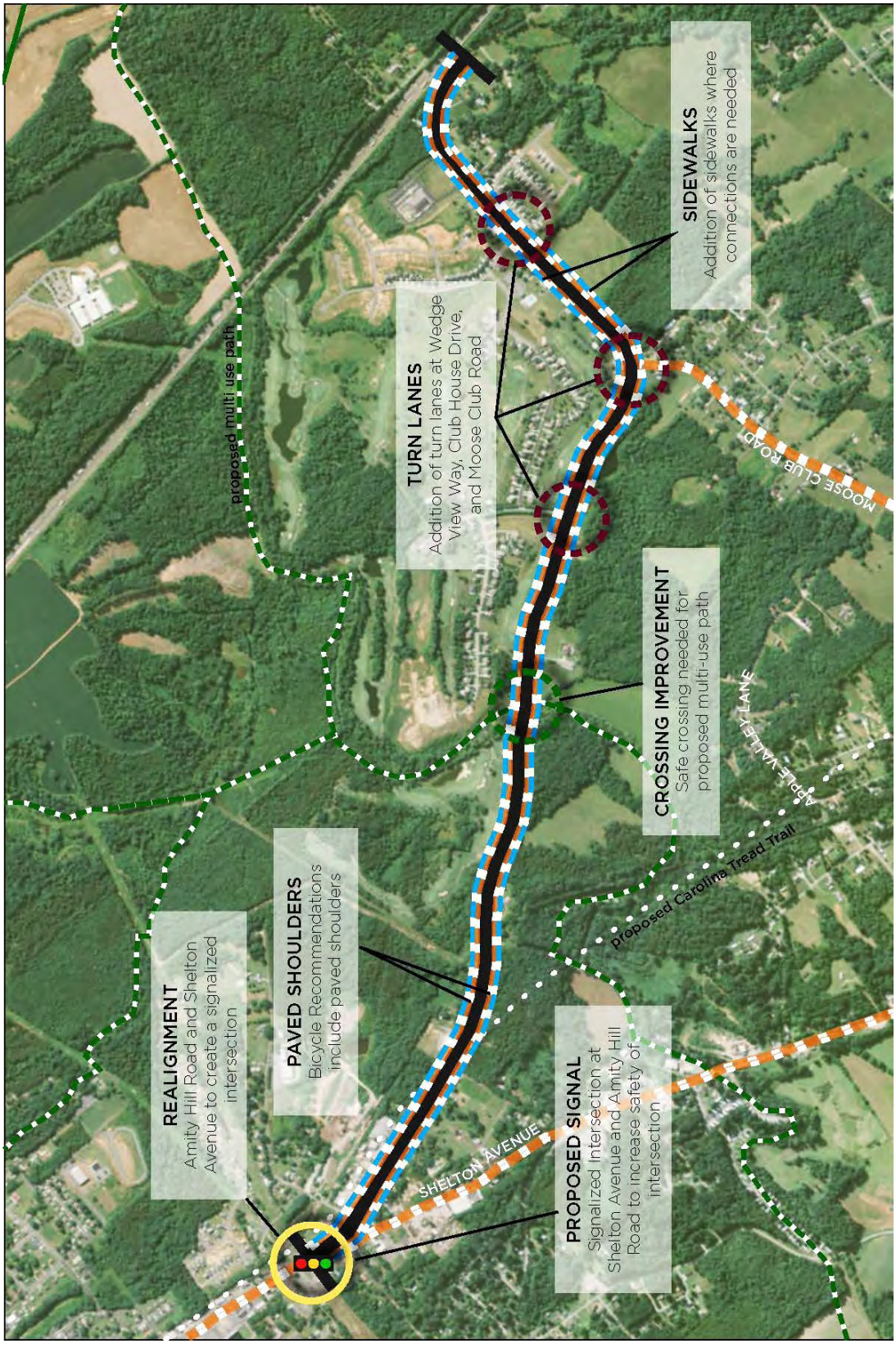
- Addition of turn lanes at Wedge View Way, Club House Drive, and Moose Club Road
- Realignment of Amity Hill Road and Shelton Avenue with a signalized intersection to increase intersection safety per the Downtown & NC 115 Master Plan
- Addition of paved shoulders and sidewalks along the corridor
- Crossing improvements for proposed multi-use path running along Third Creek

*Cross section below represents General Improvement project from US-21 to I-77

Future Cross Section C



Amity Hill Road | Hugo Lane to Shelton Avenue



Broad Street | Beechwood Road to Toria Drive

Major Thoroughfare • 1.2 miles • 12,000 AADT (2013)

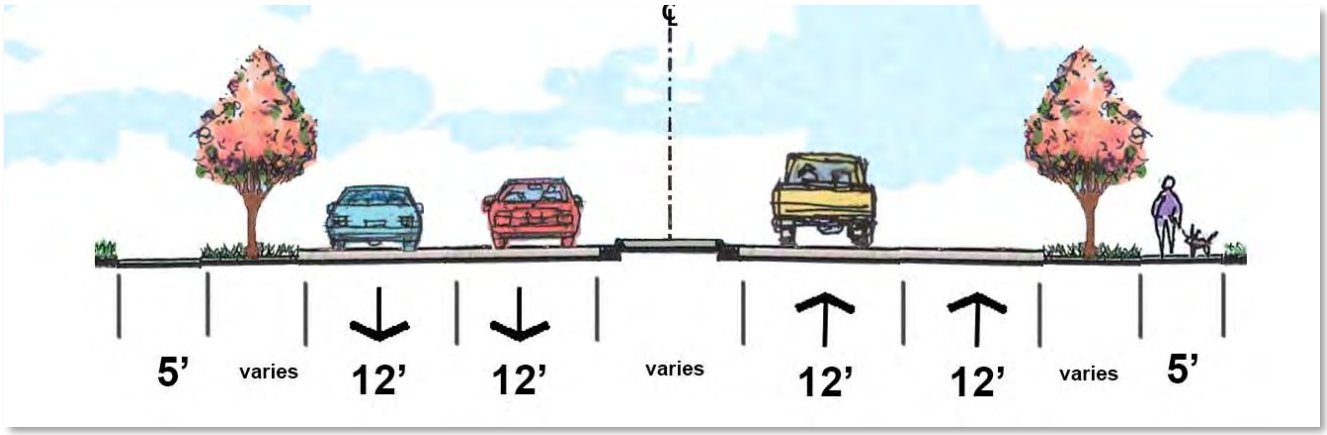
Existing Roadway Characteristics	
Travel Lanes	4
Speed (mph)	35
Volume (vpd)	12,000
Capacity	17,500
Volume/Capacity	0.54
Crashes (NCDOT)	124
Fatalities	*1*
Injuries	*43*
Property Damage	*80*
Median	None
Bike/Ped Facilities	None
Parking	None
Community Impacts	
Environmental	Wetlands
Bodies of Water	Yes
Historic Districts/Site	None

Broad Street from Beechwood Road to Toria Drive is identified as a Major Thoroughfare in the CTP. Broad Street is one of the City's main corridors but it generally lacks multimodal considerations. Over 124 crashes have occurred in the past 3 years Improving safety on Broad Street increases the commercial viability of the Signal Hill Mall Area. Recommendations for the corridor include:

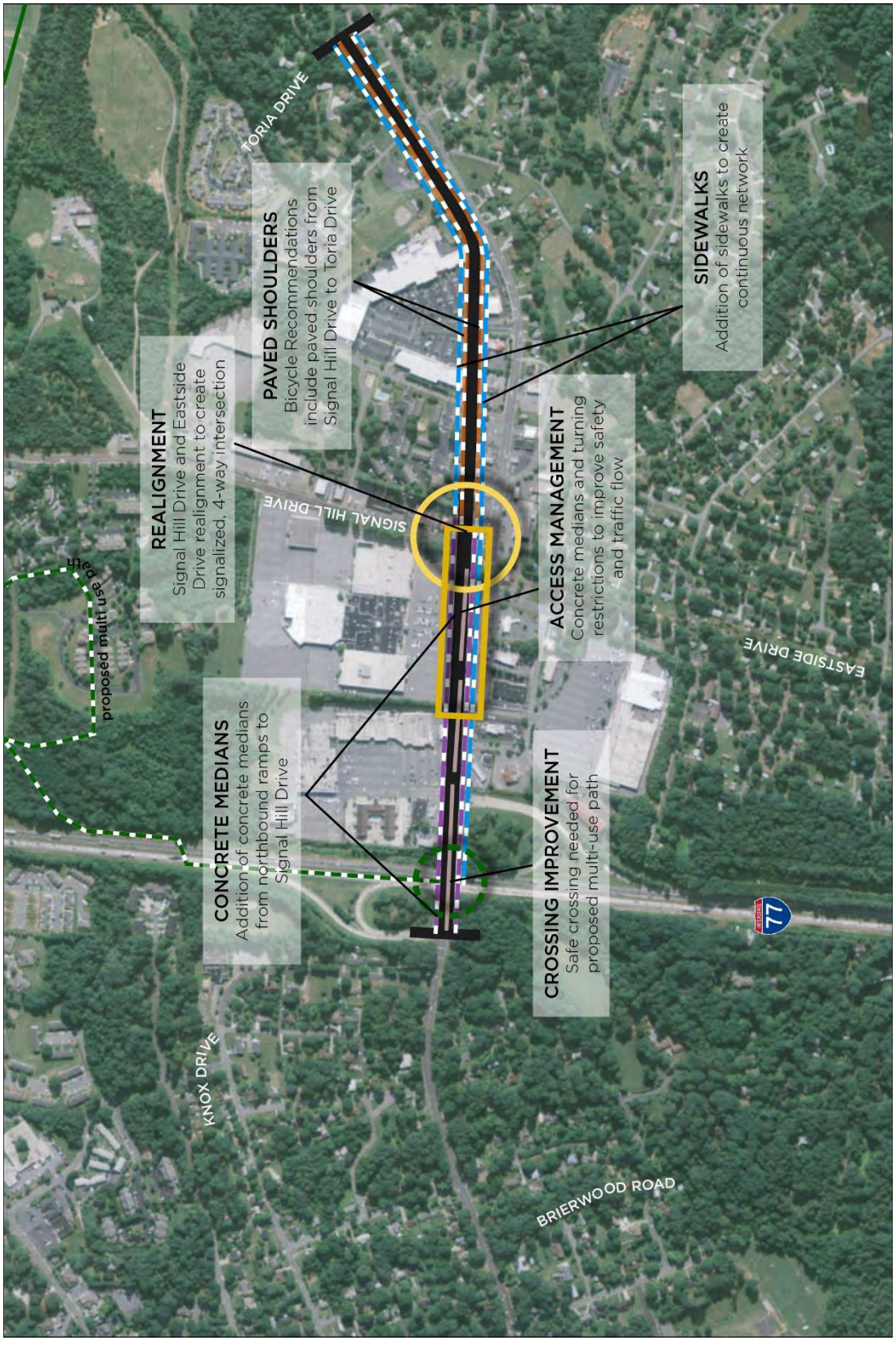
- Access management of Signal Hill Mall area dependent on future development, as identified in the STIP project U-6039
- Realignment of Signal Hill Drive and Eastside Drive
- Addition of concrete medians from the northbound I-77 ramps to Signal Hill Drive
- Sidewalks throughout the entire corridor
- Crossing improvements for proposed multi-use path running along I-77

*Cross section below represents Access Management project from northbound ramps to Eastside Drive.

Future Cross Section L



Broad Street | Beechwood Road to Toria Drive



Front Street | Buffalo Shoals Rd to Garner Bagnal Blvd

Major Thoroughfare • 1.0 mile • 5,750 AADT (2013)

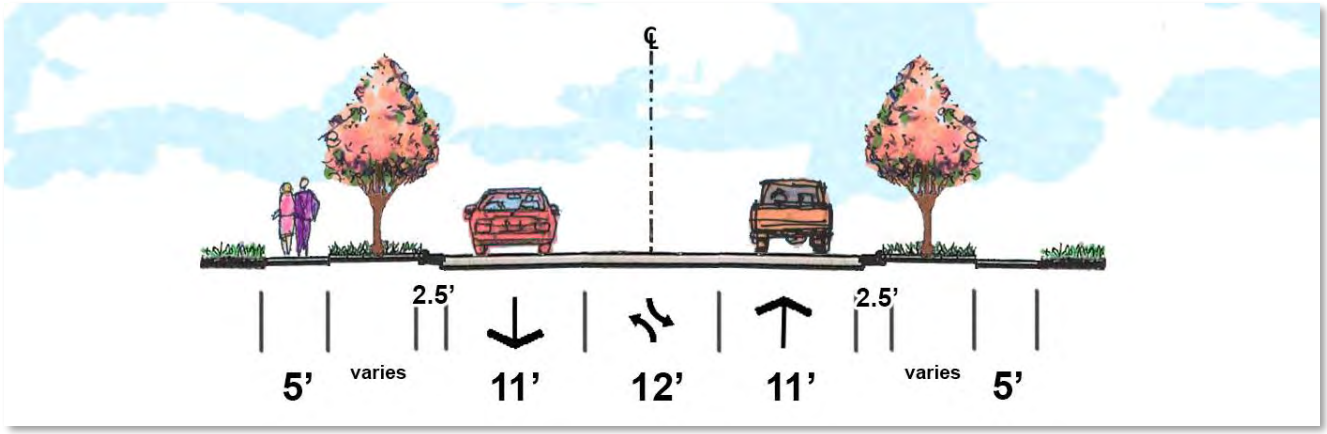
Existing Roadway Characteristics	
Travel Lanes	4, 2
Speed (mph)	35
Volume (vpd)	7,500
Capacity	10,000
Volume/Capacity	0.51
Crashes (NCDOT)	18
Fatalities	0
Injuries	6
Property Damage	12
Median	None
Bike/Ped Facilities	Sharrows
Parking	None
Community Impacts	
Environmental	Wetlands
Bodies of Water	Yes
Historic Districts/Site	None

Front Street from Buffalo Shoals Road to Garner Bagnal Boulevard is identified as a Major Thoroughfare in the CTP. The corridor has been identified as a future gateway into the City of Statesville and a candidate for redevelopment. The corridor's proximity to the rail line serves both as an asset and a constraint for the corridor. The City vision for the corridor includes repurposing and revitalizing the outdated buildings in the corridor as a method to transform Front Street into a true gateway. Recommendations for the corridor include:

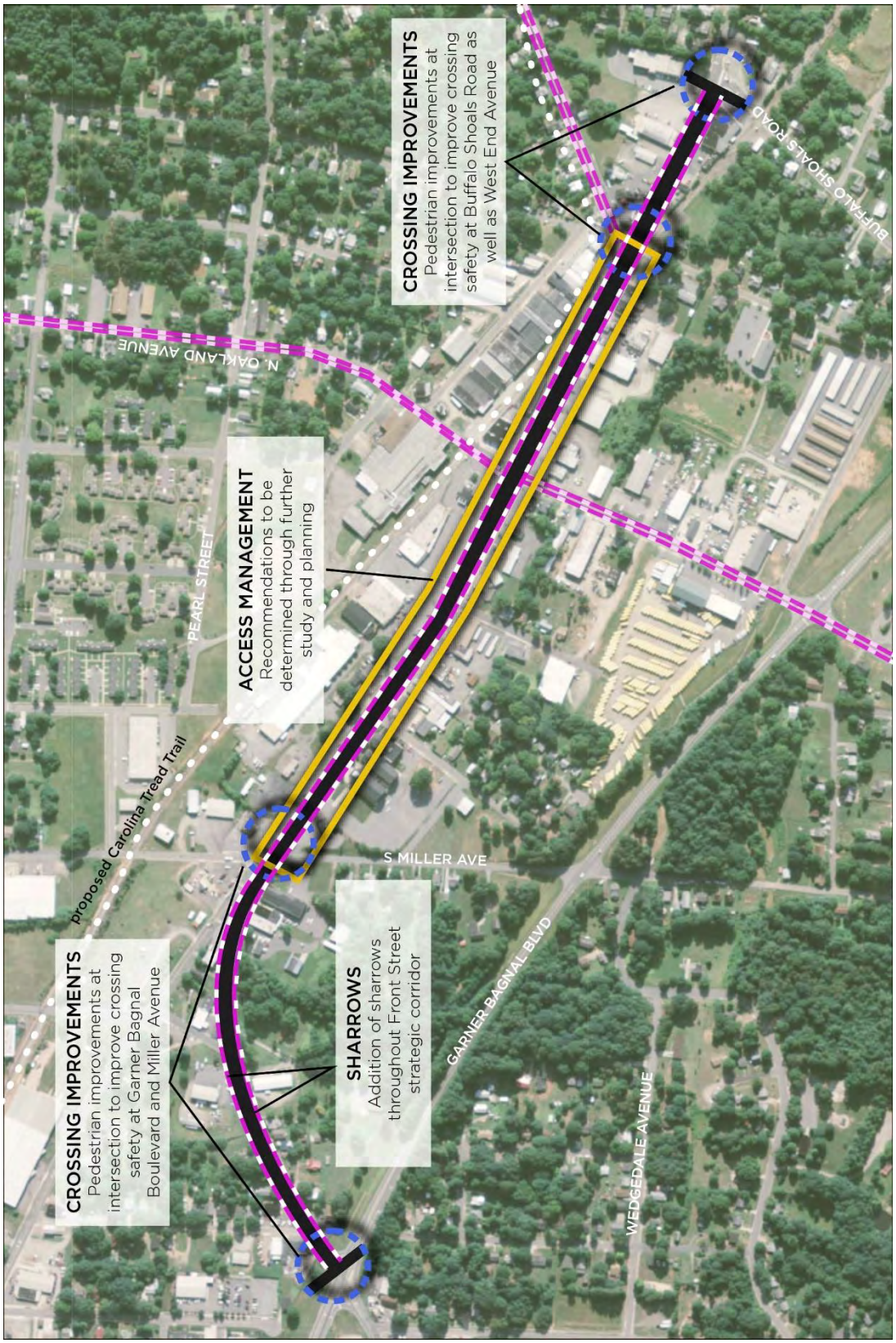
- Access management from Miller Avenue to West End Avenue, including intermittent center turn lanes
- Pedestrian crossing improvements at Garner Bagnal Boulevard, Miller Avenue, Oakland Avenue, and Buffalo Shoals Road
- Addition of sharrows along the corridor to continue a system-wide improvement of the bicycle network in Statesville

*Cross section below represents Access Management project from Garner Bagnal Blvd to Security Dr

Future Cross Section G



Front Street | Buffalo Shoals Road to Garner Bagnal Boulevard



Davie Avenue (US 64) | Sullivan Road to Mocksville Hwy

Major Thoroughfare • 2.0 miles • 10,000 AADT (2013)

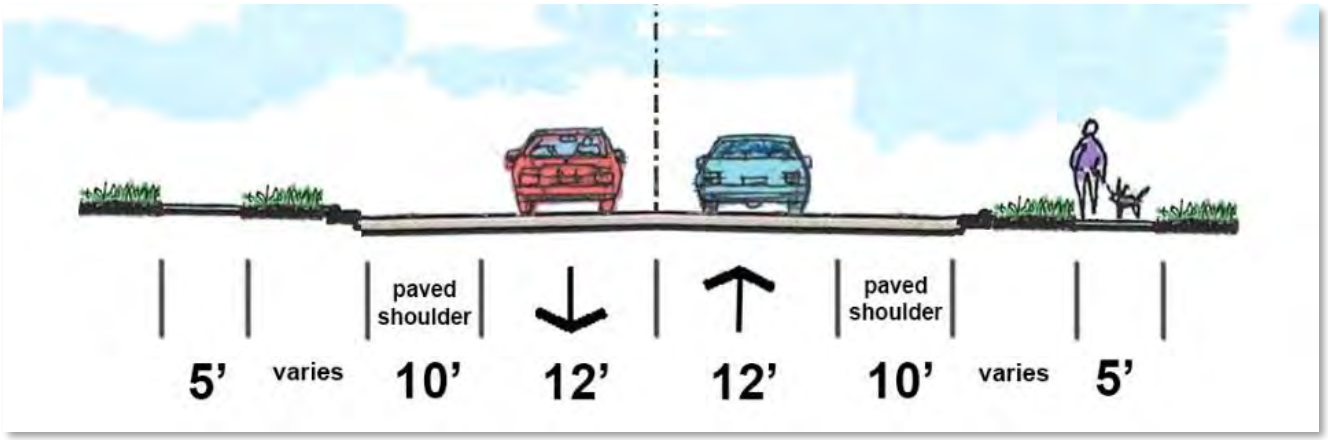
Existing Roadway Characteristics	
Travel Lanes	2
Speed (mph)	35
Volume (vpd)	7,500
Capacity	10,000
Volume/Capacity	0.51
Crashes (NCDOT)	31
Fatalities	0
Injuries	16
Property Damage	15
Median	None
Bike/Ped Facilities	None
Parking	None
Community Impacts	
Environmental	Wetlands
Bodies of Water	Yes
Historic Districts/Site	None

Davie Avenue, from Sullivan Road to Mocksville Highway, is identified as a Major Thoroughfare in the CTP. The City vision for this corridor is reinforced by the Brookdale, Oakdale small area plan, which envisions development along this corridor to include medical-related services. Portions of the corridor also lack multimodal improvements, particularly given the placement of the existing Statesville Greenway. Recommendations for the corridor include:

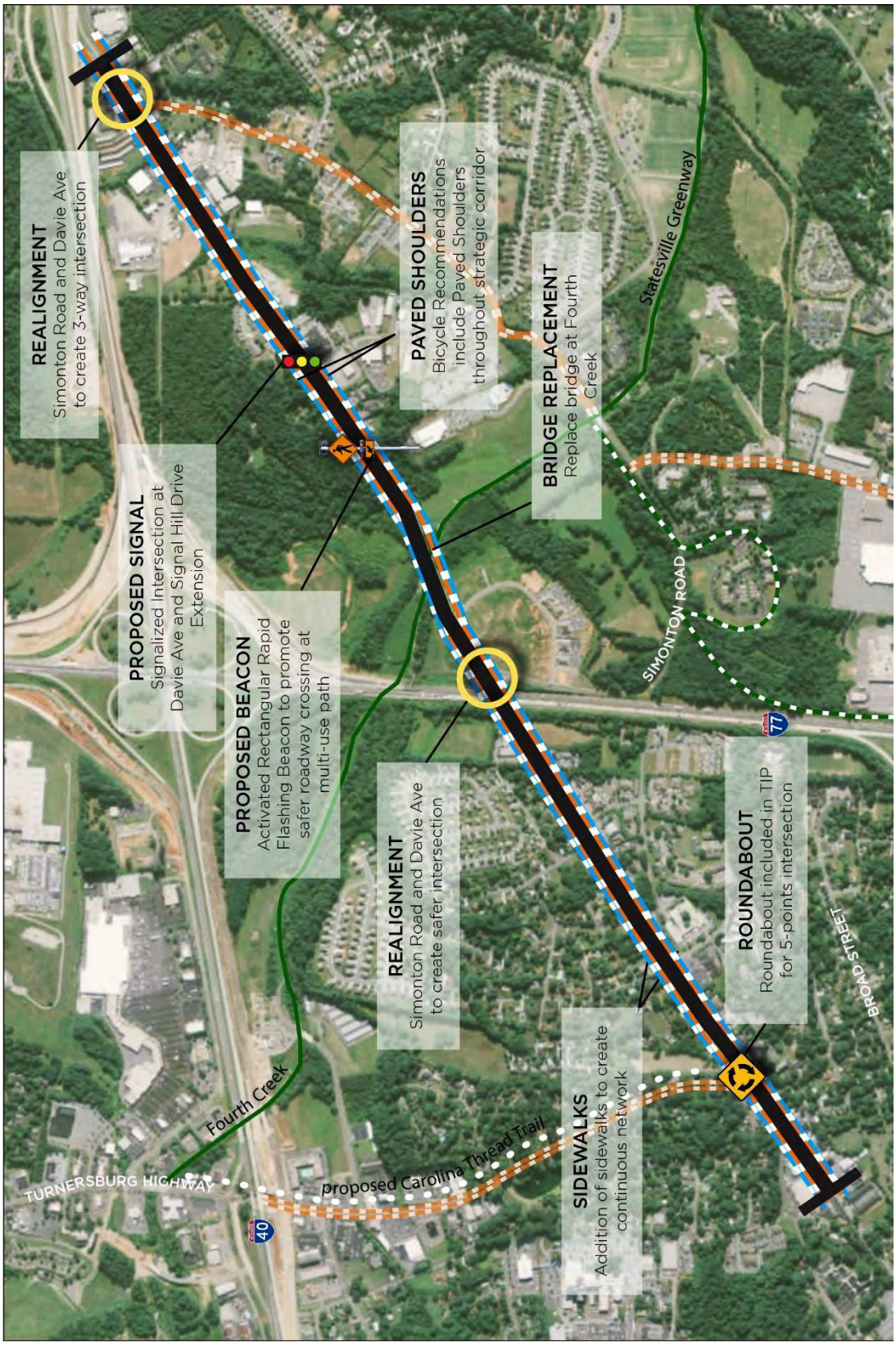
- Roundabout installation at 5-points intersection, currently in STIP
- Realignment of intersections at both entrances of Simonton Road onto Davie Avenue
- Addition of paved shoulders along corridor and sidewalks where connections are needed
- Proposed addition of an activated rectangular rapid flashing beacon to promote safer roadway crossing at the Statesville Greenway crossing
- Bridge Replacement at Fourth Creek

