Asheville in Motion

City of Asheville Mobility Plan

2016

Acknowledgements

We extend our sincere appreciation and gratitude to the residents, business owners, elected officials, city staff, and stakeholders who participated in the planning process and guided the development of Asheville in Motion. Everyone's time, input, and energy are greatly appreciated.

Project Oversight Committee

Clark Duncan

David Nash

Chief Eric Boyce

Michele Hathcock

Ian Robertson

Till Dohse

Josh O'Conner

Mike Sule

Teddy Jordan

Karen Keating

Brendan Merithew

Kristina Solberg

Paul Black

Tristan Winkler

Mike Reisman

Amy Cantrell

Tobias Weas

True Morse

Bruce Emory

Consultant Team

Kimley-Horn

Stephen Stansbery

Karl Sutter

Jessica Choi

Allison Fluitt

Jonathan Whitehurst

Trung Vo

Gabe Hogan

Andrew Polonus

Cody Zanni

Toole Design Group

Jennifer Toole

Ken Ray

Kostelec Planning

Don Kostelec

Nelson | Nygaard

Paul Moore

Lauren Cardoni

Chapter 1—Mobility Matters

5-14

Chapter 2—Mobility Visions

15-23

Chapter 3—Mobility Framework

24-39

Chapter 4—Mobility Strategy

40-62

Chapter 5—Mobility Plan

63-81

Chapter 1—Mobility Matters

INTRODUCTION

OUR PROCESS

OUR COMMUNITY

PREVIOUS PLANS

THE VISION FOR ASHEVILLE

Introduction

Background

Since John Nolen's original City Plan in 1922, **Asheville has worked to connect residents and visitors with destinations in ways that strengthen the community's social, economic, and physical environment.** The success of these connections make the City an attractive place to live, work, play, and visit. Today, Asheville is nationally recognized as a unique and inviting place for people of all ages and backgrounds. As a result, the City faces the challenges brought about by a growing population, employment, and tourism base.

Accommodating all of the growth through outward expansion is not practical given the region's topography, expense of constructing new transportation facilities, and limited available resources.

Text Box: AIM is an important planning process intended to consolidate a variety of modal plans into a cohesive strategy and to express a method for prioritizing transportation investments in a manner consistent with desired outcomes.

Our Process

The Asheville in Motion (AIM) plan is a process intended to help answer the need for a multimodal Asheville. It represents an important process intended to consolidate a variety of multimodal plans into a cohesive strategy.

Previous plans addressed operations, parking, walking, and bicycling as separate units of operation. Thus, most of these plans were focused modal efforts rather than integrated strategies.

AIM expresses a method for prioritizing transportation investments in a manner that is consistent with desired outcomes. It is based on a philosophy of planning that requires consideration of transportation performance, policy options, and metrics related to quality of life and sustainability.

A long-term mobility plan should serve as a tool that positions Asheville to achieve success against a set of goals and metrics that are clear, relatable, and important to city leaders and residents. It is a philosophy that recognizes community vitality, economic growth, and quality of life are best achieved when community mobility is maximized.

Our Community

The City of Asheville is the heart of western North Carolina. Located at the confluence of the Swannanoa River and French Broad River in the Blue Ridge Mountains, the City's location and natural beauty are assets to the region. From early on, Asheville was destined to be a luxury resort town and a draw for retirees. The arrival of the railroad in 1880 transformed the rural crossroads into a thriving resort town and a fixture for people searching for a mountain escape. In the decades that followed, transportation improvements made it easier for visitors to arrive and the City's charm made it hard for them to leave.

Today, our community is nationally recognized for its livability, uniqueness, and appeal to people of all ages. It is no surprise that Asheville has become a creative gathering place where the community's changing demographics promote progressive ideas and overall quality of life.

Text Box:

- No. 10 on the list of “World’s Best Cities” for the US and Canada.
    - (Travel + Leisure, July 2015)
- One of six cities spotlighted as “Best U.S. Foodie Meccas”
    - (Business Jet Traveler, June 2015)
- One of “America’s 12 Greatest Music Cities”
    - (THRILLIST, April 2015)
- One of “The 9 Most Romantic Cities in the South”
    - (Huffington Post, March 2015)
- No. 1 on the list of “The 20 Coolest Towns in the U.S.”
    - (Matador Network, February 2015)
- One of “America’s Smartest Cities”
    - (Forbes, November 2014)
- America’s #1 “Quirkiest Town”
    - (TravelandLeisure.com, August 2014)
- One of “America’s Five Best Beer Cities”
    - (Wine Enthusiast, July 2014)

Text Box (with map): The AIM study area encompasses Asheville city limits. Spanning just over 45 square miles of land, the City has a population density of approximately 1,850 persons per square mile.

Asheville continues to grow.

A growing population creates more opportunities to enhance quality of life. However, this also leads to increased demands on services and infrastructure. These demands lead to the need for more multimodal choices in a community.

From 2000 to 2010, Asheville’s population grew by more than 14%. Asheville’s share of Buncombe County’s population continues to grow, increasing to 36% in 2012. Asheville continues to attract people and businesses drawn to its sense of place and location. Asheville’s growth is expected to continue. Within the next 25 years, Asheville should be prepared to accommodate a population that exceeds 115,000.

Asheville has an owner-occupied share of 44.0% and renter-occupied share of 44.6% as of 2015. Consistent with national trends, the renter-occupied share has increased by nearly 7% from 2000 to 2015.

This increase is largely attributable to the higher share of rental units in downtown Asheville. Vacant housing makes up 10% of the inventory in 2015, which may be indicative of seasonally-occupied homes.

*Data from the U.S. Census Bureau

2000	72,500 people
2010	83,000 people
2040	120,000 people

Since 2010	
New people in the study area	14,000
Annual growth rate in Asheville	1.39%

Asheville has a unique economy.

Much of the region's economy is tethered to the City of Asheville. Asheville had a total of approximately 103,000 employees in 2015. This value represents 35.5% of the total jobs in Buncombe County. Accounting for Asheville's current share of Buncombe County jobs and the County's annual job growth rate of 1.06%, the City of Asheville is anticipated to have 12.7% more jobs by 2040.

Asheville's economy is influenced by a robust health services sector as well as education and hospitality related industries. A trained workforce helps to attract more jobs. These employers, in turn, are able to inject investment back into the community. The 52,816 member Employee Services sector remained the largest one in 2015. The Retail Trade Sector is the second largest with 24,440 employees. Within the Services Sector, Health Services accounts for just over 50% of jobs.

*Data from the U.S. Census Bureau

Asheville faces challenges.

The City has experienced tremendous growth over the last 10 years, presenting a need for Asheville to strategize how to accommodate growth while facing its internal challenges.

Although the City of Asheville holds over 35% of the jobs in Buncombe County, median household income in Asheville is lower than both the median household income for Buncombe County and North Carolina.

There is a higher percentage of households without access to vehicles in Asheville compared to North Carolina.

Median Income 2013	
$39,113	Asheville
$43,422	Buncombe County
$45,442	North Carolina

Households Living in Poverty (%) 2012	
20.2%	Asheville
16.8%	North Carolina

Households with No Access to Vehicles (%) 2012	
10.8%	Asheville
6.5%	North Carlina

Asheville is multimodal.

Transit Facilities

Text Box: Asheville Redefines Transit (ART) operates 17 transit routes and serves 5,000 riders per day

Bicycle Facilities

Climbing Lanes	2.26 miles
Shared Lanes	1.09 miles
Bike Lanes	7.19 miles

Pedestrian Facilities

Sidewalks	211 miles
All Facilities*	490 miles

* All facilities include park paths, crosswalks, and greenways etc.

Text Box: Asheville has over 4.5 miles of existing greenways

Previous Plans

Asheville continues to express a commitment to its residents by taking proactive steps toward establishing and achieving a desired vision. AIM acknowledges that Asheville's continued success depends on its ability to build on lessons learned while leveraging today's assets and responding to the changing needs of the community. The pages that follow provide a high-level review of existing plans and policies that offer insight into the internal and external forces that have shaped and will continue to shape the future of Asheville.

Asheville Pedestrian Plan—1999; updated 2015

This update of the 1999 Pedestrian Thoroughfare Plan was designed to prioritize capital improvements and maintenance projects to promote pedestrian activity as a viable alternative to automotive use.

Vision

Asheville will develop and maintain a pedestrian network that…

- Includes sidewalks, pedestrian crossings, and greenways
- Offers convenience, safety, and connectivity to citizens and visitors
- Encourages and rewards the choice to walk and use transit
- Improves access for those with mobility disabilities
- Adds to the quality of life and unique character of the City of Asheville

Goals

- Promote pedestrian activity as a viable alternative to automobile use
- Enhance the pedestrian environment and increase opportunities to choose walking as a mode of transportation to help improve the health of the citizens of Asheville

- Develop standards that enhance livability, economic opportunity, safety, and quality of life

Recommendations

- Amend Unified Development Ordinance, Standards and Specifications Manual to include greenways, ADA and transit needs
- Establish other local funding sources in addition to fee-in-lieu revenues and city budget allocations
- Work through the MPO and NCDOT to develop a sidewalk policy for ETJ areas
- Incorporate promotion and improvement of Pedestrian Activity into the TDM program

Asheville Comprehensive Bicycle Plan—February 2008

The Asheville Comprehensive Bicycle Plan was developed to prioritize short-, mid-, and long-term bicycling-related improvements based on usage and functional connectivity while utilizing existing pavement width and retrofitting existing facilities. The plan also examined educational, encouragement, and enforcement eff orts to promote bicycling. This plan envisions a continuous network of bicycle facilities, which increases access, safety, and mobility of bicyclists in Asheville.

Goals

- Provide transportation choices
- Create continuous connections of facilities
- Provide bicycle facilities for all users
- Increase safety and mobility of bicyclists

Recommendations

- Provide bicycle lanes, bikeable shoulders, or shared lane markings on several arterial and collector corridors
- Pilot lane diets on a project to gain public awareness and analyze outcomes for bicyclists and automobiles
- Develop a facility maintenance plan
- Improve bicycle accommodations on bridges and provide short-term enhancements prior to major investments
- Implement greenway improvements identified in the Parks, Recreation, Cultural Arts and Greenway Master Plan
- Budget an annual set-aside program to fund plan's recommendations
- Develop standard designs for bicycle-friendly intersections and bicycle parking
- Repave roadways with poor pavement conditions that provide critical connections in the bicycle network

Asheville Transit Master Plan—October 2009

The Asheville Transit Master Plan aimed to develop an overall vision for transit services in Asheville and its surrounding communities. The plan includes a 5-year implementation plan and a 10-year vision plan.

Goals

- More frequent service on main travel corridors
- Market to choice riders
- Improve service for non-choice riders
- Target tourism market
- Make transit part of the community lifestyle

Recommendations

- More frequent service on heaviest corridors
- Additional transfer locations outside of downtown Asheville
- Improve on-time performance
- Reduce number of trip deviations
- Convert dial-a-ride to fixed route

Parks, Recreation, Cultural Arts and Greenway Master Plan—March 2009

The primary goals of the plan were to provide a diversity of parks and greenways that create a system of interconnected local and regional parks and greenways—including trails and paths.

Recommendations

- Maximize the level of service available to the community
- Create greenway priorities and identify development timeline
- Refocus City's greenway strategies and advocate for bicyclist and pedestrian linkages to the greenway system
- Develop design standards for new and existing parks and greenways
- Improve walkable access to parks and recreation facilities by striving to provide parks, greenways or indoor facilities within 1/3-mile of residents
- Ensure safe pedestrian access across physical barriers to parks and recreation facilities
- Incorporate traffic calming strategies at strategic access points

Wilma Dykeman RiverWay Plan—June 2004

The Wilma Dykeman RiverWay Plan considered the creative development of the French Broad and Swannanoa riverfronts as choice destinations and economic drivers for Asheville. The Plan considered economic development, transportation, health, education, recreation, and environment elements to create a balanced strategy for realizing the rivers' potential.

Goals

- Balance economic development with environmental protection
- Promote low-impact sustainable development

- Link existing destinations through a 17 mile greenway with linked walking and biking trails
- Offer a comprehensive approach to wellness and health in the community
- Preserve the French Broad River watershed
- Enhance existing recreational activities and consider enhancement of future recreation options like fishing piers and river viewing areas

Recommendations

- Construct the I-26 Connector to provide connection between downtown and the River Arts District
- Develop the park space along the river leveraging the character of historic Cotton Mill buildings
- Consider the development of an outdoor activity arena that leverages economic development
- Create gateways on McDowell Street, Biltmore Avenue, and Tunnel Road to connect to nearby destinations
- Add new bridges at Stoner Road and Glendale Avenue
- Implement and demonstrate stream restoration techniques at Azalea Park
- Continue connection of greenway system throughout the riverway

Asheville Downtown Master Plan—March 2009

The 2009 Downtown Master Plan aimed to help the community shape growth in a way that preserves Asheville's character by creating a shared vision for downtown over the next 20 years. It enables the community to understand choices, take advantage of opportunities, and develop tools to achieve the shared vision through changing economic and political cycles.

Goals

- Sustain Downtown's dynamic and diverse culture and economy
- Enhance Downtown's role as the larger community's "front porch"
- Strengthen Downtown's identity as a series of residential neighborhoods
- Preserve and enhance Downtown's diverse architecture, historic resources, walkable streets, and view corridors
- Provide good, interconnected transportation choices for better access and better health
- Make Downtown a national model of sustainable planning, development, and operations
- Establish creative strategies for managing Asheville's special qualities

Recommendations

- Provide Downtown with continuous bicycle and pedestrian routes tied to regional routes
- Improve transit service to and within Downtown
- Investigate auto-free zones on periodic weekends
- Add parking spaces sparingly and develop new unified parking management strategies
- Highlight the public health benefits of walkability, fitness, and safety

River Arts District Transportation Improvement Project (RADTIP)—June 2011; updated 2015

The RADTIP project includes conceptual design, environmental analysis and detailed design elements to build a portion of the Wilma Dykeman RiverWay project through the River Arts District.

Goals

- Provide frontage for economic development along its length, whether its adaptive reuse of existing historic structures or the development of new recreational structures for civic and residential uses
- Facilitate the continual expansion of Asheville's greenway system by extending the pedestrian network linking neighborhoods to the rivers as well as to civic, recreational, and cultural destinations
- Provide a new transportation spine that will enhance the ability to interconnect local streets and regional transportation arteries
- Improve and enhance the river corridors by implementing ecologically sustainable technologies and practices

Recommendations

- Construct a 2.2 mile segment of the RiverWay along Lyman Street and Riverside Drive
- Project elements include improved intersections and bridge reconstruction in addition to sidewalks, bike lanes, greenways, on-street parking and storm water improvement

Asheville City Plan 2025—2001; updated 2010

The Asheville City Plan proposes a land use pattern, transportation network and system of City services and infrastructure that reflect community desires and wishes concerning future growth of Asheville. "Land use and transportation cannot be separated", therefore these elements of the plan are contained in the same chapters.

