

North Carolina Department of Transportation | October 2015



Division of Bicycle & Pedestrian Transportation This page left intentionally blank



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EXECUTIVE SUMMARY

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I.0 Executive Summary

I.I History and Overview of the Community

The Sedalia Bicycle and Pedestrian Plan is a culmination of a several month-long planning process to improve bicycle and pedestrian safety, connectivity, health and well-being through recommended infrastructure projects and programs.

The Town of Sedalia is an incorporated town in the Triad region of North Carolina (Exhibit 1-1). It is situated between the urban centers of Burlington and Greensboro with a population of 623 (American Community Survey, 2009-2013). The Town is located in Guilford County off of Interstate 40/85 and US 70 runs through it to the south. There are currently no bicycle or pedestrian facilities within the Town. Residents are proud of their community's history and small-town feel. The Town Council promises to "keep this neighborly family-oriented community clean, quiet, and always with a small town feeling."

Sedalia Town Motto

"Sedalia: Our Heritage, Our Roots, and Our Future"

Although Sedalia was incorporated as a municipality as recently as 1997, its rich history dates back much further. The community's origins began with a post office at the back of a small country store. The postmaster, Mr. R.B. Andrews is credited with choosing the name "Sedalia" for the community.

In 1902, Charlotte Hawkins Brown founded the Palmer Memorial Institute. The institute was a day and boarding school with a curriculum that emphasized agricultural and industrial education for rural living. During Ms. Brown's fifty years as president of the institute, more than 1,000 students graduated.



Palmer Memorial Institute (Town of Sedalia, 2015)

In 1983, the North Carolina General Assembly appropriated funds to renovate and restore the institute. In 1988, Palmer Memorial Institute was listed as on the National Register. It is the state's first historical site honoring an African-American and the first honoring a woman.

During the mid-1970's a group of local residents organized and formed the Sedalia Civic Organization (SCO). This organization was formed in response to growth around Sedalia and the concern that the community's identity would be lost. In 1997 the SCO was successful in petitioning the state legislature to incorporate Sedalia.



I.2 Past Planning Efforts

This Plan is Sedalia's first bicycle and pedestrian plan. The Town adopted a land use plan in 2009 that seeks growth while preserving its uniqueness including its historical, cultural, and natural assets.

Recognizing the need to improve bicycle and pedestrian safety and connectivity for the Town's residents, Sedalia applied for a planning grant from the North Carolina Department of Transportation (NCDOT) Division of Bicycle and Pedestrian Transportation to develop a bicycle and pedestrian plan.

Plans adopted by the City of Greensboro and Greensboro Urban Area Metropolitan Planning Organization (GUAMPO) make recommendations for bicycle and pedestrian facilities in and around Sedalia. GUAMPO is currently in the process of updating its bicycle and pedestrian plan as well as its long-range transportation plan.

I.3 Purpose, Goals, and Objectives of the Plan

The purpose of this Plan was to evaluate the existing bicycle and pedestrian conditions within Sedalia and recommend programmatic and infrastructure projects to improve safety, connectivity, and well-being. This effort was led by the NCDOT Division of Bicycle and Pedestrian Transportation, a project consultant, and a Steering Committee.

The Steering Committee was formed by the Town and included community members, local officials, police, school representatives, and community organizations. The Steering Committee adopted goals and objectives to provide a framework for this planning effort related to safety, connectivity, health and well-being, and education. These goals and objectives are outlined in Section 2.3 along with strategies to help accomplish them.



Steering Committee (AECOM, 2015)

I.4 Key Findings and Recommendations

According to input from the Steering Committee and the public workshop, the Plan confirmed that bicycle and pedestrian safety and connectivity is very important to the community and that there is wide support for implementing infrastructure projects as well as policies, ordinances, and programs. The dates of the Committee meetings and public workshop are listed below:

- November 14, 2014 Pre-Project Meeting
- January 17, 2015 First Steering Committee Meeting
- April 18, 2015 Public Workshop and Second Steering Committee Meeting



Infrastructure Projects

Linear Facilities

Sidewalks, wide paved shoulders, bicycle lanes, and shared use paths were evaluated for the Town. They are defined in Section 5.1: Facility Types. Sidewalks, wide paved shoulders, and bicycle lanes are on-road facilities that would be constructed within the right-of-way. Shared use paths would be built off-road and provide recreational opportunities for residents in addition to a form of alternative transportation.



Shared use path (Flickr Creative Commons, Mike Petrucci, 2010)

Infrastructure projects would be implemented over time due to limited resources and capacity. Projects were divided into two groups: short-term and long-term projects to assist with phasing. Short-term projects are those that could be more readily implemented such as wide paved shoulders, which are less costly than bicycle lanes and do not require curb and gutter sections. Longterm projects represent the long-range vision for Sedalia and include projects that may require additional improvements such as curb and gutter sections for bicycle lanes. They are included in Appendix F: Long-Term Projects. Within the short-term and long-term groups, the projects were prioritized according to five factors related to: connectivity, implementation, safety, proximity, and community interest. The Steering Committee and Town residents provided direct input into the community interest category at the public workshop.

The projects were grouped into three groups: high priority, medium priority, and low priority. The prioritized list of projects is shown in Table 5-2 and Table 5-3 and displayed on Chapter 5 exhibits.

Short-Term High Priority Projects

Bicycle and Pedestrian Facilities

- Burlington Road (US 70)
- Sedalia Road

Shared Use Paths

- Burlington Road (US 70) Sidepath
- Town Hall Connector and Hub Spot

Spot Improvements

In addition to linear facility projects, spot improvements are also recommended at intersections and mid-block crossings to improve safety. Recommendations include: bicycle parking, marked crosswalks, crossing islands, pedestrian signals, and access points for shared use paths.

The Steering Committee recommended a type of spot improvement called a hub spot with vehicular parking, bicycle parking, and benches at Town Hall. This hub can serve as a central meeting place for friends and family to gather and park in order to enjoy the nearby community features and proposed shared use path system.



The list of spot improvements and their locations is provided in Table 5-3. Cost estimates were prepared for linear facilities and spot improvements following methodology from the Pedestrian and Bicycle Information Center at the University of North Carolina Highway Safety Research Center. These costs are high-level estimates and can be found in Section 5.2.

Short-Term Projects by the Numbers

8 linear facility projects
10 spot improvements
6 miles of linear facilities
\$1,307,700* of proposed improvements

*The estimated costs are approximate and may vary significantly depending on environmental and engineering conditions. They include construction and engineering costs.

Policies, Ordinances, and Programs

Critical to a successful bicycle and pedestrian plan are policies, ordinances, and programs to complement infrastructure projects. Not only is safety dependent upon sidewalks, bicycle lanes, shared use paths, and spot improvements, it is also dependent upon education, reducing speed limits, enforcement of laws, and ordinances to encourage bicycle and pedestrian-friendly development. Section 5.4 of this Plan makes several programmatic recommendations to improve safety and encourage physical activity. Whereas infrastructure projects can be expensive to construct, programs are comparatively inexpensive to implement and can provide a tremendous benefit to the community.

One such program is the Watch for Me NC campaign sponsored by NCDOT. The program provides training and educational resource to increase awareness and promote safety in the community.

I.5 Key Action Steps

The success of this Plan depends on its implementation. A Bicycle and Pedestrian Advisory Committee (BPAC) should be formed or a Town Council member appointed to continue in the efforts for improving bicycle and pedestrian safety and connectivity in Sedalia.

If a committee is formed, it would meet regularly (as determined by the Town Council) and report to the Town Council. It could be comprised of members from the Plan Steering Committee, Planning Board, and additional residents who reflect the demographics of Sedalia in terms of age, race, and socioeconomic status.

A primary responsibility of the Committee would be to prepare an annual memo or report provided to the Town Council detailing the progress made on implementing the Plan as well as the Committee's goals and objectives for the coming year. Performance and evaluation measures for assessing the progress of the Plan are discussed in Section 6.4.

Key Action Steps

- I. Adopt the Sedalia Bicycle and Pedestrian Plan
- 2. Establish a Bicycle and Pedestrian Advisory Committee or appoint a Town Council member
- 3. Form partnerships with Charlotte Hawkins Brown Historic Site, GUAMPO, and Sedalia Elementary School
- 4. Coordinate with NCDOT Division 7
- 5. Coordinate with GUAMPO to include infrastructure projects in the regional planning process
- 6. Amend Town Ordinances and Zoning
- 7. Apply for alternative funding sources for the Plan's projects and programs
- 8. Program local funds for bicycle and pedestrian projects



Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit 1-1: Short Term Proposed Bicycle and Pedestrian Network

Proposed Network

Bicycle Spot Imp	provements
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- Pedestrian Spot Improvements
- Shared Use Path Spot Improvements
- Bicycle and Pedestrian Linear Facilities

Stream

- Bicycle Linear Facilities
- Shared Use Path Linear Facilities

Community Features

(5) Commercial Interstate Education **US Route** Government Local Road 0 Health Waterbody Historic Charles W. Bundrige Place of Worship 鱼 Athletic Field Point of Interest \bigcirc Historic District \boxtimes Post Office Town Limits **Guilford County** ¹∕₂ ⊒ Miles 1/4 August 2015



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INTRODUCTION

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2.0 Introduction

2.1 History and Overview of the Community



Sedalia Town Hall (AECOM, 2015)

The Town of Sedalia is an incorporated town in the Triad region of North Carolina. It is situated between the urban centers of Burlington and Greensboro with a population of 623 (American Community Survey, 2009-2013). The Town is located in Guilford County off of Interstate 40/85 and US 70 runs through it to the south. There are currently no bicycle or pedestrian facilities within the Town. Residents are proud of their community's history and small-town feel. The Town Council promises to "keep this neighborly family-oriented community clean, quiet, and always with a small town feeling."

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began with a post office at the back of a small country store. The postmaster, Mr. R.B. Andrews is credited with choosing the name "Sedalia" for the community.

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Palmer Memorial Institute (Town of Sedalia, 2015)

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During the mid-1970's a group of local residents organized and formed the Sedalia Civic Organization (SCO). This organization was formed in response to growth around Sedalia and the concern that the community's identity would be lost. In 1997 the SCO was successful in



petitioning the state legislature to incorporate Sedalia.

2.2 Community Vision

The Steering Committee adopted the following vision for the Plan at its first meeting:

The Town of Sedalia will be a place where people of all ages and diverse backgrounds have access to bicycle and pedestrian facilities and programs that promote: exercise and well-being, safety, connectivity, and celebration and discovery of Sedalia's rich culture and history.

2.3 Goals, Objectives, and Strategies

The following goals and objectives were adopted by the Steering Committee to guide the development and implementation of the Plan. These goals and objectives are similar to the goals and objectives found in the region's existing transportation plans. This similarity encourages consistency among the plans and is indicative of the region's desire for safe and abundant bicycle and pedestrian facilities. Strategies were identified to assist in achieving the goals and objectives. Performance measures are discussed in Chapter 6.0: Implementation Strategy.