*Cross section below represents Access Management project from East End Ave to Mocksville Highway

Future Cross Section C



Davie Avenue | Sullivan Road to Mocksville Highway



Salisbury Road | Opal St to Garner Bagnal Blvd

Boulevard • 1.2 miles • 13,000 AADT (2013)

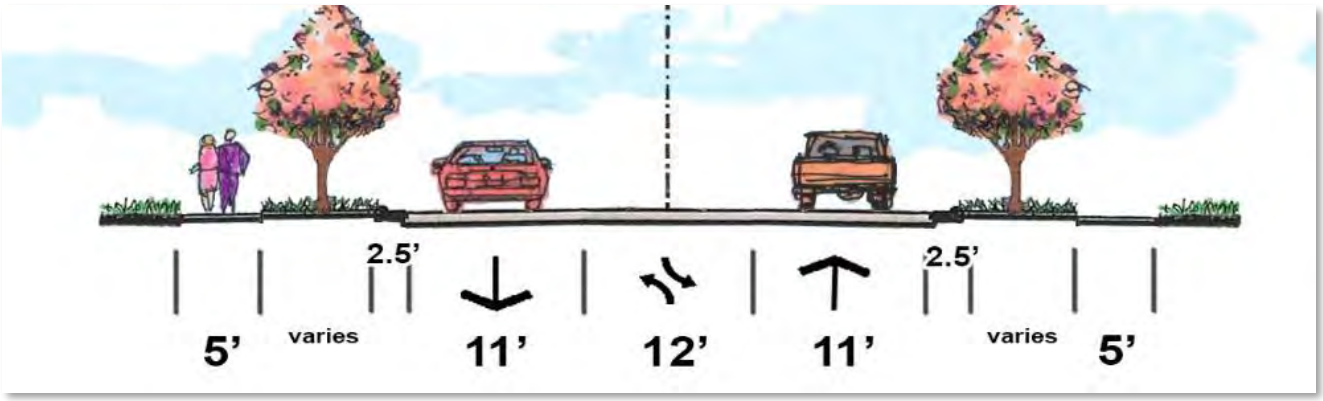
Existing Roadway Characteristics	
Travel Lanes	4
Speed (mph)	35
Volume (vpd)	7,000
Capacity	8,500
Volume/Capacity	0.81
Crashes (NCDOT)	77
Fatalities	*0*
Injuries	*32*
Property Damage	*45*
Median	None
Bike/Ped Facilities	None
Parking	None
Community Impacts	
Environmental	None
Bodies of Water	Wetlands
Historic Districts/Site	No

Salisbury Road from Opal Street to Garner Bagnal Boulevard is identified as a Boulevard in the Statesville CTP. The City has identified this corridor as having redevelopment potential. Currently, there are no turn lanes along Salisbury Road, despite a portion of the corridor serving as an I-77 interchange. Recommendations for the corridor include:

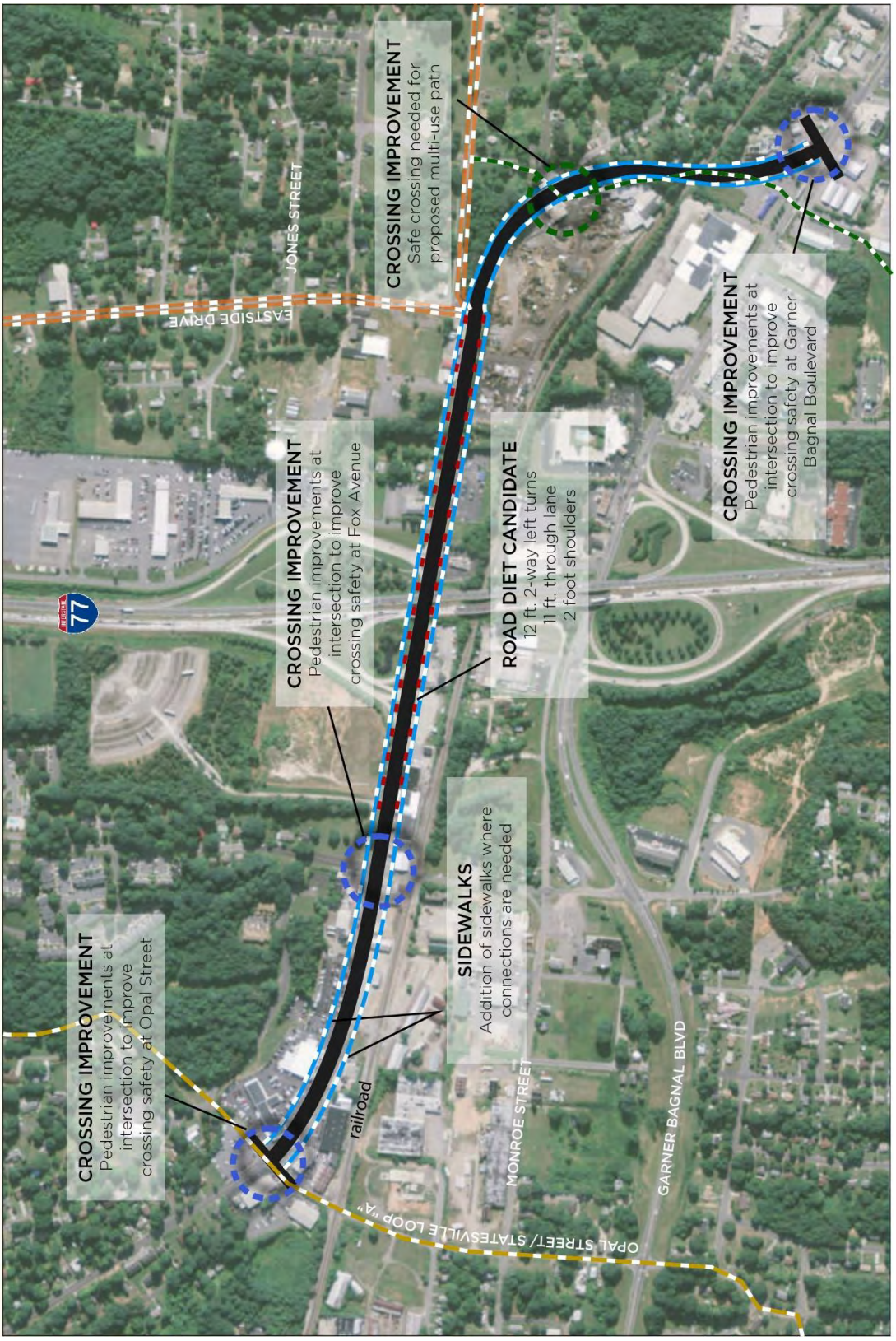
- Road diet candidate from Fox Avenue to Eastside Drive (11' travel lanes, 12' center turn lane, 2' shoulders) Pedestrian crossing improvements at Opal Street, Fox Avenue, and Garner Bagnal Boulevard
- Crossing improvement at future multi use path crossing near Salisbury Road and Gay Street intersection
- Addition of sharrows throughout the corridor to connect to the larger Statesville network
- Addition of sidewalks along the corridor to improve connections where they are needed

*Cross section below represents Road Diet project from Fox Ave to Salisbury Hwy

Future Cross Section G



Salisbury Road | Opal Street to Garner Bagnal Boulevard



Turnersburg Highway | Jane Sowers Rd to Pine Hollow Dr

Major Thoroughfare • 2.0 miles • 7,000 AADT (2013)

Existing Roadway Characteristics	
Travel Lanes	2
Speed (mph)	45
Volume (vpd)	8,700
Capacity	15,000
Volume/Capacity	0.66
Crashes (NCDOT)	68
Fatalities	1
Injuries	26
Property Damage	41
Median	None
Bike/Ped Facilities	None
Parking	None
Community Impacts	
Environmental	Wetlands
Bodies of Water	Yes
Historic Districts/Site	None

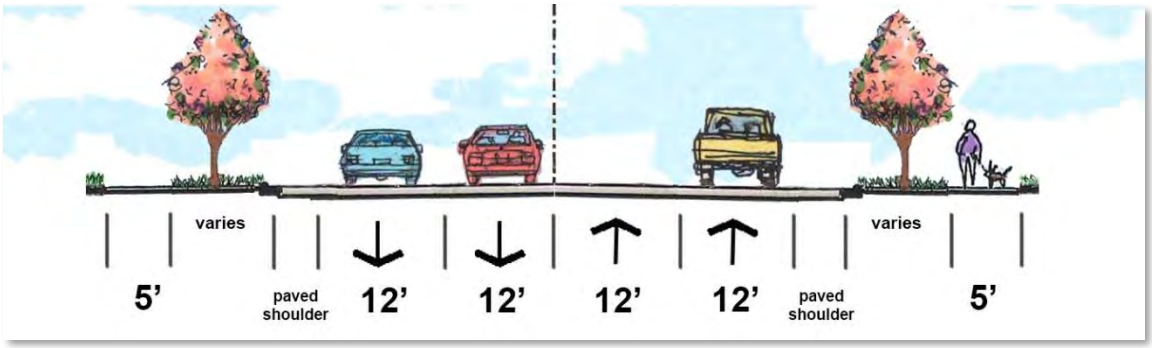
Turnersburg Highway from Jane Sowers Rd to Pine Hollow Drive is identified as a Major Thoroughfare in the CTP. The City plans to extend sewer and water infrastructure to this area to help catalyze redevelopment potential. Road widenings from Pump Station Road to Fort Dobbs were identified as a need in the 2016/2025 STIP. Turnersburg Highway is a vital corridor, particularly given discussions of a new I-77 interchange north of the City of Statesville, as an extension of James Farm Road. Roadway recommendations in the surrounding area will have to be revisited if the new I-77 interchange becomes a viable opportunity.

Recommendations for the corridor include:

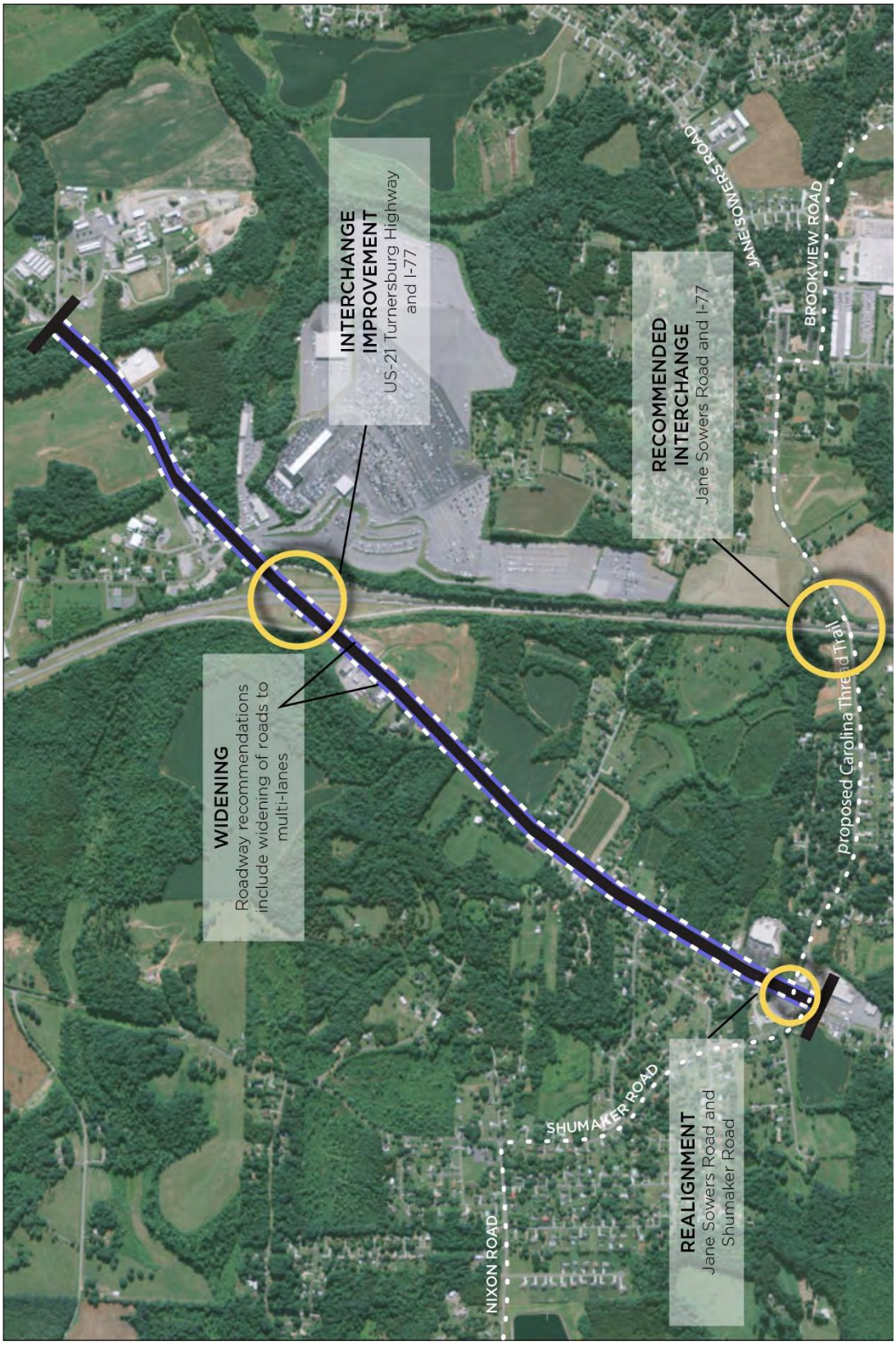
- Realignment of Jane Sowers Road and Turnersburg Highway for improved safety of intersection, as recommended in the 2016/2025 STIP
- Roadway widening along Turnersburg Highway for increased vehicle capacity
- Improve Interchange to I77 and US21
- Recommended new interchange at Jane Sowers Road and I-77

*Cross section below represents Widening from N Pointe Blvd to Dunlap Gate Rd

Future Cross Section J



US 21 Turnersburg Highway | Jane Sowers Road to Pine Hollow Drive



CITY of Statesville
NORTH CAROLINA

Mobility + Development Plan

Land Use Focus Areas | Chapter 7

Introduction

In Statesville and communities across North Carolina, the distance between complementary land uses (e.g., home and work, school, or shopping) and a lack of street connectivity increases the time we spend in cars and leads to other consequences like increased energy consumption, poor air quality, and high infrastructure costs. Nothing is likely to change unless communities intentionally integrate land use, urban form, and transportation decision-making into their planning process. The *Statesville Mobility + Development Plan (MDP*) reflects community support for various smart growth planning initiatives and promotes transportation improvements sensitive to the overall goals of these initiatives.

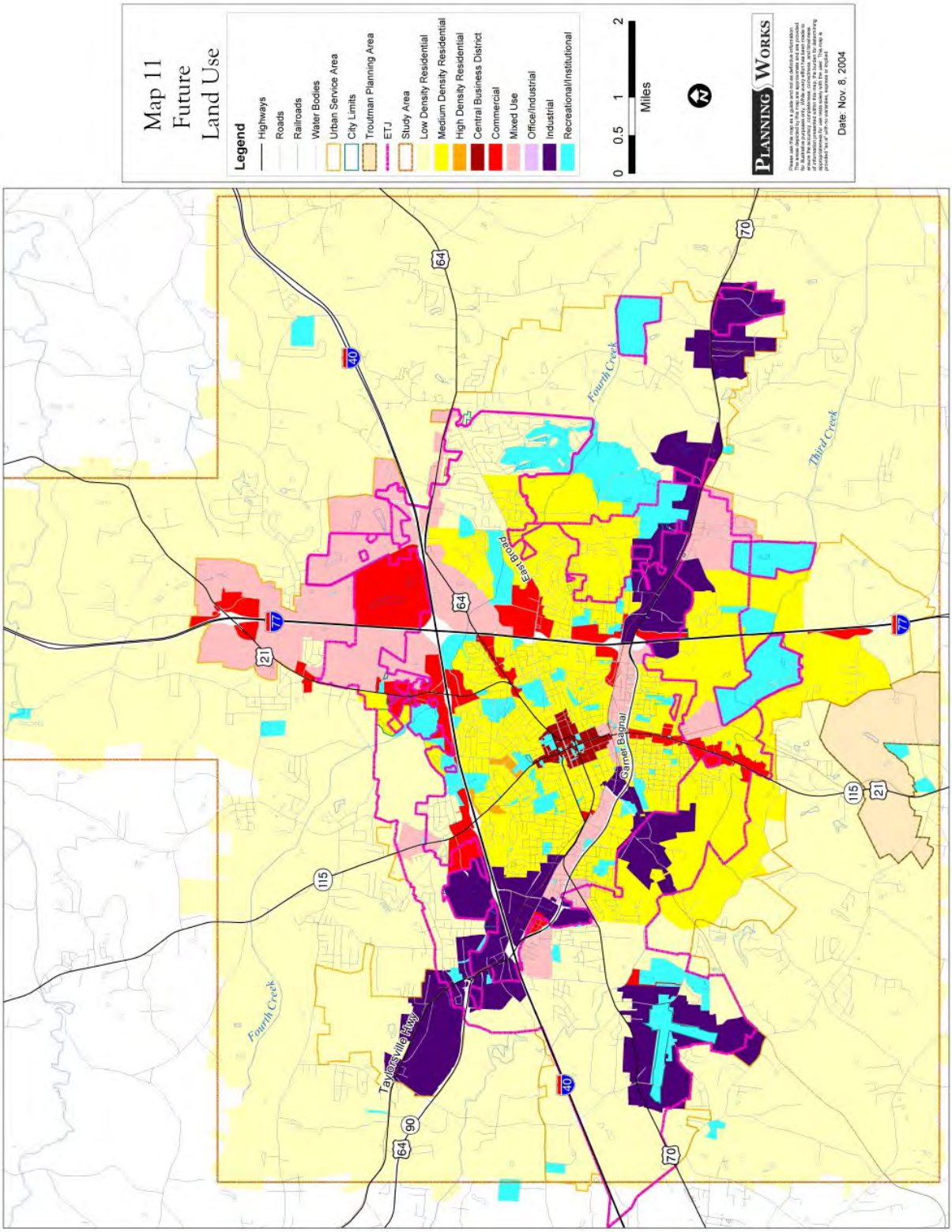
The *Statesville MDP* differentiates itself from traditional comprehensive transportation plan processes by acknowledging the natural relationship between land use (demand), urban form (design), and the transportation network (supply). The underlying motive of the plan is to improve the efficiency of the transportation system while promoting livability within local neighborhoods and communities. These relationships were analyzed in detail for four focus areas. Recommendations from these areas can be applied to similar places throughout Statesville. As neighborhoods and activity centers develop with a similar vision, development pattern, and supporting infrastructure, staff and elected officials can consider the best development practices generated from these models to better integrate land use, urban form, and transportation decision-making.

Future Land Use

Future land use in Statesville is broken into nine categories. Non-residential uses generally are concentrated along major roadway corridors and at critical intersections. Industrial uses are predominately along US-70 on the east and west edges of the extraterritorial jurisdiction (ETJ) as well as surrounding the airport. Commercial uses are focused along the NC-115 corridor south of the central business district (CBD), at the US-21 and I-40 interchange, and along I-77 between US-70 and US-21.

Residential uses are spread across the study area.

- Low Density Residential: Mostly on the periphery on the ETJ; Majority of the areas outside of the ETJ
- Medium Density Residential: Around the CBD; Along corridors outside the ETJ
- High Density Residential: North of CBD


Map 11
Future
Land Use
Legend
Highways
Roads
Railroads
Water Bodies
Urban Service Area
City Limits
Troutman Planning Area
ETJ
Study Area
Low Density Residential
Medium Density Residential
High Density Residential
Central Business District
Commercial
Mixed Use
Office/Industrial
Industrial
Recreational/Institutional
0 0.5 1 2
Miles
N
PLANNING WORKS
Date: Nov. 8, 2004
Fourth Creek
Third Creek
East Broad
Garnet Bagnal
Taylorsville Hwy
Fourth Creek
40
64
70
77
21
115
90

Transportation + Land Use

The transportation system influences development patterns by dictating the fastest, most convenient, and safest routes of travel. Available travel modes also influence settlement patterns. People who desire daily services accessible by foot, bike, or public transit choose to live in different locations than people who prefer to drive to these destinations. As transportation corridors are improved and expanded, new development follows. This push-pull relationship typically results in concentrated growth along or near major thoroughfares as residents seek to take advantage of the most convenient transportation facilities. When blended with supportive public policies and investment strategies, the transportation network can serve as an effective tool for guiding local and regional development.

The relationship between urban form and transportation can be expressed in terms of density, diversity, design, and (travel) distance. The evaluation of these elements contributed to the development of the City's multimodal transportation recommendations. The relationship also is expressed in the land use focus areas described in this chapter.

Density

Dense, mixed-use developments combine a variety of public amenities with compatible land uses, in turn creating compact spaces where people live, play, work, and shop. Mixed-use developments offer advantages over single-use developments by fostering a more efficient, livable transportation system characterized by shorter trip lengths, more choice among modes, convenient access, and more internal trips. The City of Statesville continues to identify preferred locations for this type of development and is considering transportation improvements to support it.

Diversity

A diversity of housing and travel options is beneficial to the community. Residential density and non-residential intensity can look and feel quite different based on building form and neighborhood's design. As in most communities, location often is the main factor in determining density and intensity in the Statesville area. Moving away from downtown, land has typically developed at a lower density and intensity. Managing the location and magnitude of new density or intensity within the built environment helps planners determine infrastructure needs and implementation costs, and it shifts impacts away from environmentally-sensitive areas.

Design

Urban design shapes the blocks, neighborhoods, and districts and give our cities identity. Elements of urban design provide a three-dimensional physical form to locally-adopted plans and ordinances. Some elements of urban design (e.g. street pattern, streetscape design, block size, building scale and massing, parking, and landscaping) directly influence travel mode choice and travel behavior. These design elements provide context to the transportation system and directly relate to complete streets. The type, placement, and scale of design elements generally vary with the context of the surrounding environment, and programming improvements need to be tailored to rural, suburban, and urban environments.