Guiding Principles

- Sustainable economic development that guides Asheville into the New Economy
- Provide a wide mixture of housing for all income levels
- Protect natural resources and mountain heritage
- Effectively involve the public in decisions
- Provide transportation options where transit, bicycles, and walking join the automobile in getting people around neighborhoods and business centers
- Make farsighted investment in public streets, open space and parks, and community gathering places

Recommendations

- Permit and encourage transit-supportive density along major corridors and at logical transit nodes
- Revise development standards for corridors to ensure that corridors are developed in an urban manner
- Encourage construction of affordable housing

- Work with property owners, institutions, and public/private agencies to enhance streetscape along roads
- Design of streets and highways should be consistent with economic development goals
- Develop system of sidewalks, greenways, and bicycle facilities that will make a more walkable and livable city
- Maximize the efficiency of the existing transportation system through targeted, cost-effective improvements and programs
- Increase the level of investment in the transportation system to support economic development and promote quality of life

The Vision for Asheville

The vision for Asheville is a clear, effective and connected transportation system that is lasting and offers enhanced choices. A community where transportation investments align with economic and social goals. A city where the quality of choices increases the closer you get to its center. The conventional approach to achieving these aspirations has been to develop plans for each travel mode (motor vehicles, pedestrians, transit, and bikes), lobby for funding, and make incremental improvements.

However, decades of planning and incremental decisions have taken Asheville as far as it can without a coordinated strategy. Things are further complicated by escalating transportation infrastructure costs, constrained right-of-way conditions, increased competition for transportation resources, and ever increasing proportions of our capital budgets being consumed by maintaining and repairing our aging infrastructure.

AIM offers a coordinated strategy. AIM commits not only to provide integration amongst travel modes but also through enhanced integration with community context (land use and urban form) as well as economic and social goals.

Chapter 2—Mobility Visions

INTRODUCTION

OUTREACH PROCESS

OUTREACH HIGHLIGHTS

Public Engagement

Crafting a vision for mobility requires a continuous and inclusive process. It needs a thoughtful approach to engaging the community and empowering stakeholders. The underlying principle for understanding local dynamics will be collaborative planning and consensus building through a process that recognizes the intimate knowledge of these groups and the issues—current and expected—facing Asheville.

This chapter introduces the AIM Public Outreach process and highlights some of the outreach events that occurred during the duration of the AIM plan.

Key interest groups targeted and invited to participate in outreach activities included:

- Elected officials
- City staff
- Residents
- Business owners
- Major employers
- Agency representatives
- Neighborhood advocates
- Multimodal advocates
- Economic development officials
- Real estate professionals
- Metropolitan planning organization
- Environmental groups

AIM Outreach Process

The planning process began in June 2014 with an exploration of existing conditions and a multi-faceted outreach campaign. The approach was simple: to create a mobility plan for Asheville that could achieve long-term, desirable results.

Community engagement for the Asheville in Motion plan encouraged aspirational planning while understanding the prioritization process for local decision-making. In doing so, four basic questions were asked:

- What mobility wants and needs does Asheville have?
- What steps are required for Asheville to be successful?
- How do we create a process for streamlining these steps?
- How do we measure success?

Public outreach events

Project Oversight Committee Meeting	Aug 14 2014
MetroQuest Public Survey	Oct 2014
Project Oversight Committee Meeting	Oct 24 2014
Public Symposium	Oct 25 2014
Multimodal Commission Meeting	Jan 28 2015
Project Oversight Committee Meeting	Jan 28 2015
Stakeholder Interviews	Jan 29 2015
Design Charrette/Work Session	Mar 10 2015

Project Oversight Committee	Jun 25 2015
Multimodal Commission Meeting	Jul 22 2015
City Staff Work Session	Nov 13 2015
Project Oversight Committee Meeting	Nov 13 2015
Public Roll-Out	Dec 7 2015

Project Oversight Committee August 14, 2014

The Project Oversight Committee (POC) included local stakeholders who served as high-level proxies for the general public and served as the governing body of the project. The group weighed in at major milestones, refined concepts, and confirmed direction towards final recommendations.

At the first POC meeting, the project team led the POC members through a series of participatory exercises to capture values and priorities and document preferences and concerns. At the first meeting, committee members discussed their vision for Asheville.

Participants were given 5 pieces of paper and asked to identify their top five specific topics, issues, challenges, or concerns and place each comment under one of AIM's planning themes.

The seven planning themes presented were:

- Safety
- Neighborhood
- Economic Vitality
- Congestion
- Transit
- Bicycle
- Pedestrian

Project Oversight Committee October 25, 2014

At the second POC meeting, members were asked to identify national trends and issues that they felt were relevant to mobility in Asheville. These topics were further explored during the expert panel discussion at the Public Symposium the very next day. Some of the hot topic issues and related questions that were identified and discussed were:

Funding allocation resources for transit and multimodal integration

- How do we afford all the multimodal elements?
- How can we prioritize multimodal improvements to most efficiently use our limited funds?

Multimodal mobility promoting other elements

- How can multimodal elements promote other important city-wide issues like equitable access to housing?
- Can we create an environment that promotes affordable housing where transit access already exists?

Special considerations for Asheville's transportation

- Asheville is physically constrained. How can we work with existing constraints and create a great multimodal environment?
- What neighborhoods and destinations need the most help with multimodal transportation?

Public Symposium October 25, 2014

The first symposium at the US Cellular Center allowed citizen planners to document existing concerns and helped to capture the community's desired vision for the future. The symposium included two components: a Mobility Fair and an Expert Panel Discussion. Over 100 people participated.

Mobility Fair

- Information Wall
- Priority Pyramid
- Thought Wall
- Map Exercise
- Street Builder
- Queen/King for a Day
- On-site MetroQuest Survey

Priority Pyramid

This activity asked participants to rank their top six planning themes out of a total of eight. The top four themes that were consistently ranked highest based on both frequency and weighted average were: safety, transit, bicycle and pedestrian.

Thought Wall

Community members were asked to identify and write their top four specific topics, issues, challenges, or concerns. One of these comments were asked to be prioritized as the participant's most important comment and was reserved for a separate sheet of paper. The comments have been synthesized into general themes for the four planning themes ranked highest.

Safety

- Pedestrian priority signalization at downtown intersections are needed
- Increased safety for all protected pedestrian routes, bike routes, and transit routes are needed

Transit

- Bus schedules do not allow for transfers within a reasonable amount of time
- Rural transport should be a consideration

Bike

- Bike paths that go more than 3 miles are needed
- Connected, protected bike lanes, particularly on main corridors, are needed

Pedestrian

- Sidewalks need continuity
- Safe crosswalks and crosswalk enforcement are needed
- Increased access to sidewalks where transit stops and bike racks are

Street Builder

The Street Builder activity offered participants an understanding of the tradeoff s between right-of-way versus desired roadway features as well as a means to identify cross-section vision for critical corridors in the community. Participants created their ideal typical roadway section for specific corridors that included features they believed were most desirable.

Accessibility Exercise (Pt.1)

A large-scale map was used to capture home, work, and recreational locations as well as conflicts and gaps in the three modal networks: pedestrian; bicycle; and transit. The participants were asked to pinpoint their home, work, and recreation locations with three different colored pushpins. Then, the participants were asked if the areas surrounding the pushpin locations were walkable, bikeable, or transit accessible. If the answer to each question was yes, the participant was asked to mark it with a colored sticker that represented each quality (walk, bike, transit).

Accessibility Exercise (Pt.2)

For the second part of the Map Exercise, a large barriers worksheet was provided for the participants. The worksheet allowed participants to identify and further explain some of the barriers to walkability, bikeability, and transit accessibility in their community.

Walkability

- Need to fix existing sidewalks and add more sidewalks to the network
- Crossings at intersections are inadequate
- Difficult to cross certain streets such as Charlotte Street, Merrimon Avenue, New Haw Creek Road
- Priority connections needed at places such as schools, universities, public meeting areas

Bikeability

- Not enough bicycle facilities in downtown area
- Greenways are a good way to encourage people to switch modes of travel
- Certain roads are too dangerous to travel on (e.g. Haw Creek Road, Swannanoa River Road)

Transit Accessibility

- Transit frequency continues to be an issue
- Transit is largely unreliable. One has to transfer many times to get to where he/she needs to go
- More investment is needed in public transit

Expert Panel

The second half of the AIM Symposium was composed of a panel discussion with four mobility experts that spoke to national trends, issues, best practices, and case studies from across the

country. Bringing their public and private sector views, the panel experts were able to share their expertise and experiences from working with transportation systems in various cities in the United States such as Madison, Wisconsin and Dallas, Texas.

Panelists discussed potential methodologies for prioritizing mobility-promoting elements in the changing economy, tools available to help with efficient allocation of resources, as well as special considerations Asheville will have to make in shaping its own transportation strategies.

Jamie Green—planningNEXT

Jamie is a founding Principal of planningNEXT, a community planning practice based out of Columbus, Ohio. His work is focused on developing planning processes that enable communities to think creatively about quality of place choices all while considering emotional attachment, physical environment, and economic prosperity.

Kurt Schulte—Walter P. Moore

Kurt is the Director of Transportation Planning with Walter P. Moore. With over 20 years of experience in planning and engineering in the United States, Kurt is known for creating innovative visioning for communities that result in workable solutions for complex problems. Kurt focuses largely on bridging the gap between land use and transportation planning with an emphasis on creating livable streets and spaces.

Steve Cover—City of Madison

Steve is the Director of the City of Madison's Department of Planning and Community and Economic Development. He has over 30 years of experience working in both private and public sectors. He is responsible for the initiation of major planning initiatives such as the City of Wisconsin's first transportation master plan as well as its economic development strategy.

Don Kostelec—Kostelec Planning

Don is the founding Principal of Kostelec Planning, LLC, based in Asheville, North Carolina. Don's work is largely based on the principle that communities and economics thrive when they are linked to health and built environment decisions. His specialty areas include transportation planning, pedestrian planning, bicyclist planning, and complete streets.

MetroQuest Survey—October 2013 – February 2014

To continue to broaden the range of perspectives, an interactive, web-based MetroQuest questionnaire was launched and over 1,200 individuals participated between October 2013 and February 2014. The survey yielded a robust dataset of community preferences, opinions, and issues that ultimate contributed to the development of mobility strategies.

Responses

- 1,282

Written Comments

- 1,848

Locations Noted for Map Activity

- 2,907

Individual Data Points

- 19,550

What are your top 3 transportation priorities?

- Pedestrian
- Bicycle
- Safety

What is the biggest transportation need?

New Walking Facilities	32%
Expanded Transit Service	25%
Additional Bike Facilities	17%
Improved Roads	17%
More Trails	9%

Rank the places that would benefit the most from improved transportation connectivity.

1. Neighborhoods
2. Downtown Asheville
3. Restaurant and Retail
4. Employment Centers
5. Parks and Greenways
6. Universities and Libraries

What are the multimodal improvements needed?

Participants placed mode-specific dots and described what improvements are needed. Nearly 3,000 markers were placed on the map. The data was used to create a dot density map that highlights locations with higher densities for each category. The results from the heat maps were evaluated to inform the creation of the multimodal strategies for the AIM plan.

Text Box: Participants were able to place mode-specific dots to indicate what type of improvement was needed.

Neighborhood Outreach Various Dates

Various outreach events were conducted by the City of Asheville to further the number of data points received. These events occurred at the following venues from November - December 2014.

- Latino Steering Committee
- Emma Elementary School
- Shiloh Community Meeting
- Asheville FM - LA Radio

Stakeholders Roundtable—January 29, 2015

The Stakeholder Interviews were conducted at Asheville's City Hall to better understand existing trends and identify common issues and goals in the community. Local stakeholders were grouped into common interest groups which included: Bicycle/Pedestrian; City Officials; CEO/Education; Commerce/Downtown; Housing/Minority; and Persons with Disabilities.

Bicycle/Pedestrian

- The average bicyclist has to be fairly skilled to travel Asheville safely and comfortably
- There are many challenges in Asheville -- particularly topography
- Alternative routes are very important -- traveling South and East is difficult
- Better wayfinding is needed along major corridors
- Simpler solutions such as sharrows and "Share the Road" signs would be extremely beneficial where space is limited

Downtown/Commerce

- Maintaining or improving existing streets is preferred over investing in new roads
- Many interstates in Asheville are used as major travel corridors
- Alternative routes are very important and should remain a priority consideration in the planning process
- Geographic-based investments are great but the City needs to be flexible enough for needs-based investments

Housing/Minority

- City should concentrate on destinations of trips
- Housing is a problem in Asheville, particularly given the breakdown of industry sectors (mostly service)
- There's a difference in need between promoting choice riders and nonchoice riders of transit
- Pedestrian access to other non-automobile modes needs to be enhanced

Persons with Disabilities

- There are a lack of sidewalks, ramps, and other disability-friendly facilities in Asheville
- There needs to be better communication between the City and its citizens about the transit tools available
- There is a need for more education about transportation issues and news

CEO/Education

- Topography, scarce resources, and state/federal control of major thoroughfare are significant issues in Asheville mobility
- There are general concerns about the policies in place for new developments and requiring sidewalk/pedestrian facilities to be built
- People often have to sacrifice walkability because affordable housing in Asheville is getting pushed out to the urban fringe

City Officials

- Asheville, as a city, is attractive on many levels
- There is a challenge in maintaining affordability of living in Asheville for the existing population within city limits while attracting new people into the city
- There is a need to consider the balance between financial feasibility and the needs of the community

Chapter 3 Mobility Framework

INTRODUCTION

THE OPPORTUNITY

HIGHLIGHTS

FRAMEWORK PLANS

- **PEDESTRIAN**
- **TRANSIT**
- **BICYCLE**
- **GREENWAY**

Introduction

The AIM Approach

With external forces such as escalating infrastructure expenses and limited transportation funding, it is becoming vital for cities to respond to these challenges through more innovative, integrated methods. AIM offers a coordinated strategy for the City of Asheville. AIM responds to these challenges, internal and external, through the development of an integrated strategy that begins by embracing the Complete Streets philosophy throughout the mobility planning process.

The mobility planning process for AIM incorporates a combination of tools created specifically for Asheville. When used in a coordinated process, they make up the AIM mobility strategy.