GOAL & OBJECTIVE 1: Bicycle and Pedestrian Safety

Goal I

Improve safety for pedestrians and cyclists, with an emphasis on already heavily used routes

Objective I

Improve education and training for both the public and professionals regarding safe driving, walking, and biking in the Sedalia community

Strategies	Short-Term Years (2015 – 2020)	Ongoing
Form an advisory committee of Town residents or appoint at Town Council member to oversee the implementation of the Plan	х	
Develop programs and methods to ensure that Sedalia's traffic enforcement officers receive `adequate training about current bicycle and pedestrian laws		х
Incorporate and provide bicycle and pedestrian safety in professional training opportunities, and encourage participation in walking and biking		х



GOAL & OBJECTIVE 2: Bicycle and Pedestrian Network

Goal 2

Create and provide safe bicycle and pedestrian networks, remove barriers and enhance connections between community origins and destinations such as schools, stores, and places of worship

Objective 2

Develop bicycle and pedestrian accommodations along Sedalia's roadways and off-road shared use paths

Strategies	Short-Term Years (2015 – 2020)	Ongoing
Hold initial meetings with NCDOT Division 7 and GUAMPO to review the Plan's infrastructure projects to include them where appropriate in upcoming transportation and regional plans	×	
Work with NCDOT to provide bicycle facilities as part of roadway repaving and maintenance		х
Coordinate with GUAMPO and State agencies to implement bicycle and pedestrian facilities, (ex. parklets, bicycle parking, seating)	Х	
Draft amendments of Town Ordinances following the recommendations of this Plan in order to support bicycle and pedestrian infrastructure in new development	х	

GOAL & OBJECTIVE 3: Physical Activity, Health, and Wellbeing

Goal 3

Encourage walking and biking to promote physical activity, health and well-being, sustainability and economic benefits

Objective 3

Partner with schools, community groups, organizations, and town government to plan and hold events such as walk-to-school days that encourage walking and biking



Strategies	Short-Term Years (2015 – 2020)	Ongoing
Work with public school officials to support biking and walking to school, apply for Safe Routes to School funding, provide reference materials, bike racks at schools and support bike-to-school programs.		x
Seek funding for plan projects through regional and business partnerships.	Х	

GOAL & OBJECTIVE 4: Connect Cultural and Historic Sites

|--|

Connect Sedalia's cultural and historic sites through sidewalks and bike paths

Objective 4

Create walking and bicycling information and wayfinding to Sedalia's cultural and historic sites

Strategies	Short-Term Years (2015 – 2020)	Ongoing
Promote siting and design guidelines that encourage biking and walking to cultural and historic sites and increase connectivity in the town and access to and within adjacent neighborhoods		х
Encourage and request innovative design treatments such as cycle tracks, colored bike lanes, and new pedestrian crossing treatments, following a context sensitive design approach for all transportation projects within the town.		х



GOAL & OBJECTIVE 5: Bicycle and Pedestrian Education

Goal 5

Educate the community as to the benefits of pedestrian activity and applicable rules and regulations

Objective 5

Increase awareness of safe walking, biking, and driving practices through community events and signage

Strategies	Short-Term Years (2015 – 2020)	Ongoing
Partner with the Guilford County Sherriff's Office to hold workshops and place signs around the community reminding drivers to slow down and pedestrians to walk opposing traffic.		х
Work with public school officials to educate students on safe walking, biking, and driving practices as part of a Safe Routes to School program.		х

GOAL & OBJECTIVE 6: Funding and Partnerships

Goal 6

Seek funding and partnerships to implement the Plan

Objective 6

Identify funding sources and partnerships with local businesses, nonprofits, and GUAMPO, NCDOT, and other regional planning and state agencies to implement the Plan

Strategies	Short-Term Years (2015 – 2020)	Ongoing
Regularly seek funding opportunities for prioritized projects through STIP, and private/non-profit grant funding sources		х
Leverage local funding contributions and incorporate bicycle and pedestrian improvements by private developers where feasible		×



2.4 Purpose and Scope of the Plan

The purpose of this Plan is to evaluate existing bicycle and pedestrian conditions within Sedalia and recommend programmatic and infrastructure projects to improve safety, connectivity, and wellbeing. This effort was led by NCDOT, a project consultant, and a Steering Committee. Town residents had an opportunity to provide input through an open house.

The scope of the Plan includes the following tasks:

- Existing conditions and demographics analysis
- Review of existing plans and policies
- Policy and program recommendations
- Infrastructure improvements and cost estimates
- Identification of possible funding sources
- Public input through a Steering Committee and open house
- Implementation strategies

Engineering studies and construction are not a part of this scope.

2.5 Benefits of Pedestrian and Bicycle Planning

There are many benefits to bicycle and pedestrian planning and the resulting programs and infrastructure projects. *WalkBikeNC*, the statewide bicycle and pedestrian plan, established a vision for North Carolina centered around five key benefits: safety, health, economic, mobility, and stewardship.

WalkBikeNC Vision

North Carolina is a place that incorporates walking and bicycling into daily life, promoting safe access to destinations, physical activity opportunities for improved health, increased mobility for better transportation efficiency, retention and attraction of economic development, and resource conservation for better environmental stewardship of our state.

The statistics and benefits discussed in this section were compiled from several sources: the *WalkBikeNC* plan, the Pedestrian and Bicycle Information Center based at the University of North Carolina Highway Safety Research Center, the NC Bicycle and Pedestrian Safety Summit 2011, and the 2014 Benchmarking Report by the Alliance for Biking and Walking.

Safety

The need to improve safety for pedestrians and bicyclists is urgent. Each year in NC more than 2,000 pedestrians and 1,000 bicyclists are involved in police-reported crashes with motor vehicles. Between 150 and 200 pedestrians are killed, and an additional 200 to 300 are seriously injured. On average, approximately 20 bicyclists are killed and an additional 60 are seriously injured annually.¹

In 2011, the NCDOT Division of Bicycle and Pedestrian Transportation in conjunction with the Institute of Transportation Research and Education (ITRE) conducted a statewide public information gathering process to identify and prioritize specific strategies to address key problems facing bicycle and pedestrian safety. The process included surveying over 16,000 North Carolinians regarding their walking and bicycle activity and attitudes towards safety. Key statistics



from the survey are provided below and support the need for constructing bicycle and pedestrian infrastructure.

Benefits

- Constructing bicycle and pedestrian facilities reduces the risk of crashes between pedestrians, bicyclists, and automobiles²
- Improving safety encourages people to walk or bike: 70% of respondents would walk more if safety issues were addressed³
- In places where more bicyclists and pedestrians are present, fatalities tend to be lower⁴



Young cyclists wearing helmets (Flickr Creative Commons, Steven Depolo, 2011)

Key Statistics

- The percentage of all traffic fatalities that are pedestrians and bicyclists in the United States has increased from 12.6% in 2003 to 15.8% in 2011⁵
- North Carolina is ranked 42nd in the nation for pedestrian safety and 46th for bicycle safety. (measured as the ratio of fatalities to commuters)⁶

Health

Sidewalks, bicycle lanes, and trails promote active living and improve health by providing residents with opportunities to exercise and integrate physical activity into their daily lives. Improving health is of critical importance in North Carolina as 65% of adults are either overweight or obese. The state is ranked as the 5th worst in the nation for childhood obesity.⁷

Benefits

- By providing access to sidewalks, people are more likely to walk⁸
- States with higher rates of bicycling and walking to work also have a higher percentage of the population meeting recommended levels of physical activity, and have lower rates of obesity, high blood pressure, and diabetes⁹
- For every dollar invested in bicycle and pedestrian trails can result in a savings of nearly \$3 in direct medical expenses¹⁰



Key Statistics

- 53% of adult men and 64% of adult women do not get more than 10 minutes of vigorous physical activity per week¹¹
- The national health-related cost savings of a modest increase in bicycling and walking is estimated at \$420 million annually. A substantial increase in bicycling and walking could save over \$28 billion per year¹²

Economics

In addition to improving health and safety, investing in bicycle and pedestrian infrastructure returns economic benefits to communities through increased property values, patronage of local businesses, and tourism.

Benefits

- Communities that are more walkable have higher property values¹³
- Bicycle and pedestrian infrastructure allows communities to be eligible for "Bicycle Friendly Community" and "Walking Friendly Community" designations, which attract new residents and businesses¹⁴
- According to studies conducted around the country, bicyclists and pedestrians report spending more money at local stores than do users of other transportation modes¹⁵

Key Statistics

- If Americans gave up their car for just one four-mile trip each week, they would save \$7.3 billion per year in fuel costs¹⁶
- The annual economic impact of bicycle tourists to North Carolina's Outer Banks is estimated at \$60 million. In addition, 1,407 jobs were supported from the 40,800 visitors for whom bicycling was an important reason for choosing to vacation in the area¹⁷

Mobility

Bicycle and pedestrian infrastructure improves mobility by offering additional transportation options, especially to those that are unable or do not have access to an automobile.

Benefits

- Pedestrian and bicycle facilities provide an alternative mode of transportation to roads, which are becoming increasingly congested¹⁸
- Reduces stress associated with driving in congestion¹⁹
- Offers an opportunity to combine exercise and transportation, thereby improving health as well²⁰



Key Statistics

- Nearly 50% of all vehicular trips are three miles or less and 27% are one mile or less. These distances are considered easily bikeable or walkable for most people, but the proper infrastructure needs to exist to ensure the opportunity to safely ride or walk²¹
- Traffic congestion in 2011 caused Americans in cities to travel an additional 5.5 billon hours, purchase an additional 2.9 billion gallons of fuel, and spend an addition \$21 billion in gas²²

Stewardship

Transportation is responsible for nearly 80 percent of carbon monoxide and 55 percent of nitrogen oxide emissions in the US.²³ Bicycle and pedestrian infrastructure encourages stewardship of our natural resources by providing residents with a fossil fuel-free alternative model of transportation. Greenways and trails help connect residents with the outdoors, fostering an appreciation for nature.



Alternative commuting (Flickr Creative Commons, EURIST e.v., 2009)

Benefits

- Provides an alternative mode of transportation that is environmentally friendly
- Connects people with the outdoors, fostering an appreciation for nature
- Bicycle and pedestrian facilities, particularly greenways, often serve to preserve wildlife habitat and corridors, and stream buffers as well as protect water quality²⁴

Key Statistics

- The most harmful air pollutants are emitted within minutes of starting a car, meaning that short trips pollute more per mile and have a larger impact on our overall health than longer trips²⁵
- Motor vehicle emissions represent 31
 percent of total carbon dioxide, 81 percent
 of carbon monoxide, and 49 percent of
 nitrogen oxides released in the US²⁶

¹ NCDOT. (2015). North Carolina Pedestrian and Bicycle Crash Data Tool.

http://www.pedbikeinfo.org/pbcat_nc/index.cfm ² Institute for Transportation Research and Education. (2011). Bicycle and Pedestrian Safety Strategies in North Carolina: Statewide Input and Priorities, page 17. Retrieved from: http://www.ncdot.gov/bikeped/download/bikeped_ research_SummitSynthesisReport2011.pdf ³ Institute for Transportation Research and Education. (2011). Bicycle and Pedestrian Safety Strategies in North Carolina: Statewide Input and Priorities, page 17.



⁴ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 80. ⁵ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 75. ⁶ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 79. ⁷ NCDOT. (2013). WalkBikeNC: North Carolina Statewide Pedestrian and Bicycle Plan Summary Document, page 12. ⁸ Health by Design. (2015). Fact Sheet: The Benefits of Sidewalks. Retrieved from: http://www.healthbydesignonline.org/documents/H bDFSSidewalks.pdf ⁹ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 70. ¹⁰ WalkBikePlan Summary, page 12 / Chenoweth, David. (2012). "Economics, Physical Activity, and Community Design." North Carolina Medical Journal 73(4): 293-294. ¹¹ Pedestrian and Bicycle Information Center (2015). Health Benefits of Biking and Walking. Retrieved from: http://www.pedbikeinfo.org/data/factsheet health. cfm ¹² Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 100. ¹³ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 95. ¹⁴ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 96. ¹⁵ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 98. ¹⁶ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 97.

¹⁷ NCDOT. (2013). WalkBikeNC: North Carolina Statewide Pedestrian and Bicycle Plan Summary Document, page 15.

¹⁸ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 95.

¹⁹ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 95.

²⁰ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 95.

²¹ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 23.

²² Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014 Benchmarking Report, page 95.