Distance

The distance between the origin and destination is a primary factor (along with travel mode choice) for influencing travel behavior. The physical distance between complementary land uses in rural or suburban settings tends to promote automobile travel, particularly since safe, convenient facilities usually are not available for pedestrians and bicyclists. Denser mixed-use areas decrease the travel distance between complementary land uses and support transit, bicycle, and walking as viable alternatives to the automobile.

Focus Areas (Figure 7.1)

The size and diversity of the Statesville study area limits the ability to conduct detailed land use analysis because of its sheer area. Selecting a few smaller focus areas for the *Statesville MDP* allows the ability to more deeply evaluate the relationship between land use, urban design, and transportation using the principles of urban form. The Statesville focus areas include:

Barium Springs | Broad Street | Jane Sowers North | Stamey Farm

The focus areas serve as a geographically diverse set of areas that the City believes have future development potential. The four focus areas chosen for the MDP possess generalized land use categories and the following chapter describes regulatory tools that can be implemented in future land development regulations to help realize their full potential.

In recent years, communities such as Statesville have begun to reverse the tendency to promote urban sprawl by encouraging development that enhances the local economy, community, and environment. New development and redevelopment with similar vision, development patterns, and supporting infrastructure should consider these recommendations as a “playbook” when formulating plans that better integrate land use, urban form, and transportation decision-making.

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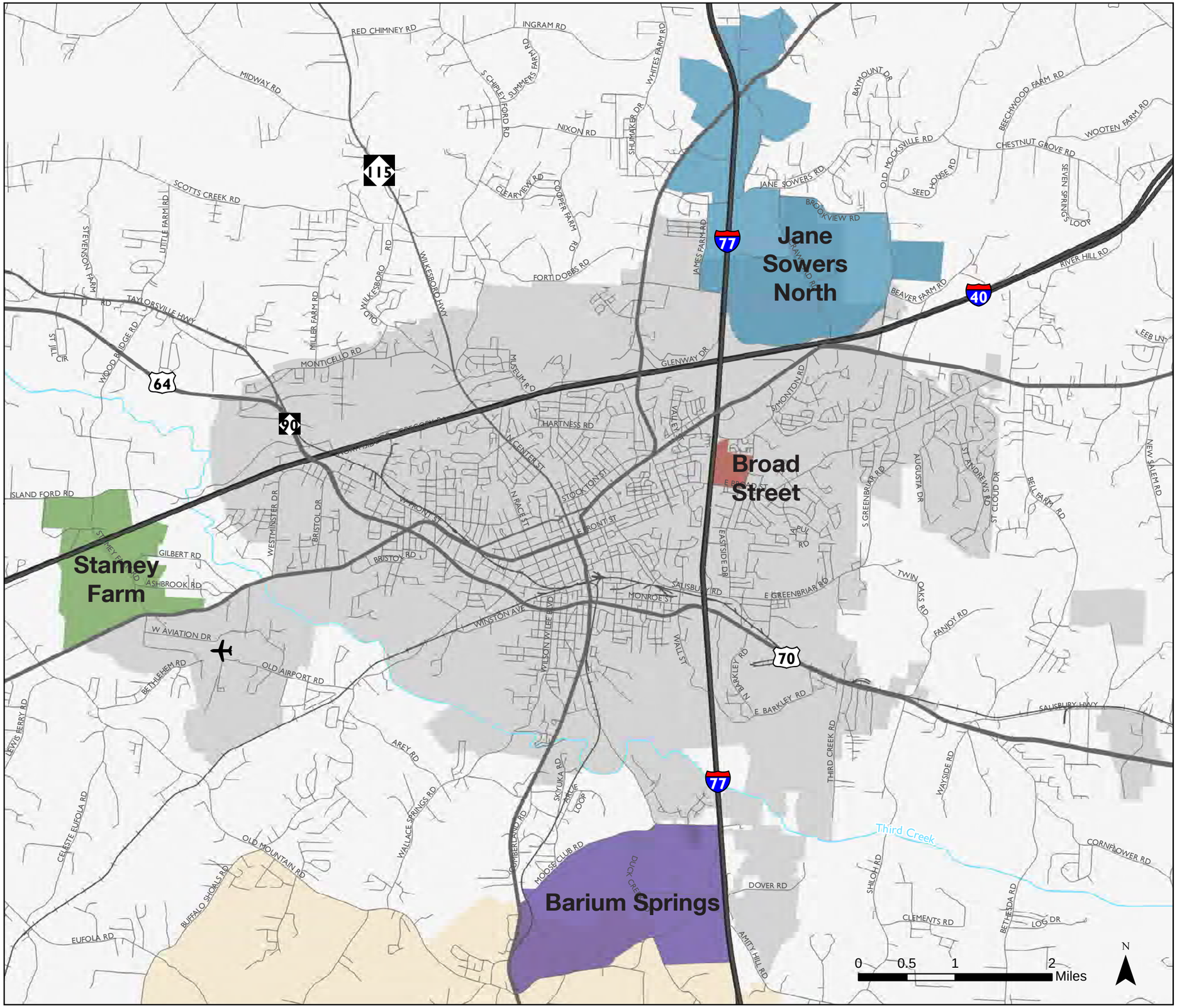
Focus Areas

Figure 7.1



- Barium Springs
- Broad Street
- Jane Sowers North
- Stamey Farm
- City of Statesville

Process

Step One: Inventory Existing Conditions

An inventory of existing conditions was completed for the four focus areas using geographic information system (GIS) data, aerial photography, photos, and field analysis. The information was used to characterize the study areas based on existing land use and environmental patterns and development conditions. Particular attention was paid to physical features in the focus area in the context of the surrounding environment such as the distribution of open space, size and character of existing buildings, land use mix, size and character of streets, available travel modes, and internal and external connections.

Step Two: Evaluate Existing Development Controls

A review of locally adopted plans, programs, and policies was conducted for each of the Statesville focus areas. This also included a detailed quantitative analysis of the development status of land parcels in Statesville. This information was used to identify potential barriers to implementing a development scenario by looking at whether or not individual land parcels are ready to receive development. This step included the review of local comprehensive plans, zoning ordinances, and subdivision ordinances.

Step Three: Development Alternatives

Multiple development alternatives were considered for each focus area. The alternatives were based on prevailing market trends, likely future growth patterns, known development plans, and the MDP transportation recommendations. The development alternatives represent a preferred development pattern, highlight recommended transportation and infrastructural improvements, and ways to blend a variety of land uses without conflict.

A high-level market assessment was conducted for the Jane Sowers North focus area, which in turn, influenced the land use recommendations for the focus area. This assessment can be found on page 7-22.

Step Four: Select Preferred Alternative

Alternatives were discussed with identified stakeholders, as well as the Management Committee. Feedback from these groups was used to develop a preferred alternative. Preferred land use concept plans were then presented to the general public at a workshop on June 20, 2016. Comments collected at the public workshop were used to finalize the preferred alternatives that are presented later in this section.

Character Areas

Character areas embody different land use types and development patterns envisioned for the community. The term “character” captures the look or feel of a place, which allows each character area its own set of unique patterns and qualities.

Character Areas included in the *Statesville MDP* are not meant to be synonymous with zoning districts, nor should they be thought to replace the traditional rules and requirements set forth in currently adopted City ordinances. Instead, the following chapter can provide guidance for ways to utilize these existing regulations to achieve a desired outcome. These character areas are preferred over conventional land use designations because they better address the interrelationship between land use and urban design elements that create a unique sense of place.

The following character areas were identified for the Statesville focus areas:

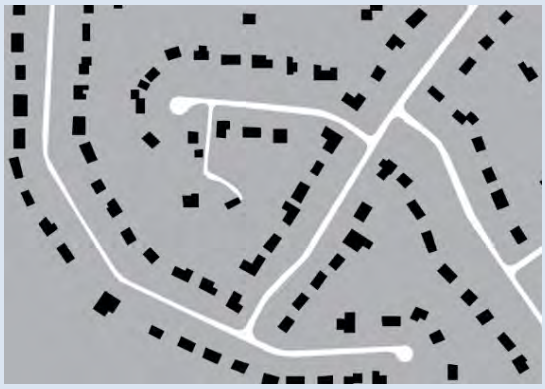
- Single-Family Neighborhood
- Multi-Family Neighborhood
- Mixed-Use Neighborhood
- Local Retail / Commercial Center
- Government / Institutional
- Employment Center
- Manufacturing / Logistic

Note: while Parks & Open Space is not defined as a separate character area, it is expected that open space will be incorporated as an element throughout all uses.

Single-Family Neighborhood

Description

Single-family areas represent relatively uniform housing types and density clustered in neighborhoods of mainly single-family detached homes. Limited multi-family neighborhoods may be preferred in strategic locations. The transportation network typically includes larger blocks and curvilinear streets. Priority connections to the off-street multi-use trail network are preferred, along with sidewalks when appropriate.



Primary Uses	Single-family detached
Secondary Uses	Townhome, multi-family, senior housing, civic & institutional, parks, trails & open spaces

Multi-Family Neighborhood

Description

Multi-family areas represent a wider variety of housing types but maintain densities clustered in neighborhoods of mainly townhomes and multi-family developments. Limited single-family neighborhoods may be preferred in strategic locations. The transportation network typically includes larger blocks and curvilinear streets. Priority connections to the off-street multi-use trail network preferred.

Primary Uses	Townhomes, multi-family, live/work/shop units
Secondary Uses	Restaurant, neighborhood-serving commercial, Civic & institutional, parks, trails & open spaces

Mixed-Use Neighborhood

Description

Mixed-Use Neighborhoods include a variety of housing types, residential densities, goods, and services supported by a multimodal transportation network. The design and scale encourage active living and affords the ability for residents to live, work, shop, and play within a walkable community.

Primary Uses	Single-family, townhomes, multi-family, restaurant, neighborhood retail, office, small-scale industry, live/work/shop units
Secondary Uses	Civic & institutional, parks, trails & open space

Local Retail / Commercial Center

Description

Retail centers are small-scale areas that provide goods and services to immediate neighborhoods. The proximity to residential and employment areas requires thoughtful design that transitions effectively between uses. The transportation network should limit cut-through traffic on nearby residential streets and provide safe multimodal connections to and from the center.

Primary Uses	Restaurant (sit-down), community-serving retail (including big box stores), convenience store, dry cleaner, bank, personal care
Secondary Uses	Multi-family, civic & institutional, parks, trails, open spaces

Government / Institutional

Description

Institutional centers are developments with multiple buildings. These centers offer a mixture of civic uses, office, and limited residential uses located in a central location. Connections to off-site complementary uses are necessary.

Primary Uses	Civic & institutional, office, medical, research and development, light industrial, flex space
Secondary Uses	Parks, open space, trails

Employment Center

Description

Employment Centers provide jobs and populate the city during normal work hours. These centers offer a variety of ways to accommodate jobs, including stand-alone businesses, corporate or medical campuses, office parks, or higher education facilities. They typically are located near major transportation corridors and may offer a cluster of similar business types that provide mutual support.

Primary Uses	Office, medical, research and development, light industrial, flex space
Secondary Uses	Commercial (serving center), civic & institutional, parks, open space, trails

Manufacturing / Logistics

Description

Manufacturing and Logistics Centers support large-scale manufacturing and production, including assembly and processing, regional warehousing and distribution, bulk storage, and utilities. These areas are found near major transportation corridors and are buffered from surrounding development. Clusters of uses that support or serve heavy Manufacturing and Logistics Centers generally locate nearby.

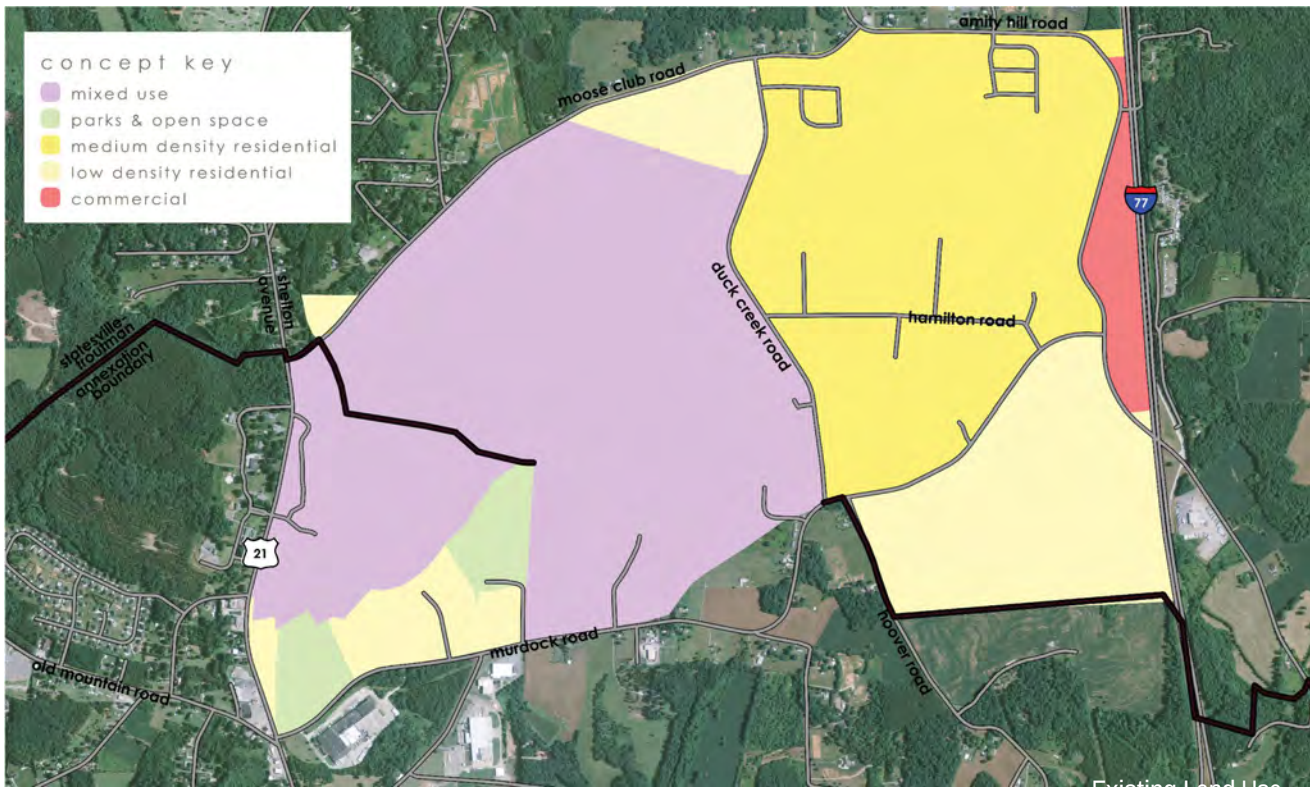
Primary Uses	Factory, heavy assembly, warehouse, distribution, and trucking
Secondary Uses	Commercial (small scale), parks, open space

Barium Springs

Existing Conditions

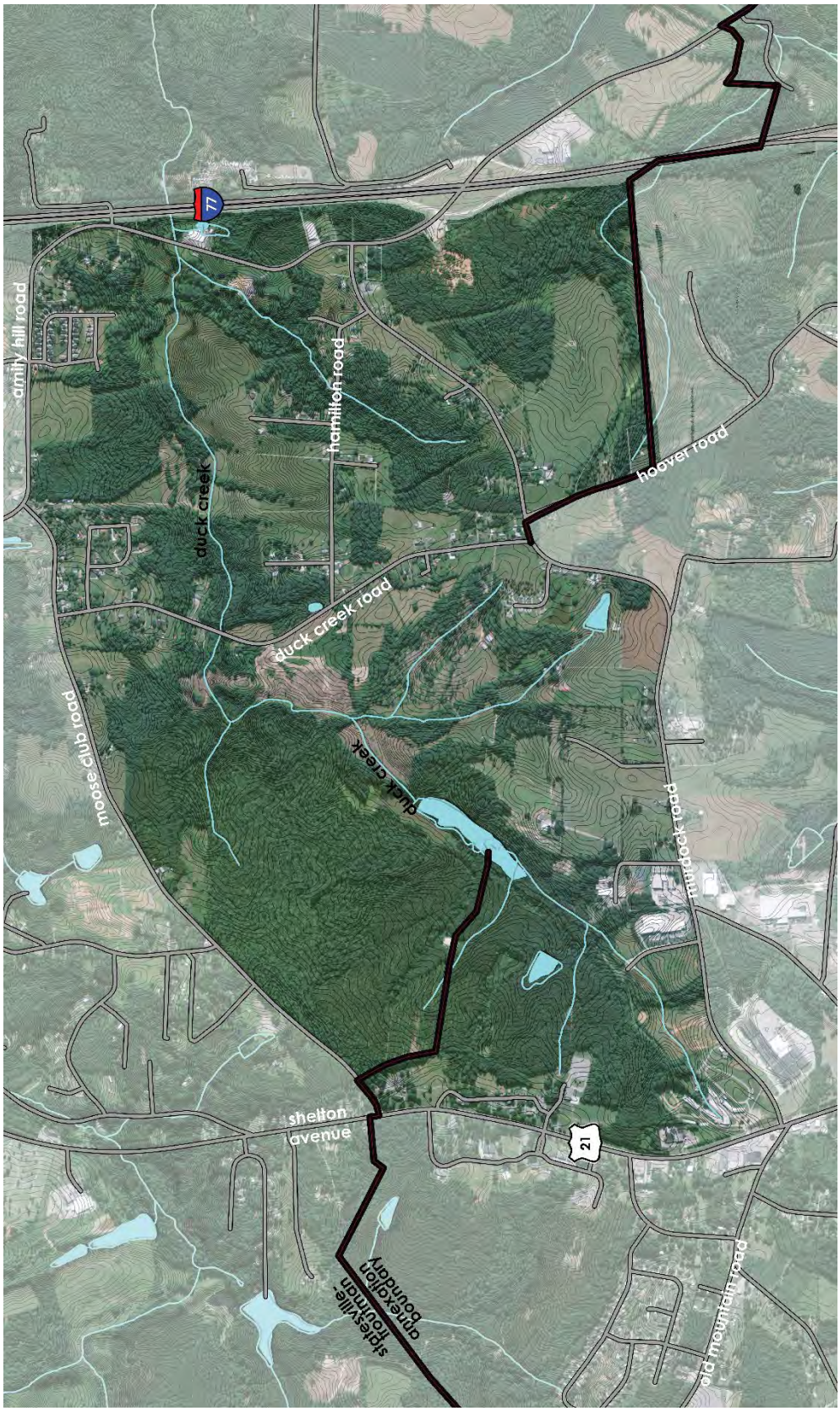
The Barium Springs focus area is in unincorporated Iredell County, directly south of the City of Statesville. The focus area is approximately 1,700 acres, much of which is owned by the Children's Hope Alliance. An annexation agreement between the City of Statesville and the Town of Troutman runs through the focus area, with an area of consideration in the middle, where residents may choose which jurisdiction they would like to be a part of if incorporation is requested. The most notable land uses that represent Barium Springs includes undeveloped, low- and medium-density residential, and institutional. A small industrial park is in the southwestern portion of the focus area.

Anchored by Shelton Avenue (US 21/NC 115) to the west and I-77 to the east, Barium Springs only has two existing roads that provide east-west travel, Moose Club Road and Murdock Road. Primary environmental features for the focus area include Duck Creek, flowing through the middle of the focus area.



Environmental Features

Barium Springs

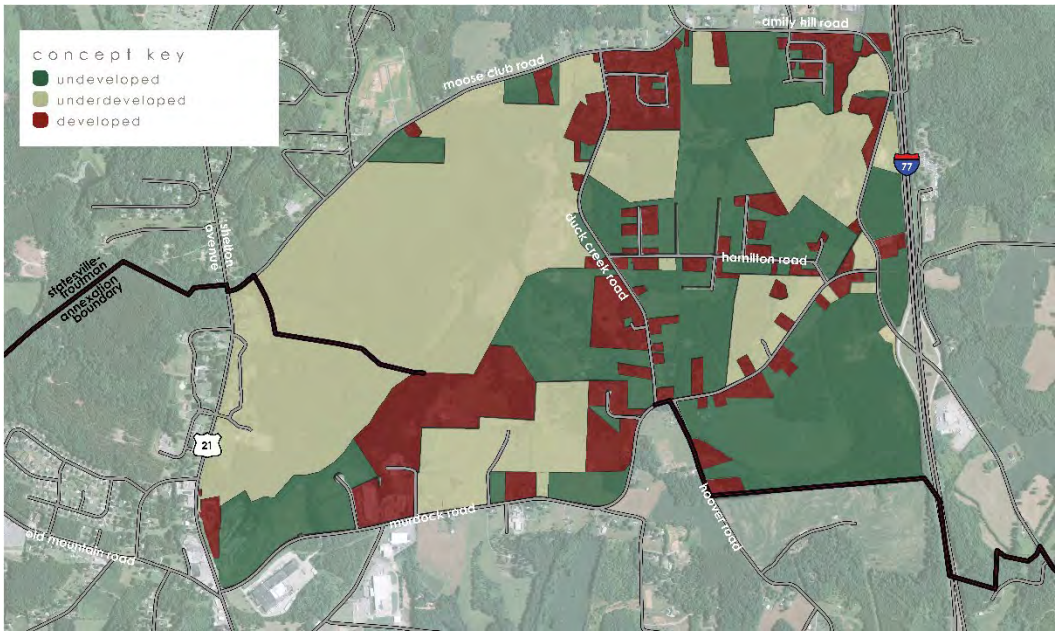


Barium Springs

Development Considerations

Recent growth in Iredell County has largely been concentrated south of Statesville. This pattern is due to the influence of the City of Charlotte as the primary economic anchor of the region. As the southern-most portion of the Statesville area, Barium Springs is a logical strategic opportunity for the city, representing a greenfield development site with a limited number of owners. Additionally, the focus area's proximity to both I-77 and US 21 present opportunities in terms of capturing existing and future traffic.

As shown below, the Barium Spring focus area is largely classified as undeveloped or underdeveloped. Underdeveloped properties are defined as those that have a building value that is equal to or less than the assessment of the land. Most of the developed acreage is residential, however, there are pockets of retail near I-77 and industrial off Murdock Road.