- Framework Plans – a method for considering individual systems-level plans for pedestrian, bicycle, greenways, and transit
- Street Type – a new set of street type categories
- Community Type – a consistent method of considering community context
- Blended Typology – a method for dealing with constrained physical settings (e.g., insufficient right-of-way, widening)

The Opportunity

The needs expressed for multimodal elements are valuable insight into the desires and overall vision of a community as they relate to the transportation system. In an ideal world, every street would be able to prioritize pedestrians, accommodate vehicles, support protected bicycle facilities, and have a designated high-capacity transit lane. However, it is rare that there is sufficient space or funding available to reconstruct the community's streets to conform to the desired multimodal vision.

A multitude of constraints (financial, physical, and environmental) requires an examination of each corridor to do more than simply move cars, especially in areas closer to the center of the community. Expanding transportation choices also increases the number of trips Asheville can absorb. When we can transition some car trips to other modes of travel, we increase the long-term efficiency and effectiveness of our transportation system to support other communitywide initiatives. Furthermore, the benefits of biking, walking, and taking transit are well documented. In particular, nonmotorized modes of travel keep cars off the road, reduce congestion, promote good health, and improve air quality. Increased mobility enabled by biking, walking, and taking transit enhances community health and overall vibrancy.

Text Box: In Asheville, the multimodal transportation system must be able to strike a balance between serving the needs of its existing residents, a workforce that arrives and leaves each day, and the many people who visit the city. Particularly with limited funding, Asheville needs to offer viable citywide accessibility and connect to outside infrastructure at the regional level. More often than not, Asheville will continue to face challenges as to where priority transportation investments should occur.

Highlights

This chapter highlights Framework Plans for active transportation (walking, biking, greenways) as well as transit. The AIM planning process recognizes the quality of existing plans and strategies already in place for these travel modes. As such, AIM receives these plans and

incorporates them as considerations for future decision processes. (Chapter 5 describes how these plans will be considered and prioritized over time.)

AIM is not a replacement for existing plans. AIM presents a method for how to consider these plans as incremental decisions and investments are made in the transportation system.

Framework Plans

The remainder of this chapter presents existing plans, programs, and policies for pedestrian, biking, greenways, and transit. The Framework Plan for each mode is different but maintains similar elements. These plans are not systems-level plans but rather, offer information vital to the success of multimodal integration and prioritization. The information contained in each Framework Plan identifies existing plans for each travel mode that must be considered as incremental decisions are made. The plan for each mode contains elements deemed strategic in creating a well-coordinated and integrated multimodal strategy for streamlining transportation design and funding processes.

These plans remain freestanding strategies and should be periodically updated to reflect changing circumstances and emerging trends and best practices. AIM will benefit from these incremental enhancements over time by allowing the plans to inform the decision making process of street design (as opposed to ad hoc decisions). AIM doesn't replace these plans. Rather, AIM reinforces their continued importance.

Pedestrian Framework Plan

Introduction

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 during the planning process. When a great pedestrian environment exists, walking offers a practical transportation choice with benefits for individuals and the community. Features that contribute to making walkable communities include a healthy mix of land uses, wide sidewalks, buffers between the edge of the pavement and the sidewalk, and trees to shade walking routes.

Beyond the presence of quality facilities, there are nuanced aspects of the walking environment that greatly contribute to walkability. Some examples include timing pedestrian signals to minimize wait time at intersections, keeping sidewalks free of temporary obstructions and utility poles, and ensuring access to bus stops from the street to keep walking routes accessible to all. Slowing traffic, narrowing streets to reduce pedestrian crossing distance, and incorporating pedestrian infrastructure (i.e. signage, crosswalks, and adequate pedestrian phasing at signals) into future roadway design plans also ensure walkability.

The availability of pedestrian facilities and amenities plays an important role in encouraging travel by means other than the automobile. In addition to shifting trips from automobile to foot, the success of transit and other active travel modes depends greatly on the condition of pedestrian facilities and amenities. Due to the nature of pedestrian facilities and their ability to serve as critical connections, AIM recommends that the pedestrian mode remain the priority over the other travel modes.

Background

While AIM is a strategically coordinated mobility plan, it is important to emphasize the importance of pedestrian trips. Other modes of travel have diverse methods for accommodating

person trips whereas walking really only includes the construction and maintenance of sidewalks and trails. Therefore, it becomes even more important to evaluate the current approach Asheville has in place to improve the pedestrian network. The easy observation is that safe pedestrian infrastructure is needed and recommended everywhere in Asheville. The more difficult question is, where do we begin?

To set up successful pedestrian environments, it becomes all the more important to create the right policies to circumvent incremental burdens and challenges that will ultimately present themselves.

The primary goal of the Pedestrian Framework Plan is to identify methods for the City of Asheville to take a closer look at existing policies and recommend changes. The recommendations focus on a combination of policy updates and facility-related (e.g. ADA compliance) versus overall policies (e.g. development-related requirements). The policies are not specific to any corridors in Asheville.

Recommendation	**Details**
Pedestrian Access to Bus Stop	• Incorporate transit service and ridership data in sidewalk prioritization methods • Continue program to invest in linkages between bus stop and nearest intersection and intersection crossings • Evaluate crossing needs at signalized and midblock stop locations • Upgrade curb ramps to current accessibility standards when bus stops are upgraded • Assess gaps in system between bus stops and destinations for riders
Temporary Traffic Controls for Pedestrian Access During Construction	• Adopt policy that applies Chapter 6 of MUTCD for TTCs • Require construction plans to include traffic control plans for all modes • Consider purchasing pedestrian channelizing devices, audible information devices and other accessibility elements to assist contractors until they become familiar with technology or offer a time limit of assistance
ADA Transition Plan for Public Right-of-Way	• Update a citywide transition plan related to accessibility needs in public right-of-way • Establish annual investment program in ADA upgrades resulting from Transition Plan recommendations/prioritization • Incorporate elements of the proposed Public Rights of Way Accessibility Guidelines
Update Curb Ramp Design to Include Options for Constrained Right-of-Way	• Identify additional curb ramp design needs for constrained rights-of-way in

	areas such as downtown, West Asheville, Biltmore Village • Develop a list of preferred curb ramp design applications, in priority order, to help guide new development and city projects
Multimodal Requirements for Traffic Studies on New Development	• Update traffic study policies to require evaluation of pedestrian, bicycling and transit mode impacts • Consider assessment of likely pedestrian traffic generation, pedestrian/bicyclist counts and impacts to pedestrian/bicyclist/transit traffic during and after construction • Lower citywide speed limits when adopting traffic control measures
Policy for HAWK/PHB and RRFB Installation at Intersections and Mid-Block Crossings	• Identify best practices and possible locations to address crossing needs at transit stops and major destinations • Develop an application matrix to identify roadway types that are conducive to different treatments
Greenway Access from Neighborhood	• Evaluate likely connections to existing and planned greenways • Prioritize connections as greenways are developed • Development requirements • Easements/acquisitions • Design standards
Enhance Safe Routes to School	• Determine percentage of students who live within walking distance of schools • Identify high priority schools for SRTS programs, given challenges with magnet school status • Work with regional Active Routes to School coordination on at-school programs and walking school buses
Develop Alternative Pedestrian Facility Design Guidance for Lower Volume Streets	• Determine the types of pedestrian facilities (other than sidewalks) that can provide connections at a lower cost, such as extruded curb/shoulder treatments • Conduct outreach to neighborhoods to determine level of buy-in for alternative treatments • Identify design needs to meet accessibility requirements
Develop Multi-Criteria Evaluation Process for Major Pedestrian Corridor Improvements	• Develop a more detailed methodology for assessing priority improvements

	• Include factors such as access to transit, schools, parks, community gathering places, safety
Adopt a Vision Zero Resolution and Implementation Plan	• Build upon the WatchForMeNC campaign to develop a local Vision Zero campaign
Endorse NACTO Urban Streets and Design Guide	• Consider endorsing this design guide as a precursor to updating of street design standards
Develop a Long-Range Funding Strategy for Pedestrian-Specific Improvements	• Evaluate partnerships with local business organizations, NCDOT, health organizations
Organize a More Robust Sidewalk Maintenance and Inspection Program	• Determine an appropriate level of eff ort for an annual sidewalk maintenance and inspection program • Target areas for sidewalk maintenance where there are prevalent poor surface conditions
Fund a Developer's Cooperative Sidewalk Program	• Partner with new developments to fi ll off-site sidewalk gaps in the network as developments occur, that do not trigger sidewalk requirements • This lump sum annual program would help fund these improvements without having to pull funding from existing sidewalk construction budgets
Continue the WatchForMeNC Campaign	• Consider seasonal approaches to addressing differing needs (Downtown during summer months; near schools at beginning of semesters)

Transit Framework Plan

Introduction

Public transit does not exist in a vacuum that operates apart from local and regional land uses and other transportation modes. Even seemingly irrelevant decisions, such as where to locate a small residential development, can create a significant challenge for a provider to operate efficiently particularly if those residents are highly dependent on public transit service to meet their mobility needs. Good—not just adequate—public transportation is necessary to not only bridge the gap between the mobility constrained and those who can move about freely, but also to provide a real travel choice for everyone. Asheville historically has always been a proponent of mass transit. As railroads reached Asheville in 1880, the city gained much popularity among neighboring counties as a tourist destination. However, the journey to and within Asheville proved difficult, largely due to the terrain—a challenge that today's Asheville still encounters. To lessen the burden of the journey, a number of railway companies build streetcars to neighborhoods and outlying areas. By 1907, Asheville was leading North Carolina in the number of transit passengers by carrying three million streetcar passengers, a million more than Charlotte and Wilmington.

Background

The streetcar ceased operation in 1934 but the need for transit remains. The AIM public engagement process received input from both existing riders and others who were interested in riding transit. People who regularly ride transit service noted that they have encountered issues with slow, infrequent, undependable buses. Riders noted more than often missed connections due to bus scheduling issues and expressed wishes that transit in Asheville could run with shorter headways and cover a greater service area.

Much like the previously discussed, like the limited ability of expanding the road network, transit is facing similar challenges. For a transit network that is, for the most part, built out, it is necessary to rethink and reimagine the system into one that can be enjoyed and utilized conveniently by all—visitors, retirees, persons with disabilities, young professionals, students, etc.

The primary goal for the Transit Framework Plan is to balance policy recommendations, service priorities, and conceptual routes to show how public transportation could become a more viable transportation option to a greater portion of the community.

ART

Asheville Redefines Transit (ART) is the transit provider in the City of Asheville. ART operates 17 routes throughout the city and serves more than 5,000 riders per day. The routes are coverage-based and operate on a pulse system, with the ART Center in downtown acting as the hub.

ART, like every transit system, has two fundamental missions:

1. Productivity - Provide convenient options for choice riders.
2. Coverage - Provide access to jobs and daily needs for captive riders.

These two missions function very differently. A productivity focused route will serve stops with good density and walkability, a mix of uses and potential riders who are motivated to use transit. Since these routes are meant to provide an attractive choice, they will typically run frequently, over many hours of the day and, ideally, provide a competitive speed of travel.

The coverage-focused parts of the system, as implied in the name, must stretch over a greater geography to more of the places where people in need of transportation live and work.

Current Conditions

In Asheville, there is not enough funding available to fulfill both types of routes. In such situations, many agencies default to funding the system that is providing service to those truly in need. It is not surprising then to discover that ART's ridership is very transit dependent – 50% of the riders earn around $10,000 per year and around 75% of the riders earn less than $25,000 per year. Most riders take more than one bus for each trip, and make multiple transfers.

Policy Recommendations

Observation	Recommendation
A clear balance between productivity and coverage routes is needed.	Set a policy to allocate resources to each route type. By doing so, ART's mission can be more clearly fulfilled without competing interests.
Reliability of transit services differs based on whether or not the route is coverage or productivity.	Develop service standards for different types of routes on the ART system. For example, changes in route type can bring the frequency of a route below the average.
ART has recently gone through a major stop consolidation process.	Prioritize faster trips. This can help to crease service frequency for those traveling within the core of the community.
ART offers a UPass to UNC-A, City employees, Grove Park Inn employees, Green Opportunity employees, and the Housing Authority.	Provide transit incentives for targeted audiences who are more likely to use transit.
UNC-A provides bus services that are redundant with ART services.	There may be an opportunity going forward to consolidate and concurrently improve this service.
ART's downtown stops serve as the major transfer points for transit commuters.	Develop and fund a core system of premium bus transit that services these transit stops with rail-like frequencies, performance, and hours of operation.
ART's free-fare zone in downtown is not utilized to its fullest potential.	Expand this idea to in-town neighborhood residents who are choosing to live a more urban lifestyle. Consider a core downtown circulator that serves downtown neighborhoods.

Service Recommendations

Observation

- ART's downtown stops serve as the major transfer points for transit commuters.

Recommendation

Develop and fund a core system of premium bus transit that services transit stops with BRTlike frequencies, performance, and hours of operation. This could be accomplished by coordinating service tightly where multiple routes come together and when bus timing is spaced at regular intervals (minimum 10 minute headway in peak hours). This can result in a core system that is easily understood even by occasional users.

Observation

- ART's fare-free zone in downtown is not utilized to its fullest potential.

Recommendation

Consider a core downtown circulator where the first phase serves downtown and first-tier neighborhoods. Essentially, this is a service expansion of the fare-free zone to in-town neighborhood residents who are choosing to live a more urban lifestyle. The orange solid lines to the right highlights the potential downtown route. Phase II of this circulator could include an extension to Haywood Road (dotted line).

Bicycle Framework Plan

Introduction

Successful bicycle planning requires integration of multimodal elements with the overarching vision for the transportation system. The planning process for the future Asheville bicycle network considered the needs, skills, and desires of a range of bicyclists.

Different reasons for traveling by bike, combined with the varying levels of skill, require a flexible and responsive approach to bicycle planning. Bicyclists often fall into one of two distinct categories based on trip purpose: utilitarian and recreational. Recreational users typically have positive memories of bicycling in their youth and associate bicycling with expanded personal freedom and adventure. However, as they have grown older, most have come to view bicycling as a strictly recreational activity that is safest on trails; riding on street networks is perceived to be unsafe and unappealing.

Utilitarian bicyclists can consist of both choice or no-choice riders. Choice riders choose non-motorized travel to promote fitness, cost savings or environmental stewardship. No-choice riders typically have limited mode options for required daily trips.

Background

The recommendations for the AIM Bicycle Framework Plan are built off of the adopted 2008 Comprehensive Bicycle Plan, the findings of AIM analyses, and 'from the ground' analysis of existing facilities and conditions. Most importantly, these recommendations are built off of the engaged bicycle community in Asheville that participated throughout the AIM public engagement process.

The planning process for the Bicycle Framework Plan considered the needs, skills, and desires of a range of bicyclists. During the public outreach process, many bicyclists expressed interest in riding on the street network but were concerned with safety issues. As such, the Bicycle Framework Plan took a more inclusive approach in recommending bicycle facilities that met a broader range of users.