²³ Pedestrian and Bicycle Information Center. (2015).
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http://www.pedbikeinfo.org/data/factsheet_environ mental.cfm

²⁴ NCDOT. (2013). WalkBikeNC: North Carolina
 Statewide Pedestrian and Bicycle Plan, page 2-37.
 ²⁵ Alliance for Biking and Walking. (2014). Bicycling and Walking in the United States: 2014

Benchmarking Report, page 72.

²⁶ Pedestrian and Bicycle Information Center. (2015).
 Environmental Benefits of Bicycling and Walking.
 Retrieved from:

http://www.pedbikeinfo.org/data/factsheet_environ mental.cfm

EXISTING CONDITIONS EVALUATION

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3.0 Existing Conditions Evaluation

3.1 Demographics

Demographic characteristics were investigated to gain a better understanding of the population living in Sedalia, the community's transportation needs, and any vulnerable populations for compliance with federal policy. Vulnerable populations are those citizens of the community who are disadvantaged by ethnicity or race, age, gender, socio-economic status, or other distinguishing factors that disproportionately impact access to resources.

Title VI of the Civil Rights Act of 1964 requires that each federal agency ensure that no person is excluded, denied, or discriminated based on race, color, national origin, age, sex, disability. Executive Order 12898 signed by President Bill Clinton in 1994 requires that each Federal agency shall make achieving environmental justice part of its mission. Sedalia would likely coordinate with federal agencies and apply for federal funds in order to implement the programs and projects recommended by this Plan.

Datasets studied include age, population, and race characteristics, Hispanic/Latino and Minority populations, poverty rates, Limited English Proficiency (LEP) populations, and Zero Car Households. The demographic analysis was based on 2000 and 2010 US Decennial Census data and 2009-2013 American Community Survey (ACS) estimate data analyzed at the place, county, and state levels.

Population and Age

Sedalia is in Guilford County. With an area of 2.3 square miles, the population was 623²⁷ people in 2010, a 0.8 percent increase from a population of 618 in 2000. Guilford County's population was 488,406 in 2010, a 16.0 percent increase in population in the last decade. Sedalia's increase is significantly below statewide population changes, which experienced an 18.5 percent change from 2000 to 2010 (8,049,313 people in 2000 and 9,535,483 people in 2010). A comparison of growth at the county and town levels suggests that more people are choosing to reside in other areas of the County. Growth in these areas could be a result of job opportunities or newer housing stock in suburban areas.

The Town of Sedalia appears to have a high level of attractiveness for working-age individuals, with a slightly higher proportion of male individuals than female. Based on 2009-2013 ACS data, the median age in Sedalia was 48.1, while Guildford County is significantly younger with a median age of 36.6. Similarly to the County, the State median age is 37. The largest age group in Sedalia is ages 45 to 64, comprising 45.6 percent of the Town. Only 19.7 percent of the population is age 65 and older, with populations under 44 years of age less than 34.6 percent of Sedalia's population.

The significance of this age composition suggest a dominate working-age population that is beginning to age in place. Guilford County's age groups are more proportionally distributed with the largest age groups between the ages of 25-44



and 45-64, at 26.8 percent and 25.8 percent, respectively. Compared to age demographics across the State, the largest age groups are between the ages of 25-44 and 45-64, at 26.7 percent and 26.3 percent, respectively.

Improved bicycle and pedestrian infrastructure can help to retain or attract younger populations while also serving current age groups in Sedalia interested in different modes of transportation. Populations of all ages can benefit from a greater quality of life provided by bicycle and pedestrian facilities in terms of health, safety, and recreation.

Minority and Race

Populations defined as minority have been calculated by subtracting White, Non-Hispanic population totals from the Total Population based on 2009-2013 ACS data. Sedalia has a large minority population at 80.7 percent. Guilford County has a minority population of 46.4 percent, where North Carolina has a minority population of 35.1 percent. Sedalia would therefore exceed the Environmental Justice threshold of 50 percent as established by NCDOT.

Sedalia is predominantly African-American (80.4 percent). The second highest race is white (19.3 percent) with the remainder of the population defined as Two or More Races (0.3 percent). There is no Hispanic/Latino population in the Town according to ACS data. Guilford County has a racial composition of predominantly white (57.3 percent) and African-American (33.0 percent) population, with the remainder of its population defined as Asian (4.2 percent), American Indian, Asian, Hawaiian/Pacific Islander, or Other (approximately 3.4 percent), and Two or More Races (2.1 percent). The Hispanic/Latino population comprises approximately 7.2 percent of the County, significantly higher than the Town of Sedalia. In the State of North Carolina, the white (69.7 percent) and African-American (21.4 percent) populations comprise the majority with the remainder of its population defined as American Indian, Asian, Hawaiian/Pacific Islander, or Other (approximately 6.7 percent) or Two or More Races (2.3 percent). The Hispanic/Latino population represents 8.5 percent of the population in the State.

Regional Poverty Rates

Individuals living below the poverty line in Sedalia comprise approximately 8.8 percent of the population. This is lower than the County population living below the poverty line at 18.1 percent and the State which has a poverty rate of 17.5 percent.

Limited English Proficiency (LEP)

Limited English Proficiency (LEP) is defined by the ACS as populations 18 years or older that speak English less than very well. There are no surveyed LEP populations in Sedalia. In Guilford County, the LEP population is approximately 6.2 percent. Sedalia is below the county and state percentages for LEP populations. The State rate is 5.2 percent.

Vehicles per Household

In Sedalia, 1.9 percent of households, both owner and renter occupied, have no vehicle available. This is low compared to the County where approximately 7.4 percent of households have no vehicle available. Sedalia and Guilford County have significantly different rates for households with one vehicle available, 22.6 percent and 37.4 percent, respectively. North Carolina has a rate of



6.6 percent of households that have no vehicle available and 32.7 percent with one vehicle available.

Bicycle and pedestrian infrastructure benefit individuals of a community who do not have access to a vehicle by providing alternative forms of transportation.

Means of Transportation to Work

Most workers in Sedalia commute to work by car, truck, or van, approximately 94.0 percent. Of total workers, 89.3 percent drove alone. Only 5 percent of workers carpooled and there are no workers who used public transportation or worked from home.

These figures are slightly higher as compared to Guilford County and the state of North Carolina, where 91.3 percent and 91.5 percent use a car, truck, or van as a means of transportation to work, respectively. Of total workers, 82.1 and 81.1 percent drove alone in Guilford County and the state, respectively. There were 9 percent and 10 percent of those commuters who carpooled and less than 2 percent in both the County and the state that used public transportation, respectively. Approximately 2.8 percent of Guilford County workers and 3.1 percent of state workers used an alternative means of transportation to work, which includes individuals bicycling or walking (both bicycling and walking as a mode are under 2 percent of workers for the County and the state). The rate of workers who worked from home in Guildford County and North Carolina was 4.4 percent.

Travel Time to Work

In Sedalia, more than half of the town's workers have between a 20-29 minute commute. Approximately 8.9 percent commute 5-9 minutes, 16.4 percent commute 10-19 minutes, 54.1 percent commute between 20-29 minutes, and 14.9 percent commute between 30-39 minutes. There are fewer workers with very long commutes, where 2.1 percent commute between 40-59 minutes, 2.1 percent between 60-89 minutes, and 1.4 percent commute for 90 minutes or more.

The predominant travel time to work in Guildford County and North Carolina is between 10-19 minutes. Respectively, 2.3 and 3.1 percent commute less than 5 minutes, 9.3 and 10.0 percent commute 5-9 minutes, 40.6 and 33.1 percent commute 10-19 minutes, 25.7 and 22.9 percent commute between 20-29 minutes, and 13.7 and 16.0 percent commute between 30-39 minutes. Similar to the rates for Sedalia, there are fewer workers with very long commutes in Guildford County, where 4.7 percent commute between 40-59 minutes, 1.7 commute between 60-89 minutes, and 1.9 percent commute for 90 minutes or more. In North Carolina, 9.5 percent commute between 40-59 minutes, 3.5 commute between 60-89 minutes, and 1.9 percent commute for 90 minutes or more.

 ²⁷ US Census Population and Housing Narrative
 Profile 2009-2013 American Community Survey 5 Year Estimates. Referenced at: http://thedataweb.rm.census.gov/TheDataWeb_Hot
 Report2/profile/2013/5yr/np01.hrml?SUMLEV=160
 &state=37&place=32540



3.2 Community Features

Sedalia has several community features that provide important services and enrich the quality of life for its residents. These features serve as potential pedestrian and bicyclist origins and destinations. The Steering Committee reported current pedestrian and bicyclist activity at some of these places. By improving connectivity between these locations and Sedalia's neighborhoods, residents would be more likely to walk or ride a bike instead of using an automobile. These features are listed in Table 3-1 and mapped on Exhibit 3-1. Infrastructure projects as discussed in Section 5.2 were prioritized in part based on these community features.

MAP ID	NAME	ТҮРЕ
1	Bethel Presbyterian Church*	Place of Worship
2	Twin Oaks Church*	Place of Worship
3	Former Sedalia Old Time Country Store and Ellusions Styling & Tanning Salon	Commercial
4	Sedalia Elementary School	Education
5	Sedalia Town Hall	Government
6	Bethany Community Church of Sedalia	Place of Worship
7	Charlotte Hawkins Brown Historic Site	Historic
8	US Post Office	Post Office
9	Eastern Guilford High School*	Education
10	Eastern Middle School*	Education
11	Saint James United Methodist Church	Place of Worship
12	Stoney Creek Shopping Center*	Commercial
13	Stoney Creek Shopping Center*	Health
14	YMCA*	Point of Interest
15	Charles W. Bundrige Athletic Field	Historic
16	Dollar General and Subway	Commercial
17	CVS Pharmacy	Commercial
18	Comfort Suites Hotel	Commercial

Table 3-1: Community Features

*Community facilities are outside of Sedalia's town limits, but in close proximity. They are potential bicycle and pedestrian destinations.



Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit 3-1: Community Features

Community Features

\$	Commercial		Historic		
	Education		Place of Worship		
	Government	\bigcirc	Point of Interest		
0	Health		Post Office		
	 US Route Local Road 	1			
	- Stream				
	Waterbody				
	Charles W. Bundrige Athletic Field				
	Historic District				
	Sedalia Town Limits				
	Guilford County				



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3.3 Infrastructure

Roads

The road network is typical of rural areas in that most roads are two lanes and follow the natural contours of the land. Most roads are paved, while some are unpaved. Intersections are few and spaced far apart. Nearly all roads within Sedalia are state maintained. The Town maintains several unpaved residential streets off of Rockhurst Drive and Blue Lantern Road. Burlington Road (US 70) is the main road providing east-west connectivity to Burlington in the east and Greensboro in the west. Sedalia Road is the only north-south connection. It is a two-lane road that connects Burlington Road (US 70) with Bethel Church Road. South of Sedalia, Interstate 40/85 provides efficient connectivity with the Triangle and Triad regions. Characteristics of the road network in Sedalia including ownership, surface type, length, speed limits, traffic, right-of-way, resurfacing schedule, and barriers and limitations for bicycle and pedestrian infrastructure are summarized in Table 3-2.



Burlington Road (US 70) (AECOM, 2015)

Two large road projects are proposed in Sedalia: a bypass to US 70 and extension of High Rock Road. The US 70 Bypass is included in the current State Transportation Improvement Program (STIP) as project U-2581. It is currently in the planning/design phase, meaning that there is opportunity for including bicycle and pedestrian accommodations in the design. The utility and relocation phases of the project are funded while construction is unfunded.

The proposed High Rock Road Extension is included in the *Greensboro Urban Area MPO 2035 Long Range Transportation Plan Update* (See Section 3.8), but not included in the current STIP so it is unlikely that it will be constructed in the near future.