Strengths and Weaknesses

Strengths

- Access to I-77 and US-21
- Future realignment of Murdock Road
- Proximity to Charlotte
- Limited property owners with large tracts of land

Weaknesses

- No east/west major thoroughfare through the focus area
- Lack of utilities
- Environmental Features

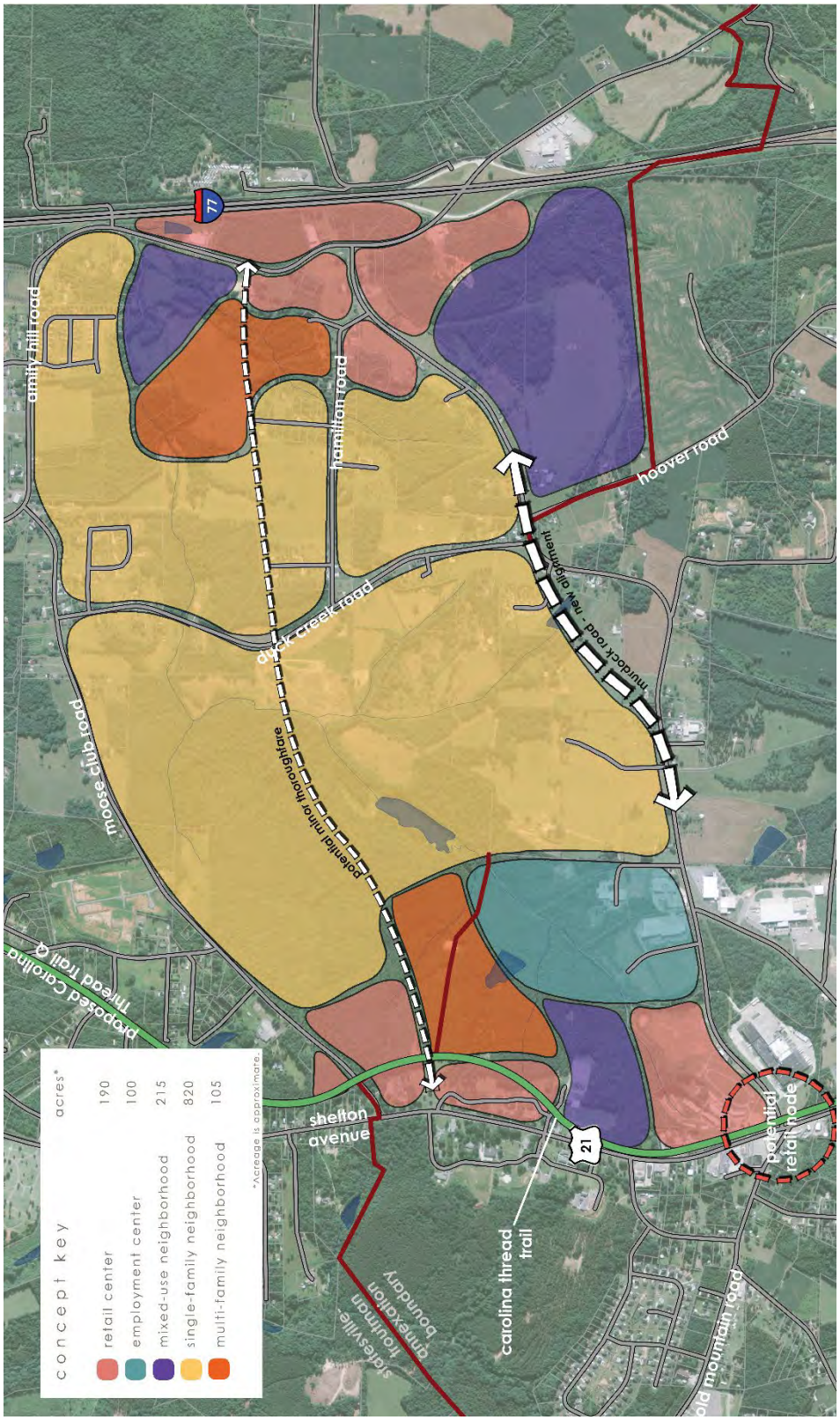
Concept Description

Before preparing concept alternatives for Barium Springs, input from Children's Hope Alliance was collected because of their significant land holdings in the area. The preferred concept for Barium Springs is largely single-family residential in nature, with concentrated nodes of commercial, higher-density residential, and mixed-use land uses that capitalizes on accessibility and visibility from NC 21 and I-77.

Two key transportation investments were identified to facilitate the vision for the area: realignment of Murdock Road and adding a second east-west travel corridor. The alignment of a new facility is not set, and could be accommodated as private development shapes the area.

Concept Design

Barium Springs

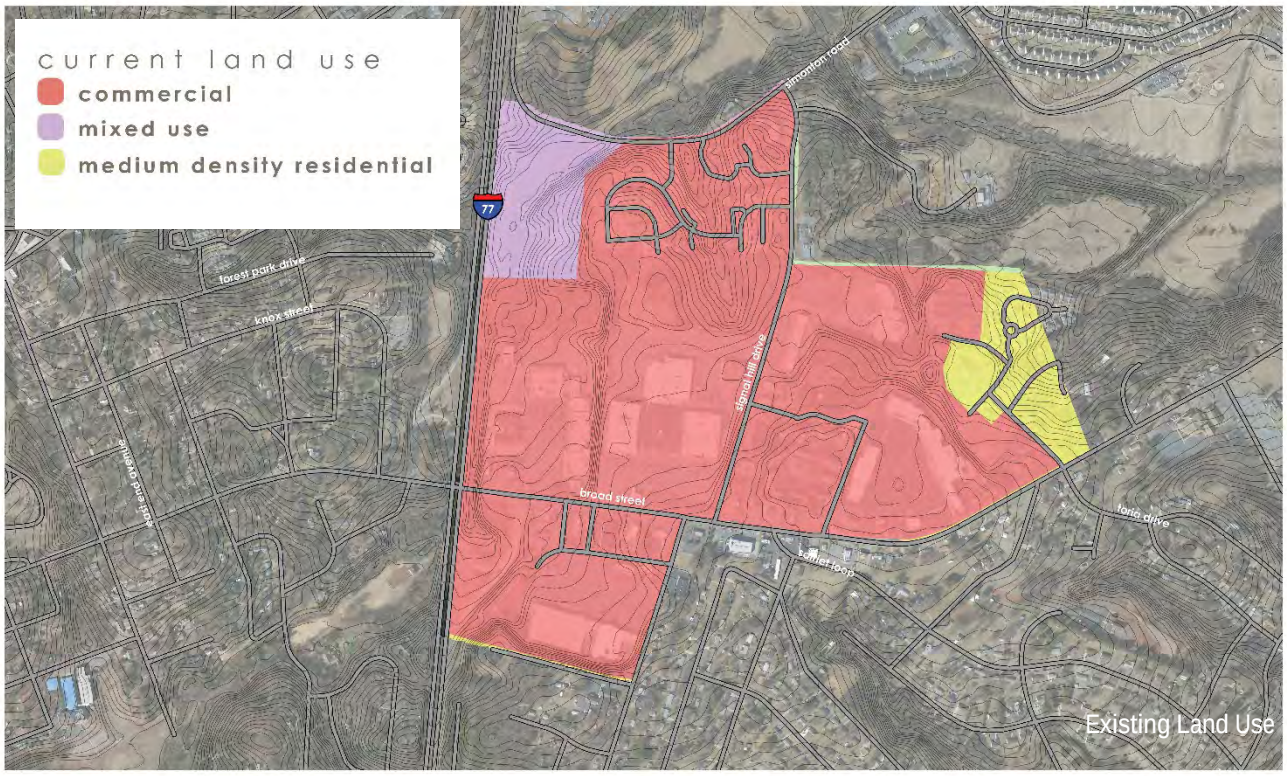


Broad Street

Existing Conditions

The Broad Street focus area, encompassing approximately 250 acres, represents one of Statesville's higher-intensity, urban commercial and retail nodes. Currently anchored by Signal Hill Mall, the focus area serves as a commercial cluster with the potential for regional impact and magnitude. Due to a significant change in elevation, future developments will need to consider the topography due to potential grading concerns.

Broad Street serves as one of the primary corridors for east-west travel in the City of Statesville. Primary environmental features surrounding the focus area include the Statesville Park and Soccer Complex as well as the Statesville greenway trail, which runs along Fourth Creek. The greenway trail is ultimately planned to connect to Broad Street, following the creek's path just east of I-77. Existing land uses are largely commercial, with medium- to high-density residential pockets and a node identified for future mixed-use in the northwest corner of the area.



Environmental Features

Broad Street

Broad Street

Development Considerations

Broad Street currently serves as a highly visible retail center in the City of Statesville. With its prime location near an I-77 interchange, Broad Street has potential to capture not only the attention of Statesville residents but also those traveling along I-77 and I-40. Similar to trends demonstrated by enclosed malls across the United States, performance at Signal Hill has been declining. Several major anchors have left, and vacancy is well above market average. Recent center performance presents a real and immediate opportunity for repositioning or redevelopment of the area.

The Broad Street focus area near the I-77 interchange is largely classified as underdeveloped, driven by an enclosed mall in decline. Given the focus area's urban location, there are very limited undeveloped or greenfield opportunities.

Strengths and Weaknesses

Strengths

- Proximity to I-77 and Broad Street interchange
- Proximity to Downtown Statesville
- Broad Street's east/west connection through Statesville
- Statesville greenway connections (existing & future facilities)
- Access management (STIP)
- Utilities available

Weaknesses

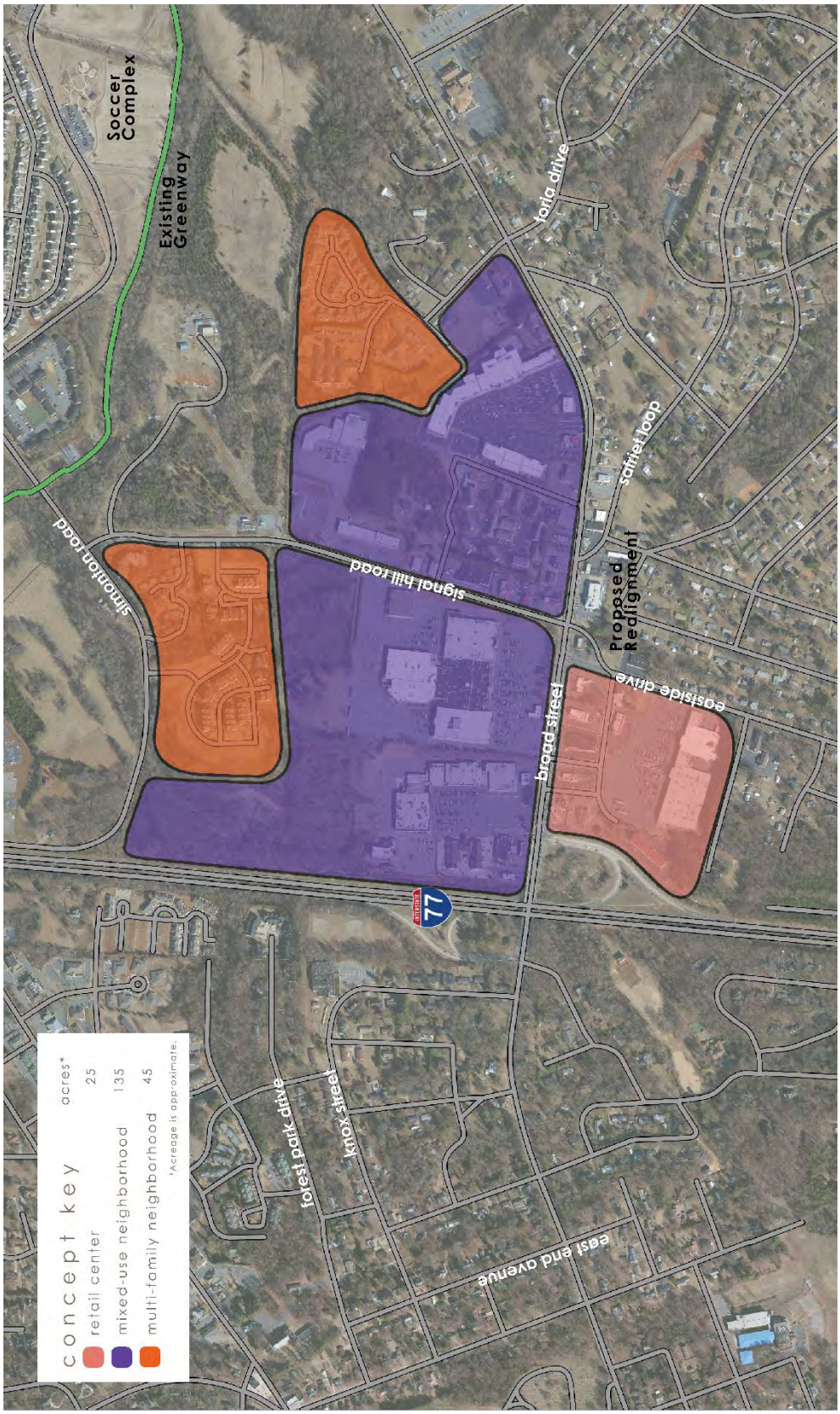
- Need for a retail anchor
- Household density and incomes may not meet initial standards for many retailers today
- Steep elevation change in center of site

Concept Description

With immediate access to an interchange on I-77, the Broad Street Focus Area is well positioned for a mixture of uses, infusing commercial and higher-density residential in one activity center. Given the compact size of this focus area, in addition to a preferred concept alternative, a more detailed master plan was also created to demonstrate potential layout of the mall property. The master plan takes into consideration physical site constraints, as well as planned road network improvements. The most significant network modification is the realignment of Eastside Drive to meet with Signal Hill Drive. This will increase safety along Broad Street and aid with traffic flow.

Concept Design

Broad Street



Conceptual Design

notes

A **Block A Retail:**

- *86,000 SF Retail*
- *25,000 SF Highway Commercial/Fast Food*
- *Hotel*
- *Existing Starbucks to REmain*

B **Block B Retail:**

- *189,000 SF Retail*
- *Existing Belk Store to Remain (70,000 SF)*

Total Retail = 275,000 SF (1 story)

C **Block C Multi-Family:**

- *250 Units*
- *3-Story Walk-Up*
- *Linear Park Frontage*

D **Block D Multi-Family:**

- *200 Units*
- *3-Story Walk Up*
- *Greenway Frontage*

Total Multi-Family Units = 450 Units

Jane Sowers North

Existing Conditions

The Jane Sowers North area encompasses over 2,700 acres focused in the northeast quadrant of I-40 and I-77. Jane Sowers represents one of the few remaining undeveloped tracts at the intersection of two interstates in North Carolina. The focus area currently hosts a significant node of mixed-use, including industrial and commercial uses, off Crawford Road, representing an important employment base for Statesville. Land to the west of Crawford Road is largely vacant and has a limited number of property owners. Single-family housing near Jane Sowers Road bisects the area, and a large tract on the northern end of the focus area is an active auto auction.

Accessibility will be a major challenge for future development of this area. Though the nearby interstates provide good visibility for the site, a lack of local exits and disconnected internal road network makes it difficult to access. Currently, access from I-77 is only possible at Turnersburg Highway, and from I-40 at Old Mocksville Road.

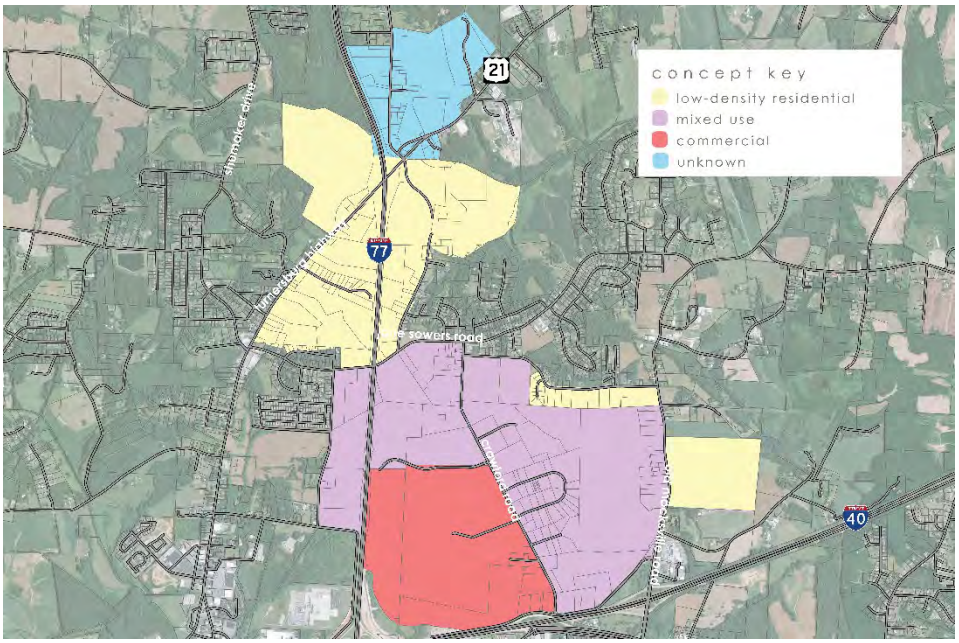
Market Analysis

Given the amount of available acreage and range of opportunities possible for the Jane Sowers focus area, a market analysis was prepared to determine future development potential. Growth in the Statesville area is impacted by proximity to Charlotte, representing the region's largest concentration of jobs. It is likely that growth will occur on the south side of the City, capitalizing on access to I-77 and jobs in Mooresville, northern Mecklenburg County, and Charlotte. However, over the 20-year period, other areas of Statesville will increase in their competitiveness for jobs. The Jane Sowers focus area represents a key development site in northern Statesville, located at the intersection of two major Interstate corridors (I-77 and I-40).

Currently, the Jane Sowers focus area can be accessed off of I-77 at US-21 and off of US-40 at Old Mocksville Road. This analysis assumes the construction of a new interchange at Jane Sowers Road, increasing accessibility to the core of the focus area. Based on forecasted population, household, and employment increases between 2015 and 2035, the Jane Sowers focus area could support the following real estate product types over the next 20 years:

- 950 to 1,400 residential units
- 480,000 to 600,000 square feet of retail
- 125,000 to 187,500 square feet of office
- 650,000 to 800,000 square feet of industrial

The forecast ranges highlighted above are for planning purposes only and can be impacted by land use policy decisions, especially as it relates to the availability of public utilities. The market analysis memorandum can be requested from the City of Statesville for additional detail on the methodology of the market forecasts.



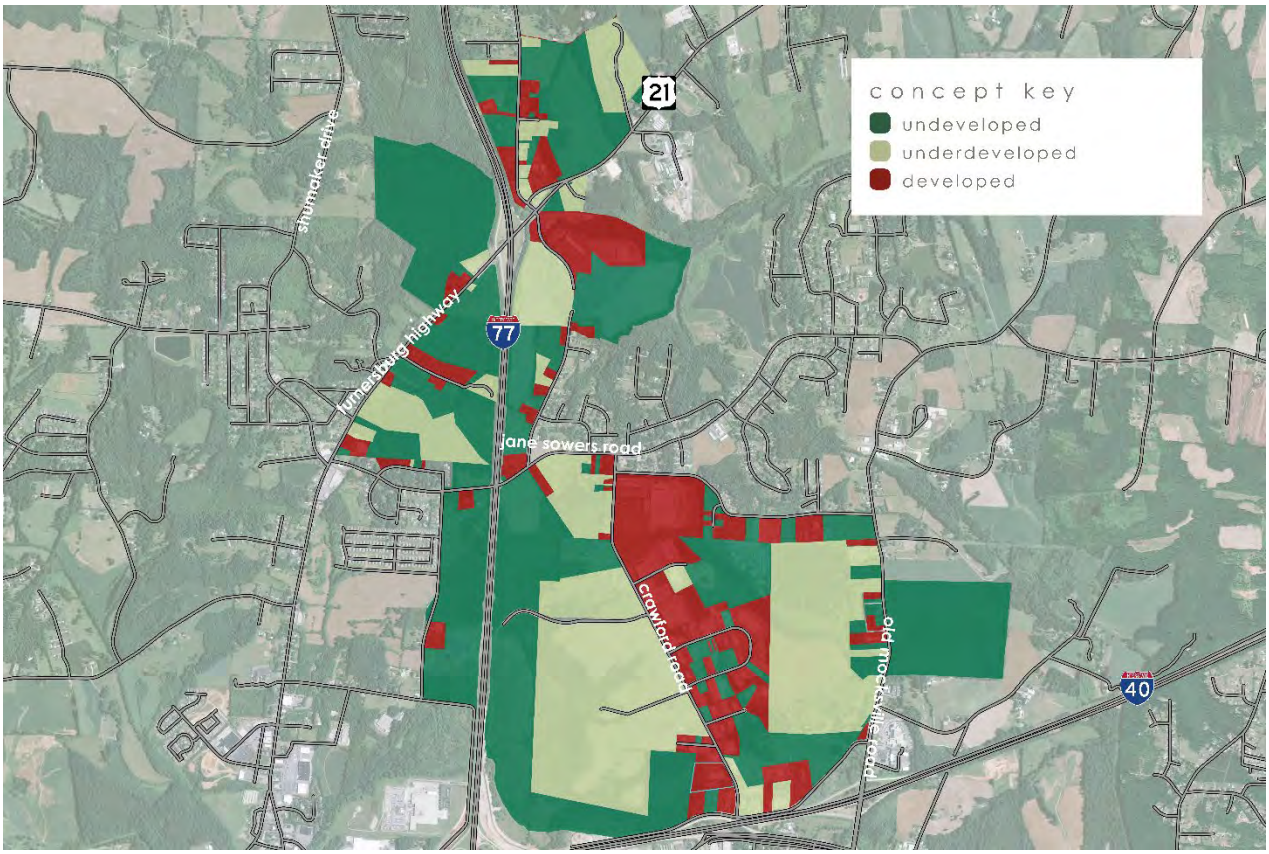
Environmental Features

Jane Sowers North

Jane Sowers North

Development Considerations

The Jane Sowers North focus area benefits from visibility from two major interstates. However, accessibility is currently a challenge with major roads only providing mobility to a portion of the area. A review of the current development status classifications shows large congruent parcels that are either undeveloped or underdeveloped, supportive of future growth in the area. The City of Statesville recently invested in utility expansion to serve the US 21/I-77 interchange node. This expansion allows for immediate opportunities for development opening up previously unserved land to increased density and intensities. Development in the quadrant of I-77 and I-40 will likely require enhanced accessibility via a new interchange or overpass.