The primary goal of this Framework Plan was to identify a connected system of bicycle routes that would appeal to the average rider, a person who was interested in riding but generally concerned about safety. This led to the identification and development of priority and secondary routes for Asheville's bicycle network.

Bicycle Facility Toolkit

Bicycle facilities included in the AIM toolkit include mostly on-street design types. Off-street design facilities such as greenways and side paths are included in the Greenways Framework Plan. There are a variety of bicycle treatments available to improve bicyclist accommodations in the study area. These treatments can be eligible for short-term implementation while others

require phased, long-term improvements. Not all of these facilities were explicitly recommended in the AIM Bicycle Framework Plan but the facility types deserve recognition for potential future implementation. Lastly, included in the facility toolkit is a recommended amenity in the form of a Bike Share program.

Facility Type	
On-Street Design	Bike Lane Bike Lane with On-Street Parking Buffered Bike Lane Separated Bicycle Facility (Cycle Track) Striped Shoulder Signed Bike Route and Shared Lane Marking Neighborway (Bicycle Boulevard) Climbing Lane Shared Street
Amenity	Bike Share

Bike Lane

Bike lanes are one-way treatments that typically carry bicycle traffic in the same direction as adjacent motor vehicle traffic. Bike lanes are provided for the exclusive or preferential use of bicyclists on a roadway and are identified through signage, striping, or other pavement markings. These lanes allow bicyclists of all skill levels to ride at comfortable speeds and encourage a position within the roadway where they are more likely to be seen by motorists.

General considerations:

- Bike lanes are preferred treatments for urban and suburban thoroughfares
- Lanes should be smooth riding surface
- Lanes should be provided on both sides of a two-way street
- Bike lanes are most appropriate on streets with higher traffic volumes and posted speeds of 30 mph or greater

Bike Lane with On-Street Parking

On streets that have sufficient roadway width, bike lanes and on-street parking may coexist. In most cases, the bike lane is placed between the parking lane and travel lane.

General considerations:

- Reconfiguration of roadways by narrowing widths or road diets is generally appropriate
- To prevent physical conflicts, bicyclists should be encouraged to ride further away from parked cars. The following treatments encourage this behavior: wider bike lanes, wider parking lanes, or a striped buffer

Buffered Bike Lane

When sufficient roadway width is present, a buffer may be striped between a bike lane and travel lane to provide additional comfort for both bicyclists and motorists. This buffer enhances safety and encourages greater use of on-street bicycle networks.

General considerations:

- This treatment is appropriate for use anywhere a standard bicycle lane is being considered
- These treatments are beneficial on streets with higher travel speeds and higher travel volumes
- The inclusion of buffered bike lanes is best as a part of retrofits of existing roadways

Separated Bike Lane (Cycle Track)

A cycle track is physically separated from the roadway and the sidewalk. It is intended for exclusive use of bicyclists. It can be constructed at the roadway level, sidewalk level, or intermediate height.

General considerations:

- Cycle tracks can be provided in one-way or two-way configurations
- One-way cycle tracks are typically 5-10 feet wide while bidirectional cycle tracks are 8-12 feet wide

Striped Shoulder

Roadways without curb and gutter may offer convenient connections to nearby communities, particularly for recreational cyclists. However, higher posted speeds and narrow lanes typically deter inexperienced riders. Some of these roads may eventually be reconstructed to include bike lanes, but if the road is not expected to be widened in the future, adding or improving striped shoulders may be a simpler bike accommodation.

General considerations:

- Striped shoulders should be provided on both sides of the roadway
- Striped shoulders are not considered travel lanes but can be occupied by disabled vehicles
- A striped shoulder extends the life of travel lanes
- Absent other facilities, striped shoulders will share with pedestrians

Signed Bike Route & Shared Lane Marking

Shared lane markings can help bicyclists position themselves appropriately in travel lanes and provide wayfinding. In addition, the signage and markings provide additional awareness to motorists of the likely presence of bicyclists and that they must share the road.

General considerations:

- “Share the Road” signs do not indicate a bike route to motorists
- Shared lane markings are best used on routes with constraints
- Shared lane markings should not be used on roads with speed limits above 35 mph

Neighborhood (Bicycle Boulevard)

Neighborways are low-volume streets that are optimized for bicycle travel through pavement markings, signage, traffic calming, and intersection crossing treatments. Neighborways are shared facilities that are comfortable to riders of all abilities.

General considerations:

- Neighborways are typically on routes that serve major destinations and high-travel corridors (often paralleling an arterial roadway)
- These facilities typically replace currently signed bicycle routes
- Residential streets with low-vehicle volumes should be considered for neighborways

Climbing Lane

Climbing lanes are a type of hybrid bicycle facility that include a five-foot bicycle lane on one side of the roadway and a shared lane marking on the other side. The bicycle lane allows slower moving, uphill bicyclists to have motor vehicles safely and more easily pass by. The shared lane marking on the other side works for the faster-moving, downhill bicyclists who are typically moving at comparable vehicular speeds.

General considerations:

- Climbing lanes are particularly useful in areas that have topography issues
- These facilities have markings that indicate the proper direction for bicyclists to travel on either side of the street

Shared Street

Shared streets are roadways where bicyclists can be served by sharing the travel lanes with motor vehicles. These streets typically have low volumes and low speeds and do not need special bicycle accommodations in order to be bicycle-friendly.

General considerations:

- Shared streets are common in Asheville where there are many low-volume local and rural roadways
- These facilities typically do not have special bicycle accommodations

Bike Share

Bike share is a transportation option where bicyclists can access bicycles at self-service stations placed in strategic locations. Ideal for short distance trips, bike sharing allows for increased connectivity for people trying to reach home, work or recreational destinations.

General considerations:

- Bike share programs are typically most successful in areas with higher densities (e.g., downtowns, tourist attractions, activity nodes)
- Bike share programs are particularly useful in enhancing transit services, providing links to existing routes

- Starting a bike share program has a high start-up cost and ongoing operations costs that need to be considered

Recommendations

The Bicycle Framework Plan builds on the adopted 2008 Comprehensive Bicycle Plan and additional analysis conducted as part of AIM. AIM leverages existing recommendations and includes enhanced bicycle facility types for streets that are ready to be reimagined as multimodal places. The final bicycle network recommendations include a myriad of facility types. Greenway facilities are illustrated underneath the bicycle network to reinforce the importance of connectivity and access among active transportation modes.

- Separated Bike Lanes
- Buffered Bike Lanes
- Bike Lanes
- Climbing Lanes
- Neighborways
- Shared Streets
- Shared Lane Markings
- Striped Shoulder
- Greenways (Proposed)
- Greenways (Existing)

Primary Routes

During the planning process, it became clear that interest in biking the City's streets was tempered by safety concerns. Safety was a concern for bicyclists of all abilities, so the plan outlines strategic improvements for a broad range of users. In taking a closer look at Asheville's streets, it was clear that many of them were either over-built with great potential of being reimagined into multimodal streets, or were so auto-centric that major actions would have to be taken in order to make the streets comfortable for the average bicyclist.

It became necessary for the AIM Bicycle Framework Plan to identify key routes in Asheville that not only had prime characteristics for multimodal redevelopment but could also strategically link the existing and proposed trail system while providing north-south, east-west travel through the greater downtown area. The routes identified for the Bicycle Framework Plan connect major destinations throughout the Asheville area including parks, schools, and other locales across the French Broad River.

Priority routes were identified for streets that had one or more of the following characteristics:

- Serve the larger downtown area
- Connect activity centers across the City or run through a major activity center
- Have design features that could be easily transformed into a bicycle facility

Primary Routes Map

A	Broadway	Separated Bike Lanes (Cycle Track)
B	Chestnut Street	Neighborway (Bicycle Boulevard)
C	McDowell Street	Separated Bike Lanes (Cycle Track)
D	Haywood Road	Bike Lanes, Climbing Lane, Shared Lane Markings
E	Clingman Avenue	Climbing Lane

F	Patton Avenue	Bike Lanes
G	Lexington Avenue	Bike Lanes, Shared Streets
H	Victoria Road	Climbing Lane
I	Amboy Road	Bike Lanes
J	Coxe Avenue	Buffered Bike Lanes

Secondary Routes

Similar to a roadway network, there exists a secondary network of bicycle facilities that serve as a support system for primary routes. These secondary routes are also vital in their coverage of available network. Secondary routes were identified for streets that had one or more of the following characteristics:

- Serve bicyclists despite the lack of bike facilities
- Does not typically serve as a major corridor for automobiles due to the lack of convenience

A	Merrimon Avenue	Bike Lanes
B	Charlotte Street	Shared Lane Markings
C	Evelyn Place	Neighborway (Bicycle Boulevard)
D	Murdock Avenue	Neighborway (Bicycle Boulevard)
E	Madison Avenue	Neighborway (Bicycle Boulevard)
F	Central Avenue	Neighborway (Bicycle Boulevard)
G	Pack Square	Shared Lane Marking
H	Biltmore Avenue	Bike Lanes
I	Riverview Drive	Neighborway (Bicycle Boulevard)
J	Meadow Road	Climbing Lane, Bike Lanes (Future)
K	Victoria Road	Neighborway
L	State Street	Neighborway (Bicycle Boulevard)
M	Ridgelawn Road	Neighborway (Bicycle Boulevard)
N	Long Shoals Road	Separated Bike Lanes (Cycle Track)

Greenways Framework Plan

Introduction

Greenway planning incorporates transportation, recreation, and health elements. Depending on the community, greenways are represented by a variety of forms and uses. In recent years, greenways have not been utilized solely for recreational benefits. Often, a well-connected greenway system can be used as the “parkways” of active transportation, offering pedestrians and bicyclists the option of using the facilities as commuter corridors.

Asheville’s planned greenway system is a part of a network of greenways envisioned throughout Buncombe County to connect municipalities and provide non-motorized transportation as well as recreational opportunities for citizens and visitors of all ages and capabilities.

Asheville’s greenway corridors are the heart of the regional greenway vision.

Greenways provide myriad benefits to the community: alternative transportation, health promotion, economic development, recreational opportunities, land and habitat conservation and improved air and water quality.

From a multi-modal perspective, greenways are designed as corridors. The City of Asheville has 21 corridors in the Greenway Master Plan. These corridors will be designed to provide off-road trails and access to parks and natural features when feasible. In heavily constrained corridors, greenway connections will be provided through bicycle and pedestrian facilities.

Background

Asheville has been planning greenways for over 30 years. Originally, greenways in Asheville were planned in and along park areas along the French Broad River and near UNC-Asheville. With the rising interest in non-vehicular travel, Asheville's intentions of how greenways serve the community shifted. In 2013, the City of Asheville transitioned its greenways program to the Transportation Department to create a more complete multimodal transportation vision. The new greenways vision is now a connected network of trails that provide connections to major destinations, including schools, shopping areas, parks, and downtown.

Traditionally, greenways are considered a separate but related element in a transportation network. That is why it is not common to see greenways recognized in multimodal plans. The primary goal of this Framework Plan is to strike the tone of how greenways fi t into the integrated multimodal system. AIM treats greenways as a new 'mode' in the mobility plan.

The Bigger Picture

Asheville currently has 4.55 miles of existing greenways. All of these greenways are off -road trails in parks or side paths on mostly City Connectors (see Chapter 4). Greenways that are currently planned for implementation represent a combination of on-road and off -road facilities. By 2020, Asheville is planning to have 6.88 miles of greenways. These interconnected greenways will represent the River to Ridge Greenway system.

The recommendations that are in the AIM Greenways Framework Plan are not new ideas. The recommendations include policy recommendations as well as opportunities to collaborate with both private and public sector entities to further progress Asheville's greenway system.

Greenway Facility Toolkit

<u>Greenway</u>

Greenways are trails that are found in both urban and rural settings that are typically set aside for recreational use or environmental protection. These facilities are comfortable for both bicyclists and pedestrians to travel on.

General considerations:

- Greenways should provide a high level of comfort for both bicyclists and pedestrians
- Greenways can be used for commuting purposes of non-motorists if alignments are strategically placed in a community
- Greenways can be paved or be natural surface trails

Sidepath

Sidepaths are type of shared use facility that is physically separated from motorized vehicular traffic, either by open space or a barrier. They typically follow roadway corridors.

General considerations:

- On-street facilities are preferred but sidepaths can be considered along roadways with high speeds and volumes.
- Sidepaths should not be built on roadways with frequent street or driveway crossings.
- Sidepaths can take various forms including a wide sidewalk

Recommendations

General Recommendations

- Increase access to greenways from residential neighborhoods
- Provide general access to nature and recreational opportunities where feasible
- Develop Natural Surface Trails
- Develop flexible standards and guidelines for greenway design and maintenance
- Collaborate with Buncombe County, NCDOT, and other local municipalities on increasing greenway infrastructure and general access on or near major corridors
- Develop private and non-profit partnerships to open up funding opportunities for creating more greenways

Priority Greenway Investments	**Notes**
Reed Creek Greenway (Final Segment) *Broadway to Magnolia (Trailhead of Clingman Forest)*	Potential for commuter trail from North Asheville to UNC-A
Swannanoa River (Phase I) *Swannanoa River Road to South Tunnel Road (Azalea Park)*	"East Asheville Greenway" Feasibility Study to be conducted
Swannanoa River (Phase II) *Thompson Street/Biltmore Avenue to Thompson Street/South Tunnel Road*	NCDOT will be conducting studies for potential road improvements along Swannanoa River Road.
Swannanoa River (Phase III) *Amboy Road to Biltmore Avenue*	See note for Swannanoa River (Phase II)
Rhododendron Corridor (Natural Surface Trail) *Armory on Selborne Lane to Sand Hill Road*	Potential Neighborhood Trail
Beaucatcher Mountain Greenway *Clingman Forest Greenway* *French Broad River Greenway (Multiple Phases)* *Town Branch Greenway* *Greenway Connectors*	

Chapter 4 Mobility Strategy

INTRODUCTION

COMPLETE STREETS POLICY

STREET TYPE

COMMUNITY TYPE

BLENDED TYPOLOGY

Mobility Strategy

Introduction

The AIM strategy aligns the function of the streets, the design of the character of the areas the streets serve, as well as existing and future area plans to successfully integrate mobility and placemaking. By creating a cohesive strategy that incorporates a palette of tools tailor-made for Asheville, mobility can be prioritized on streets that are in areas that are either ready to or will soon be ready to receive a multimodal presence. The elements of this section represent the rest of the tools that make up the AIM mobility strategy.