Roads within Sedalia are primarily two lanes with approximately 10 foot travel lanes and 1 to 2 foot paved shoulders without curb and gutter sections. Burlington Road (US 70) is a notable exception. It is mostly two lanes with a center turn lane. Currently no roads in the Town have pedestrian or bicycle accommodations such as wide-paved shoulders, sidewalks, bike lanes, or multi-use paths. Speed limits vary between 35 and 45 mph within the town limits. Streets in residential neighborhoods, including Blue Lantern Road, are 35 mph. The speed limit is 45 mph on Bethel Church Road, Sedalia Road, and Burlington (US 70). Outside of Sedalia's western town limits, the speed limit is 55 mph on Burlington Road (US 70).

Right-of-ways were estimated using aerial photography and parcel data, and range from approximately 50 to 75 feet. The road sections are



approximately 20 to 35 feet, indicating that there could potentially be 30 to 40 feet of available right-of-way for bicycle and pedestrian infrastructure. These estimates would need to be verified during planning and engineering phases of future projects.

There are two bridges within Sedalia, both of which are on Sedalia Road. The first bridge (Guilford County Bridge #400207) is a crossing over an unnamed stream approximately 2,000 feet north of the Sedalia Road intersection with Burlington Road (US 70). The second bridge (Guilford County Bridge #400206) is a crossing over an unnamed stream between Creek Lane and Jennie Drive. The bridges were built in 1953 and 1956, respectively. Both bridges are fairly small, 20 to 25 feet long, without pedestrian or bicyclist facilities. The bridges have approximately 2-foot paved shoulders on each side.



Sedalia Road (Bridge #400207) (AECOM, 2015)

The first bridge is structurally deficient and functionally obsolete and is programmed for replacement, according to NCDOT bridge inspection reports. At the writing of this Plan, planning and environmental studies are being undertaken for the replacement project. This Plan recommends bicycle and pedestrian amenities for the bridge, as discussed in Section 5.2. The second bridge is not structurally deficient or functionally obsolete and is not programmed for replacement at this time, according to NCDOT bridge inspection reports.


Road	Ownership	Surface Type	Length (miles in Sedalia)	Speed Limit (mph)	Traffic (2013 AADT)	Right of Way (feet)	Resurfacing Schedule	Barriers/Limitations for Bicycle and Pedestrian Infrastructure
Bloomfield Road							Not currently on 3-year	No barriers or
(SR 3053)	State	Paved	0.01	35	-	75	work plan	limitations noted
Blue Lantern Road Extension	Town	Paved	0.11	35	_	45	Not currently on 3-year work plan	No barriers or limitations noted
Blue Lantern Road (SR 2809)	State	Paved	1.09	35	_	60 - 75	Not currently on 3-year work plan	Ditches along both sides of roadway, above ground utilities on south side
Bogues Way	Town	Paved	0.28	35	_	60	In process of being added, no work proposed for several years	Ditches along both sides of roadway
Burlington Road (US 70)	State	Paved	1.59	45	7,600 - 8,300	70 - 80	Not currently on 3-year work plan	Ditches along both sides of roadway, above ground utilities on south side, historic district on both sides

Table 3-2: Sedalia Road Inventory



Road	Ownership	Surface Type	Length (miles in Sedalia)	Speed Limit (mph)	Traffic (2013 AADT)	Right of Way (feet)	Resurfacing Schedule	Barriers/Limitations for Bicycle and Pedestrian Infrastructure
								by the Charlotte Hawkins Brown Historic Site
Burnside Drive	Town	Paved	0.30	35	-	60	Not on state maintenance system	No barriers or limitations noted
Church Road (SR 5300)	State	Unpaved	0.21	35	-	40	Not currently on 3-year work plan	Above ground utilities on west side of roadway
Corn Tassel Drive	Town	Unpaved	0.05	35	-	60	Not on state maintenance system	Thick vegetation within right-of-way
Cushman Road	Town	Paved	0.22	35	-	65	In process of being added, no work proposed for several years	Ditches along both sides of roadway
Dansby Drive	Town	Unpaved	0.38	35	-	60	Not on state maintenance system, under consideration	Thick vegetation within right-of-way



Road	Ownership	Surface Type	Length (miles in Sedalia)	Speed Limit (mph)	Traffic (2013 AADT)	Right of Way (feet)	Resurfacing Schedule	Barriers/Limitations for Bicycle and Pedestrian Infrastructure
Gateway Drive	Town	Paved	0.21	35	-	60	Not currently on 3-year work plan	No barriers or limitations noted
Grand Oaks Drive (SR 2887)	State	Paved	0.37	35	-	60	Not currently on 3-year work plan	Ditches along both sides of roadway, above ground utilities on east side
Havenbrook Drive	Town	Unpaved	0.08	35	-	60	Not on state maintenance system	Thick vegetation within right-of-way
Jennie Drive (SR 2953)	State	Paved	0.17	35	-	60	Not currently on 3-year work plan	Ditches along both sides of roadway, above ground utilities on north side
Martingale Drive (SR 2931)	State	Paved	0.37	35	-	60	Not currently on 3-year work plan	Ditches along both sides of roadway, above ground utilities on west side
Morgan-Summers Road (SR 2872)	State	Paved	0.14	35	_	75	Not currently on 3-year work plan	Fences and vegetation within right-of-way



Road	Ownership	Surface Type	Length (miles in Sedalia)	Speed Limit (mph)	Traffic (2013 AADT)	Right of Way (feet)	Resurfacing Schedule	Barriers/Limitations for Bicycle and Pedestrian Infrastructure
Palmer Farm Road (SR 3054)	State	Unpaved	0.55	35	-	75	Not currently on 3-year work plan	Ditches along both sides of roadway
Riverview Drive (SR 2996)	State	Paved	0.17	35	_	50 - 60	Not currently on 3-year work plan	Ditches along both sides of roadway
Rockhurst Drive (SR 2922)	State	Paved	0.62	35	-	50 - 60	Not currently on 3-year work plan	Above ground utility crossings of the roadway
Rolling Acres Drive (SR 2938)	State	Paved and Unpaved	0.49	35	-	60	Not currently on 3-year work plan	Vegetation within right-of-way
Sedalia Road (SR 2808)	State	Paved	1.23	45	-	60 - 80	Work currently scheduled for 2017	Ditches along both sides of roadway, above ground utilities on both sides
Sharonwood Lane	Town	Paved	0.08	35	-	60	Not on state maintenance system	Ditches along both sides of roadway, above ground utilities on north side



Road	Ownership	Surface Type	Length (miles in Sedalia)	Speed Limit (mph)	Traffic (2013 AADT)	Right of Way (feet)	Resurfacing Schedule	Barriers/Limitations for Bicycle and Pedestrian Infrastructure
Simmons Lake Drive (SR 2885)	State	Paved	0.48	35	-	70	Not currently on 3-year work plan	Above ground utilities on east side of roadway
Stewart Bend Road (SR 2886)	State	Paved	0.45	35	-	60	Not currently on 3-year work plan	Ditches along both sides of roadway, above ground utilities on north side
Three Cedars Lane (SR 2890)	State	Paved	0.14	35	-	75	Not currently on 3-year work plan	Ditches along both sides of roadway
Totten Road	Town	Unpaved	0.05	35	-	25 - 35	Not on state maintenance system	Vegetation within right-of-way, above ground utilities on east side
Wedding Brook Drive (SR 2987)	State	Paved	0.20	35	_	60	Not currently on 3-year work plan	Above ground utilities on east side of roadway
Wheatstone Drive	Town	Unpaved	0.16	35	-	65 - 75	Not on state maintenance system	No barriers or limitations noted



Public Transportation

Public transportation depends on a bicycle and pedestrian network in order for transit riders to safely access transit stops. Furthermore, a bicycle and pedestrian network links transit stops to community destinations, residences, and businesses. In Sedalia, the Guilford County School System provides school bus transportation to students, which is a form of transit. Safety is compromised for students walking to bus stops due to the lack of sidewalks and shoulders in the town.

In addition to the school system, Guilford County operates demand/response transit service for the elderly and persons with disabilities. There is currently no scheduled fixed route service located within or near Sedalia. A bicycle and pedestrian network would support any future expansion in public transportation.

Utilities

Utilities are an important consideration for bicycle and pedestrian planning. Moving or replacing existing utilities to make room for new bicycle and pedestrian infrastructure can be cost prohibitive. Often, sidewalks and multi-use paths are located on the side of the road where utilities are not present. The exact location of utilities would need to be surveyed during the engineering phase of each project. Coordination would need to occur with utility providers before construction. General information about utilities in Sedalia is noted in Table 3-3 below.

Г	abl	ام	3.	3.	U	til	lities	
L	aU	e	5-	·J.	U	u	nues	

UTILITY	PROVIDER	LOCATION
Electricity	Duke Energy	Above ground and below ground
Telephone	Time Warner and AT&T	Above ground and below ground
TV/Internet	Time Warner, AT&T, DISH Network, DirecTV, Century Link	Above ground
Natural Gas	Piedmont Natural Gas	Below ground
Water	Individual wells	Below ground
Electricity	Duke Energy	Above ground



3.4 Land Use and Development

The Town of Sedalia supports land use planning and development that helps to preserve its uniqueness including its historical, cultural, and natural assets.

The Town of Sedalia Land Use Plan (2009) and April 2015 adopted revisions have the strict intent to plan for growth in a manner that encourages development while improving and preserving quality of life. The Town recognizes the need for a strong land use plan to create positive growth, guiding new development so it does not negatively impact existing character. Sedalia created a development strategy that includes objectives and strategies commercial and residential for development, community infrastructure. community appearance and identity, and citizen involvement and regional cooperation.



Town of Sedalia Future Land Use (2009)

Primary themes in the plan include managing development through integration, not sprawl, with existing commercial, residential, and natural areas. Conservation, diverse housing stock, and mixeduse development are all considered key strategies as a way to preserve the character and scale of the Town. Coordination and participation across regional, local, and public entities are a priority and aim to continually improve the regional and community character.

The *Town of Sedalia Development Ordinance (2000)* defines the growth and development patterns expected for the community. The major areas in the Ordinance include:

- Cluster and zero setback regulations
- Planned unit developments
- The historic district overlay
- The scenic corridor overlay
- The manufactured housing overlay
- Subdivision regulations
- Signage, parking, and planting regulations
- Watershed, soil/sedimentation, and flood protections and preventions

The Town and its outer limits are comprised of mixed-use residential with few commercial businesses. The Palmer Memorial Institute Historic District is a nationally designated Historic District in the southern limits. There is a high number of newer occupied housing units throughout the predominantly residential municipal limits. There are no industrial functions in Sedalia due primarily to Greensboro to the west and Burlington to the east, both of which provide



a high diversity of land uses including industrial, institutional, and some agricultural functions.

Due to development activity around Sedalia, the Town is experiencing and will continue to experience residential growth for the regional employment centers such as Greensboro and Burlington. According to the *Greensboro 2035 Comprehensive Plan*, growth is projected to increase significantly to the south and east of Sedalia. This includes potential commercial, mixed-use, and residential growth and includes a corporate/business park directly south of the Town.



Greensboro Area Land Use Plan (Projected 2025)



3.5 Pedestrian, Bicycle, and Vehicular Traffic Counts and Crash Data

Pedestrian and Bicycle Activity

Pedestrian and bicycle counts were not available for Sedalia. However, the Steering Committee noted bicycle and pedestrian activity on many of the Town's residential streets, primarily on Blue Lantern Road and Sedalia Road. Activity was noted on Burlington Road (US 70). Pedestrians walk along this road to access the stores and services, including the YMCA, in the Stoney Creek Village Shopping Center located just east of Sedalia. On weekends, recreational cyclists pass through Sedalia.