Strengths and Weaknesses

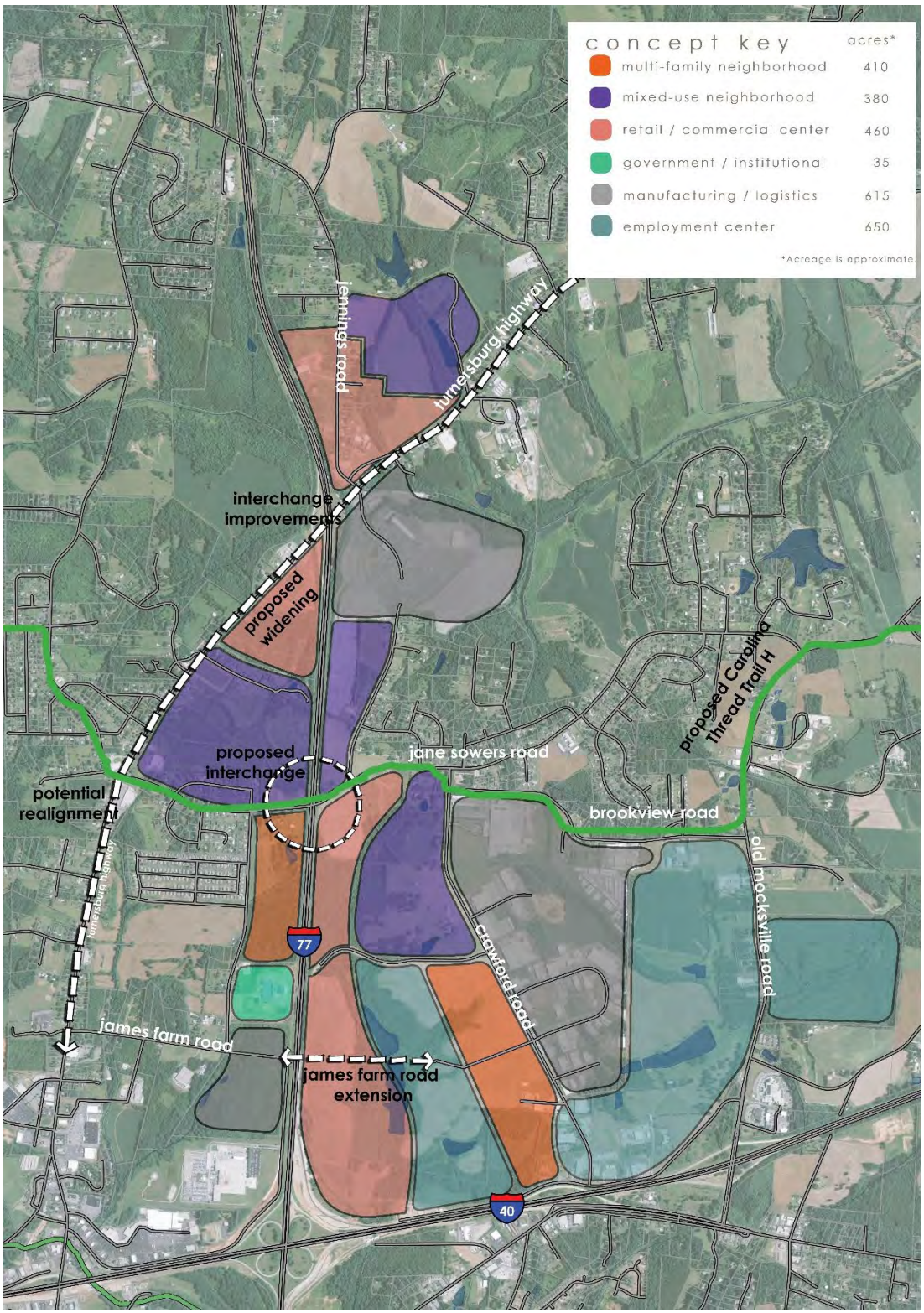
Strengths

- Proximity to both I-77 and I-40
- Superior visibility
- Large undeveloped parcels
- Limited # of land owners

Weaknesses

- Lack of accessibility
- Existing single-family homes complicate congruent land uses
- Environmental and topography constraints
- “Last stop” on the north end of the region

Concept Design – Jane Sowers



Concept Description

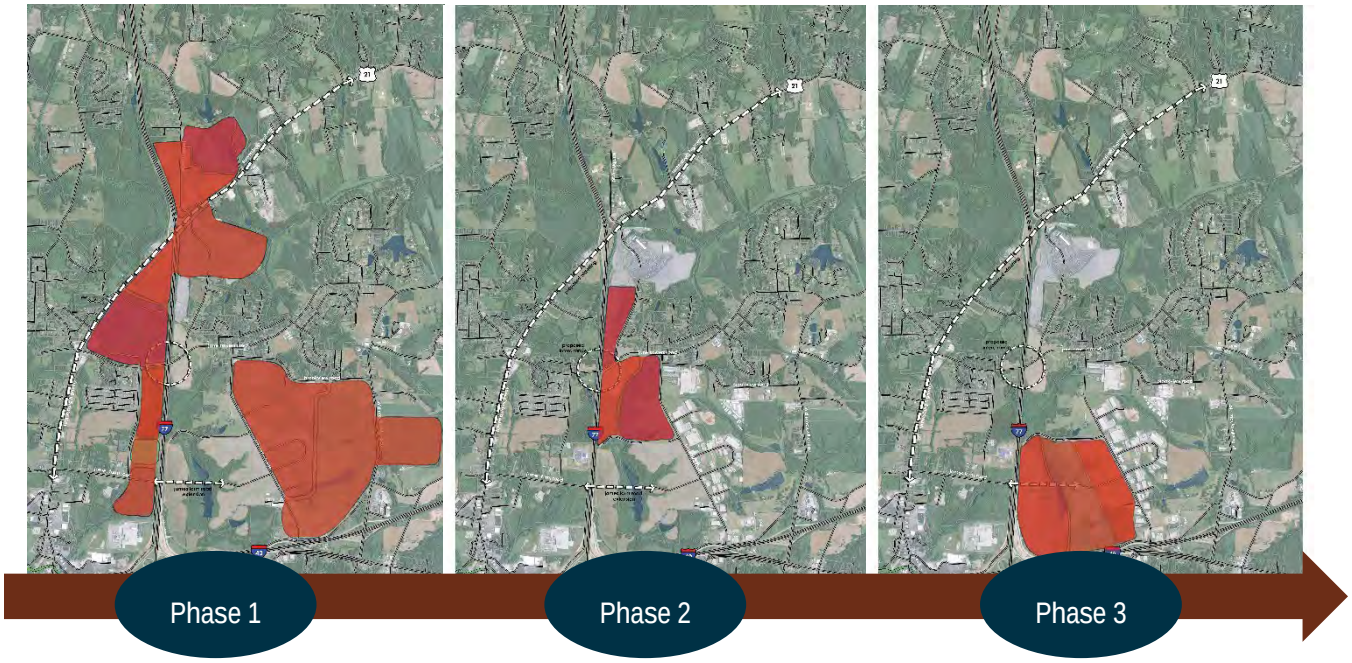
The full build-out of the Jane Sowers North focus area includes several key road improvements to provide much-needed access to the site, spurring enhanced retail and mixed-use opportunities. Eventually, the site could support over 500 acres of mixed-use neighborhoods, 410 acres of multi-family housing, plus 460 acres of retail and commercial development at the interchange of two major interstates. The development is likely to remain an employment base for the City of Statesville, with over 1,200 acres devoted to industrial and office development.

Three key transportation improvements are recommended for the Jane Sowers area, largely to enhance access and mobility throughout the site. The widening of US 21 will increase connectivity between interchanges on I-40 and I-77. Two new facilities are also recommended: a new intersection near Jane Sowers Road and an overpass connecting the east and west sides of I-77 near James Farm Road. The new facilities will increase accessibility to large tracts of land in the northeast quadrant of the I-77/I-40 interchange.

Real estate demand forecasts indicate that the Jane Sowers North area is likely to develop gradually over the next 20+ years. Likely development phasing, illustrated on the following page, will follow planned infrastructure improvements. Based on current accessibility challenges and presence of large single-use parcels, it is likely that development will occur as improvements make interior parcels more easily accessible, and as owners increase their willingness to sell.

Phasing, as shown on the following page, is likely to occur as follows:

- Phase 1: Capitalizes on development occurring in areas that currently have accessibility to existing infrastructure, including land near the two interchanges and property along US 21.
- Phase 2: Assumes the completion of a new interchange on I-77 in the vicinity of Jane Sowers Road. The second phase shows properties closest to the new interchange developing.
- Phase 3: Momentum moves south closer to the intersection of I-77 and I-40. The third development phase assumes the completion of an overpass connecting to James Farm Road.

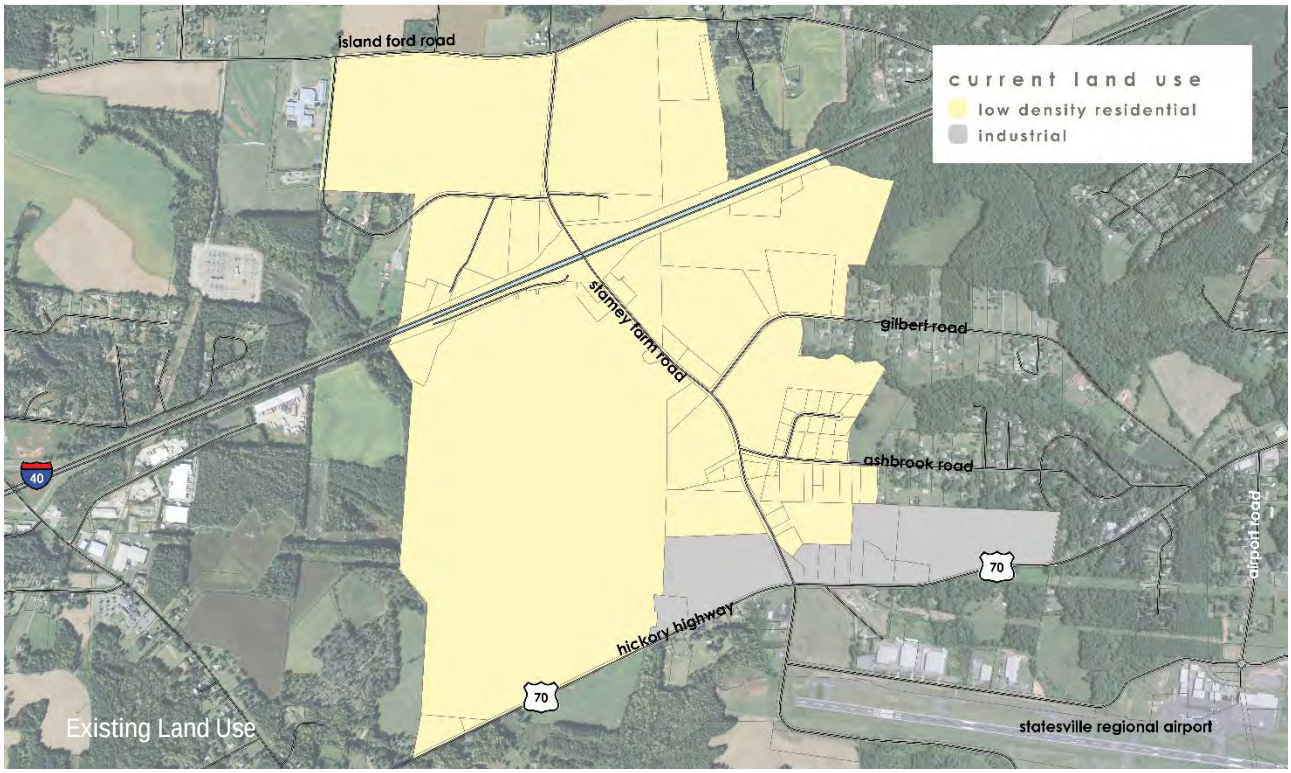


Stamey Farm

Existing Conditions

The Stamey Farm area covers approximately 950 acres between I-40 and US 70, west of Statesville. With no access to public utilities, large lot single family homes are the predominant land use, with some industrial uses bordering US 70 near the Statesville Regional Airport. The Stamey family is the largest single land owner in the area, controlling much of the land west of Stamey Farm Road between the two highways.

The Statesville Regional Airport anchors the southern end of the focus area. This general aviation airport is owned by the City of Statesville and serves private and corporate aircrafts. Expansion plans at the airport are likely to attract additional commercial uses to the area. With its accessibility to I-40 the Stamey Farm focus area will be likely to capture some of this growth.



Existing Land Use

Environmental Features

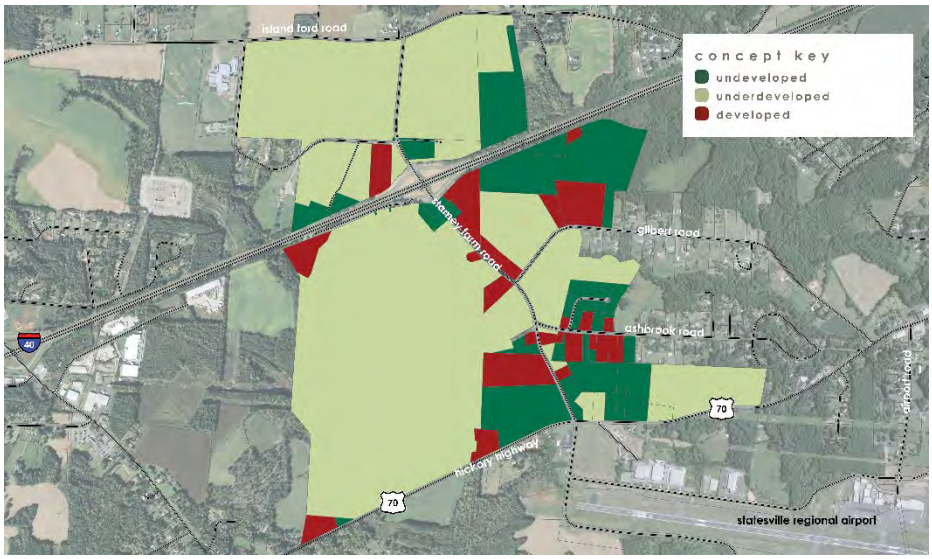
Stamey Farm

Stamey Farm

Development Considerations

Located on I-40 west of the City of Statesville, this focus area is likely to be slower to attract development in the near term given momentum already occurring in other areas of the City and County. However, proximity to the Statesville Regional Airport could act as a catalyst as the facility expands plans will create new, employment-targeted development pads. Future development momentum in the Stamey Farm area will likely be dependent on the extension of public utilities, particularly on the west side of Stamey Farm Road where the largest undeveloped tracts area located.

As shown below, a majority of the land in the focus area is either undeveloped or underdeveloped, presenting a strong opportunity to accommodate future growth. The developed property is low density single-family or smaller-scale industrial sites seeking easy access to I-40.



Strengths and Weaknesses

Strengths

- Large single landowner with one consolidated property
- Key opportunities with airport expansion
- Access to I-40 and US 70

Weaknesses

- Interior access improvements needed
- No public utilities available
- Development hinges on single landowner

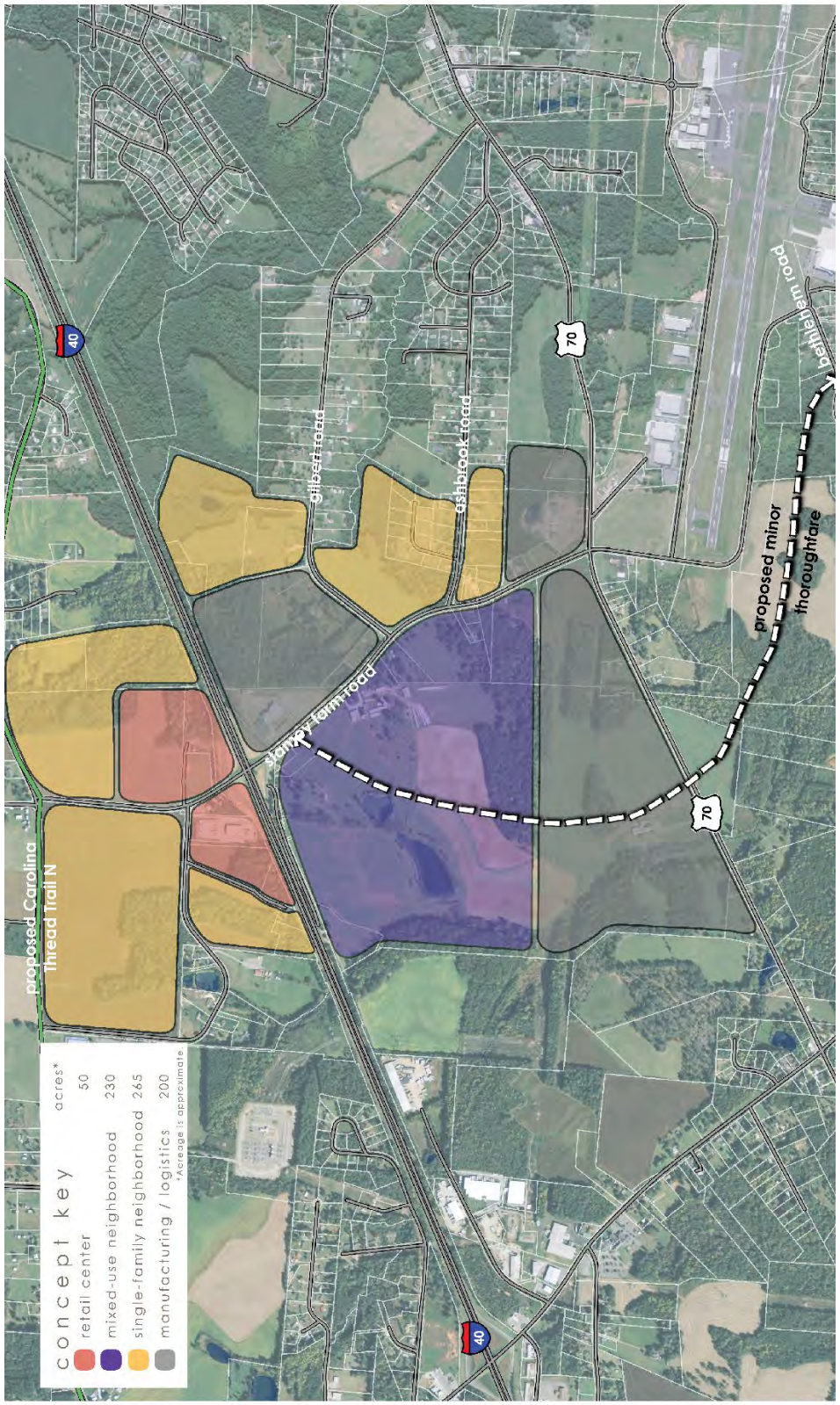
Concept Description

Two development concepts have been created, based on likely future land uses and market forces. Due to large land holdings by the Stamey family, the two options provide flexibility to accommodate both changing real estate pressures in the future and owner preferences. Both concepts include a proposed thoroughfare that increases accessibility to the property.

Concept B assumes the Stamey Farm property will be converted entirely to industrial use, while Concept A includes industrial uses only on the south end of the property, with a mixed-use neighborhood closer to I-40. The mixed-use neighborhood could accommodate an agri-tourism-based use to reuse and maintain the homestead. In both scenarios, a retail center is located north of the I-40/Stamey Farm Road interchange.

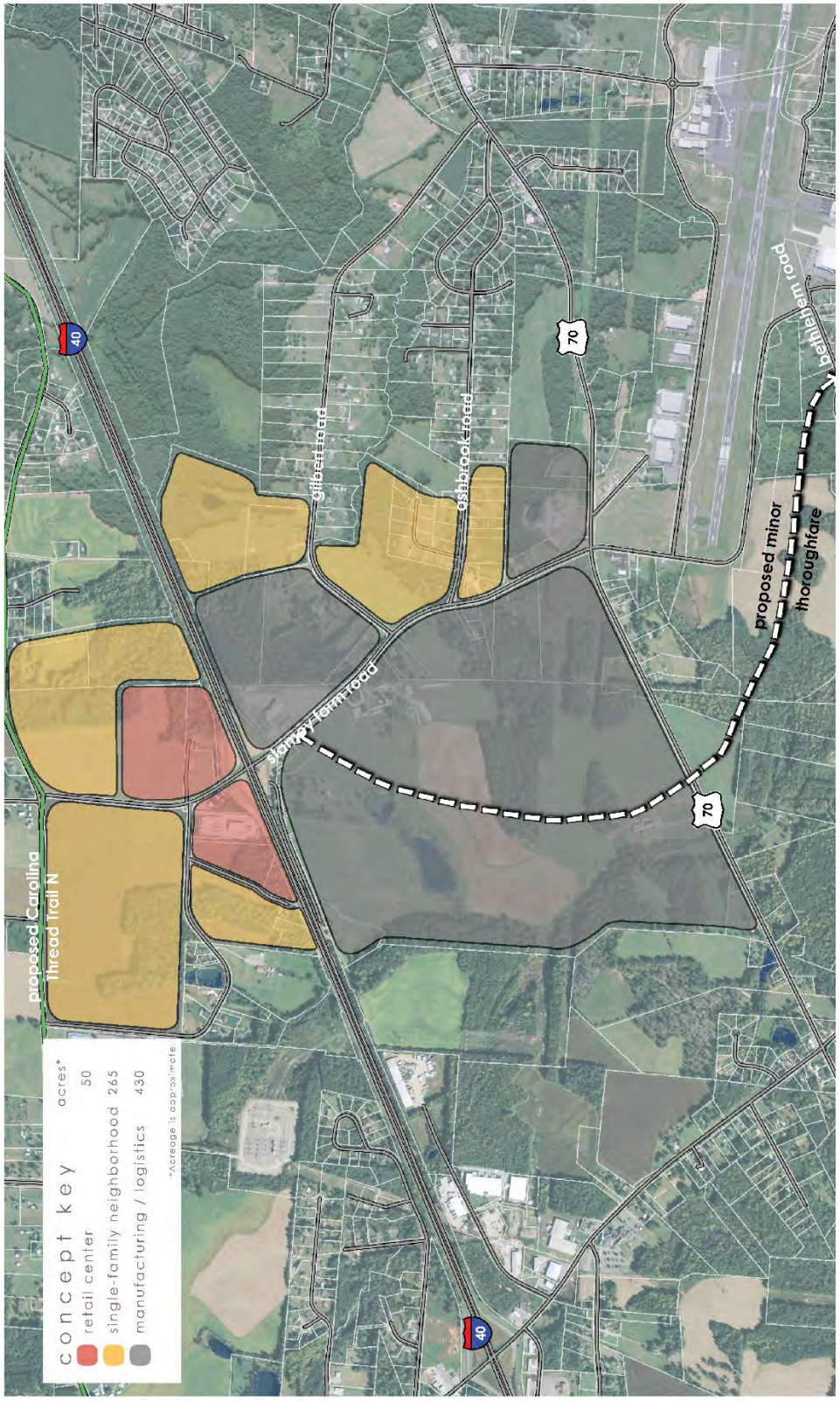
Concept Design A

Stamey Farm



Concept Design B

Stamey Farm



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CITY of Statesville NORTH CAROLINA | *Mobility + Development Plan*

Implementation | Chapter 8

Introduction

The success of the *Statesville Mobility + Development Plan (MDP)* will hinge on collaboration by local, regional and state officials to implement the identified projects and policies. Completing the *MDP* represents an important step toward implementing multimodal improvements that affect travel safety, mobility, aesthetics, and development patterns of the City.

To implement the plan, responsible agencies have been identified that can influence and authorize recommendations. While some improvements will be implemented at the local level, major infrastructure improvements likely will require state and federal funding. Because transportation improvement funds are limited and competition for them is great, responsibility for implementing these recommendations requires a coordinated effort between NCDOT, Charlotte Regional Transportation Planning Organization (CRTPO), and the City of Statesville.

Chapter Overview

This chapter lays out a simple set of recommendations to help local staff focus their efforts and seek strategic opportunities to expedite the implementation of the *MDP*. The chapter is organized into three sections:

1. Action Plan

The core of the Implementation chapter is the action plan, which identifies steps to implement the *MDP* vision, and lists all project recommendations for the MDP. With well-guided transportation and land use policies coupled with strategic partnerships, the recommendations become a collection of achievable tasks with a basis in realistic expectations.

2. Demonstration Project Sheets

Project sheets have been created for 10 demonstration projects targeted for multimodal improvements within the *MDP*. Project sheets provide the locations, descriptions, and other pertinent information for the selected projects. The project sheets are designed to help City staff and elected officials advocate for and secure funding to implement specific projects, whether that funding comes from regional transportation agencies, by way of private development, or through the City's own funds.

3. Funding Opportunities

With tight budgets constraining municipalities, the funding to implement the recommendations in the *MDP* likely will come from a combination of local, state, and federal programs as well as through the receipt of private contributions. For this reason, the *MDP* has identified available funding resources to implement the recommendations of this plan.

1. Action Plan

The action plan outlines the appropriate steps to implement recommendations and the agencies that should be involved with specific tasks. It is not expected that all items would be completed in the next few years. However, the process should be initiated immediately to capitalize on the momentum gained with the development of this plan. Beyond the tasks listed below, it is vital to the success of the *MDP* that Statesville continues to work with and educate local citizens and businesses. While public support can encourage implementation, opposition can significantly delay a project. The Management Committee created to guide the *MDP* has provided a consistent voice from vision through implementation. The continuation of this committee through project implementation would be a positive way to encourage advocacy and maintain focus on issues identified as part of the *MDP*.

The action plan is organized around the modal elements of the *MDP* and includes a set of policy measures.

Roadway | *Road Improvements — Safety — Collector Streets*

Bicycle and Pedestrian | *Bicycle Facilities — Sidewalks — Multi-Use Trails — Intersection Improvements*

Transit, Freight, and Aviation | *Transit — Freight — Aviation*

Policy Measures

Roadway

Road Improvements

The City and NCDOT should conduct the necessary studies and secure funding to implement the roadway recommendations for the Statesville study area shown in Figures 3.9a and 3.9b. The plan shows new roadway facilities, existing roadway widening, roadway realignments, intersection improvements, and corridor enhancements. Future corridors shown on the maps do not represent specific alignments, but rather a series of connections. While topography, future development, and natural and built environment were considered during this planning process, specific feasibility studies should be conducted for these corridors to determine the most appropriate alignments. Funding to complete these projects may come from a variety of federal, state, and local sources, as detailed in the Funding Opportunities section of this chapter.