- Framework Plans – a method for considering individual systems-level plans for pedestrian, bicycle, and transit
- Street Type – a new set of street type categories
- Community Type – a consistent method of considering community context
- Blended Typology – a method for dealing with constrained physical settings (e.g., insufficient right-of-way, widening)

Complete Streets Policy

The City of Asheville continues to take steps towards a multimodal Asheville. The City passed a Complete Streets Policy in 2012. The policy states:

"Complete Streets principles will be applied on all new City projects, privately funded development, and incrementally on existing streets through a series of small improvements and activities over time. All sources of transportation funding, public and private, should be drawn upon to implement Complete Streets within the City of Asheville. The City of Asheville believes that maximum financial flexibility is important to implement Complete Streets principles.

Complete Streets principles will be applied in all street construction, retrofit, and reconstruction projects except in unusual or extraordinary circumstances contained below. Even under the conditions outlined below, a project's impact will be evaluated for the effect it would have on the usefulness of the street for all users, now and in the future, and the ability to implement other adopted plans in the future.

1. Pedestrians and bicyclists are prohibited by law from using the facility. In this case, alternative facilities and accommodations shall be provided within the same transportation corridor, and the ability to reasonably and conveniently cross the facility will be part of the facility design and construction.
2. Where existing right-of-way does not allow for the accommodation of all users. In this case alternatives shall be explored such as obtaining additional right-of-way, use of revised travel lane configurations, paved shoulders, signage, traffic calming, education or enforcement to accommodate pedestrians, cyclists, transit vehicles and riders and persons with disabilities.
3. The cost of establishing walkways or bikeways or other accommodations would be disproportionate to the need, particularly if alternative facilities are available within a reasonable walking and/or bicycling distance.
4. Where application of Complete Streets principles is unnecessary or inappropriate because it would be contrary to public safety and increase risk of injury or death.
5. The construction is not practically feasible or cost effective because of unreasonable adverse impacts on the environment or on neighboring land uses, including impact from right-of-way acquisition.

6. Ordinary maintenance activities designed to keep street and other transportation assets in serviceable condition or when interim measures are implemented on temporary detour or haul routes, however, all temporary detours shall comply with temporary traffic control requirements of the Manual of Uniform Traffic Control Devices.
7. Ordinary public works or utility maintenance activities, including, but not limited to: water, sewer and storm sewer main repairs; installation of new or removal of existing water or sewer service lines, installation or repair of fi re hydrants, installation or repair of private utility fixtures.“

Street Type

Introduction

Asheville’s complete streets policies are valuable expressions of the commitments of a community as they relate to the transportation system as a whole. Its policies, however, are accompanied by a host of exceptions that suggest that in the presence of constrained rights-of-way, funding limitations, or other extenuating circumstances, Complete Streets requirements may be exempt. In response to these challenges, a synchronized strategy is required. Through the identification of policy tools, incremental decisions and improvements can be made in ways that help navigate and contribute to the desired mobility outcomes and creation of quality places.

The Traditional Classification

A functional classification system categorizes roadways based on characteristics such as speeds, vehicular capacities, and relationships with adjacent land utilizations. Federal funding programs use traditional roadway functional classification to help determine eligibility. For this reason among others, functional classification will always be necessary and should be consistently updated. Despite its usefulness, this conventional classification falls short of offering enhanced opportunities for improved integration between transportation and community initiatives. This is because functional classification narrowly emphasizes the movement of vehicles.

Street Type

AIM creates a classification of roadways that balances and blends the relationship between transportation, local land use context, and urban form. AIM expresses this in a street type that relates the destinations served by the road to how people travel. The result was the identification of the street types that offer improved consistency for how future roadway improvements are designed. The street type also offers a framework to balance competing interests between design features, travel modes, and available right-of-way. Asheville’s street classification is made up of five classes:

- Freeways and Expressways
- Workhorse Streets
- City Connectors
- Neighborhood Collectors
- Local Streets

Freeways and Expressways

- Controlled access

- Multi-lane roadways for higher speeds and longer distance travel
- Carry traffic through the region

Considerations	
Functional Classification	Freeway & Interstate
Local Examples	I-40, I-26, I-240
Number of Lanes	4+ travel lanes
Other Considerations	Partial or full access control, exclusive to vehicular travel

Workhorse Streets

- Multi-lane thoroughfares
- Sometimes include a landscaped center median
- Require safe separation between bicyclists/pedestrians and travelway
- Accommodate traffic in and out of the city with connections to the transportation network

Considerations	
Functional Classification	Principal/Minor Arterial
Local Examples	New Leicester Hwy, Tunnel Rd Hendersonville Rd
Number of Lanes	4+ travel lanes
Other Considerations	Relatively high traffic volume

City Connectors

- Offer balance between providing local land access and moving people and goods
- Have lower travel speeds and traffic volumes than Workhorse Streets
- Tend to be limited in width by the built environment that they serve

Considerations	
Functional Classification	Principal/Minor Arterial
Local Examples	Merrimon Ave, Haywood Rd Sweeten Creek Rd, Biltmore Ave
Number of Lanes	2-4 travel lanes
Other Considerations	Logical cap to number of travel lanes provided

Neighborhood Connectors

- Connect neighborhood traffic to points within and between existing neighborhoods
- Balance mobility with access by supporting local development at the neighborhood level
- Primarily a conduit for local traffic during off-peak periods
- Often include slower travel speeds and on-street parking

Considerations	
Functional Classification	Collector

Local Examples	Kimberly Ave, Fairview Rd Overlook Rd, State St
Number of Lanes	2-3 travel lanes
Other Considerations	Logical cap to number of travel lanes provided

Locals

- Local, slow-moving streets
- Can be urban (including alleys), suburban (including subdivided neighborhood streets), or even rural
- Exclusive purpose is to provide block-level, local access and safe connectivity to higher order streets

Considerations	
Functional Classification	Collector
Local Examples	Riverview Rd, Shiloh Rd Cumberland Ave
Number of Lanes	2-3 travel lanes
Other Considerations	Logical cap to number of travel lanes provided

Community Type

Introduction

Roadway facilities should serve a diversity of users in accordance with complete streets principles. However, most roadways are designed and improved to respond to functional classification and average daily traffic projections. While vehicular movement is a component of mobility, it should not be the only consideration when corridor improvements are proposed.

Community Type

Different sets of places require a different set of design priorities in order to be successful at creating a “place” while achieving desired mobility objectives (e.g., observed travel speeds, walkability, and transit readiness). The treatment for each of these considerations changes depending on locational context. A community type assessment was performed for Asheville during the planning process. This resulted in the creation of a community type map that is organized character areas. The community type is expected to be updated on an annual basis responding to future planning efforts (e.g., comprehensive plan, small area plans).

- Residential
- Traditional Neighborhood
- Downtown
- Suburban Centers and Corridors
- Regional Centers and Corridors
- Manufacturing, Logistics, and Aerospace
- Craft Industry
- Campus
- Parks and Open Space

Community Type

The description of Community Types include development characteristics and typical transportation qualities. A black icon indicates primary land uses or travel modes. A primary distinction illustrates the most common land use or transportation mode type. Land uses or modes designated as secondary are typically an accessory mode or land use that is an ancillary or supplementary consideration.

Residential

Residential areas are predominantly single-family neighborhoods with detached homes on individual lots. Unlike Traditional Neighborhoods, these areas lack supporting neighborhood commercial uses. Limited quantities of multi-family development also are found in these areas. The transportation is often organized around larger blocks and curvilinear streets with low degrees of connectivity.

Land Use	
Primary	Single-Family
Secondary	Multi-Family Civic & Institutional Parks & Open Space
Transportation	
Primary	Automobile
Secondary	Bicycle Pedestrian Transit Greenway

Traditional Neighborhoods

Traditional Neighborhoods include a variety of housing types, residential densities, goods, and services supported by a connected transportation system. The design and scale encourages active living and affords the ability for residents to live, work, shop, and play within a walkable community. Traditional Neighborhoods include small-scale commercial and retail areas that provide goods and service to surrounding residences.

Land Use	
Primary	Single-Family Multi-Family Restaurant Retail Office
Secondary	Civic & Institutional Parks & Open Space
Transportation	
Primary	Bicycle Pedestrian Transit
Secondary	Automobile Greenway

Downtown

The Downtown area represents the civic, entertainment, and cultural heart of western North Carolina. Small blocks with streets designed to encourage pedestrian activity are fronted by multi-story buildings. Residential units above storefronts are prevalent. Ceremonial streets and plazas anchor key nodes and serve as gathering places and accommodate special events. The compact, walkable environment and mix of residential and non-residential uses support multiple modes of transportation and serves as the transit hub of the community.

Land Use	
Primary	Multi-Family Restaurant Retail Civic & Institutional
Secondary	N/A
Transportation	
Primary	Bicycle Pedestrian Transit
Secondary	Automobile Greenway

Suburban Centers and Corridors

Suburban Centers and Corridors serve the daily needs of nearby residents and tend to locate along roads with higher traffic volumes and near prominent intersections. These areas typically include multi-tenant strip centers and big box stores. Smaller professional offices not part of the city's large medical campuses are included. Buildings typically are set back from the road behind large surface parking lots with limited connectivity between adjacent businesses.

Land Use	
Primary	Retail Restaurant Hotel Office
Secondary	Civic & Institutional Parks & Open Space
Transportation	
Primary	Automobile
Secondary	Transit Bicycle Pedestrian Freight

Regional Centers and Corridors

Regional Centers and Corridors attract people beyond Asheville for shopping, entertainment, and employment. These areas typically are large-scale, master planned developments built in phases with a mix of residential, non-residential, and civic uses. Regional Centers and Corridors are located near major highways to ensure ease of access for longer trips. These areas include major shopping centers, tourist attractions, office parks, and medical campuses.

Land Use	
Primary	Retail Medical Office Multi-Family
Secondary	Civic & Institutional Parks & Open Space
Transportation	
Primary	Automobile Transit
Secondary	Bicycle Pedestrian Freight

Manufacturing, Logistics, and Aerospace

Manufacturing, Logistics, and Aerospace areas 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 (highway or rail) and generally are buffered from surrounding development. Clusters of supportive uses or serve heavy industries are generally located nearby. The Asheville Regional Airport and adjacent supporting facilities are included.

Land Use	
Primary	Industrial Airport
Secondary	Retail Parks & Open Space
Transportation	
Primary	Automobile Freight
Secondary	Rail Transit

Craft Industry

Craft Industry areas combine traditional manufacturing and production facilities with destinations that attract visitors. These areas include large-scale craft breweries with on-site production, taprooms, restaurants, gift shops, and scheduled tours. Art districts with groups of public and private multi-tenant studios are included. These facilities offer classes and sponsor events that

attract visitors during evenings and weekends. Craft Industry areas require a balance between manufacturing (production and shipping) and tourism.

Land Use	
Primary	Industrial Restaurant Retail
Secondary	Multi-Family
Transportation	
Primary	Bicycle Greenway Pedestrian
Secondary	Automobile Transit

Campus

Campus areas are developments with multiple buildings. They include higher education institutions and corporate campuses. Academic buildings, residence halls, athletic facilities, and other infrastructure support higher education institutions. Buildings typically orient around a highly-walkable green with a network of streets and pedestrian pathways. Parking is provided in structured parking or large surface lots. Dedicated open space allows for public gathering and recreation. Connections to off campus complementary uses are necessary.

Land Use	
Primary	Varies
Secondary	Varies
Transportation	
Primary	Bicycle Greenway Pedestrian Transit
Secondary	Automobile

Parks and Open Space

Outdoor community space can be in active or passive forms. Generally, these areas include community and regional parks as well as preservation and open space areas. Ensuring that parks are well-connected to the populations they serve is essential. Anticipating the need for additional capacity and providing it in the most efficient and logical areas is the role of a parks and recreation master plan.

Land Use	
Primary	Parks & Open Space
Secondary	N/A
Transportation	
Primary	Varies
Secondary	Varies

The Blended Typology

Introduction

Careful examination of the community types suggest that there may be similarities between the roadway design needs of these community types. The building blocks of a development vision is a set of community types that represent different form and patterns that currently exist and/or are envisioned for Asheville.

These building blocks, considered together, helped to create a blended typology matrix. This matrix can be developed to inform design decisions when considering new or reconstructed roadway facilities.

This matrix takes the complete streets policies and puts it in context during the design process. The matrix is intended to help technical experts from different backgrounds and decision makers understand the priorities that are needed to make a facility successful at serving all users and respect the context through which it passes.

This tool is essentially an enhanced expression of the street type. In effect, it provides direction to decision makers based on land use considerations and transportation needs.

The Fundamentals

The blended typology represents the union of community context and street types with a consideration for complete streets.

Right-of-way facilities serve the needs of multiple users. Complete streets guidance must be applied to the pedestrian and travel zones. The recognition that street design should be responsive to local context is the cornerstone of context sensitive solutions and the complete streets movement.

The following describes three elements of street design which serve as the foundation for the AIM street design priority matrix. The elements of street design are: the pedestrian realm; the bicycle realm; the vehicle realm; the curbside realm; and the greenway realm.

Pedestrian Realm

The pedestrian realm includes the portion of the street that accommodates non-vehicular activities such as walking and social gatherings. The pedestrian zone typically includes a frontage area (area between building face and walkway), a primary pedestrian walkway (sidewalk), and a furniture/landscape area. Pedestrian zones should:

- Maximize safety for pedestrians
- Provide a comfortable walking environment
- Promote active and inviting building frontages
- Buffer on-street parking
- Encourage a cohesive and well-defined walking environment
- Provide for universal access and continuity

Bicycle Realm

The bicycle realm includes the portion of the street that includes bicycle facilities. Bicycle facilities serve both recreational and utilitarian purposes. High-quality bikeways provide

exclusive space for bicyclists (e.g., traditional, buffered, or separated bike lanes). Where physical constraints exist, the bicycle realm may present itself as general purpose travel lanes with shared lane markings.

- Consider a wide range of skill levels of bicyclists
- Ensure inclusion of safety features reinforced by adjacent land uses
- Encourage a cohesive, bicycle-friendly environment
- Provide for universal access and usability (e.g. commuters, recreational users, etc.)

Vehicle Realm

The vehicle realm is the portion of the street that accommodates vehicular travel. This does not include elements such as parking and green infrastructure.