NCDOT Annual Average Daily Traffic Counts

NCDOT prepares Annual Average Daily Traffic (AADT) counts for state roads, which represent the traffic average for the year at specific points. Counts are not available for every road. These counts in conjunction with field visits and discussions with residents help identify high traffic areas that may pose safety concerns for pedestrians and bicyclists.

Two roads within Sedalia, Burlington Road (US 70) and Bethel Church Road, have traffic counts available. The counts are listed in Table 3-4 for the most recent year available, 2013. As noted in the table and confirmed by field visits and discussions with the community, Burlington Road (US 70) is a heavily traveled road and dangerous for pedestrians and bicyclists.

STREET	LOCATION	AADT (2013)		
Burlington Road (US 70)	East of the Sedalia Road intersection	7,600 - 8,300		
Bethel Church Road	East of the Knox Road intersection	2,300		
	2012			

Table 3-4: Annual Average Daily Traffic (AADT) Counts

Source: NCDOT Traffic Survey Group, 2013.



Crash Data

The NCDOT Department of Bicycle and Pedestrian Transportation in collaboration with the UNC Highway Safety Research Center developed the Crash Data Tool, which is a compilation of reported bicycle and pedestrian crashes between 1997 and 2012. There are over 40,000 crashes recorded in the database with comprehensive information such as age, speed, and vehicle type to name a few.

There are no reported bicycle or pedestrian crashes in the database for Sedalia. It is possible that crashes went unreported to the NC Division of Motor Vehicles, which is the source for the database. Safety is still a concern for Sedalia. As was noted in field visits and by the Steering Committee, high speeds, particularly on Burlington Road (US 70), combined with a lack of shoulders and sidewalks present safety concerns for pedestrians and bicyclists.

The Committee noted that there have been four incidents where motorists traveling eastbound on Burlington Road (US 70) at the curve in front of Sedalia Elementary School have run off the road and collided with the school's sign. Fortunately, no students or teachers happened to be at this location when these accidents occurred.

The following intersections and crossings were identified as challenging for bicyclists and pedestrians:

- Blue Lantern Road and Sedalia Road
- Burlington Road (US 70) and Sedalia Road
- Burlington Road (US 70) mid-block crossing to access Sedalia Elementary School
- Burlington Road (US 70) and Rockhurst Drive

3.6 Existing Facilities

Sedalia does not have existing sidewalks, crosswalks, or bike lanes along roads within its town limits. Sidewalks are present on the Charlotte Hawkins Brown Historic Site and Sedalia Elementary School, located on existing US 70. However these existing sidewalk networks are internal to the historic site and school – they do not connect to neighborhoods or other community features.

There is currently lighting on portions of several streets in Sedalia:

- Blue Lantern Road
- Burlington Road (US 70)
- Sedalia Road
- Stewart Bend Road

In general, the existing lighting is sparse and would need to be increased in order to provide adequate safety and security for bicyclists and pedestrians.

3.7 Opportunities and Constraints

The Steering Committee identified numerous opportunities for improving bicycle and pedestrian connectivity and safety within Sedalia through the implementation of infrastructure projects. The following projects were identified at the first committee meeting, which included a walking tour of the community and working session:

• Bicycle and pedestrian amenities on the main roads within Sedalia, which include Blue Lantern Road, Burlington Road (US 70), and Sedalia Road



- Greenways on undeveloped land in the area bounded by Rockhurst Drive, Blue Lantern Road, Sedalia Road, and Burlington Road
- Pedestrian crossing on US 70 / Burlington Road at Sedalia Elementary School
- Hub spots for parking and congregating at Sedalia Elementary School, Charlotte Hawkins Brown Museum, and Town Hall. Hub spots at locations other than the Town Hall would need to be coordinated with the respective department or agency. Parking at the elementary school would need to occur after school hours.

The Committee discussed pedestrian safety at Sedalia Elementary School noting that stationing a crossing guard or police officer would be an integral component of improving safety at the US 70 / Burlington Road crossing.

These opportunities were considered along with programmed projects (See Chapter 5.0: Recommendations).

3.8 Programmed Projects, Pedestrian and Bicycle Plans, and Programs

The City of Greensboro and the Greensboro Urban Area Metropolitan Planning Organization (GUAMPO) have adopted transportation, pedestrian, and bicycle plans that include projects within Sedalia. The following plans have been reviewed in order to foster connectivity and consistency within the region:

• Bicycle, Pedestrian, and Greenway Plan (City of Greensboro, 2006)

- 2012-2018 Metropolitan Transportation Improvement Program (MTIP) (GUAMPO, 2011)
- 2035 Long Range Transportation Plan Update (LRTP) (GUAMPO, 2013)

Both of the MTIP and LTRP plans are financially constrained meaning that the projects proposed must be supported by a financial plan.

Bicycle, Pedestrian, and Greenway Plan

The City of Greensboro and GUAMPO collaborated to develop the *Bicycle, Pedestrian, and Greenway Plan* in 2006. The vision of the plan is to help the region "move from a system of facilities focused on automobiles to an integrated, safe, and convenient multi-modal transportation system." The plan makes recommendations for several facilities within Sedalia.

The *Bicycle, Pedestrian and Greenway Plan* only makes sidewalk recommendations within the City of Greensboro so there are no recommendations for Sedalia. Paved shoulders are proposed on Burlington Road (US 70), Sedalia Road, Bethel Church Road, and Knox Road. They are recommended to be at least 4 feet wide.

Given the high traffic volume on Burlington Road (US 70), a sidepath is proposed along this road starting at Sedalia Elementary School and ending at the Stoney Creek Village Shopping Center. Sidepaths are constructed within the road right-ofway and offer an alternative for bicyclists who are not as comfortable with riding on roads with heavy traffic. Pedestrians can also use these facilities. Sidepaths are optimal in areas with few driveways or intersections due to potential conflicts between motorists and bicyclists.



A signed bicycle route is proposed through Sedalia following Simmons Lake Drive, Blue Lantern Road, and Sedalia Road to Burlington Road (US 70).

This plan proposes one greenway project within Sedalia: "Sedalia's Greenway." This facility is proposed to start at the Northeast Community Trail, west of Sedalia, and continue along Burlington Road (US 70) within the Town. It would join with the proposed Rock Creek Greenway east of Sedalia. The segment east of Sedalia would be a Type III facility as designated by the *Bicycle, Pedestrian, and Greenway Plan.* This segment would be unpaved and 10 to 12 feet wide. Beginning in Sedalia, the greenway would be Type V, meaning that it would be adjacent to Burlington Road (US 70). Type V facilities are often a combination of bicycle lanes and sidewalks or wide paved shoulders. The total length of the facility would be 8.9 miles.



Greensboro Urban Area Comprehensive Bicycle, Pedestrian, and Greenway Plan



2012-2018 Metropolitan Transportation Improvement Program

The Metropolitan Transportation Improvement Program (MTIP) is a document required by the federal government for the transportation planning process. GUAMPO administers this planning process for the region, which includes Sedalia. GUAMPO oversees the area's transportation needs including highways, transit, bicycle, and pedestrian facilities. The MTIP lists transportation projects that have federal and state funding. In order to be adopted, it must be reviewed by the Federal Highway Administration for conformity with air quality regulations. The MTIP must be consistent with the State Transportation Improvement Program (STIP). Both documents are updated every two years. The 2012-2018 MTIP was most recently adopted in August 2011. The next MTIP will be developed in Fall 2015. It is recommended that this Bicycle and Pedestrian Plan be used to help update the MTIP for those projects in the Town of Sedalia.

The current MTIP does not include any pedestrian or bicycle projects within or around Sedalia.

2035 Long Range Transportation Plan Update

The 2035 Long Range Transportation Plan Update (LRTP) was developed by GUAMPO and fulfills federal requirements for transportation planning. It establishes a vision for transportation, including bicycle and pedestrian, in the Greensboro Metropolitan Area for years to come.

The bicycle and pedestrian recommendations made in the 2035 LRTP Update are based on the Bicycle, Pedestrian and Greenway Plan developed by the City of Greensboro and GUAMPO in 2006. The 2035 LRTP Update includes all of the bicycle recommendations made by the Bicycle, Pedestrian, and Greenway Plan except for Sedalia's Greenway. The plan also includes bicycle lanes on the proposed US 70 Bypass around Sedalia. It is recommended that bicycle, pedestrian and shared use path facility projects for the Town of Sedalia be considered for inclusion in current and future planning processes and plans.

Whereas the *Bicycle, Pedestrian, and Greenway Plan* did not make sidewalk recommendations outside the City of Greensboro, the 2035 LRTP Update proposes sidewalks on several roads within Sedalia.

The LRTP proposes to extend High Rock Road south to Sedalia Road and to connect Sedalia Road with Rock Creek Dairy Road at the interchange with I-85. The segment between Sedalia Road and Rock Creek Dairy Road would be on new location. Bicycle and pedestrian projects are proposed for each segment:

- High Rock Road to Bethel Church Road: paved shoulder
- Bethel Church Road to Sedalia Road: sidewalks and wide outside lanes
- Sedalia Road to Rock Creek Dairy Road: sidewalks and bicycle lane

Table 3-5 summarizes the proposed bicycle and pedestrian projects made by these three plans. The Plan ID relates the project to the three plans and corresponds to the footnote below the table.





Greensboro Urban Area MPO 2035 Long Range Transportation Plan Update



FACILITY NAME	FROM	ТО	FACILITY TYPE	PLAN ID*
	PEDEST	'RIAN PROJECT'S		
Bethel Church Road	Knox Road	Garden Acres Drive	Sidewalks	3
	Simmons Lake			
Blue Lantern Road	Drive	Sedalia Road	Sidewalks	3
Burlington Road		Metropolitan Area		
(US 70)	Wendover Ave	Boundary (MAB)	Sidewalks	3
Burnside Road	Grand Oaks Drive	End	Sidewalks	3
Cushman Road	Stewart Bend Drive	End	Sidewalks	3
Dansby Drive	Stewart Bend Drive	End	Sidewalks	3
Grand Oaks Drive	Blue Lantern Road	Stewart Bend Drive	Sidewalks	3
High Rock Road Extension (proposed)	Rock Creek Dairy Road	Bethel Church Road	Sidewalks	3
Martingale Drive	Blue Lantern Road	Stewart Bend Drive	Sidewalks	3
Riverview Drive	Rolling Acres Drive	Wedding Brook Drive	Sidewalks	3
Rockhurst Drive	Burlington Road (US 70) Wedding Brook	Rolling Acres Drive		
Rolling Acres Drive	Drive	Rockhurst Drive	Sidewalks	3
Sedalia Road	Burlington Road	High Rock Road Extension (proposed)	Sidewalks	3
	(0370)	(proposed)	Sidewaiks	5
Simmons Lake Drive	Blue Lantern Road	Bethel Church Road	Sidewalks	3
Stewart Bend Drive	Simmons Lake Drive	Grand Oaks Drive	Sidewalks	3
US 70 Bypass (proposed)	Mt. Hope Church Road	MAB	Sidewalks	3

Table 3-5: Programmed Projects



FACILITY NAME	FROM	ТО	FACILITY TYPE	PLAN ID*
Wedding Brook Drive	Rolling Acres Drive	Riverview Drive	Sidewalks	3
Wheatstone Drive	Rockhurst Drive	Rolling Acres Drive	Sidewalks	3
	BICYC	CLE PROJECTS		
Bethel Church Road	Knox Road	MAB	Paved shoulder	1, 3
Blue Lantern Road	Simmons Lake Drive	Sedalia Road	Paved shoulder	1, 3
	Wendover Ave	MAB	Paved shoulder	1, 3
Burlington Road (US 70)	Sedalia Elementary School	Stoney Creek Village Shopping Center	Sidepath	1, 3
	Rock Creek Dairy Road	Sedalia Road	Bicycle lanes	3
	Sedalia Road	Bethel Church Road	Wide outside lanes	3
H1gh Rock Road Extension (proposed)	Bethel Church Road	High Rock Road	Paved shoulder	3
Knox Road	I-85	Carmon Road	Paved shoulder	1, 3
Sedalia Road	Burlington Road (US 70)	Blue Lantern Road	Paved shoulder	1, 3
Simmons Lake Drive	Blue Lantern Road	Bethel Church Road	Paved shoulder	1, 3
US 70 Bypass (proposed)	Mt. Hope Church Road	MAB	Bicycle lanes	3
	BICYCLE & PI	EDESTRIAN PROJE	CTS	
Sedalia's Greenway	Northeast Community Trail	Rock Creek Greenway (proposed)	Unpaved and Paved Greenway	1

*Plan ID: 1 - Bicycle, Pedestrian, and Greenway Plan, 2 - 2012-2018 Metropolitan Transportation Improvement Program, 3 - 2035 Long Range Transportation Plan Update

PUBLIC INPUT AND DATA COLLECTION

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4.0 Public Input and Data Collection

4.1 Steering Committee

The Steering Committee for bicycle and pedestrian efforts was formed as a dedicated and diverse array of community members, local officials, police, schools, and community organizations. The Committee members are listed in Table 4-1. The Committee met throughout the planning process to help shape the Plan by identifying goals and objectives; identifying pedestrian constraints and opportunities; and prioritizing proposed projects.