Projects should be prioritized based on three main factors - feasibility, timing, and impact. Projects that offer higher feasibility based on available funding or because of lower costs may be considered higher priorities, while those that are due for rehabilitation in the city's regular maintenance rotation may be jumped ahead of others that were recently redone. Additionally, some projects have the possibility to make a higher impact on the overall regional system than others. Major thoroughfares, intersections, and critical missing links should be viewed as high priority projects. Key roadway recommendations have been summarized in the Action Plan Matrix at the end of this section.

Safety

Statesville and NCDOT should secure funding to implement safety countermeasures at the high-crash locations in the study area. Figure 3.4 identifies the five most frequent crash locations and some of the contributing factors to these incidents over the three-year period ending December 31, 2014.

Collector Streets

The collector street plan discussed in Chapter 3 should be used by local staff and developers to ensure adequate connectivity as development and redevelopment occurs. By expanding Statesville's transportation system through increasing the number of collector streets, traveling between local streets and arterials is enhanced. An important goal of the *MDP* is to improve accessibility to higher intensity residential areas and activity centers while avoiding or minimizing impacts to sensitive areas for the preservation of the natural environment.

It is recommended to reference the guidelines in Chapter 3 when requiring collector street network improvements. Research indicates that a 3,000-foot grid is typically the most appropriate for the mixed suburban and rural development pattern that prevails throughout most of the study area. For more intense development, a 750-foot grid proves optimal, but this is independent of the costs that would be incurred to build a network of such intensity. The draft collector street plan is shown in Figure 3.12a and 3.12b.

Collector Street Implementation Policies and Procedures

The following policies and procedures should be used as guidance.

- Seek to incorporate the Collector Street Plan and associated roadway design standards and policy requirements within development ordinances of the City and County.
- Use the plan as a tool to communicate desired roadway connectivity as development projects are proposed.
- Review all development proposals for consistency with the approved collector street plan and emphasize connections rather than alignments.
- Require new developments to reserve or dedicate right-of-way for and construct future collector streets.
- Integrate future bikeway, greenway, trail networks, and sidewalks with the collector streets plan to improve access and enhance connectivity between systems.
- Amend the collector street plan as necessary to include new streets as they are identified during the development review process.

Table of Recommendations – Roadway Projects

In total, the MDP includes approximately 200 miles of recommended roadway projects. These are listed below, categorized by the type of project (indicated by color), along with their geographic extents for quick reference.

Projects denoted with an asterisk (*) are a part of the Small Loop.

Additionally, roads being developed or annexed within the ETJ may be required to include curbs, gutters, and sidewalks in the future.

New Roadway | Access Management | General Improvements/ Road Diet | Widening

Road Name	CTP Classification	Length (miles)	Rec	Exist. Lanes	Fut. Lanes	Median	SW	Bike Rec	Start	End	Min. ROW	Cross Section
Absher Park Drive Ext	Minor Thoroughfare	0.1	New Roadway	0	2	no	2		Absher Park Dr	Museum Rd	60	A
Amity Hill Road	Boulevard	1.91	Access Management	2	2	no	2	Paved Shoulder	I-77	Shiloh Rd	90	C
Amity Hill Road	Minor Thoroughfare	1.64	General Improvements	2	2	no	2	Paved Shoulder	Shiloh Rd	Oswalt Amity Rd	90	C
Amity Hill Road	Minor Thoroughfare	3.47	General Improvements	2	2	no	2	Paved Shoulder	US 21	I-77	90	C
Antietam Road	Minor Thoroughfare	1.55	General Improvements	2	2	no	0	Paved Shoulder	Midway Rd	Taylorsville Hwy	60	D
Arey Road	Minor Thoroughfare	1.48	General Improvements	2	2	no	1	Paved Shoulder	Buffalo Shoals Rd	Current end	90	C
Arey Road Extension	Minor Thoroughfare	0.65	New Roadway	0	2	no	2	Paved Shoulder	Current road end	Hill Haven Road	90	C
Aviation Drive E Relocation	Minor Thoroughfare	1	New Roadway	0	2	no	0	Paved shoulder	Airport Rd	Old Airport Rd	60	D
Aviation Drive W	Minor Thoroughfare	1.81	General Improvements	2	2	no	0	Paved Shoulder	Bethlehem Rd	Airport Rd	60	D
Barium Springs	Minor Thoroughfare	2.21	New Roadway	0	2	no	2	Paved Shoulder	Shelton Ave	Amity Hill Rd	90	C
Barkley Road N & E	Minor Thoroughfare	1.94	Access Management	2	2	no	2	Paved Shoulder	US 70	US 70	90	C
Bell Farm Road	Minor Thoroughfare	3.97	General Improvements	2	2	no	0	Paved Shoulder	US 64	Salisbury Hwy	60	D
Berkshire Drive*	Minor Thoroughfare	0.43	General Improvements	2	2	no	2	Sharrow	Whole extent	Whole extent	60	A
Berkshire Drive Extension*	Minor Thoroughfare	0.13	New Roadway	0	2	no	2	Sharrow	Berkshire Dr	Club Dr	60	A
Bethesda Road	Minor Thoroughfare	3.91	General Improvements	2	2	no	0	Paved Shoulder	US 70	Oswalt Amity Rd	60	D
Bethlehem Road	Minor Thoroughfare	1.01	General Improvements	2	2	no	0	Paved Shoulder	Old Mountain Rd	Greenwich Dr	60	D
Bethlehem Road New	Minor Thoroughfare	0.96	New Roadway	0	2	no	0	Paved Shoulder	Greenwich Dr	US 70	60	D
Blackwelder Road	Minor Thoroughfare	3.11	General Improvements	2	2	no	0	Paved Shoulder	Jennings Rd	Turnersburg Hwy	60	D
Bluebird Lane	Minor Thoroughfare	0.29	General Improvements	2	2	no	0	Paved Shoulder	Cumberland Rd	Skyuka Rd	60	D

Bluebird Lane Extension	Minor Thoroughfare	0.81	New Roadway	0	2	no	0	Paved Shoulder	Skyuka Rd	Duck Creek Rd	60	D
Broad Street	Boulevard	0.53	General Improvements	3/5	4	no	2	Sharrow	Eastside Dr	Toria Dr	100	L
Broad Street	Major Thoroughfare	0.43	Access Management	4	4	yes	2	Sharrow	I-77 NB Ramps	Eastside Dr	100	L
Brookdale Drive	Minor Thoroughfare	0.39	General Improvements	3	3	no	2	Sharrow	US 64	Hartness Rd	80	G
Brookdale Drive	Minor Thoroughfare	0.47	General Improvements	2	2	no	2	Sharrow	Hartness Rd	Carolina Ave N	60	A
Brookdale Drive Connector	Recommended	0.08	New Roadway	0	2	no	2	Bike Lane	Brookdale Drive	US 21	80	B
Buffalo Shoals Road	Minor Thoroughfare	0.83	General Improvements	2	2	no	2	Paved Shoulder	Slingshot Rd	Old Mountain Rd	80	B
Buffalo Shoals Road	Minor Thoroughfare	0.56	Widening	2	3	no	2	Bike Lane	Slingshot Rd	Garner Bagnal Blvd	80	I
Carolina Avenue	Minor Thoroughfare	0.84	General Improvements	2	2	no	2	Sharrow	Sullivan Rd	Radio Rd	60	A
Center Street (NC 115)	Minor Thoroughfare	0.19	General Improvements	4	3	no	2	Sharrow	Sharpe St	Garfield St	80	G
Center Street (NC 115)	Major Thoroughfare	0.33	Widening	3	4	no	2	Bike Lanes	Old Wilkesboro Rd	Hartness Rd	110	K
S Chipley Ford Road	Minor Thoroughfare	0.32	General Improvements	2	2	no	0	Paved Shoulder	Red Chimney Rd	Ingram Rd	60	D
Club Drive*	Minor Thoroughfare	0.07	General Improvements	2	2	no	2	Sharrow	Dorset Rd	Salisbury Rd	60	A
Cool Spring Road	Minor Thoroughfare	1.42	General Improvements	2	2	no	0	Paved Shoulder	Old Mocksville Rd	Swan Rd	60	D
Crawford Road	Minor Thoroughfare	1.71	Widening	2	3	no	2	Paved Shoulder	Jane Sowers Rd	Wilson Park Rd	80	H
Cumberland Rd	Minor Thoroughfare	0.17	General Improvements	2	2	no	0	Paved Shoulders	Blue Bird Lane	Shelton Ave	60	D
Davie Ave (US 64)	Major Thoroughfare	2.01	Access Management	2	2	no	2	Paved Shoulder	East End Ave	Mocksville Highway	90	C
Dover Road	Minor Thoroughfare	1.3	Widening	2	3	no	2	Paved Shoulder	Amity Hill Rd	Current End	80	H
Duck Creek Road	Minor Thoroughfare	1.19	Widening	2	3	no	2	Paved Shoulder	Moose Club Rd	Murdock Rd	80	H
Dunlap Gate Road	Minor Thoroughfare	1.53	General Improvements	2	2	no	0	Paved Shoulder	US 21	Old Mocksville Rd	60	D
East End Avenue*	Minor Thoroughfare	0.65	General Improvements	2	2	no	2	Bike Lane	Davie Ave	Current end	80	B
East End Street Extension*	Minor Thoroughfare	0.16	New Roadway	0	2	no	2	Sharrow	East End Ave	Berkshire Dr	60	A
Eastside Drive	Minor Thoroughfare	0.14	Realignment	2	2	no	2	Paved Shoulder	E Broad St	Carolina Ave	90	C
Folger Drive Ext.	Minor Thoroughfare	0.08	New Roadway	0	2	no	2		Folger Dr	Marlou St	60	A
Front Street W	Major Thoroughfare	0.28	Access Management	3	3	no	2	Sharrow	Security Dr	N Miller Ave	80	G
Front Street W	Major Thoroughfare	0.88	Access Management	4	3	no	2	Sharrow	Garner Bagnal Blvd	Security Dr	80	G
Front Street W/E	Major Thoroughfare	1.8	Access Management	2	2	no	2	Sharrow	N Miller Ave	S Tradd St	60	A
Garner Bagnal Boulevard (US 70)*	Major Thoroughfare	3.93	Widening	2	4	yes	2	MU Path/Bike Lane	Front Street	Wall Street	110	N/O

Garner Bagnal Boulevard (US 70)	Boulevard	0.41	Access Management	4	4	yes	2	Bike Lane	Wall Street	Salisbury Rd	110	N
Garner Bagnal Boulevard (US 70)	Boulevard	2.2	Access Management	4	4	yes	2	Paved Shoulder	Morland Street	Barkley Road N	110	M
Greenbriar Rd N+S	Minor Thoroughfare	2.32	Widening	2	3	no	2	Paved Shoulder	E Greenbriar Rd	Mocksville Highway	80	H
Hallmark Road	Minor Thoroughfare	0.52	General Improvements	2	2	no	0	Paved Shoulder	Midway Rd	Current end	60	D
Hartness Road*	Minor Thoroughfare	1.74	General Improvements	2	2	no	2	Sharrow/Bike Lane	N Center St	Brookdale Dr	80	B
Hill Haven Road	Minor Thoroughfare	0.68	General Improvements	2	2	No	2	Paved Shoulder	Wallace Springs Rd	US 21	90	C
I-40	Freeway	13.98	General Improvements	4			0				225+	
I-40	Freeway	8.13	Pavement Rehabilitation (STIP I-5805)	4			0				225+	
I-77	Freeway	6.87	General Improvements	4			0				225+	
I-77	Freeway	5.96	General Improvements	4			0				225+	
I-77	Freeway	4.87	Pavement Rehabilitation (STIP I-5813)	4			0				225+	
Ingram Road	Minor Thoroughfare	3.32	General Improvements	2	2	no	0	Paved Shoulder	S Chipley Ford Rd	Whites Farm Rd	60	D
Intercraft Drive	Minor Thoroughfare	0.28	Widening	2	3	no	2	Paved Shoulder	Salisbury Hwy	Current end	80	H
Island Ford Road	Minor Thoroughfare	0.3	General Improvements	2	2	no	0	Paved Shoulder	Old Mountain Rd	Lippard Farm Rd	60	D
James Farm Road	Minor Thoroughfare	0.82	Widening	2	3	no	2	Paved Shoulder	US 21	I-77	80	H
James Farm Road Ext.	Minor Thoroughfare	0.56	New Roadway	0	3	no	2	Paved Shoulder	I-77	Crawford Rd	80	H
Jane Sowers Road	Minor Thoroughfare	2.01	Widening	2	4	no	2	Paved Shoulder	I-77	Old Mocksville Rd	110	J
Jane Sowers Road	Major Thoroughfare	0.72	Widening	2	4	no	2	Paved Shoulder	Turnersburg Hwy	I-77	110	J
Jennings Road	Minor Thoroughfare	0.48	General Improvements	2	2	no	0	Paved Shoulder	Whites Farm Rd	Blackwelder Rd	60	D
Larkin Parkway	Minor Thoroughfare	2.4	New Roadway	0	4	yes	1	Multi Use Path	Barkley Rd	Amity Hill Rd	100	See Ch. 3
Lippard Farm Road	Minor Thoroughfare	2.81	General Improvements	2	2	no	0	Paved Shoulder	Island Ford Rd	Taylorsville Hwy	60	D
Little Farm Road	Minor Thoroughfare	1.33	General Improvements	2	2	no	0	Paved Shoulder	Taylorsville Hwy	Scotts Creek Rd	60	D
Little Farm Road Extension	Minor Thoroughfare	1.02	New Roadway	0	2	no	0	Paved Shoulder	Scotts Creek Rd	Hallmark Rd	60	D
Midway Road	Minor Thoroughfare	1.71	General Improvements	2	2	no	0	Paved Shoulder	Hallmark Rd	Wilkesboro Hwy	60	D
Midway Road	Minor Thoroughfare	0.7	General Improvements	2	2	no	0	Paved Shoulder	Cove Gap Rd	Hallmark Rd	60	D
Midway Road	Minor Thoroughfare	1.94	General Improvements	2	2	no	0	Paved Shoulder	Antietam Rd	Cove Gap Rd	60	D
Midway Road Extension	Minor Thoroughfare	1.62	New Roadway	0	2	no	0	Paved Shoulder	Wilkesboro Hwy	Nixon Rd	60	D
Mocksville Hwy (US 64)	Boulevard	3.69	Access Management	2	2	no	2	Paved Shoulder	Old Mocksville Road	Barry Oak Road	90	C

Moose Club Road	Minor Thoroughfare	3.39	Widening	2	3	no	2	Paved Shoulder	Shelton Ave	Amity Hill Rd	80	H
Murdock Road	Minor Thoroughfare	0.99	Widening	2	3	no	0		Shelton Ave	Nugget Ln	60	E
Murdock Road	Minor Thoroughfare	0.88	Widening	2	3	no	0		Duck Creek Rd	Amity Hill Rd	60	E
Murdock Road Realignment	Minor Thoroughfare	0.53	New Roadway	2	3	no	2		Nugget Ln	Duck Creek Ln	80	G
New Southern Airport Access Road #1	Minor Thoroughfare	1.2	New Roadway	0	2	no	0	Paved Shoulder	Old Mountain Rd	Hangar Dr	60	D
New Southern Airport Access Road #2	Minor Thoroughfare	0.7	New Roadway	0	2	no	0	Paved Shoulder	Airport Access Rd #1	Old Airport Rd	60	D
Newton Drive	Major Thoroughfare	0.6	Access Management	2	2	no	2	Sharrow	Grier St	Front St	60	A
Nixon Road	Minor Thoroughfare	1.59	General Improvements	2	2	no	0	Paved Shoulder	S Chipley Ford Rd	Current end	60	D
Oakland Avenue	Minor Thoroughfare	1.08	General Improvements	2	2	no	2	Sharrow	Garner Bagnal Blvd	Ridgeway Ave	60	A
Old Airport Road	Minor Thoroughfare	0.81	General Improvements	2	2	no	0	Paved Shoulder	New E Aviation Dr	Buffalo Shoals Rd	60	D
Old Mocksville Road	Minor Thoroughfare	0.26	General Improvements	2	2	no	0	Paved Shoulder	Jane Sowers Rd	Chesnut Grove Rd	60	D
Old Mocksville Road	Minor Thoroughfare	0.71	General Improvements	2	2	no	0	Paved Shoulder	Dunlap Gate Rd	Cool Springs Rd	60	D
Old Mocksville Road	Boulevard	0.39	Access Management	4	4	yes	2	Paved Shoulder	Mocksville Highway	Beaver Farm Road	110	M
Old Mocksville Road	Boulevard	2.26	Access Management	2	2	no	2	Paved Shoulder	Beaver Farm Road	Jane Sowers Road	90	C
Old Mountain Road	Boulevard	2.87	Widening	2	4	yes	2	Bike Lane	Island Ford Road	US 21	110	N
Opal Street	Minor Thoroughfare	0.43	General Improvements	2	2	no	2	Sharrow	Garner Bagnal Blvd	Salisbury Rd	60	A
Oswalt Amity Road	Minor Thoroughfare	5.17	General Improvements	2	2	no	0	Paved Shoulder	Pilch Rd	Edge of study area	60	D
Radio Road	Minor Thoroughfare	0.31	General Improvements	2	2	no	2	Paved Shoulder	Carolina Ave	Hartness Rd	90	C
Red Chimney Road	Minor Thoroughfare	1.06	General Improvements	2	2	no	0	Paved Shoulder	Wilkesboro Hwy	S Chipley Ford Rd	60	D
River Hill Road	Minor Thoroughfare	3.72	General Improvements	2	2	no	0	Paved Shoulder	Mocksville Hwy	Wooten Farm Rd	60	D
Salisbury Highway (US 70)	Boulevard	0.37	Access Management	4	4	yes	2	Paved Shoulder	Nabors Rd	Bethesda Road	110	M
Salisbury Highway (US 70)	Boulevard	0.73	Access Management	5	4	yes	2	Paved Shoulder	Salisbury Rd	Nabors Road	110	M
Salisbury Road	Boulevard	0.87	Road Diet	4	3	no	2	Sharrow	Opal St/Club Dr	Salisbury Hwy	80	G
Sena Lane	Minor Thoroughfare	0.22	Widening	2	3	no	2	Paved Shoulder	Greenbriar Rd	current end	80	H
Sena Lane Extension	Minor Thoroughfare	0.76	New Roadway	0	3	no	2	Paved Shoulder	Sena Lane	Intercraft Drive	80	H
Shelton Avenue (US 21)	Boulevard	0.41	General Improvements	3	3	no	2		Garfield St	Garner Bagnal Blvd	80	G
Shelton Avenue (US 21)	Boulevard	2.6	Access Management	2	2	no	2	Paved Shoulder	Murdock Road	Amity Hill Road	90	C
Shelton Avenue (US 21)	Boulevard	4.26	Widening	4	4	yes	1	Multi-use Path	Amity Hill Road	Garner Bagnal Blvd	100	See Ch. 3
Stamey Farm Road	Minor Thoroughfare	2.63	General Improvements	2	2	no	0	Paved Shoulder	I-40	Island Ford Road	60	D

Stamey Farm Road	Minor Thoroughfare	1.11	Widening	2	3	no	0	Paved Shoulder	I-40	W Aviation Dr	80	F
Stockton St*	Minor Thoroughfare	0.15	General Improvements	2	2	no	2	Paved Shoulder	East End Ave	Brookdale Dr	90	C
Sullivan Road	Major Thoroughfare	0.58	Widening	2	3	no	2	Sharrow	Davie Ave	BB&T Bank	80	G
Swann Road	Minor Thoroughfare	1	General Improvements	2	2	no	0	Paved Shoulder	River Hill Rd	Cool Springs Rd	60	D
Taylorsville Highway	Minor Thoroughfare	5.21	General Improvements	2	2	no	2	Paved Shoulder	Antietam Rd	Taylorsville Rd	90	C
Taylorsville Road/W Front St (US 64)	Major Thoroughfare	0.96	Access Management	4	4	yes	2	PS/MU Path	Taylorsville Hwy	Garner Bagnal Blvd	180	M/O
Third Creek Road	Minor Thoroughfare	1.44	Widening	2	3	no	2	Paved Shoulder	US 70	Current end	80	H
Third Creek Road Extension	Minor Thoroughfare	0.7	New Roadway	0	3	no	2	Paved Shoulder	Third Creek Rd	Dover Rd	80	H
Tomlin Mill Road	Minor Thoroughfare	1.35	General Improvements	2	2	no	0	Paved Shoulder	Jennings Rd	Fairmount Rd	60	D
Trinity Road	Minor Thoroughfare	2.39	General Improvements	2	2	no	0	Paved Shoulder	Midway Rd	Coachman Loop	60	D
Turnersburg Hwy (US 21)	Major Thoroughfare	4.84	Widening	2	4	no	2	Paved Shoulder	Fort Dobbs Rd	Dunlap Gate Rd	110	J
Turnersburg Hwy (US 21)	Major Thoroughfare	0.7	General Improvements	2	2	no	0	Paved Shoulder	Dunlap Gate Rd	Blackwelder Rd	60	D
Turnersburg Hwy (US 21)	Boulevard	0.56	Widening	3/5	4	yes	2	Bike Lanes	I-40	Fort Dobbs Rd	110	N
Whites Farm Road	Minor Thoroughfare	1.06	General Improvements	2	2	no	0	Paved Shoulder	Ingram Road	Jennings Rd	60	D
Wilkesboro Highway (NC 115)	Minor Thoroughfare	2.62	General Improvements	2/3	2/3	no	2	Paved Shoulder	Midway Rd	Old Wilkesboro Rd	90	C
Wilkesboro Hwy (NC 115)	Boulevard	0.47	Widening	3	4	no	2	Bike Lane	I-40	Old Wilkesboro Road	110	K
Wilson W Lee Blvd	Minor Thoroughfare	1.48	Access Management	2	2	no	2	Paved Shoulder	Western Ave	Shelton Ave	90	C
Wood Bridge Road	Minor Thoroughfare	2.15	General Improvements	2	2	no	0	Paved Shoulder	Taylorsville Hwy	Island Ford Road	60	D

Table of Recommendations – Intersection and Interchange Improvements

Location	Type	STIP?	Recommendation
I-77/Jane Sowers Road	Interchange		Proposed Interchange
I-77/I-40	Interchange	I-3918B	Interchange Improvements
I-40/Railroad overpass	Grade Separation		Improved Grade Separation
Davie Ave/East End Ave/Stockton St	Intersection	B-5964	Roundabout
Broad Street/Eastside Dr	Intersection	U-6039	Realignment
I-40/Old Mocksville Rd	Interchange		Interchange Improvements
I-40/Wilkesboro Hwy	Interchange		Interchange Improvements
I-77/Garner Bagnal Blvd	Interchange		Interchange Improvements
Wilkesboro Hwy/Old Wilkesboro Rd	Intersection		Realignment
Amity Hill Road/ Shelton Ave	Intersection		Realignment

I-77/ Broad Street	Interchange	I-3819 B	Interchange Improvements
Buffalo Shoals Road/Railroad crossing	Grade Separation		Proposed Grade Separation
I-77/ Amity Hill Road	Interchange		Interchange Improvements
I-77/Wall St	Grade Separation		Proposed Grade Separation
Newton Drive/Garner Bagnal Blvd	Intersection		Bike/Ped Crossing Improvement
Amity Hill Road/Third Creek	Intersection		Mixed-Use Path Crossing
Front Street/Miller Avenue	Intersection		Bike/Ped Crossing Improvement
Davie Ave/Signal Hill Dr Ext	Intersection		Proposed Signal
MU Trail/Mocksville Hwy	Intersection		Bike/Ped Crossing Improvement
Proposed MU Trail/Salisbury Rd	Intersection		Bike/Ped Crossing Improvement
Salisbury Road/Opal Street	Intersection		Bike/Ped Crossing Improvement
Salisbury Road/Foxe Avenue	Intersection		Bike/Ped Crossing Improvement
Salisbury Road/Garner Bagnal Blvd/US 70	Intersection		Bike/Ped Crossing Improvement
Jane Sowers Road/Shumaker Dr	Intersection		Realignment
Center Street/Bingham Street	Intersection		Bike/Ped Crossing Improvement
Broad Street/Greenbriar Rd	Intersection		Bike/Ped Crossing Improvement
Garfield Street/Shelton Ave/Center St	Intersection		Bike/Ped Crossing Improvement
Broad Street/Salisbury Road	Intersection		Bike/Ped Crossing Improvement
Broad Street/Greene Street	Intersection		Bike/Ped Crossing Improvement
Shelton Avenue/Raleigh Avenue	Intersection		Bike/Ped Crossing Improvement
Broad Street/Oakwood Drive	Intersection		Bike/Ped Crossing Improvement
Hartness Road/Center Street	Intersection		Bike/Ped Crossing Improvement
Fort Dobbs Road/Cooper Farm Road	Bridge	B-5859	Replace Bridge
Wallace Springs Road/Third Creek	Bridge	B-5860	Replace bridge
Broad Street/I-77	Intersection	I-3819B	Mixed-Use Path Crossing
Oakland Avenue/Rail Corridor	Intersection		Bike/Ped Crossing Improvement
W Front Street/West End Avenue	Intersection		Bike/Ped Crossing Improvement
Buffalo Shoals Avenue/Rail Corridor	Intersection		Bike/Ped Crossing Improvement
James Farm Road/I-77	Grade Separation		Proposed Grade Separation
I-77/US 21	Interchange		Interchange Improvements
Bell Farm Rd/Salisbury Hwy	Intersection		Realignment
Shelton Ave/Garner Bagnal Blvd (US 70)	Intersection		Bike/Ped Crossing Improvement
Water St/Meeting St	Intersection		Bike/Ped Crossing Improvement
S Greenbriar Rd	Intersection		Mixed-Use Path Crossing

Bicycle and Pedestrian

Non-motorized vehicular facilities can be constructed as standalone enhancement projects. However, it is more effective to include these projects as part of public and private infrastructure projects such as roadway widenings,

regular street maintenance, and new road construction. Individual projects are intended to work as a comprehensive network thereby maximizing the benefit to the transportation system and overall community.