The vehicle realm includes a primary automobile travelway (travel lanes) and a median. Medians serve a variety of functions including maintaining physical separation between directional traffic and providing pedestrian refuges for those crossing the street. In addition to accommodating automobiles, the vehicle realm can, for the most part, also be used by bicyclists (except for controlled access highways and transit-related restrictions). Vehicle realms should:

- Accommodate vehicles of all types (automobiles, buses, bicycles)
- Prioritize safety for all users
- Encourage lower roadway speeds when adjacent to pedestrian and bicycle realms

Curbside Realm

The curbside realm includes the portion of the street that includes curb and gutter as well as on-street parking. Curbside realms should:

- Include safety features reinforced by adjacent land uses
- Buffer on-street parking where possible
- Consider vehicular, bicycle, and pedestrian realms in its design

Greenway Realm

The greenway realm is the portion of the street that accommodates both pedestrian and bicycle travel. Usually, this presents itself as an off-road facility as traditional greenways. In other cases, the greenway realm may present itself as a side path which can be represented on facilities such as a wide sidewalk. Greenway realms should:

- Accommodate both bicyclists and pedestrians
- Prioritize safety for all users
- Consider all realms in its design
- Provide for universal access and continuity

Blended Typology

The blended typology represents dimensions (in feet) for each realm: pedestrian, bicycle, curbside, and vehicle. The Greenway Realm is not shown in the Blended Typology since special consideration must be placed on where that realm is included.

The blended typology is organized by community type on the following pages, emphasizing the importance of context when designing streets. The tables are also categorized by target and

constrained settings. Target numbers represent the guideline for the realm element should be in an ideal situation. The constrained numbers represent the bare minimum that should be provided in a setting in areas where constraints such as topography or lack of space exist.

Street Type	**Target**	**Constrained**
Pedestrian Realm	#	#
Frontage	#	#
Sidewalk	#	#
Furniture/Landscape	#	#
Bicycle Realm	Facility Type	
Curbside Realm	#	#
Curb Zone	#	#
Parking Area	#	#
Vehicle Realm	#	#
Travel Lane	#	#
Median	#	#

Residential

	Target	**Constrained**
Workhorse Streets		
Pedestrian Realm	16	9
Frontage	2	1
Sidewalk	6	5
Furniture/Landscape	8	3
Bicycle Realm	Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	11	10
Median	16	6
City Connectors		
Pedestrian Realm	16	9
Frontage	2	1
Sidewalk	6	5
Furniture/Landscape	8	3
Bicycle Realm	Traditional or Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	11	10
Median	16	6
Neighborhood Connectors		
Pedestrian Realm	16	9
Frontage	3	1
Sidewalk	5	5

	Target	Constrained
Furniture/Landscape	8	3
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	36	30
Travel Lane	10	9
Median	16	6
Locals		
Pedestrian Realm	11	9
Frontage	1	1
Sidewalk	5	5
Furniture/Landscape	5	3
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	1	0
Parking Area	Part of Travelway	
Vehicle Realm	28	24
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Traditional Neighborhood

	Target	Constrained
Workhorse Streets		
Pedestrian Realm	21	14
Frontage	1	1
Sidewalk	12	10
Furniture/Landscape	8	3
Bicycle Realm	Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	11	10
Median	16	6
City Connectors		
Pedestrian Realm	22	14
Frontage	2	1
Sidewalk	12	10
Furniture/Landscape	8	3
Bicycle Realm	Traditional or Separated	
Curbside Realm	9	7

	Target	Constrained
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	11	10
Median	12	6
Neighborhood Connectors		
Pedestrian Realm	21	14
Frontage	1	1
Sidewalk	12	10
Furniture/Landscape	8	3
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	36	30
Travel Lane	10	9
Median	#	#
Locals		
Pedestrian Realm	11	9
Frontage	1	1
Sidewalk	5	5
Furniture/Landscape	5	3
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	1	0
Parking Area	Part of Travelway	
Vehicle Realm	28	24
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Downtown

	Target	Constrained
Workhorse Streets		
Pedestrian Realm	23	16
Frontage	4	2
Sidewalk	12	10
Furniture/Landscape	7	4
Bicycle Realm	Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#

	Target	Constrained
Travel Lane	11	10
Median	12	6
City Connectors		
Pedestrian Realm	23	14
Frontage	4	1
Sidewalk	12	10
Furniture/Landscape	7	3
Bicycle Realm	Traditional or Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	11	10
Median	#	#
Neighborhood Connectors		
Pedestrian Realm	20	12
Frontage	4	2
Sidewalk	12	10
Furniture/Landscape	6	4
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	48	32
Travel Lane	10	9
Median	#	#
Locals		
Pedestrian Realm	11	9
Frontage	1	1
Sidewalk	5	5
Furniture/Landscape	5	3
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	1	0
Parking Area	Part of Travelway	
Vehicle Realm	24	22
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Suburban Centers and Corridors

	Target	Constrained
Workhorse Streets		
Pedestrian Realm	16	9
Frontage	2	1
Sidewalk	6	5
Furniture/Landscape	8	3
Bicycle Realm	Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	12	10
Median	16	6
City Connectors		
Pedestrian Realm	16	9
Frontage	2	1
Sidewalk	6	5
Furniture/Landscape	8	3
Bicycle Realm	Traditional or Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	12	10
Median	16	6
Neighborhood Connectors		
Pedestrian Realm	17	12
Frontage	3	2
Sidewalk	6	6
Furniture/Landscape	8	4
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	46	34
Travel Lane	11	10
Median	#	#
Locals		
Pedestrian Realm	12	9
Frontage	1	1
Sidewalk	6	5
Furniture/Landscape	5	3
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	#	#
Parking Area	Part of Travelway	

	Target	Constrained
Vehicle Realm	36	28
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Regional Centers and Corridors

	Target	Constrained
Workhorse Streets		
Pedestrian Realm	16	9
Frontage	2	1
Sidewalk	6	5
Furniture/Landscape	8	3
Bicycle Realm	Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	12	10
Median	16	6
City Connectors		
Pedestrian Realm	16	9
Frontage	2	1
Sidewalk	6	5
Furniture/Landscape	8	3
Bicycle Realm	Traditional or Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	12	10
Median	16	6
Neighborhood Connectors		
Pedestrian Realm	17	12
Frontage	3	2
Sidewalk	6	6
Furniture/Landscape	8	4
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	46	34
Travel Lane	11	10
Median	#	#

	Target	Constrained
Locals		
Pedestrian Realm	12	9
Frontage	1	1
Sidewalk	6	5
Furniture/Landscape	5	3
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	#	#
Parking Area	Part of Travelway	
Vehicle Realm	36	28
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Manufacturing, Aerospace, and Logistics

	Target	Constrained
Workhorse Streets		
Pedestrian Realm	17	9
Frontage	1	0
Sidewalk	8	6
Furniture/Landscape	8	3
Bicycle Realm	Separated	
Curbside Realm	10	8
Curb Zone	2	1
Parking Area	8	7
Vehicle Realm	#	#
Travel Lane	14	10
Median	16	6
City Connectors		
Pedestrian Realm	16	9
Frontage	2	0
Sidewalk	6	6
Furniture/Landscape	8	3
Bicycle Realm	Traditional or Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	12	10
Median	16	6
Neighborhood Connectors		
Pedestrian Realm	17	12
Frontage	1	2

	Target	Constrained
Sidewalk	8	6
Furniture/Landscape	8	4
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	10	8
Curb Zone	2	1
Parking Area	8	7
Vehicle Realm	48	40
Travel Lane*	14	12
Median	#	#
Locals		
Pedestrian Realm	14	9
Frontage	1	0
Sidewalk	8	6
Furniture/Landscape	5	3
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	#	#
Parking Area	Part of Travelway	
Vehicle Realm	40	36
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Craft Industry

	Target	Constrained
Workhorse Streets		
Pedestrian Realm	20	12
Frontage	4	2
Sidewalk	8	6
Furniture/Landscape	8	4
Bicycle Realm	Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	11	10
Median	12	6
City Connectors		
Pedestrian Realm	20	12
Frontage	4	2
Sidewalk	8	6
Furniture/Landscape	8	4
Bicycle Realm	Traditional or Separated	

	Target	Constrained
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	10	9
Median	#	#
Neighborhood Connectors		
Pedestrian Realm	18	12
Frontage	4	2
Sidewalk	6	6
Furniture/Landscape	8	4
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	9	7
Curb Zone	2	1
Parking Area	7	7
Vehicle Realm	48	32
Travel Lane	10	9
Median	#	#
Locals		
Pedestrian Realm	11	9
Frontage	1	1
Sidewalk	5	5
Furniture/Landscape	5	3
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	1	0
Parking Area	Part of Travelway	
Vehicle Realm	24	22
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Campus

	Target	Constrained
Workhorse Streets		
Pedestrian Realm	18	11
Frontage	2	2
Sidewalk	8	5
Furniture/Landscape	8	4
Bicycle Realm	Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7

	Target	Constrained
Vehicle Realm	#	#
Travel Lane	10	9
Median	12	6
City Connectors		
Pedestrian Realm	22	12
Frontage	4	2
Sidewalk	10	6
Furniture/Landscape	8	4
Bicycle Realm	Traditional or Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	10	9
Median	#	#
Neighborhood Connectors		
Pedestrian Realm	18	12
Frontage	4	2
Sidewalk	6	6
Furniture/Landscape	8	4
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	10	9
Median	#	#
Locals		
Pedestrian Realm	11	9
Frontage	1	1
Sidewalk	5	5
Furniture/Landscape	5	3
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	1	0
Parking Area	Part of Travelway	
Vehicle Realm	24	22
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Parks and Open Space

	Target	Constrained
Workhorse Streets		
Pedestrian Realm	10	6
Frontage	0	0
Sidewalk	10	6
Furniture/Landscape	#	#
Bicycle Realm	Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	10	10
Median	10	6
City Connectors		
Pedestrian Realm	6	6
Frontage	0	0
Sidewalk	6	6
Furniture/Landscape	#	#
Bicycle Realm	Traditional or Separated	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	10	9
Median	#	#
Neighborhood Connectors		
Pedestrian Realm	6	6
Frontage	0	0
Sidewalk	6	6
Furniture/Landscape	#	#
Bicycle Realm	Traditional or Shared w/ Vehicles	
Curbside Realm	9	7
Curb Zone	2	0
Parking Area	7	7
Vehicle Realm	#	#
Travel Lane	10	9
Median	#	#
Locals		
Pedestrian Realm	6	6
Frontage	0	0
Sidewalk	6	6
Furniture/Landscape	#	#
Bicycle Realm	Shared w/ Vehicles	
Curbside Realm	#	#
Curb Zone	1	0
Parking Area	Part of Travelway	
Vehicle Realm	#	#

	Target	Constrained
Travel Lane	#	#
Median	#	#

- Dimensions are in feet.
- '#' denotes that a target/constrained number does not exist for that particular realm element.
- Traditional bicycle facilities are not physically separated from the vehicle realm (e.g., bike lane striped next to vehicle lane).

Chapter 5 Mobility Plan

INTRODUCTION

A SUCCESSFUL STRATEGY

THE AIM INITIATIVE

AIM THOUGHT PROCESS

TRANSFORMATIVE PROJECTS

STRATEGIC CONSIDERATIONS

ACTION PLAN

PATH TO SUCCESS

Mobility Plan

Introduction

AIM is more than a plan; it is a strategy that defines how we will consider transportation design, increase the effectiveness of the City's Complete Streets policy, evaluate the influence of community context, and promote enhanced mobility in a coordinated and connected way. As Asheville grows, the community will have to contemplate choices about how to accommodate new residents and new jobs while maintaining the existing character that locals and visitors alike have come to love.

The City can grow outward (suburban expansion), inward (infilling underutilized land in the core), and upward (through increased densities along select corridors and within the vicinity of downtown). It's unlikely that a single pattern will accommodate all of the forecasted growth; instead a variety of methods appears likely.

However, one thing remains clear: the primary corridors within the City will struggle to handle growth through an exclusively autocentric transportation system. Any portion of growth accommodated by active transportation (walking, biking, and taking transit) will increase the carrying capacity of our transportation system, enhance community vibrancy, improve travel safety, and offer better community efficiency.

A Successful Strategy

The creation of walkable and bike-friendly environments combined with enhanced transit service will accommodate short trips that would have otherwise been completed via personal motor vehicle. The resulting environments will contribute to increased vibrancy due to pedestrian activity, reduced demand for large parking areas, slower motor vehicular speeds, and shorter distances between popular destinations.

A successful strategy will include a healthy balance between trips made by driving, riding transit, walking, and bicycling.

Of all trips, 50% are less than 3 miles. 28% of them are less than one mile. 60% of these trips (less than 3 miles) are driven (National Household Travel Survey (2009)).

The AIM Initiative

The recommendations contained within AIM include policy changes, a new way of considering the City's street types, community context, as well as eff orts to respond to more complicated initiatives such as affordable housing and economic development. AIM has created new tools to ensure that a diversity of issues are considered simultaneously as transportation projects are proposed, as well as methods to reconcile the competition for space within existing rights-of-way.

Consensus on a comprehensive set of priority capital projects is not the exclusive intent of the plan. In fact, AIM acknowledges that there aren't sufficient resources to tackle all of the initiatives at once. For this reason, AIM places an emphasis on the City of Asheville focusing on Transformative Projects. Individually, these projects may not have communitywide influence; yet, when some or all of these projects combine they contribute to the creation of a diversified transportation system that responds to the changing needs of our community.

The list of Transformative Projects represent a coordinated strategy for the immediate future (next 15 years). Absent from this list are projects of exclusively regional significance. The AIM planning process recognized early that there are existing processes in place to address regional needs and projects. Many of these needs are addressed in the French Broad River Metropolitan Planning Organization's Metropolitan Transportation Plan (FBRMPO MTP). This plan identifies needs and expresses recommendations in a financially constrained set of projects primarily funded through a combination of federal, state, and local funding (http://www.fbrmpo.org/lrtp/). The MTP recommendations are implemented through the North Carolina Transportation Improvement Program (TIP). This fundamental understanding allows AIM to be an expression of the local mobility strategy for Asheville.

Transformative Projects

The list of Transformative Projects is supported and complemented by the individual Bicycle, Greenways, Pedestrian, and Transit Framework Plans. The City will update these Framework Plans periodically and continue to implement projects in ways that are consistent with the strategies outlined within AIM.

City staff developed five criteria by which each project could be considered. Each criterion is based on a critical question about the project's benefit to the community.

- Economic Vitality – Does the project support and catalyze the community's economy?
- Social Equity – Does the project respect and benefit one or more underserved communities?
- Community Vibrancy – Does the project improve the community's vibrancy through enhanced mobility?
- Travel Mode Shift – Does the project encourage more travelers in the community to walk, bike, or take transit instead of driving?
- Public Sentiment – Has the public historically shown need for the project?

Each transformative project included a consideration for each of the criterion, which yielded an organized list of projects complemented with a guide that lays out potential benefits of the project as directed by the above criteria.

AIM Thought Process

The AIM Mobility tools that have been presented thus far in the plan are a part of a greater thought process in which the City of Asheville will be able to use in order to prioritize investments. This same thought process was used to come up with recommendations for the Transformative Projects presented later in this chapter.