Steering Committee (AECOM, 2015)

Following a pre-project meeting held in November 2014, the Steering Committee meeting met on January 17, 2015. The group streamlined a vision statement for the plan and discussed issues the community is facing with regards to bicycle and pedestrian infrastructure. Members discussed an interest in a plan that is feasible with small to large-scale projects that can be implemented through phased planning methods.

A walking tour was conducted with the Committee and identified areas throughout the

community that need improved bicycle and/or pedestrian infrastructure as well as potential projects. The Committee also engaged in a mapping exercise where they were asked to identify existing community assets, areas that need improved bicycle and/or pedestrian facilities, and potential projects of interest.

The Committee met three times throughout the duration of the project:

- November 14, 2014 Pre-Project Meeting
- January 17, 2015 First Steering Committee Meeting
- April 18, 2015 Public Workshop and Second Steering Committee Meeting

The meeting agendas and minutes are included in Appendix A: Public Involvement.

4.2 Public Workshop and Open House

A public workshop and open house was held on April 18, 2015 to give members of the community an opportunity to view the draft Plan and provide comments. The event was held at Town Hall and eight Town residents attended in addition to the Steering Committee.

In addition to providing comments, residents prioritized the bicycle, pedestrian, and shared use path projects. The scores from the public workshop and open house were incorporated into the prioritization process.



NAME	AFFILIATION
Charles Brodie	Community Resident
Duane Bryant	Community Resident
Cam Dungee	Town of Sedalia Municipal Clerk
Andy Gann	Sedalia Elementary School Principal
Sandra Hamlett	Community Resident
Marian Jeffries	Retired Critical Care RN
Marie Martin	Retired RN
Clarence Meachem	Town of Sedalia Councilman
Howard Morgan Sr.	Community Resident
Howard Morgan Jr.	Town of Sedalia Councilman
Tim Moore	City of Greensboro Police Officer
Veronica Nelson	Town of Sedalia Mayor Pro Tem
Ophelia Jones	Town of Sedalia Mayor
Robert Jones	Town of Sedalia Planning Board Chairman
Jeremy Tesh	YMCA Operations Manager
John Vine-Hodge	NCDOT Division of Bicycle and Pedestrian Transportation
Jessie Walker	Retired Fireman
Shinita Wrenwick	Town of Sedalia Councilwoman

Table 4-1: Steering Committee

RECOMMENDATIONS

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5.0 Recommendations

This chapter identifies infrastructure and program recommendations to achieve the goals and objectives of this Plan. Included in this chapter are facility descriptions, proposed bicycle and pedestrian facilities, and recommended policies and programs. Bicycle and pedestrian facilities on bridge projects should match standard widths used for the adjacent facility (such as a bicycle lane, sidewalk, and shared use path) and be in compliance with NCDOT bridge safety standards. All bicvcle pedestrian and facility recommendations along NCDOT-maintained roadways will require review and approval by NCDOT Highway Division 7 prior to implementation.

5.1 Facility Types

This section provides a general overview of bicycle, pedestrian, and shared use facilities. It explains the differences between spot and linear improvements. Design guidelines are included in Appendix C: Design Guidelines.

Bicycle Facilities

A successful biking facility needs to address bike lanes, bike parking, intersections, signals, and signage. Bicycle racks encourage cycling, provide ways to store bikes safely, and discourage users from locking bikes to railings, street trees, and other furnishings.

Dedicated bicycle lanes are the preferred on-street option to carry high volumes of bicyclists and allow them to operate at increased speeds. A bicycle lane (4 to 6 feet in width) can, with uninterrupted flow, carry a high volume of bicycles per hour in one direction. A conventional bike lane is located adjacent to motor vehicle travel lanes and in the same direction as motor vehicle traffic. According to the FHWA, there are several different types of linear bicycle facilities. These include:

Shared Lane Markings: A "standard width" travel lane that both bicycles and motor vehicles share. Shared-lane markings increase a motorist's awareness of the presence of cyclists, reduce the incidence of wrong-way bicycling, and indicate to both drivers and cyclists the ideal lateral positioning of the cyclist

Wide Outside Lane: An outside travel lane with a width of at least 14 feet to accommodate both bicyclists and non-motorized vehicles.

Bicycle Lane: A portion of the roadway designated by striping, signing, and/or pavement markings for preferential or exclusive use by bicycles and/or other non-motorized vehicles.

Separated Bicycle Lane: A portion of the roadway designated for exclusive use by bicycles and separated from motorized traffic by the use of medians, bollards, on-street parking, or differences in elevation.

Shoulder: A paved portion of the roadway to the right of the travel way designed to serve bicyclists, pedestrians, and others.

Multiuse Path: A facility that is physically separated from the roadway and intended for use by bicyclists, pedestrians, and others. The Mountains to Sea Trail is an example of an extensive bike trail that provides opportunities for



serious cyclists, casual riders, and a variety of other uses. In some areas, the trail has extensive dedication to bicycle facilities including separated facilities from the roadway, lane markings, and signage.

Sidepath: Sidepaths are multi-use paths located exclusively adjacent to a roadway, typically within the road ROW. This provides a buffer from vehicular traffic for bicycle and pedestrian travel. Pedestrian Facilities

Walkability in urban, suburban, and rural communities offers many benefits including improved health benefits,

Walkability measures how walkable an area is for pedestrian use

reduced environmental impacts and financial commitments from decreased dependency on the automobile. Providing infrastructure and making existing facilities safer and more inviting for pedestrians can help to increase the walkability of a community. Two types of linear pedestrian facilities are described below.

Sidewalks are the primary elements of the pedestrian environment and are generally constructed of concrete, pavers, or other hard surface. In urban areas, sidewalks are sometimes located adjacent to the road with a curb and/or grassy strip to protect users from vehicular traffic. In suburban areas, sidewalks or wide shoulders along the roadway may be used for pedestrian use. In rural areas, wide shoulders may be the only pedestrian facility and in many cases there are no specific improvements to accommodate pedestrian users.

Pedestrian bridges are typically used to help extend walks and trails across rivers, roads, or

other physical elements that create barriers for circulation. Pedestrian bridges can be utilitarian or an iconic feature of a community.



Pedestrian Bridge (AECOM, 2015)

Shared Use Facilities

The Complete Streets policy (CS) directs NCDOT to consider and incorporate all modes of transportation when building new projects or making improvements to existing infrastructure. Complete Streets are designed to be safe and comfortable for all users, including pedestrians, bicyclists, transit riders, motorists, and individuals of all ages and capabilities.¹ Part of designing with CS principles in mind includes the impact of streets patterns on trip length, connectivity between resources, intersection use, and the overall experience of the user. Both cyclists and pedestrians can benefit from a street that has been designed with the CS policy including improvements for children and individuals with accessibility needs, health advantages, improved public transportation services. economic

¹ NCDOT Complete Street Planning and Design Guidelines, http://completestreetsnc.org/



revitalization, safety enhancements, roadway equity, and a more livable community.²

Multiuse paths are physically separated from vehicular traffic and can include bicycle paths, railtrails, or other facilities specific to bicycle and pedestrian use. Multiuse paths can be a safer facility option because they are not shared with motor vehicles. They serve multiple purposes including recreation and transportation.

Sidepath: Sidepaths are multi-use paths that are located exclusively adjacent to a roadway, typically within the road ROW. These provide space for bicycle and pedestrian travel where on-road bicycle facilities are not feasible due to traffic volumes, speeds, or roadway configuration.



Shared use path (Flickr Creative Commons, Mike Petrucci, 2010)

Linear Facilities and Spot Improvements

Spot Improvements address bicycle and/or pedestrian problems at specific locations such as intersections, short lengths of a roadway, or single destinations. These types of improvements are generally low cost and enhance bicycle and/or surface pedestrian through improvements patching), signing (pothole and striping (pedestrian signs or bicycle lane striping), access improvements (traffic signaling), and bike rack installation.³ At intersections, spot improvements may include crosswalk markings, pedestrian signal heads, pedestrian refuges, and curb extensions.

Linear Improvements are similar to spot improvements but are specific to linear project needs such as sidewalks, bike lanes, or improvements to streetscapes.

² National Complete Streets Coalition, http://www.smartgrowthamerica.org/complete-

streets/complete-streets-fundamentals/factsheets

³ NCDOT Spot Improvement Program,

https://connect.ncdot.gov/municipalities/PlanningGran t/Sample%20Plans/Hertford%20Sample%20Plan%20 -%20Section%209.pdf



5.2 Recommended Facilities

Through collaboration with the Steering Committee and input from the public workshop, infrastructure projects have been identified to improve bicycle and pedestrian safety, increase connectivity, and address the goals and objectives of this Plan. These projects are divided into two main groups: linear facilities and spot improvements. Together, thev form the recommendations for the Town's bicycle and pedestrian network. The linear facility projects consist of several types: sidewalks, bicycle lanes, and shared use paths. These are detailed in Section 5.1: Facility Types.

Spot improvements occur at specific points rather than along sections of roadway. Examples of spot improvements include signage, crosswalks, pedestrian signals, bicycle racks, and trail access points. Often times, linear and spot improvements are implemented concurrently.

Infrastructure projects would be implemented over time due to limited resources and capacity. Projects were divided into two groups: short-term and long-term projects to assist with phasing. Short-term projects are those that could be more readily implemented such as wide paved shoulders, which are less costly than bicycle lanes and do not require curb and gutter sections. Longterm projects represent the long-range vision for Sedalia and include projects that may require additional improvements such as curb and gutter sections for bicycle lanes. They are included in Appendix F: Long-Term Projects.

Within the short-term and long-term groups, projects were prioritized according to five criteria with input from the Steering Committee and community. The prioritization process and results are explained further following the descriptions of the infrastructure projects.

In addition to infrastructure projects, policies, ordinances, and programs have also been proposed to work in tandem with linear facilities and spot improvements. These policies, ordinances, and programs are outlined in Section 5.3: Policies and Section 5.4: Programs.

Linear Facilities

Linear facilities are classified further by their activity type: pedestrian, bicycle, and shared use. Together, linear facilities form a comprehensive bicycle and pedestrian network to provide safe transportation choices for the community.

Bicycle and Pedestrian Facilities

Seven short-term bicycle and pedestrian projects are proposed in Sedalia as noted in Table 5-2 and shown on several exhibits at the end of this chapter. Seven long-term bicycle and pedestrian projects are proposed for the Town and are included in Appendix F: Long-Term Projects tables.