The table below shows the estimated costs of the *MDP's* bicycle and pedestrian recommendations. These estimates are based on high-level construction averages and do not include right-of-way acquisition or environmental mitigation, and should be viewed strictly for long-term planning purposes. Project-specific circumstances and design specifications are likely to change these estimates. Cost estimates for intersection level improvements are not provided in this table. More detailed information about these types of facilities can be seen on page 4-4.

Bicycle and Pedestrian Facility Costs

Facility Type	Unit Cost	Length (miles)	Total cost
Bike Lane	$2,000 per mile	29.85	$59,700
Sharrow	$300 each (every 150 ft)	23.70	$250,272
Paved Shoulder/Wide Outside Lane	$2,000 per mile	189.77	$379,540
Sidewalk*	$150,000 per mile	132.06	$19,809,000
Multi-Use Path	$220,000 per mile	61.47	$13,523,400

**Unit costs and estimated costs for sidewalks shown in the table reflect standalone project costs. Most sidewalks constructed in the study area are expected to be incidental projects associated with other infrastructure projects. As a result, unit and total costs are expected to be lower.*

Key recommendations identified as part of the bicycle and pedestrian plan have been summarized in the Action Plan Matrix shown later in this chapter. A brief description of these key projects is provided below.

Bicycle Facilities

When considering the implementation of a bicycle facility, elements beyond the location of the facility must be analyzed. It is important to consider the population that the facility will serve, as well as the overall role the facility will play in the city's transportation system. In addition, it is critical to consider neighboring activity centers and destination points. For example, facilities serving an elementary school and a large child ridership will likely be very different than facilities serving a government center. Facilities that link activity centers, neighborhoods, recreation opportunities, and schools should be prioritized, along with those that complete critical missing links in the city's current bicycle and pedestrian network.

Short-term interim improvements sometimes are made with the intent of upgrading to a more complete facility when funding becomes available. For instance, the city may opt to paint sharrows on key streets downtown as a short-term solution where bicycle lanes are not yet feasible. Those sharrows may be upgraded to separated bike lanes as streets

become eligible for improvements. Bicycle and pedestrian facilities should be considered during the development review process, and the inclusion of sidewalks, and bicycle parking should become conditions for approval on all new construction within the city.

The bicycle recommendations in Figures 4.1a & b are a result of input from the general public, stakeholders and advisory committee members and technical analysis. Recommendations that should be considered for priority implementations include:

- **STIP Projects U-5779 and U-5799:** These roadway improvements, funded in the 2018-2027 NCDOT State Transportation Improvement Program, will include the addition of bike lanes on portions of NC-115 and US 21.
- ***Broad Street from East End to Toria Drive (sharrows)*:** Providing sharrows along this corridor will help connect Downtown Statesville with the Broad Street Retail and Commercial corridor. Improved facilities are needed to help alleviate safety issues with crossing I-77.
- ***Garner Bagnal Boulevard (multi-use path) (Small Loop)*:** A separated multi-use path along US 70 within downtown offers pedestrians and bicyclists a primary east-west connection. With widening recommended along the length of this route, the addition of bike lanes should be included as an integral part of that project design, and bike lanes and along the remainder of the route.
- ***Front Street (sharrows)*:** Installing sharrows can be completed quickly and with minimal investment. Sharrows on Front Street would provide a lower-stress bicycle route through the downtown.
- ***West End Avenue (sharrows)*:** To coordinate with Front Street, West End provides another east-west route thorugh the downtown region and links to other priority bike facilities.
- ***Center Street (sharrows)*:** Again, Center Street provides a way to create a low-stress bicycle network that connects to other bicycle facilities with minimal investment.
- ***Hartness Road (bike lane) (Small Loop)*:** This road has the space to accommodate a bike lane through simply restriping, without fundamentally changing the road's cross section. Providing this faciltiies would connect to other priority bike facilities and bring users close to proposed multi-use paths.
- ***East End Road (bike lane) (Small Loop)*:** This short section of roadway can accommodate a bike lane through restriping, and would connect facilities at both its north and south end.
- ***Oakland Ave/Ridgeway Ave (sharrows) (Small Loop):*** Installing sharrows on these connected roadway segments provide a convenient connection from Garner Bagnal Boulevard to downtown Statesville, and tie into the broader downtown bike network.

- *Opal Street (sharrows) (Small Loop):* Providing sharrows on these streets prep the area for two new roadway locations that will link the neighborhoods to East End Avenue, creating a crucial link in the downtown bicycle network.

Table of Recommendations – Bicycle Improvements

Name	Length (miles)	Bike Rec	Start	End
Amity Hill Road	1.91	Paved Shoulder	I-77	Shiloh Rd
Amity Hill Road	1.64	Paved Shoulder	Shiloh Rd	Oswalt Amity Rd
Amity Hill Road	3.47	Paved Shoulder	US 21	I-77
Arey Road	1.48	Paved Shoulder	Buffalo Shoals Rd	Current end
Arey Road Extension	0.65	Paved Shoulder	Current road end	US 21
E Aviation Drive Relocation	1.00	Paved shoulder	Airport Rd	Old Airport Rd
W Aviation Dr	1.07	Paved Shoulder	Airport Rd	Stamey Farm Rd
Barkley Road	4.33	Paved Shoulder	Salisbury Hwy (US 70)	Current End
Barkley Road Extension	2.40	Paved Shoulder	Barkley Rd	Amity Hill Rd
Barkley Road N & E	1.94	Paved Shoulder	US 70	US 70
Bell Farm Road	3.97	Paved Shoulder	US 64	Salisbury Hwy
Berkshire Drive	0.43	Sharrow	Whole extent	Whole extent
Berkshire Drive Extension	0.13	Sharrow	Berkshire Dr	Club Dr
Bethesda Road	3.91	Paved Shoulder	US 70	Oswalt Amity Rd
Bethlehem Road New	0.96	Paved Shoulder	Greenwich Dr	US 70
Bluebird Lane	0.47	Paved Shoulder	Cumberland Rd	Skyuka Rd
Bluebird Lane Extension	0.81	Paved Shoulder	Skyuka Rd	Duck Creek Rd
Bradley Farm Road	2.19	Paved Shoulder	Old Wilkesboro Rd	Taylorsville Hwy
Broad Street	0.53	Sharrow	Tradd Street	Fourth Creek Greenway
Broad Street	0.43	Paved Shoulder	Fourth Creek Greenway	Mocksville Highway
Brookdale Drive	0.39	Sharrow	Davie Ave	Carolina Ave N
Buffalo Shoals Road	4.01	Bike Lane	Slingshot Rd	Old Mountain Rd
Buffalo Shoals Road	4.03	Paved Shoulder	Old Mountain Road	Catawba River
Carolina Avenue	0.84	Sharrow	Sullivan Rd	Radio Rd
Center Street	0.33	Bike Lane	Old Wilkesboro Rd	Hartness Rd
Center Street	0.72	Sharrow	Hartness Rd	Garfield St
Chestnut Grove Road	1.99	Paved Shoulder	Old Mocksville Rd	River Hill Rd
S. Chipley Ford Road	6.94	Paved Shoulder	Snow Creek Rd	Wilkesboro Hwy
N. Chipley Ford Road	3.77	Paved Shoulder	Snow Creek Rd	Friendship Rd
Cool Spring Road	1.42	Paved Shoulder	Old Mocksville Rd	Ledgehill Rd
Cooper Farm Road	1.55	Paved Shoulder	Nixon Rd	Fort Dobbs Rd
Cornflower Road/Triplett Road	4.29	Paved Shoulder	Bethesda Rd	Oswalt Amity Rd

Crawford Road	1.71	Paved Shoulder	Jane Sowers Rd	Wilson Park Rd
Davie Avenue	1.15	Sharrow	N Green St	N East End Ave
Dover Road	1.30	Paved Shoulder	Amity Hill Rd	Current End
Dover Road/Third Creek Road Extension	4.72	Paved Shoulder	Amity Hill Road	E Greenbriar Rd
Dunlap Gate Road	1.53	Paved Shoulder	US 21	Old Mocksville Rd
East End Ave Extension	0.16	Sharrow	East End Ave	Berkshire Dr
East End Avenue	0.65	Bike Lane	Davie Ave	Current end
Eastside Drive	0.14	Paved Shoulder	E Broad St	Greenbriar Rd
Fairmount Road	1.91	Paved Shoulder	Tomlin Mill Rd	Turnersburg Hwy
Fort Dobbs Road	1.91	Paved Shoulder	Chipley Ford Rd	Turnersburg Hwy
Free Nancy Ave	1.09	Sharrow	Sullivan Rd	Existing Greenway
Front Street E	0.44	Sharrow	Salisbury Rd	S Center St
Front Street W	0.97	Sharrow	Garner Bagnal Blve	S Center St
Gaither Road	0.83	Paved Shoulder	Turnersburg Hwy	Radio Rd
Garner Bagnal Boulevard	4.66	Bike Lane/MU Path	Front Street	Salisbury Rd
Glenway Drive/James Farm Rd	2.38	Paved Shoulder	Turnersburg Hwy (US 21)	Turnersburg Hwy (US 21)
Greenbriar Rd (N&S)	2.32	Paved Shoulder	E Greenbriar Rd	Mocksville Hwy
Hallmark Road	0.52	Paved Shoulder	Midway Rd	Current end
Hartness Road	1.74	Sharrow/Bike Lane	N Center St	Brookdale Dr
Hickory Highway	1.74	Sharrow	Front Street	Westminster Dr
Ingram Road	3.32	Paved Shoulder	S Chipley Ford Rd	Jennings Rd
Intercraft Drive	0.28	Paved Shoulder	Salisbury Hwy	Current end
Island Ford Road	0.30	Paved Shoulder	Old Mountain Rd	Lippard Farm Rd
James Farm Road	0.82	Paved SHoulder	US 21	I-77
James Farm Road Ext.	0.56	Paved Shoulder	I-77	Crawford Rd
Jane Sowers Road	2.01	Paved Shoulder	I-77	Old Mocksville Rd
Jennings Road	4.04	Paved Shoulder	Mt Vernon Church Rd	Friendship Rd
Little Farm Road	1.33	~~Paved Shoulder~~	Taylorsville Hwy	Midway Rd
Little Farm Road Extension	1.02	Paved Shoulder	Scotts Creek Rd	Hallmark Rd
Midway Road	1.71	Paved Shoulder	Hallmark Rd	Wilkesboro Hwy
Midway Road Extension	1.62	Paved Shoulder	Wilkesboro Hwy	Nixon Rd
Mocksville Hwy	2.17	Paved Shoulder	I-40	New Salem Rd
Monticello Road	2.19	Paved Shoulder	Old Wilkesboro Rd	Taylorsville Hwy
Moose Club Road	3.39	Paved Shoulder	Shelton Ave	Amity Hill Rd
Museum Drive	0.75	Paved Shoulder	Gaither Rd	S Chipley Ford Rd
Radio Road	1.06	Paved Shoulder	Museum Rd	Hartness Rd
NC 115	0.47	Bike Lane	Harness Rd	Old Wilkesboro Road
Nixon Road	1.59	Paved Shoulder	S Chipley Ford Rd	Current end

Nixon Road Extension	0.39	Paved Shoulder	Nixon Rd	Turnersburg Hwy
Oakland Avenue	1.08	Sharrow	School St	Ridgeway Ave
Old Mocksville Road	0.26	Paved Shoulders	Mocksville Hwy	Edge of study area
Old Mountain Road	2.87	Bike Lane	Island Ford Road	Celeste Eufola Road
Wilkesboro Hwy (NC 115)	7.16	Paved Shoulder	South Yadkin River	S. Chipley Ford Rd
Opal Street	0.43	Sharrow	Charles St	Salisbury Rd
Oswalt Amity Road	5.17	Paved Shoulder	Pilch Rd	Edge of study area
Pilch Road	1.20	Paved Shoulder	Windstone Dr	Amity Hill Rd
Race Street/Wilson W Lee Blvd	3.17	Sharrow	N Center St	Shelton Ave
Red Chimney Road	1.06	Paved Shoulder	Wilkesboro Hwy	S Chipley Ford Rd
Ridgeway Ave	0.38	Sharrow	Hartness Rd	Oakland Ave
River Hill Road	3.72	Paved Shoulder	Mocksville Hwy (US 64)	Cool Springs Rd
Salisbury Highway	0.73	Paved Shoulder	Salisbury Rd	End of study area
Salisbury Road	0.33	Sharrow	E Broad St	Eastside Dr
Scotts Creek Road	8.26	Paved Shoulder	Taylorsville Hwy	Wilkesboro Hwy
Sena Lane	0.22	Paved Shoulder	E. Greenbriar Rd	current end
Sena Lane Extension	0.76	Paved Shoulder	Sena Lane	Intercraft Drive
Sharon School Road	4.95	Paved Shoulder	Island Ford Rd	US 70
Shelton Avenue	2.60	Paved Shoulder	Murdock Road	Amity Hill Road
Shelton Avenue	4.26	Paved Shoulder	Amity Hill Road	Garner Bagnal Blvd
Simonton Road	1.28	Paved Shoulder	Davie Ave	Signal Hill Drive
Snow Creek Road	4.55	Paved Shoulder	Wilkesboro Hwy	Jennings Rd
Southern Airport Access #1	0.38	Paved Shoulder	Old Mountain Rd	Hangar Dr
Southern Airport Access #2	1.28	Paved Shoulder	Southern Airport Access #1	Old Airport Rd
Stamey Farm Road	2.63	Paved Shoulder	I-40	Taylorsville Hwy
Sullivan Farm Ext Road	1.37	Paved Shoulder	Turnersburg Hwy	Crawford Rd
Sullivan Road	1.00	Sharrow	Proposed CTT	Davie Ave (US 64)
Swann Road	1.00	Paved Shoulder	River Hill Rd	Cool Springs Rd
Taylorsville Highway (US 90_	5.21	Paved Shoulder	End of study area	Taylorsville Rd
Third Creek Road	1.44	Paved Shoulder	US 70	Current end
Third Creek Road Extension	0.70	Paved Shoulder	Third Creed Rd	Dover Rd
Tomlin Mill Road	1.35	Paved Shoulder	Jennings Rd	Fairmount Rd
Tomlin Mill Road	3.57	Paved Shoulder	Fairmount Rd	Rocky Creek
Tradd Street	0.25	Sharrow	E Water St	E Front St
Turnersburg Highway (US 21)	0.30	Sharrow	BB&T Bank	I-40
Turnersburg Highway (US 21)	4.84	Paved Shoulder	Fort Dobbs Rd	Blackwelder Rd
Sullivan Rd (US 21)	0.58	Sharrow	Davie Ave	BB&T Bank
Turnersburg Hwy (US 21	0.56	Bike Lane	I-40	Fort Dobbs

Shelton Ave (US 21)	0.65	Paved Shoulder	Amity Hill Road	Garner Bagnal Blvd
Taylorsville Rd (US 64)	0.96	Paved Shoulder	Taylorsville Hwy	Front St
Davie Ave (US 64)	2.01	Paved Shoulder	East End Ave	Maple Care Ln
Wallace Springs Road	2.38	Paved Shoulder	Third Creek Greenway	Old Mountain Rd
West End Avenue	1.12	Sharrow	W Front St	Tradd St
Wilkesboro Highway (NC 115)	2.62	Paved Shoulder	Nixon Rd	Old Wilkesboro Rd
Wilson W Lee Blvd	1.48	Sharrow	Western Ave	Shelton Ave
Wood Bridge Road	2.15	Paved Shoulder	Taylorsville Hwy	Island Ford Rd
Woods Drive	0.32	Sharrow	Brevard St	N Carolina Ave
Friendship Rd		Paved Shoulder	N Chipley Ford Rd	Jennings Rd
Jennings Rd		Paved Shoulder	Friendship Rd	Whites Farm Rd
Whites Farm Rd/Shumaker Rd		Paved Shoulder	Jennings Rd	Nixon Rd

Sidewalks

In general, sidewalks should be included on every new roadway constructed and should be considered on all major reconstruction projects within city limits. Street segments that serve major employers, commercial centers, schools, churches, libraries, and other community services should receive special consideration for pedestrian facilities to ensure all users are able to reach major destinations. Sidewalks in the Statesville area are recommended to have the following characteristics:

- **Width**: Sidewalks should be a minimum width of 5 feet in suburban locations and sided to complement/support the streetscape in urban areas.
- **Set-back:** In areas where curb and gutter exists, sidewalks should be set back from the street by a minimum of 5 feet (planted or hardscaped). In areas where there is not curb and gutter, sidewalks should be located with the open drainage channel between the travel way and the sidewalk.
- **Material:** Generally, sidewalks should be concrete; however, other decorative materials (if level and smooth) should be permitted in areas where streetscape designs designate other materials.
- **Multi-Use Trails:** In the case that a greenway or multi-use trail is shown for a corridor, the greenway takes the place of a sidewalk on one side of the street and a sidewalk may or may not be required on the opposite side of the street (at the city's discretion).

The City of Statesville completed a sidewalk assessment in 2015, which prioritized 37 missing sidewalk segments city wide. The table below reflects this prioritization process, along with the sidewalk segments necessary to complete the "small loop," and does not include all recommended sidewalk segments.

High priority segments are those that complete the "small loop" around the downtown area that facilitates pedestrian mobility. Secondary segments are other missing sidewalk segments that received a score of 50 or higher in the cities 2015 exercise, while low priority segments received a score of 50 or lower.

Priority Sidewalk/Greenway Segments*

Road Name	From	To	Length (Miles)	Priority
Berkshire Drive	North end	South end	0.30	High
Brookdale Dr	Davie Ave	Hartness Rd	0.26	High
Davie Ave (US 64)	Brookdale Rd	Mocksville Hwy	2.06	High
Davie Ave (US 64)	Brookdale Drive	Walgreens	0.13	High
Garner Bagnal Blvd (US 70)	Opal St	S Oakland Ave	2.16	High
Opal St	Salisbury Rd	Garner Bagnal Blvd	1.15	High
S East End Ave	E Broad St	E Front St	0.13	High
Alexander St	Deaton St	Oakland Ave	0.07	Secondary
Brevard St	1st Ave	Hartness Rd	0.43	Secondary
Davie Ave (US 64)	Valley St	Simonton Rd	0.46	Secondary
E Broad St	Signal Hill Dr	Statesville Greenway/East Elementary Rd	0.91	Secondary
E Sharpe St	Old Salisbury Rd	Clegg St	0.41	Secondary
Eastside Dr	Fire Station 2	Cinema Dr	0.21	Secondary
Free Nancy Ave (ped lanes)	Sullivan Rd	Statesville Greenway	0.29	Secondary
Lakewood Dr	Hartness Rd	Virginia Ave	0.22	Secondary
N Oakwood Dr	Davie Ave	E Broad St	0.29	Secondary
North Pointe Blvd	Turnersburg Hwy	End of maintenance	0.21	Secondary
Norwood Rd	Valley St	Kitchings Dr	0.25	Secondary
Pearl St	Deaton St	N Lackey St	0.23	Secondary
Radio Rd	I-40	Statesville Greenway	0.38	Secondary
Salisbury Rd (bike lanes)	E Broad St	Eastside Dr	1.64	Secondary
Shelton Ave (multi-use trail)	Winston Ave	Fayetteville Ave	0.55	Secondary
Signal Hill Dr Ext	Simonton Rd	Davie Ave	0.22	Secondary
Simonton Rd	4th Creek	Signal Hill Dr Ext	0.21	Secondary
Simonton Rd	Signal Hill Dr. Ext.	Martha's Ridge Dr	0.37	Secondary
Sullivan Rd	Carolina Ave N	Greenway	0.22	Secondary
Virginia Ave	Lakewood Dr	Radio Rd	0.22	Secondary
W Raleigh Ave	Wilson W Lee Blvd	Shelton Ave	0.29	Secondary

Priority Sidewalk/Greenway Segments*				
Road Name	From	To	Length (Miles)	Priority
Carolina Ave N	Fulton Dr.	Radio Rd	0.28	Low
E Broad St	Clegg St	East End Ave	0.14	Low
East Elementary Rd	E Broad St	East Elementary	0.43	Low
Garfield St	S Center St	Salisbury Rd	0.14	Low
Knox St	East End Ave	Cynthia St	0.29	Low
N Center St	N Race St	Northside Dr/Statesville Greenway	0.30	Low
N Lackey St	Pearl St	End of Pavement	0.13	Low
N Oakland Ave	W Front St	Ridgeway Ave	0.54	Low
Simonton Rd	Davie Ave	Signal Hill Dr	0.45	Low
Stockton St	Holland Dr	Brookdale Drive	0.38	Low
W Bell St	S Race St	S Center St	0.05	Low
Woods Dr	Hartness Rd	Brevard St	0.38	Low
Woods Dr (ped lanes)	Carolina Ave N	Hartness Rd	0.44	Low

**The priority sidewalk segments shown in this table reflect a prioritization process undertaken by the City in 2015.*

Multi-Use Trails/Greenways

Multi-use trails provide critical links in the pedestrian and bicycle network. They connect people to nature and often represent the safest and shortest route between destinations. These trails typically follow natural systems along streams or floodplains which limits their potential conflict with development. While the Statesville Greenway is already established, the expansion of a municipal system as well as growth of the Carolina Thread Trail requires cooperation between several levels of government and local property owners.

Generally, trail systems begin as natural paths with marked trailhead signs and whose surfaces are generally pervious (dirt, mulch or gravel). As funding becomes available, more formal infrastructure can be installed where appropriate. The traditional multi-use path is a minimum 10' wide paved surface.