The AIM thought process consists of three distinct sections which asks the "thinker" going through the process to ask specific questions and consider how each of the elements play a role in the overall thought process.

The first section is essentially an existing conditions assessment that asks questions such as: "Is the street identified in an established plan?" or "What is the functional classification of the street?". This section should result in the thinker coming up with a list of corridors that need attention.

The second section considers project-specific criteria, each of which are based on a critical question about the project's benefit to the community. The thinker is asked to evaluate the list of

corridors and by asking questions such as if the project supports the local economy or if it encourages travelers to use alternative modes of transportation. This section should result in a prioritization of projects.

The last section utilizes AIM mobility tools: the Framework Plans; the Street Type; and the Community Type. The process asks the thinker to consider what each corridor's function is and how its transportation-related characteristics interact with surrounding land uses. The last step of the third section asks the thinker to take the information gathered through the thought process and look at the Blended Typology table to gather the street dimensions needed to properly build a great street.

*It is important to note here that the Blended Typology is a\reference. Depending on existing constraints, environmental or physical, the recommended dimensions for the corridor may need to be adjusted.

I want to build a great street on…

<u>Enter Street Name Here</u>

1	*Existing Conditions*	Functional Classification, Traffic Volumes, Existing Congestion, Vehicular Speeds, etc.
	Aspirational Goals	Is the street identified in an established plan or study? What is the source and what is the aspirational goal?
	Complete Streets	Does the street fall under one or more of Asheville's complete streets policy exceptions?
2	*5 Criteria* *Economic Vitality* *Social Equity* *Community Vibrancy* *Travel Mode Shift* *Public Sentiment*	Does the project support and catalyze the community's economy? Does the project benefit one or more underserved community? Does the project improve community vibrancy through enhanced mobility? Does the project encourage travelers to walk, bike, or take transit? Has the public historically shown need for the project?
3	*Framework Plans*	Are there bicycle, pedestrian, greenway, and transit recommendations from the framework plans?
	Street Type	What is the street type? What does the street type say about the street's function?
	Community Type	What community types does the street encounter? What are the primary and secondary land uses and transportation modes?
	Blended Typology	What are the necessary street dimensions (target and/or constrained) to make this street great?

Beginning Connections

The corridors listed on the following pages represent high priority projects that make critical beginning connections for a larger system that can be expanded over time as funding becomes available. The corridors should not be considered the only appropriate locations for complete streets implementation. Thus, some of the systems level recommendations made in previous chapters may not be included in the following project sheets. When the beginning connections are complete, they will function as a system of more complete streets that enhance mobility

throughout the City while providing the foundation for more advanced facilities to be implemented in the future.

Balanced System

The selected corridors all received strong public support during the public engagement process and will close critical mobility gaps in the overall transportation network. While some of the selected streets carry high volumes of traffic, the selection of complete streets corridors excluded, for the most part, higher order streets such as Workhorse Streets, due to their regional significance which will require further study. Over time, these corridors should be reviewed again to discover potential opportunities.

The creation of more complete streets environments combined with enhanced transit service will accommodate short trips that would have otherwise been completed via personal motor vehicle. The right strategy will find a balance in serving people who drive, take the bus, walk, or cycle.

Bicycle Projects

Individually, bicycle facilities are not always considered transformative; however, when the entire system of Primary and Secondary Routes are implemented and combined with existing facilities, the results will be transformative. It will contribute to the creation of a future where growth in Asheville can be absorbed without a proportional increase in auto-centric demand.

The creation of walkable and bicycle-friendly environments combined with enhanced transit service will accommodate short trips that would have otherwise been completed via personal motor vehicle. The resulting environment is likely to be more vibrant due to increased non-vehicular activity, reduced demand for large parking areas, slower motor vehicular speeds, and shorter distances between popular destinations.

#	Projects	From	To	Public Sentiment	Economic Vitality	Social Equity	Community Vibrancy	Travel Mode Shift
a	Broadway*	I-240	I-26	X			X	
b	Chestnut St	Furman Ave	Pearson Ave	X		X	X	X
c	McDowell St	Southside Ave	Hendersonville Ave	X	X	X		
d	Clingman Ave	Patton Ave	Haywood Rd	X	X		X	X
e	Haywood Rd	Clingman Ave	Patton Ave	X			X	X
f	Patton Ave	Clingman Ave	Biltmore Ave	X	X	X	X	
g	Long Shoals Rd	Sweeten Creek Rd	Schenck Pkwy	X		X	X	
h	Victoria Rd	Meadow Rd	Hospital Dr	X			X	X
i	Amboy Rd	Meadow Rd	RV Park	X				
j	Coxe Ave	Patton Ave	Southside Ave	X	X		X	
k	Meadow Rd	Lyman St	Biltmore Ave	X	X		X	X

*Corridors that are also identified as Complete Streets Transformative Projects. This means that the corridor is a priority candidate for more than just bicycle facility accommodations.

Transit Projects

The list of Transit Projects represents a combination of new service, policy, and enhanced features along existing routes. The transit experience is enhanced through the implementation of bicycle, pedestrian, greenway, and complete streets by creating safe, attractive places for walking and bicycling. The creation of these types of environments improves the experience of transit riders by making the corridors they must travel to access transit stops inviting for all users.

When transit service enhancements (e.g., sidewalks, concrete pads, bench installations, and ADA accessible shelters) are combined with improvements to the walkability and bikeability of an area, transit ridership often increases. Implementing these recommendations will create locations in Asheville where reliance on automobile travel is significantly reduced or eliminated. The resulting mode shift helps by relieving congestion while offering enhanced vibrancy through the creation of walkable and bikeable urban environments.

#	Projects	From	To	Public Sentiment	Economic Vitality	Social Equity	Community Vibrancy	Travel Mode Shift
a	Premium Bus Service A North/South	Beaverdam Rd/Merrimon Ave	Biltmore Village	X	X	X	X	X
b	Premium Bus Service B East/West	Haywood Rd/Johnston Blvd	Asheville Mall	X	X	X	X	X
c	Expansion of Downtown Circulator (Phase 1, Phase 2)	See Map	See Map	X	X		X	
	New Development Transit Accommodations Policy			n/a	X		n/a	X
	Enhanced Bus Stops in Activity Centers			X	X	X	X	X

*Further analysis must be completed before implementation, including parking options for the premium service routes. Routes shown to the right are approximate and do not represent the actual roads that will be used.

'More' Complete Streets Projects

This list of complete streets projects are identified corridors where 'more' complete streets designs could have transformative impacts on the community. A 'more' complete street considers existing constraints on streets and acknowledges that not every corridor can accommodate pedestrian, bicycle, and transit elements.

The corridors represent a variety of settings and locations within the community and are places where thoughtful design will contribute to enhanced aesthetics, balanced transportation options, and improved safety and vibrancy. These projects represent the best opportunity to demonstrate the framework for planning described in AIM including the application of the street type, community type, and consideration of the mode-specific plans (bicycle, pedestrian, greenway, transit). The resulting design for each corridor will vary based on its vehicular capacity needs, right-of-way, and community context. Furthermore, when implemented, this set of complete streets ensures an improved roadway, bikeway, pedestrian, and greenway networks.

#	Projects	From	To	Public Sentiment	Economic Vitality	Social Equity	Community Vibrancy	Travel Mode Shift
a	Biltmore Ave	College St	All Souls Crescent	X	X	X		X
b	Broadway*	I-240	Riverside Dr	X			X	
c	Charlotte St	Arlington St	Edwin Pl	X	X	X	X	X
d	Coxe Ave	Patton Ave	Short Coxe Ave	X	X		X	
e	Haywood Ave	Patton Ave	Clingman Ave	X	X		X	X
f	Tunnel Rd	South Tunnel Rd	Charlotte St	X	X	X		X
g	Fairview Rd	Sweeten Creek Rd	Swannanoa River Rd	X		X		
h	Sweeten Creek Rd	Lodge St	Hendersonville Rd	X			X	
i	Lexington Ave	Patton Ave	Southside Ave	X	X	X	X	X

*Corridors that are also identified as Bicycle Transformative Projects. This means that enhanced bicycle facilities are prioritized in the design and premium facilities will be pursued.

a) Biltmore Avenue—College Street to All Souls Crescent

Purpose

This 1.7 mile* connection is needed to improve north-south connectivity between Downtown Asheville, Lee Walker Heights, and Biltmore Village.

Community Type
- Regional Centers and Corridors

Street Type
- City Connector

Vehicular Realm
- 10,000 vehicles/day (N of Charlotte Avenue)
- 20,000 vehicles/day (S of Charlotte Avenue)
- S1 and S2 ART Routes

Bicycle Realm

- 5-foot striped bike lane adjacent to on-street parallel parking (N of Charlotte Avenue)

Pedestrian Realm

- 8-foot sidewalk on both sides of street (interrupted by driveways and intersections)

Curb Realm*

- 50-foot curb to curb (N of Charlotte Avenue)
- 40-foot curb to curb (S of Charlotte Avenue)

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities

Bicycle recommendations for Biltmore Avenue include 5-foot bike lanes. On the existing 4-lane section, the roadway should undergo a road diet to a 3-lane section with a 2-way turn lane with a reallocation of space to accommodate 5-foot bike lanes.

Pedestrian recommendations for the corridor include prioritizing pedestrian improvements and inclusionary policy measures along the corridor increase connectivity and general safety. The City should prioritize accommodation of wider sidewalks where space allows. Curb cuts will need special attention to preserve the modal prioritization of the pedestrian realm.

Current transit conditions include the S1 and S2 routes along Biltmore Avenue. This corridor should remain a priority investment route, particularly if a north-south premium bus route is considered for implementation along the road.

Primary Implementation Challenges

Challenges for this corridor are mainly vehicular based: reducing the number of travel lanes and reallocating vehicular space. Another challenge includes the topography of the area north of Swannanoa River which currently stands as a steady uphill grade.

b) Broadway—I-240 to Riverside Drive

Purpose

This 1.6 mile* corridor tethers downtown Asheville to UNC-Asheville as well as nearby neighborhoods, Historic Montford and Five Points.

Community Type

- Traditional Neighborhood; Suburban Centers and Corridors

Street Type

- Neighborhood Collector

Vehicular Realm

- 7,500 – 11,000 vehicles/day

Bicycle Realm

- No bicycle facilities

Pedestrian Realm

- 5-foot sidewalk adjacent on the back of curb (west side)
- 5-foot sidewalk, 2-foot grass strip next to curb (east side)

Curb Realm*

- 4 12-foot travel lanes, 16-foot planted median

Greenway Realm

- Reed Creek Greenway

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities

Bicycle recommendations for Broadway include intermediary and vision recommendations. The intermediary recommendation includes 6-foot bike lanes on either side of the roadway. This can be implemented by narrowing the width of the landscaped median and reallocating the space. Further, if reallocation allows, a one-foot curb zone should be targeted for inclusion. The vision for the corridor includes transforming the one side of the roadway as a 2-way street. The travel lanes on the other side of the roadway should be reallocated to accommodate a cycle track with separated bicycle and pedestrian facilities.

In the intermediary scenario, sidewalk widenings and adding crosswalks at intersections should be prioritized. The vision scenario should continue to prioritize sidewalk access and general safety and consider widening sidewalks on the westside of the corridor. Pedestrian recommendations on Broadway should continue to include policy measures along the corridor that include considerations for land use and all potential facility users.

Primary Implementation Challenges

Challenges for this corridor include removing travel lanes and providing safe access to the Reed Creek Greenway, which runs parallel to the west of Broadway and is planned to eventually run from I-240 to the French Broad River to the northwest.

c) Charlotte Street—Arlington Street to Edwin Place

Purpose

This 0.7 mile* connection provides direct north-south access for neighborhoods north of Downtown to I-240.

Community Type

- Traditional Neighborhood

Street Type

- City Connector

Vehicular Realm

- 11,000 - 20,000 vehicles/day
- N ART Route

Bicycle Realm
- No bicycle facilities

Pedestrian Realm
- 5-foot sidewalk adjacent to curb on both sides

Curb Realm*
- 40-foot curb to curb
- 4 travel lanes

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities
Bicycle recommendations for Charlotte Street include shared lane markings (sharrows). It is recommended that shared lane markings are placed in the middle of travel lanes and "Bicycles May Use Full Lane" signage installed. A longer-term plan for Charlotte Street could include a road diet with enhanced bicycle facilities. However, this longer-term scenario will need additional feasibility studies.

With surrounding Traditional Neighborhood land uses, Charlotte Street needs a safer, walkable environment. Pedestrian improvements including wider sidewalks and safer roadway crossings should be prioritized.

Current transit conditions include the N route which runs around Klondyke, Montford, Charlotte, and Grove Park. This corridor should remain a priority investment route, particularly since the Montford portion of the N route serves as the northwest connection while the Charlotte portion serves the northeast and terminates at a major destination, the Grove Park Inn.

Primary Implementation Challenges
Existing space challenges exist for the corridor given buildings with frontage directly on the street in some parts of the corridor. The cost of adding sharrow markings and potential cost of widening sidewalks along the corridor are also challenges.

d) Coxe Avenue—Patton Avenue to Short Coxe Avenue

Purpose

This 0.5 mile* north-south corridor is prime for redevelopment and revisioning for what its ultimate potential and function can be.

Community Type
- Downtown

Street Type
- Neighborhood Collector

Vehicular Realm
- 6,000 vehicles/day
- Multiple ART Routes (ART Bus Station)

Bicycle Realm

- 5-foot striped bicycle lanes between the travel lanes and occasional on-street parallel parking

Pedestrian Realm

- 7-foot sidewalk adjacent to curb on both sides

Curb Realm*

- 50-foot curb to curb
- 2 travel lanes and intermittent turn lanes

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities

Bicycle recommendations for Coxe Avenue include a buffered bicycle lanes on either side of the travelway. The travelway on Coxe Avenue can be restriped two 5-foot bike lanes and 3-foot hatched buffers with vertical flex posts. The parallel parking that currently exists can be removed to accommodate more space for safe active transportation. The possibility of further narrowing travel lanes to 10 feet and accommodating 2 foot of curb zone should be considered in the long term.

Pedestrian improvements for the corridor include creating a safer environment, particularly in areas where on-street parking is at-grade with sidewalks. There is also a need to create a more continuous pedestrian realm by filling in critical gaps in the system and widening sidewalks where space is available (upwards of 10 feet if possible) Pedestrian crossing improvements should be provided at intersections.

Transit is a special consideration on Coxe Avenue given the location of the ART Station. Coxe should remain a priority transit corridor.

Primary Implementation Challenges

Challenges for this corridor include narrowing travel lanes, restriping to include buffered bicycle lanes, removing on-street parking, and improving general access management through consolidation of driveway crossings.

e) Haywood Road—Patton Avenue to Clingman Avenue

Purpose

Haywood Road (2.9 miles*) provides access to neighborhoods in West Asheville. The corridor plays a heavy role in commercial development and offers access across the French Broad River.