Wide paved shoulders, bicycle lanes, and sidewalks are proposed on both sides of the road. However, sidewalks may be constructed on one side of the road due to limited funding or physical constraints determined through engineering.



Blue Lantern Road



Steering Committee walking along Blue Lantern Road (AECOM, 2015)

Blue Lantern Road is a prominent road in Sedalia that connects residential neighborhoods with community facilities to the south via Sedalia Road. It is a popular route for recreational cyclists as well. Wide paved shoulders are initially proposed on both sides of this road to improve safety and connectivity. As a long-term project, bicycle lanes and sidewalks are proposed.

Current implementation constraints include: ditches along both sides of the road and above ground utilities on the south side.

Burlington Road (US 70)



Steering Committee walking along Burlington Road (US 70) (AECOM, 2015)

Burlington Road (US 70) is the major road through Sedalia, connecting the town with Greensboro in the west and Burlington to the east. According to traffic counts by NCDOT, there was an average of 7,600 to 8,300 vehicles per day. Several community features are located along this road: Town Hall, Sedalia Elementary School, the Charlotte Hawkins Brown Historic Site, the Post Office, and the former Sedalia Old Time Country Store. Given the high traffic volumes, number of community features, and pedestrian activity related to the elementary school, bicycle lanes and sidewalks are proposed as short-term projects.

Bicycle lanes would be constructed on both sides of the road. Sidewalks may be constructed on the north side of Burlington Road or the north and south sides of the road, depending upon funding and right-of-way constraints. Another consideration for the sidewalk location is the proposed shared use path on the south side of Burlington Road as discussed under the section Shared Use Path Facilities.



This project has been divided into three segments due to its length:

- Segment A: Town Limits to Rockhurst Drive
- Segment B: Rockhurst Drive to Sedalia Road
- Segment C: Sedalia Road to Town Limits

Current implementation constraints include: ditches along both sides of the road, above ground utilities, the Charlotte Hawkins Brown, and the Dr. Joseph McLean House historic sites.

Grand Oaks Drive

Grand Oaks Drive is a quiet residential street in the northwest part of the town. It provides connectivity between Blue Lantern Road and Stewart Bend Drive. Sidewalks are proposed on this road to improve pedestrian safety as a longterm project. Current implementation constraints include: ditches along both sides of the road and above ground utilities on the east side.

Rockhurst Drive

Rockhurst Drive is a residential street off of Burlington Road (US 70). Sidewalks are proposed on this street as a long-term project to improve safety and provide connectivity to the proposed shared use path as discussed in the next section. Current implementation constraints include above ground utility crossings of the roadway:

Sedalia Road



Existing conditions on Sedalia Road (AECOM, 2015)

Sedalia Road is the primary north-south road within the town. It connects neighborhoods to the north with community features to the south. It is a two-lane road with a 45 mph speed limit. Wide paved shoulders are proposed as a short-term project on this road to improve pedestrian and bicyclist safety for residents and recreational cyclists that pass through Sedalia. Bicycle lanes and sidewalks are proposed as long-term projects.

There are two bridges on Sedalia Road, one over an unnamed tributary of Rock Creek and the other north of the Blue Lantern Road intersection. Wide paved shoulders and eventually bicycle lanes and sidewalks are proposed on these bridges as well in order to create a comprehensive bicycle and pedestrian network. Due to the length of this project, it has been divided into two segments:

- Segment A Burlington Road (US 70) to Blue Lantern Road
- Segment B Blue Lantern Road to Town Limits



Current implementation constraints include ditches and above ground utilities along both sides of the road.

Sedalia Road is scheduled to be resurfaced in 2017, which may present an opportunity to implement this project at that time.

Simmons Lake Drive

Simmons Lake Drive provides north-south connectivity between Blue Lantern Road and Bethel Church Road, which is just outside of the town limits. It is popular among recreational cyclists passing through the town. For these reasons, wide paved shoulders are proposed initially as a short-term project. Bicycle lanes and sidewalks are proposed as a long-term project. Above ground utilities on the east side of the road are current implementation constraints.

Stewart Bend Road

Stewart Bend Road is a small, residential street between Simmons Lake Drive and Cushman Road. Sidewalks are proposed as a long-term project to improve safety for neighbors. By providing sidewalks on this road, Simmons Lake Drive, Grand Oaks Drive, and Blue Lantern Road, a 1.3 mile walking loop is formed.

Current implementation constraints include ditches along both sides of the road and above ground utilities on the north side.

Shared Use Path Facilities

Shared use facilities are proposed to serve as safe alternatives to roadways, namely Burlington Road (US 70). By accommodating pedestrians and bicyclists on wider paths separated from vehicular traffic, they cater to recreational uses and less experienced bicyclists. These paths would provide Sedalia residents with more opportunities to experience and enjoy the town's natural areas.

A total of nine shared use projects are proposed in Sedalia, most of which are on new location. The backbone of the proposed system of paths is the Rock Creek Branch Greenway which would parallel an unnamed tributary of Rock Creek. Connector paths would connect the greenway with neighborhoods and community features to the north and south.

These projects are proposed as paved paths, but gravel or other surfaces may be considered during the engineering phase. With the exception of Burlington Road (US 70) Sidepath, the shared use path facilities are long-term projects due to the associated costs and implementation constraints of private land.

The proposed shared use facilities are listed in Table 5-2 and shown on several exhibits at the end of this chapter.



Burlington Road (US 70) Sidepath

A sidepath is proposed for bicyclists and pedestrians to parallel Burlington Road (US 70) on the south side from west of Bloomfield Road to the eastern town limits. This path would provide an alternative to bicycling or walking on the heavily traveled Burlington Road (US 70), which has an average daily traffic volume of 7,600 to 8,300 vehicles and a speed limit of 45 mph.

The sidepath would be a 10 foot wide paved path that would accommodate bicyclists and pedestrians and connect several community features: Town Hall, Sedalia Elementary School, the Charlotte Hawkins Brown Historic Site, the Post Office, and the former Sedalia Old Time Country Store.

Rock Creek Branch Greenway

The backbone of the shared use path network for Sedalia is a path along an unnamed tributary of Rock Creek. The Rock Creek Branch Greenway is proposed as a 10 foot wide paved path beginning at the end of Simmons Lake Drive and continuing east to where the tributary flows under US 70, east of the town limits. The shared use path is proposed in this location for several reasons:

- Easement along a stream would likely be easier to acquire than through the middle of a privately-owned parcel
- The stream flows through the geographic center of the town
- Locating a path alongside a stream avoids steep slopes
- The shared use path would parallel Burlington Road (US 70), offering a safer alternative for pedestrians and bicyclists

• The greenway may be paired with a green infrastructure project to improve water quality

The project is divided into four segments due to its length and logical termini at road intersections or municipal boundaries:

- Segment A: Simmons Lake Drive to Rockhurst Drive
- Segment B: Rockhurst Drive to Sedalia Road
- Segment C: Sedalia Road to Town Limits
- Segment D: Town Limits to US 70

All of Segment D is outside of Sedalia's town limits and would require coordination with Guilford County to design and construct.

Connector Paths

Several short connector paths are proposed to connect neighborhoods and community features with the Rock Creek Branch Greenway. These connectors would also be 10 foot wide paved paths, and include:

- Morgan-Summers Connector
- Rockhurst Connector
- Rolling Acres Connector
- Town Hall Connector

These connectors have been proposed to minimize their footprint on privately-owned land by locating them at the end of streets and following natural features such as streams or ponds. Their locations may be refined further during engineering.

In addition to linking neighborhoods and community facilities with the Rock Creek Branch Greenway, these connectors improve north-south connectivity by providing safer alternatives to



walking or biking on Sedalia Road. Furthermore, they decrease walking and biking distances to the Charlotte Hawkins Brown Historic Site, Sedalia Elementary School, the Post Office, and Town Hall.

Regionally, this system of shared use paths offers an alternative to Burlington Road (US 70) for accessing the Stoney Creek Shopping Center.

Planning Context

Nearly all of the proposed greenway and connectors would be on privately-owned lands. This presents a challenge for implementing these projects, but also presents an opportunity to establish relationships with landowners for working cooperatively towards improving safety and connectivity for the town. By proposing shared use paths along streams where possible, the potential impacts to landowners are minimized.

Spot Improvements



Example of a spot improvement (Flickr Creative Commons, John Pastor, 2007)

Spot improvement projects are proposed at intersections and crossings to improve safety for pedestrians and bicyclists.

Several crosswalks are proposed at the intersections of residential streets with Blue Lantern Road and Simmons Lake Drive. These crosswalks in combination with appropriate signage are intended to improve safety for pedestrians by providing increased visibility.

A mid-block crossing is proposed in front of Sedalia Elementary School on Burlington Road (US 70). This crossing is proposed to improve safety for students and visitors walking to the school from Town Hall or neighborhoods west of the school. It should be noted that implementing this project may be difficult due to NCDOT standards on mid-block crossings on roads of this speed and traffic volume. Coordination should be undertaken with NCDOT Division 7 to address safety and connectivity for Sedalia Elementary School through a mid-block crossing or another type of treatment.



A school crossing guard is proposed for Sedalia Elementary School to improve safety for students, faculty, and visitors crossing Burlington Road (US 70). The crossing guard would be present in the mornings and afternoons to coincide with the school's start and end times.

A hub spot with vehicular parking, bicycle parking, and benches is proposed at Town Hall. This project was identified by the Steering Committee in order to serve as a central meeting place for friends and family to gather and park in order to enjoy the nearby community features and proposed shared use path system. The hub spot would be built behind Town Hall on land already owned by Sedalia. It would utilize the existing parking lot at Town Hall to reduce costs and impervious surfaces, which degrade water quality. It would connect with the proposed Town Hall Connector shared use path.

Access points are proposed at the entrances to shared use paths. These access points would have bollards, which are short vertical polls to prevent unauthorized access to motor vehicles. Bollards are designed to be lowered in case of an emergency for police, fire, and rescue access. Wayfinding signs and maps would be included at access points as well to orient visitors and promote Sedalia's culture and heritage.

Short-term bicycle, pedestrian, and shared use spot improvements are listed in Table 5-3 and shown on several exhibits at the end of this chapter. Long-term spot improvements are included in Appendix F: Long-Term Projects.



Prioritization

In addition to grouping projects into short-term and long-term, they were prioritized in order to most efficiently and effectively improve bicycle and pedestrian safety and connectivity in Sedalia. In a context where funding is limited, prioritization is essential for achieving the maximum benefits under constrained budgets.

Prioritizing projects involved applying several qualitative criteria to linear bicycle and pedestrian projects and to shared use path projects. The criteria applied to linear bicycle and pedestrian projects were:

- Connectivity
- Implementation
- Safety
- Proximity
- Community Interest

The same criteria were applied to linear shared use projects except for safety since nearly all proposed shared use paths are on new location where safety data is unavailable.

Each criterion received a score between 1 and 3. The scores in the community interest category were calculated by averaging the points received at the public workshop. Workshop attendees and Steering Committee members were invited to score each linear project. Scores for this category and the others are explained in Table 5-1. Projects were then organized into three priority groups: low, medium, and high. These groups generally have an equal number

Spot improvements were not prioritized because they are anticipated to be built concurrently with the linear facility. For example, the proposed pedestrian signal at the intersection of Sedalia Road and Burlington Road (US 70) is anticipated to be installed when sidewalks are constructed on Burlington Road (US 70) or Sedalia Road.

Detailed results from the prioritization process are provided in Appendix E: Cost Estimates and Prioritization and summary results in Table 5-2. The prioritized projects are mapped on Exhibit 5-5.