Priority multi-use trail segments include:

- ***Shelton Avenue Multi-Use Path (STIP EB-5788):*** This multi-use path will connect Garner Bagnal Boulevard to Amity Hill Road through a path alongside Shelton Avenue. Funding for the first phases of the project are currently approved in the 2018-2027 STIP. This path is in the design phase and will need funding for acquisition and construction.
- ***Fourth Creek/Gregory Creek Greenway Connection***: Currently, only approximately 0.2 miles separate the two separate sections of greenways on the north side of Statesville from becoming one continuous path. This connection is underway with funding from the Surface Transportation Block Grant program.

- *Statesville Middle School Greenway*: This short section of greenway provides a crucial transportation and recreational link to Statesville Middle School, though it is unpaved. Upgrading and expanding this system throughout the surrounding neighborhood to spread the benefits over the larger area should be a priority.
- *Connection across Fourth Creek under E. Broad Street:* This segment will provide an important link between the existing Statesville Greenway and the neighborhoods south of Broad Street. It has yet to be implemented as no funding has been identified.

Intersection/Interchange Improvements

It is also important to consider improvements to the bicycle and pedestrian network at an intersection level. Often, the improvements made at this level significantly enhance the overall walkability and bikeability of a corridor or area. Recommendations for priority implementation include:

- *N Center St and W Bingham St*: This mid-block crossing near Statesville High School currently has painted crosswalks, but not additional signage. A rapid flashing beacon would improve safety of this heavily trafficked pedestrian crossing without major infrastructure costs.
- *Davie Ave Trail Crossing*: A rapid flashing beacon at this location could greatly improve safety without major investment. Currently, there are existing painted crosswalks and signage.
- *Garfield Street/Shelton Ave/Center Street*: This intersection's awkward geography creates long crossing distances for pedestrians without any painted crossings or warnings for vehicles. The intersection is controlled only by flashing red and yellow lights, despite its dangerous skew. Improved crossings should be prioritized at this intersection due to its proximity to downtown, businesses, and churches.

Transit, Freight, and Aviation

Transit

The existing transit services in the Statesville area includes a single circulator bus route called the Bloom and a demand-response service operated through Iredell County. At present, there are two existing park-and-ride lots in the City, with a potential for additional facilities in the future. These park and ride facilities are recommended at existing retail developments with large parking lots where cooperative parking agreements should be explored. Priority transit recommendations are:

- *Park and Ride Lots:* Implementing additional park and ride lots in the city limits is a low-cost improvement that can act as an incremental measure toward commuter service. These investments will require cooperative agreements or leases with the local property owners and could be implemented quickly.
- *Express Commuter Services*: ICATS offers express bus service from Iredell County, with a stop in Statesville at I-77/Exit 49B, to the Northcross park and ride lot at I-77/Exit 25 in Huntersville where riders can transfer to

CATS buses. Service runs peak weekday commute times, offering 3 round trips in the morning and 3 in the afternoon. Additional coordination is recommended to explore future direct service from Statesville to Charlotte.

Freight

The City of Statesville should work with NCDOT to designate the local and through truck routes recommended in Chapter 5. These routes provide access to industrial use areas and limit most heavy truck traffic to major routes and industrial streets that are specifically designated to handle heavy truck traffic. These routes should be specially signed, and a local ordinance may be considered to specifically prohibit through trucks on local streets. Truck routes should be prioritized for frequent resurfacing to limit noise and vibration, and signal timing should be adjusted to reduce vehicle delay and idling. All intersections within these corridors should be inspected or improved to ensure they adequately accommodate the turning movements of large vehicles.

The City should also work with NCDOT to implement the recommendations from the recently completed North Carolina Multimodal Statewide Freight Plan, and the Centralina COG Regional Freight Mobility Plan. These recommendations generally include safety improvements at key interchanges, improving height clearance at interstate overpasses, regular pavement rehabilitation, and operations improvements to mitigate regional freight bottlenecks.

Priority freight recommendations within the MDP study area include:

- ***Widening US 70***: Garner Bagnal Boulevard (US 70) is recommended to be widened from two lanes to four lanes with paved shoulders from Front Street to Wall Street. As one of the most congested corridors in Statesville, this improvement should provide an enhanced connection to industries along US 70.
- ***Safety Evaluations:*** Evaluation of safety improvements and performance is recommended for I-77 through southern Iredell County and on I-40 near Statesville as suggested in the Centralina COG Freight Mobility Plan.

Aviation

The City of Statesville should continue to assist with implementing the recommendations of the Statesville Airport Layout Plan. The City also should begin discussions with land owners to purchase the necessary land required for the airport's expansion and the right-of-way purchases necessary to complete the transportation projects that support the airport's future footprint. Surrounding landowners, local businesses, and state agencies should be actively engaged throughout the process.

Priority recommendations include:

- ***Purchase of land for airport expansion***: Parcels surrounding the airport will need to be purchased to support the desired final footprint. Purchases should be completed as land becomes available.
- ***Construction and realignment of roadways***: To support the airport's larger footprint and expanded operations, two additional public roadways are planned to be constructed, along with the realignment of Aviation Drive

and Bethlehem Road. The construction of these roads should begin soon after the purchase of land to provide additional access options during construction.

Policy Measures

Statesville should work with CRTPO and Iredell County to ensure that roadway corridors are preserved as development applications are considered. Historically, many projects throughout the state have been impacted by development that was not responsive to the adopted plans. Leaders should work cooperatively to review proposed development applications and seek reasonable alternatives where necessary. To improve the success of corridor protection, copies of the adopted plan also should be forwarded to CRTPO, Iredell County, the Board of Realtors, the Greater Statesville Chamber of Commerce, and Statesville Regional Development. Additional copies should be made available for public review in the Statesville City Planning Department, local library, and on the CRTPO and Iredell County web pages. A few key policy measures recommended as a part of the *MDP* are included in the Action Plan Matrix.

Action Plan Matrix

The foundation of the action plan is the commitment of plan partners (the City, CRTPO, and NCDOT), awareness of the City's transportation issues, and strategic initiatives that support the plan's vision and adhere to its guiding statements. The action plan matrix includes three sets of information:

Priority | Identifies the feasible or ideal time frame for the completion of each action.

- **Short-Term:** Less than 5 years
- **Mid-Term:** 5-15 years
- **Long-Term:** More than 15 years
- **Ongoing:** Recurring or continuous

Type | Categorizes each action plan by transportation element

Action Item | Describes the specific action to be taken

Responsible and Affected Parties | Identifies the role and responsibility for five stakeholder groups

- City – City of Statesville staff and/or elected officials
- County – Iredell County staff and/or elected officials
- NCDOT – North Carolina Department of Transportation
- CRTPO – Charlotte Regional Transportation Planning Organization
- Developers – Private land owners and real estate developers

Primary Lead **Secondary Lead** **Affected Parties**

Action Plan Matrix

Priority	Type	Action Item	Responsible and Affected Parties				
			City	County	NCDOT	CRTPO	Developers
Short-term	Roadway	Collaborate with NCDOT to complete access management improvements on Broad St and implement Broad St bicycle recommendations (STIP Project)					
Short-term	Aviation	Begin talks with surrounding land owners to purchase land necessary for airport expansion					
Short-term	Roadway, Bicycle	Construct the road improvements identified in the Statesville Airport expansion plans					
Short-term	Bicycle, Pedestrian	Connect the Fourth Creek and Gregory Creek Greenway Sections					
Short-term	Roadway, Bicycle, Pedestrian	Implement a road diet on the Salisbury Rd Strategic Corridor to convert the four-lane travel way to three lanes with bicycle and pedestrian facilities					

Action Plan Matrix							
Priority	Type	Action Item	Responsible and Affected Parties				
			City	County	NCDOT	CRTPO	Developers
Short-term	Roadway, Bicycle, Pedestrian	Complete Davie Ave Strategic Corridor improvements					
Short-term	Roadway, Bicycle, Pedestrian	Complete Broad St Strategic Corridor improvements					
Short-term	Bicycle	Install sharrows on Front St through the downtown area					
Short-term	Bicycle, Pedestrian	Complete bicycle and pedestrian improvements on "small loop" roads to create a continuous mobility circuit around downtown					
Short-term	Bicycle	Install sharrows on N Hartness Rd					
Short-term	Bicycle	Install sharrows on N Oakland Avenue					
Short-term	Bicycle, Pedestrian	Apply for a Carolina Thread Trail Grant to expand on the city's multi-use trail network					
Short-term	Pedestrian	Construct sidewalk on Davie Ave from Sullivan Rd to Mocksville Hwy					
Short-term	Pedestrian	Apply for a Safe Routes to School grant to fund sidewalk improvements and crossing improvements near schools					
Short-term	Roadway, Bicycle	Widen the Turnersburg Hwy Strategic Corridor section from two lanes to four lanes, including intersection realignment at Jane Sowers Rd					
Short-term	Pedestrian	Enhance existing city sidewalk policy to ensure consistent implementation of pedestrian facilities					
Short-term	Policy	Identify safety improvements projects and apply for Governor's Highway Safety Program grant funding to implement safety initiatives at high crash locations					
Short-term	Roadway	Complete roadway improvements and new roadway construction identified in the Statesville Airport Plan					
Short-term	Bicycle, Pedestrian	Construction a new multi-use path connection under US 70					
Short-term	Roadway, Bicycle, Pedestrian	Complete streetscape improvements and bicycle/pedestrian improvements to Shelton Avenue identified in the Downtown/NC 115 streetscape plan					
Short-term	Roadway	Construct Eastside Drive Extension					

Action Plan Matrix								
Priority	Type	Action Item	Responsible and Affected Parties				
			City	County	NCDOT	CRTPO	Developers
Short-term	Roadway, Bicycle, Pedestrian	Complete Front St Strategic Corridor improvements	■		■	■	
Mid-term	Roadway	Construct Berkshire Drive Extension	■		■	■	
Mid-term	Bicycle	Stripe bike lane on Hartness Rd from Center St to Woods Dr	■				■
Mid-term	Bicycle	Stripe bike lane on East End Ave from Davie Ave to Front St	■				
Mid-term	Roadway, Bicycle	Collaborate with NCDOT to complete general improvements to Amity Hill Rd Strategic Corridor between Shelton Ave and I-77	■	■	■		
Mid-term	Bicycle, Pedestrian	Upgrade and expand the Statesville Middle School Greenway	■				■
Mid-term	Pedestrian	Construct sidewalk on North Pointe Blvd from Turnersburg Hwy to the end of city maintenance limits	■				■
Mid-term	Pedestrian	Construct sidewalk on Sullivan Rd from Carolina Ave N to the Statesville Greenway	■		■		■
Mid-term	Pedestrian	Construct sidewalk on Eastside Dr from Fire Station 2 to Cinema Dr	■				■
Mid-term	Pedestrian	Construct sidewalk on E Sharpe St from Old Salisbury Rd to Clegg St	■				■
Mid-term	Pedestrian	Construct sidewalk on Lakewood Dr from Hartness Rd to Virginia Rd	■				■
Mid-term	Pedestrian	Install a rapid flashing beacon at N Center St and W Bingham St crossing	■		■		
Mid-term	Roadway, Bicycle	Complete general improvements on Oakland Ave	■				
Mid-term	Roadway, Bicycle, Pedestrian	Implement access management solutions on Garner Bagnal Blvd east of I-77	■		■	■	■
Mid-term	Pedestrian	Implement improved pedestrian crossing facilities at the Garfield St/Shelton Ave/Center St intersection	■		■		
Long-term	Roadway	Construct an interchange at Jane Sowers Rd and I-77	■	■	■	■	■
Long-term	Policy	Partner with Iredell County to examine the need for a local option sales tax to fund transportation improvements.	■	■		■	
Long-term	Policy	Adopt and implement a Collector Street Policy, outlined in Chapter 3	■				

Action Plan Matrix							
Priority	Type	Action Item	Responsible and Affected Parties				
			City	County	NCDOT	CRTPO	Developers
Long-term	Roadway, Bicycle, Pedestrian	Widen US 70 (Garner Bagnal Blvd) from two lanes to four lanes west of I-77 and install multiuse path and improved crossings	■		■	■	■
Long-term	Policy	Study the options to implement development impact fees, and review the potential benefits and impacts to the City	■	■			■
Ongoing	Transit	Continue collaboration with Charlotte Area Transit System to work toward eventual commuter service between the two cities	■	■			■
Ongoing	Freight	Designate appropriate trucking routes and seek improvements along these corridors	■		■		
Ongoing	Policy	Continue coordinating multimodal planning between the City of Statesville, NCDOT, CRTPO and nearby communities	■		■	■	
Ongoing	Policy	Develop a plan implementation committee to regularly evaluate progress on the Statesville MDP and identify opportunities to implement key projects	■	■	■	■	■

Funding Opportunities

The construction of a comprehensive transportation network can occur through incremental adoption of local policies and programs supplemented by state and federal programs and assistance from the private sector. It will be important for the City of Statesville, in collaboration with Iredell County and the CRTPO to identify funding resources to implement the recommendations of this plan. While some projects and programs may be funded locally, alternatives are available to provide a wider base of financial support for improving the local transportation network, as this goal will ultimately benefit the larger region.

Local and Regional Programs

Local funds should be used for strategic projects identified by the community as being necessary to improve the local transportation network. Usually these projects are most successful when additional funding can be secured to help lessen the burden to the City. Local funding sources tend to be flexible and include general revenue expenditures, as well as proceeds from bond programs.

State Street Aid (Powell Bill) Program

Powell Bill funds are collected by the state in the form of a gasoline tax. The amount of these funds distributed to a municipality is based on the number of street miles to be maintained and the municipality's population. These funds can then be used for maintenance, repairs, and improvements to the local transportation network, including roads, sidewalks and greenways.

Transportation Bonds

Transportation bonds have been instrumental in the strategic implementation of local roadways, transit, and non-motorized travel throughout North Carolina. Voters in communities both large and small regularly approve the use of bonds to improve their transportation system. Nearly every improvement identified in this plan could be financially supported using a transportation bond program. Where the improvement occurs on a state-owned street, approvals and encroachment permits will be required from NCDOT.

Impact Fees

Developer impact fees and system development charges provide a funding option for communities looking for ways to pay for transportation infrastructure. Impact fees are most commonly used for water and wastewater system connections or police and fire protection services but recently have been used in North Carolina to pay for the impacts of increased traffic on existing roads. Impact fees place the costs of new development directly on developers and indirectly on those who buy property in the new developments. Impact fees relieve other taxpayers from the burden of funding costly new public services that do not directly benefit them. Cities and counties in North Carolina may enact development impact fees by securing special legislative authorization.

Local Option Sales Tax

The local option sales tax is implemented at the city or county level and typically requires a voter referendum. The sales tax is temporary and may be renewed at the time of its expiration date. While several different types of local option sales tax exist, only one may be enacted at a time. Since 2007, North Carolina counties (but not cities) have had the option to increase the sales tax by a quarter of a penny, pending voter referendum, to fund transportation improvements, based on G.S. 105 Article 46). From November 2007 to November 2012, 90 referendums had been held in 59 counties, and 25 were approved while 65 failed. The tax does not apply to groceries, prescription drugs, gasoline, automobile purchases, or utilities. Iredell County is not currently assessing this local option sales tax.

Charlotte Regional Transportation Planning Organization

As the Metropolitan Planning Organization for the Statesville area, CRTPO plays an integral role in securing funding for recommended projects. Transportation recommendations formulated in the *MDP* will be passed along to CRTPO for consideration in the regional Metropolitan Transportation Plan (MTP). This plan will develop a set of financially constrained projects, implying that if a project is included within the planning horizon for the plan, current and projected funding sources are anticipated to be available to fund the project. For a project to be included in the regional and state Transportation Improvement Program (TIP), it must be a part of a conforming MTP.

As the regional agency, CRTPO receives certain types of funds from the state and federal government and assists with the disbursement of these funds. To coordinate this effort, CRTPO oversees the Locally Administered Projects Program (LAPP). This program is designed for prioritizing small and effective multimodal projects from across the region, maximizing the use of available funding sources. The LAPP program serves as the clearinghouse for disbursement of funds from the Surface Transportation Block Grant Direct Attributable (STPG-DA) account, Congestion Mitigation and Air Quality (CMAQ), Transportation Enhancements, or other funds that are passed through CRTPO for distribution. These funding sources are detailed more below.

State and Federal Programs

In comparison with local funds, state and federal funds are not as flexible in terms of their use. Projects funded by these programs usually focus on the needs required by vehicles, either in terms of capacity or safety — for example, widening projects. It can be difficult to secure these funds for alternative transportation projects.

Funds for pedestrian and bicycle projects come from several different sources that are described in this section; however, allocation of those funds depends on the type of project or program and other criteria. The information provided in this section presents a basic overview of the process.

Funding America's Surface Transportation (FAST) Act

Transportation funding at the federal level is governed by a spending authorizations bill that sets the nation's agenda and priorities for the next few year's major transportation projects. Previously, federal transportation funding was

authorized out of the MAP-21 bill, which was passed in 2012. MAP-21 included consolidations of several funding programs, such as the Transportation Alternatives Program (combining the Transportation Enhancements, Safe Routes to Schools, and Recreational Trails programs) and several transit funding sources. MAP-21 was replaced in December 2015 the FAST Act, which carries forward the performance-based planning framework established in MAP-21.

State Transportation Improvement Program (STIP)

The State Transportation Improvement Program (STIP) supports communities through an array of funding resources including Federal Aid Construction Funds and State Construction Funds. As part of the application process, strict criteria must be met before project selection. Criteria include providing right-of-way information, meeting a set of design standards, showing a need for a project, local support of the project, and the inclusion of the project in the community's planning processes.

The North Carolina Department of Transportation (NCDOT) also recently changed transportation laws which govern how federal and state transportation dollars are spent throughout the state. Prior to the passing of the Strategic Transportation Investments (STI) Law (House Bill 817) in 2013 and the subsequent implementation of the Strategic Mobility Formula, NCDOT allocated funding based on a region's population (50%) and the number of intrastate highway miles in the region (25%). The remaining 25% was equally distributed amongst all regions. The new Strategic Mobility Formula is performance-based and awards funding for the highest-scoring projects at the division, regional, and statewide tiers.

Surface Transportation Program – Direct Apportionment (STBG-DA)

The STBG-DA program was established in the state of North Carolina to provide Metropolitan Planning Organizations with additional funding and increased control over the distribution of funds. STBG-DA funds provide the municipality full control over the planning and design phases of a project. This enables the MPO to directly program the funding for the project as long as the project continues to conform to STBG-DA policies established by NCDOT. However, usage of STBG-DA funds requires the local agency to provide a 20% funding match as well as money for project planning and design. Projects ideally suited for this funding source would be smaller in nature, due to the limited monies available and the desire to spread the impact of those funds over several project efforts.

Hazard Elimination and Railway-Highway Crossing Programs

These funds are a subset of the State Transportation Improvement Program (STIP) funding, with funding averaging $10 million annually in recent years. Local municipalities are required to pay 10% of the cost of the project where municipal streets are affected rather than state-maintained roads. This program is intended to inventory and correct the safety concerns of all travel modes. These funds can also be utilized to acquire right-of-way.

Interstate Maintenance

The Interstate Maintenance Program was established in 1991 by passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) and has been carried through in every transportation funding bill, including the current FAST Act. The program funds resurfacing, rehabilitation and reconstruction projects on interstate highways at 90%, with funding apportioned via a formula that takes into account lane miles and vehicle miles traveled, among other factors. Funding is distributed through the state department of transportation.

Governor's Highway Safety Program

The GHSP is committed to enhancing the safety of North Carolina roadways. To achieve this, GHSP funding is provided through an annual program, upon approval of specific project requests, to undertake a variety of safety initiatives. Communities may apply for a GHSP grant to be used as seed money to start a program to enhance highway safety. Once a grant is awarded, funding is provided on a reimbursement basis and evidence of reductions in crashes, injuries and fatalities is required. More information can be found at: https://www.ncdot.gov/programs/GHSP/.

Hazard Elimination Project

The Hazard Elimination Program is used to develop larger improvement projects to address safety and potential safety issues. The program is funded with 90% federal funds and 10% state funds. A safety oversight committee reviews and recommends potential projects for approval and funding, which are prioritized according to a safety benefit/cost ratio. Once approved, these projects become part of the STIP.

Bicycle and Pedestrian Projects

Bicycle and pedestrian projects are often eligible for their own funding sources. Funding alternatives for bicycle and pedestrian modes can come not only from federal and state sources, but also private grant initiatives.

North Carolina's Clean Water Management Trust Fund (CWMTF)

The revenue of this fund is allocated as grants to local governments, state agencies, and conservation non-profits to help finance projects that specifically address water pollution problems. CWMTF funds may be used to establish a network of riparian buffers and greenways for environmental, educational, and recreational benefits.

Safe Routes to School

Safe Routes to School receives funding through the federal FAST Act legislation and provides funding for individual schools to create route plans or develop facilities that create a safer walking and biking environment for their students. North Carolina has a yearly application program for which any school, school district, municipality or other governmental body, or non-profit association may apply.

Transportation Alternatives Set-Aside Program

The FAST Act replaced the former Transportation Alternatives Program (TAP) with a set-aside of funds under the Surface Transportation Block Grant Program (STBG). This new program authorizes funding for programs and projects defined as transportation alternatives, including pedestrian and bicycle facilities, projects improve access to public transportation and many other types of projects. Around $850 million are authorized to fund these projects annually through 2020, with each state receiving a portion of these funds based on a formula. North Carolina received $14.4 million in funding through this program in 2015. These funds are then awarded to individual projects through a competitive grant program.

Public/Private Initiatives

Developer Contributions

Through diligent planning and early project identification, regulations, policies and procedures could be developed to protect future transportation corridors and require contributions from developers when property is subdivided. Accomplishing this goal will require a cooperative effort between local planning staff, NCDOT, and the development community.

Active Living by Design

Active Living by Design is a program sponsored by the Robert Wood Johnson Foundation. ALBD seeks to bring together the health care and transportation communities to create an environment that encourages residents to pursue active forms of transportation such as biking or walking. Grants are awarded each year to a selected number of communities that are then required to produce a local match. Grants can be used to create plans, change land use policies, institute education policies, and develop pilot projects. More information can be found at www.activelivingbydesign.org.

Carolina Thread Trail Grant Program

The Carolina Thread Trail, which runs through Statesville, offers a grant program to assist individual counties and municipalities in planning and implementing greenway systems that connect to neighboring communities and regionally significant attractions. Funding is available for planning and implementation projects up to $60,000, and may be used for construction, land acquisition or corridor planning. More information may be found here: http://www.carolinathreadtrail.org/wp-content/uploads/2010/12/Program-Description-03-29-16_CURRENT.pdf

Conclusion

The Statesville Mobility + Development Plan is the city's blueprint for growth and development and a guide for future transportation decisions. The *MDP* expresses the community's vision, identifies the community's values, and outlines the project, policies and plans that over time will fulfill the vision. The plan was developed with input and participation by residents, stakeholders, staff, and elected officials, and with the understanding that Statesville is poised for growth and at the crossroads of a growing and dynamic region.

As the community strategy for integrating transportation decision-making with growth and development, the MDP takes a unique approach to preparing for future growth and emerging challenges such as traffic congestion, active transportation mobility, and economic sustainability. The *MDP* documents these needs and coordinates with larger regional planning efforts to establish a coordinated roadmap for the city's future. This document is considered a high-level roadmap for the future, and should guide more detailed planning efforts such as future small area plans and serve as a starting point for future transportation investments as opportunities present. Overall, this plan positions Statesville well for the next wave of growth, as it represents a coordinated and pragmatic approach to community development based on thorough analysis, meaningful community outreach, and a thoughtful understanding of the community.