Community Type

- Traditional Neighborhood; Suburban Centers and Corridors

Street Type

- City Connector

Vehicular Realm

- 6,000 - 8,500 vehicles/day (E of I-26)
- 14,000 vehicles/day (W of I-26)
- W1 and W2 ART Routes

Bicycle Realm

- No bicycle facilities

Pedestrian Realm

- 6-foot sidewalk on both sides

Curb Realm* (varies east to west)

- 48-foot curb to curb
- 44-foot curb to curb
- 36-foot curb to curb
- 28-foot curb to curb

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities

Bicycle recommendations for Haywood Road include a myriad of different recommendations. All cross sections proposed for Haywood Road should follow the Haywood Road Form Based Code (2014). This specific cross section (HR-1; Core) includes shared lane markings placed in the travel lanes with “Bicycles May Use Full Lane” signage installed. Where space allows, a 2-foot curb zone should be included.

Improvements for sidewalks should enhance safety and promote pedestrian activity where upwards of 6 feet of sidewalk should be a standard. Continuous sidewalks should be added on both sides of the roadway with ADA compliant ramps and intersection treatments at driveways and intersections. Policy improvements include keeping developers accountable for bringing sidewalks and street trees to subdistrict requirements.

W1 and W2 routes run along portions of Haywood Road. Each route connects to residential, retail, and commercial activity centers. Haywood Road is one of two major roadways that runs the entire length of West Asheville. The roadway should remain as a priority transit corridor.

Primary Implementation Challenges

Implementation challenges for this section include removing the 2-way turn lane and reallocating space. There are also many electrical poles that are placed within the pedestrian realm. These areas will have to be specially considered when improving sidewalks along the corridor.

f) Tunnel Road—South Tunnel Road to Charlotte Street

Purpose

This 1.4 mile* portion of Tunnel Road is the main east-west access corridor in and out of Downtown Asheville. It tethers east Asheville to the core.

Community Type
- Regional Centers and Corridors

Street Type
- City Connector

Vehicular Realm
- 12,000 vehicles/day
- E1, E2, and 170 ART Routes

Bicycle Realm
- No bicycle facilities

Pedestrian Realm
- 5-foot sidewalk adjacent to curb (west side)
- Intermittent sidewalk near new developments (east side)

Curb Realm*
- 55-foot curb to curb

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities
Bicycle recommendations include separated bicycle lanes. This can be implemented by striping a 7-foot wide separated bicycle lane on each side of the roadway with a 3-foot cross hatched painted buffer. Vertical flex posts should also be installed by removing outside travel lanes and reallocating the leftover space to the center turn lane. Further reducing the turn lane width should be contemplated to accommodate a one-foot curb zone on either side of the street in the long term.

Tunnel Road connects Downtown with other regional attractions like the Asheville Mall. Hence, pedestrian recommendations on Tunnel Road should include prioritizing safety improvements and inclusionary policy measures along the corridor. General improvements such as adding crosswalks at intersections and widening sidewalks where space is available should be considered.

E1, E2, and 170 ART Routes connects to the mall and the Veterans Medical Center. The roadway should remain as a priority transit corridor.

Primary Implementation Challenges
Tunnel Road is a US highway and an alternative I-74 route; reducing the number of travel lanes is a challenge. Additional consideration must be made for the tunnel which includes fairly narrow pedestrian facilities. The pedestrian environment feels unsafe with no buffer between the fast-moving vehicular realm and the pedestrian realm. Electrical poles also intrude in the pedestrian realm.

g) Fairview Road—Sweeten Creek Road to Swannanoa River Road

Purpose

This 2.6 mile* corridor serves neighborhoods as well as traffic from the Biltmore Village area to I-240.

Community Type
- Residential; Traditional Neighborhood; Regional Centers and Corridors

Street Type
- Neighborhood Collector

Vehicular Realm
- 14,000 - 16,000 vehicles/day
- W5 ART Route

Bicycle Realm
- No bicycle facilities

Pedestrian Realm
- 5-foot sidewalk (south side)

Curb Realm*
- 20-foot curb to curb
- No curb and grass drainage swale (north side)

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities
The intermediary bicycle recommendation includes shared lane markings (sharrows). It is recommended that shared lane markings are placed in the middle of travel lanes and “Bicycles May Use Full Lane” signage installed. Curb and gutter should be included where space allows. If the opportunity for widening the road arises, the vision scenario for the corridor includes striped shoulders on both sides of the roadway.

There is an opportunity on Fairview to include sidewalks on both sides of the streets. While construction for sidewalk occurs, increasing intersection safety measures (e.g., ADA compliant ramps and intersection treatments) should also be considered given the highly residential nature of this roadway. The existing sidewalk along Fairview Road should be widened to be at least 6 feet where possible.

Route S5 serves this corridor and loops around to Swannanoa River Road. Fairview Road provides a critical east-west connection for the route and should remain a priority transit corridor. Fairview Road provides a critical east-west connection for the route and should remain a priority transit corridor.

Implementation challenges for this corridor include narrow travelways and the construction cost of new sidewalks and drainage schemes on the north side of the roadway. The cost of widening and restriping the roadway is also a significant implementation challenge.

h) Sweeten Creek Road—Lodge Street to Hendersonville Road

Purpose

This 6.6 mile* corridor is one of two north-south roads that connects South Asheville to the City's core. The road is an alternative to US-25.

Community Type

- Residential; Regional/Suburban Centers and Corridors;
- Manufacturing, Logistics, and Aerospace

Street Type

- City Connector

Vehicular Realm

- 11,000 vehicles/day (N of I-40)
- 22,000 - 26,000 vehicles/day (S of I-40)
- S1 ART Route

Bicycle Realm

- No bicycle facilities

Pedestrian Realm

- No sidewalk accommodations to Edbar St
- 5-foot sidewalk (east side) south of Edbar St

Curb Realm (varies)*

- 22-foot curb to curb (2-lanes)
- 30-foot curb to curb (2-lanes and 2-way left turn lane)
- 84-foot curb to curb (near I-40 interchange)

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities

Bike recommendations for the portion of Sweeten Creek Road includes 7-foot bike lanes with 3' striped buffers and vertical flex posts on both sides of the travelway. This cross section recommendation should be replicated in the future NCDOT Sweeten Creek Road widening project, from Roberts Road to Hendersonville Road. The center lane can be a turning lane or a median. Shared lane markings are recommended for the narrower portion of the corridor between Lodge Street and Edbar Road. The recommendations for shared lane markings will be reassessed if this section is also widened.

There is an opportunity to include sidewalks on both sides of Sweeten Creek Road south of Edbar Street. While construction for the new sidewalk occurs, increasing intersection safety measures should also be implemented given the levels of vehicular traffic on the roadway. Policy recommendations include keeping developers accountable for bringing sidewalks and street trees to subdistrict requirements.

The S1 ART route connects downtown to South Asheville. The route is a critical connection for tying South Asheville to the core. Sweeten Creek Road should remain a priority transit investment corridor.

Primary Implementation Challenges

Implementation challenges for this corridor include varying traffic levels along the corridor as well as the construction cost of new sidewalks. Methods to further increase general safety of active transportation users should remain a priority.

i) Lexington Avenue—Patton Avenue to Southside Avenue

Purpose

This 0.8 mile* corridor is an alternative north-south connection that runs parallel to Broadway/Biltmore Avenue.

Community Type

- Downtown

Street Type

- Neighborhood Collector

Vehicular Realm

- 4,000 vehicles/day

Bicycle Realm

- Climbing lane present with green boxes at major driveways on north end of corridor

Pedestrian Realm

- Sidewalk along both sides (varying widths throughout)

Curb Realm (varies)*

- 26-foot curb to curb (N of Aston Street)
- 40 to 42-foot curb to curb (S of Aston Street)

*Measurements are approximate and will need surveying to corroborate existing conditions.

Recommendation

Primary Opportunities

North of Aston Street, the traffic volumes and speeds are low enough that a flush, shared street is recommended. The roadway should be raised to sidewalk height and valley gutters installed to direct storm water. This will allow sharing of lanes by all users. South of Aston Street, a 5-foot bicycle lane with a 3-foot cross hatched buffer between the bicycle lane and on-street parking is recommended on both sides of the travel way. Travel lanes will need to be narrowed to 10.5 feet.

With surrounding Downtown land uses, Charlotte Street promote a safer, walkable environment in the naturally mixed-use area. Pedestrian improvements including wider sidewalks and safer roadway crossings should be considered. Special safety considerations are needed for sidewalks that come in close proximity to on-street parking.

Primary Implementation Challenges
Implementation challenges for this corridor include narrowing the travelways, parking removal, driveway consolidation, and the steady uphill grade from Biltmore Avenue to Patton Avenue. The pedestrian realm should be prioritized over other modes along Lexington Avenue given the walkable, mixed-use environment.

Strategic Considerations

Introduction

Taking full advantage of the mobility tools that AIM presents requires strategic consideration of how land use and transportation initiatives can guide the City to more carefully align with the overall vision for a truly multimodal Asheville.

The overarching strategic consideration for AIM is travel mode shift, which represents a total reduction in individual motorized trips by increasing levels of people walking and biking or taking transit on a regular basis. As Asheville promotes and enhances a more multimodal environment through mobility initiatives, Asheville can begin to measure the results of its mobility initiatives. Thus, the first step is for Asheville to create mode shift goals for the community as a whole. The rest of the strategic considerations included in this chapter should help Asheville achieve a significant travel mode shift.

Vision Zero

Historically, transportation systems placed the responsibility for safety on users. Vision Zero takes a different approach and puts this responsibility on system design. Vision Zero is a traffic safety project that aims to achieve a highway system that result in no fatalities or serious injuries. Communities that are able to address complete streets are incorporating a Vision Zero approach with a set of policies that better plan and manage transportation facilities.

From 2004 to 2014, there were 119 fatalities on streets and highways within the City of Asheville. Nearly a quarter of these fatalities involved pedestrians. Asheville has more fatalities on its roadways than other cities of similar size in North Carolina over this period of time. AIM advises a Vision Zero eff ort, particularly on streets that are designed to carry traffic at higher speeds through existing neighborhoods or activity nodes. The Vision Zero approach is consistent with efforts made by NCDOT, which stated its move towards Vision Zero in its 2014 safety reports.

The framework plans for walking, bicycling, greenways, and transit in combination with the transformative projects will contribute to a Vision Zero approach. Slowing the speed of vehicles along routes where there is greater activity or potential activity for walking, bicycling, or riding transit, should be a priority for the City. This can happen through enforcement and minor changes to existing infrastructure, followed by a redesign of priority corridors.

Development Impacts

The growth pressures on Asheville today are unprecedented. Focusing multimodal investment in priority corridors will take shorter-term funding and design decisions that will sometimes counter to historical transportation decisions that have almost always prioritize vehicle level-of-service. The intent of AIM is to guide transportation investment on corridors where current growth patterns challenge planning decisions, particularly as larger-scale developments occur on priority corridors.

The framework plans presented in AIM address the need for multimodal evaluation through traffic studies, which will aid in understanding how individual land use decisions impact the overall transportation network. There will be cumulative impact considerations that will challenge vehicular thresholds even after priority corridors are designed and constructed. The City will need to protect its investments and ensure that the multimodal investments serve their intended purposes.

There are tools that Asheville should explore to better understand the impacts of cumulative impacts in conjunction to other facility investments and comprehensive planning.

Development Tools

Variable LOS Policy

The first tool is to adopt a variable level-of-service (LOS) policy that recognizes that accommodating traffic that meets traditional peak hour LOS goals is not desired or attainable in many parts of the city. Downtown areas, walkable neighborhood centers and other nodes (e.g., Biltmore Village) have a value to the city beyond simply moving vehicles. For example, the City can adopt variable vehicular LOS goals that differ among street typologies to support various bicycle and pedestrian programs. The City can also adopt variable LOS goals specifically for bicyclists and pedestrians.

Cumulative Impacts Tracker

The second tool is to develop a methodology to track cumulative impacts. Just as sewer and water capacities are tracked, a city can strive to understand the capacity of its transportation system. By tracking transportation capacity, the City will be better positioned to understand and evaluate the cumulative impacts of upcoming developments and make more informed decisions on transportation priorities and investments. Through partnerships with the FBRMPO and NCDOT, the City can evaluate existing capacity, multimodal challenges, and already-approved growth within travel sheds in the City and help the City make better-informed development decisions.

Action Plan

Asheville in Motion

Certain portions of the AIM plan immediately rise as priority action items. Some are highly visible physical projects while others are policy changes that will reap benefits over the long term. The following action items are recommended:

Memorialize the community and street types by incorporating them in the City's Comprehensive Plan update. The Comprehensive Plan is Asheville's planning tool to inform Asheville's future growth pattern. The community and street types should continue to be updated to maintain relevancy and to serve as a guide for growth and investment.

Continue to update the modal framework plans. The framework plans are living plans that should provide specific guidance for enhancing all modes of transportation. These plans should be updated often (every 5-7 years) to remain relevant.

Adopt the blended typology as a baseline consideration in the complete streets process. The tool and its considerations are flexible and should be based on future land use and

transportation considerations. The typology should be updated to reflect and reinforce local Asheville studies as they are conducted (e.g., Haywood Road Form Based Code).

Focus implementation efforts on transformative projects. Asheville has the opportunity to make coordinated bicycle, pedestrian, greenway, and transit investments based on a defensible prioritization process. The transformative projects thus have the highest return on investment in terms of community benefit and value.

Path to Success

Ensuring success in Asheville requires focus, leadership, and resources. Given the level of community commitment illustrated throughout the development of AIM, Asheville will need to ensure that progress is measurable and all are held accountable for the implementation of AIM. This will require active participation of stakeholders and strategic partnerships to mobilize and align the proper resources specific to each action plan item. When considering how to take action, Asheville should consider the following:

Identify a Champion

Each action item laid out will require a champion who can own the responsibility for achieving the action. These champions should be empowered with the ability to mobilize partners and align resources specific to the needs of the action item.

Measure Progress

The best way to maintain momentum is to continue to monitor its progress regularly. Regular status updates on how the AIM plan is being utilized should be provided.

Be Accountable

We should expect to keep each other accountable. The action items cannot be achieved overnight. Some action items are easier than others.

Effective partnerships as well as interdepartmental coordination and cooperation will ensure that Asheville's challenges become its opportunities and the ongoing success of Asheville becomes its citizens' legacy.

The planning of cities is an endless affair, cities have an almost endless existence. They have no three score and ten as a natural ending.

--John Nolen (1869-1937)