The prioritization is meant to serve as a general guide. There may likely be opportunities to implement these projects in an order other than the order in which they were prioritized. For example, NCDOT is scheduled to repave Sedalia Road in 2017 so it would be advantageous to construct wide paved shoulders at that time even though Sedalia Road is not the highest ranked project. The prioritization in this Plan should generally be followed as it directly reflects the public input from Town residents and the Steering Committee. This should not, however, prevent the Town from taking advantage of pedestrian or bicycle improvements as these opportunities present themselves.



CRITERIA	1 POINT	2 POINTS	3 POINTS
Connectivity	• Provides connectivity within a neighborhood only	• Provides connectivity within Sedalia only	• Provides regional connectivity
Implementation	 No existing curb and gutter Privately owned land Right-of-way constraints Outside of town limits 	 No existing curb and gutter Privately owned land Right-of-way constraints 	 Existing curb and gutter Publicly owned land Available right-of-way
Safety	 No reported pedestrian, bicycle, or vehicular crashes Residential street, little traffic 	 No reported pedestrian, bicycle, or vehicular crashes Major road, heavier traffic 	 Reported pedestrian, bicycle, or vehicular crashes Major road, heavier traffic
Proximity	• Far from community features	• Close to some community features	• Close to several community features
Community Interest	• Low Interest	• Medium Interest	• High Interest

Table 5-1: Prioritization Criteria





Bicycle and pedestrian facilities were prioritized together because they share common road segments. It is advantageous to implement bicycle and pedestrian projects on the same road segment simultaneously in order to realize cost savings and minimize disruptions due to construction.

The highest possible score for a project was 15 points. The scores ranged from 6 to 13, with Burlington Road (US 70) Segments B and C as the highest ranked projects and Stewart Bend Road as the lowest ranked project.

Prioritization is described for each project in order of highest to lowest ranking.

Burlington Road (US 70) – B 13 points

This was the highest scoring project due to its close proximity to community features such as Sedalia Elementary School and the Charlotte Hawkins Brown Historic Site, high community interest, and its connectivity to other bicycle and pedestrian projects in Sedalia. Burlington Road (US 70) also provides important regional connectivity to Greensboro and Burlington. It scored high for being able to address safety concerns due to past vehicular accidents on Burlington Road in front of Sedalia Elementary School and higher student-pedestrian activity. This project scored medium for implementation due to potential right-of-way constraints of adding sidewalks given historic site restrictions.

Burlington Road (US 70) – C 13 points

This project also scored high due to its proximity to community features in Sedalia and the Stoney Creek Shopping Center just east of the town. It would also promote connectivity, particularly to communities east of Sedalia. Similar to the Burlington Road (US 70) – B project, implementation may be difficult due to constraints posed by the historic site. The community expressed high interest in this project.

Sedalia Road – A 12 points

Sedalia Road is the third project in the high priority group. Similarly to the Burlington Road (US 70) projects, it is also in close proximity to community features. One primary reason for its high score is that it is one of two facilities providing north-south connectivity within the town. It received a medium score for safety because no bicycle or pedestrian crashes were reported on this road. However, it should be noted that safety is still a concern due to the absence of wide shoulders and high vehicular speeds. With the exception of curb and gutter sections, there do not appear to be issues associated with implementation such as narrow rights-of-way.

Burlington Road (US 70) – A 10 points

The third project in the Burlington Road (US 70) system also scored well for the same reasons as segments B and C. The key differences between this segment and the others are that implementation may be easier because it would not pass through the historic district and that proximity to community features is less.

Blue Lantern Road

10 points

Blue Lantern Road provides east-west connectivity within the town, connecting





neighborhoods in the northwest with community facilities to the south. The road itself is not in close proximity to community features, which resulted in its low score for that category. Implementation constraints are similar to the other projects. Recreational cyclists have been observed on Blue Lantern Road, which further contributed to its high scores in connectivity and community interest.

Simmons Lake Drive

10 points

Similarly to Sedalia Road, Simmons Lake Drive provides important north-south connectivity, particularly for neighborhoods in the northwest and for recreational cyclists passing through the town. Implementation constraints are similar to the other projects. The road is not in close proximity to community features.

Sedalia Road – B

9 points

This segment of the Sedalia Road project scored lower than the first segment because it is not as close to community features. Furthermore it would not provide the same level of connectivity as the first segment because it would end at the town limits. Implementation constraints are similar to the other projects.

Rockhurst Drive

8 points

Although Rockhurst Drive is located in close proximity to community features, it scored lower because it does not provide the regional connectivity that other facilities in the town do. It scored lower for addressing safety concerns since safety is not as much a concern on this quieter, residential street. Implementation constraints are similar to the other projects.

Grand Oaks Drive

7 points

Like Rockhurst Drive, Grand Oaks Drive scored lower because it would not provide regional connectivity and safety is not as much a concern on this residential street. It is not in close proximity to community features. Implementation constraints are similar to the other projects.

Stewart Bend Drive

6 points

Stewart Bend Drive is another quiet, residential street where safety is not as much a concern in comparison with major roads like US 70. This road is further from community features. It provides connectivity within the neighborhood, but does not provide regional connectivity. Implementation constraints are similar to the other projects.


Shared Use Path Facilities

Shared use facilities were prioritized apart from bicycle and pedestrian facilities because they would not share common road segments.

The highest possible score for a project was 12 points. The scores ranged from 6 to 11, with the Burlington Road (US 70) Sidepath and Rock Creek Branch Greenway – B as the highest ranked projects. The lowest ranked project was the Rolling Acres Connector. With the exception of the Burlington Road (US 70) Sidepath project, all other shared use path projects are considered long-term projects due to the associated costs and implementation constraints of private land.

Prioritization is described for each project in order of highest to lowest ranking.

Burlington Road (US 70) Sidepath 11 points

This project was one of the two highest scoring projects because of its proximity to several community features including the Charlotte Hawkins Brown Historic Site, the Post Office, Sedalia Elementary School, and Town Hall. It would provide bicyclists and pedestrians with an alternative to Burlington Road (US 70), separated from vehicular traffic that travels at high speeds. This project would provide connectivity within Sedalia and to the Stoney Creek Shopping Center, just east of the town's limits. Implementation would require coordination with NCDOT, the Charlotte Hawkins Brown Historic Site, and the Guilford County School System.

Rock Creek Branch Greenway – B 11 points

This segment of the Rock Creek Branch Greenway was the one of the two highest scoring projects mainly in part due to its proximity to several community features: the Charlotte Hawkins Brown Historic Site, the Post Office, Sedalia Elementary School, and Town Hall. It also scored high for connectivity because it would provide an alternative for pedestrians and bicyclists to Burlington Road (US 70) between Rockhurst Drive and Sedalia Road. It would also form the backbone of the greenway system, allowing for future connections to neighborhoods north and south via greenway connector paths.

This project ranked medium for implementation because it would be located on privately owned land. However, it is planned to follow a stream so as to minimize impacts to private landowners.

Town Hall Connector 9 points

The Town Hall Connector scored well because of its proximity to many community features and because it would connect the proposed hub spot for parking and meeting up at Town Hall with the Rock Creek Branch Greenway. Some of this project would be located on land already owned by the Town, making implementation easier. However, the section north of Town Hall would be on privately-owned land. An easement with the landowner would need to be negotiated, or the property purchased.

Morgan-Summers Connector 9 points

The Morgan-Summers Connector scored well because it would provide important connectivity for neighborhoods off of Blue Lantern Road with the Rock Creek Branch Greenway. Furthermore, it would provide a safer alternative to Sedalia Road for pedestrians and bicyclists. It scored medium for implementation due to privately



owned land and medium for proximity because it is further from community facilities.

Rock Creek Branch Greenway – C 9 points

This segment of the Rock Creek Branch Greenway would only provide connectivity to community features if Rock Creek Branch Greenway – D were constructed. For this reason, it ranked lower for connectivity. Although it would be constructed on privately owned land, it would follow a stream so as to minimize impacts to private landowners.

Rock Creek Branch Greenway – A 8 points

This segment of the Rock Creek Branch Greenway scored in the middle of the projects because it is not as close to community features and would not provide the same level of connectivity as Rock Creek Branch Greenway – B or other projects. Although it would be constructed on privately owned land, it would follow a stream so as to minimize impacts to private landowners.

Rockhurst Connector 8 points

The Rockhurst Connector would provide a similar function to that of Rock Creek Branch Greenway – A by providing connectivity to the northern parts of the town. It ranked lower than Rock Creek Branch Greenway – A because it is further from community features and would require the use of more privately owned land.

Rock Creek Branch Greenway – D 7 points

This segment of the Rock Creek Branch Greenway scored as a lower project primarily because it is located outside of Sedalia's town limits. In addition to the implementation considerations regarding private land ownership, implementation would be dependent upon Guilford County. This segment would be in close proximity to community features located in the Stoney Creek Shopping Center, east of the town's limits.

Rolling Acres Connector 6 points

This shorter project would provide more direct connectivity between Rock Creek Branch Greenway, Town Hall, and Burlington Road (US 70). It was ranked lower than other projects because it is not as close to community facilities and would be located on privately owned land.



Cost Estimates

Costs for infrastructure projects have been estimated using general construction costs from the Pedestrian and Bicycle Information Center (PBIC). PBIC receives funding from the U.S. Department of Transportation Federal Highway Administration and is part of the University of North Carolina Highway Safety Research Center.



In October 2013, the PBIC released a report titled *Costs for Pedestrian and Bicyclist Infrastructure Improvements.* This report provides cost estimates for over 70 types of bicycle and pedestrian facilities by compiling more than 1,700 cost figures from construction and engineering bids around the country. Most cost figures are from 2010, 2011, and 2012. Interviews with various departments of transportation around the country

were also conducted as part of this Plan. Given how comprehensive this study is, it was the preferred source for estimating costs of infrastructure projects for Sedalia. The study provides the average, median, high, and low cost estimates for each item. The median estimate was used for the purposes of this Plan as the average estimate may be skewed by outliers.

The estimated costs are approximate and are subject to change based on the current price of materials and labor. They also may be more or less dependent on the actual conditions that would be determined during the planning and engineering phase. The estimates provided in this document include engineering, design, and construction. These estimates do not include the costs of complementary amenities such as benches, landscaping, and water fountains. These estimates are intended to serve as a relative guide for a rough order of magnitude.

The costs associated with stationing a crossing guard at Sedalia Elementary School were estimated using costs from the City of Raleigh Police Department.

The total estimated cost of all short-term facilities is \$1,307,700 and \$2,647,200 for long-term facilities.

Estimated costs for short-term linear facilities are included in Table 5-2 and spot improvements in Table 5-3. Long term facility costs are included in Appendix F: Long-Term Projects.

Cost figures used in project estimates are included in Appendix E: Cost Estimates and Prioritization for linear facilities and spot improvements.

PRIORITY	FACILITY NAME	FROM	ТО	LENGTH (miles)	FACILITY GROUP	FACILITY TYPE	C	OST ESTIN	MATE*	POTENTIAL IMPLEMENTATION CONSTRAINTS	MAP ID**
Bicycle and Pedestrian Facilities											
High	Burlington Rd. (US 70) – B	Rockhurst Dr.	Sedalia Rd.	0.60	Bicycle, Pedestrian	Sidewalks + Bicycle Lanes	\$	230,000	Ditches along both sides of roadway, above ground utilities on south side, historic district on both sides by the Charlotte Hawkins Brown Historic Site		3
High	Burlington Rd. (US 70) – C	Sedalia Rd.	Town Limits	0.59	Bicycle, Pedestrian	Sidewalks + Bicycle Lanes	\$	230,000	Ditches along both sides of roadway, above ground utilities on south side		4
High	Sedalia Rd – A	Burlington Rd. (US 70)	Blue Lantern Rd.	0.79	Bicycle	Wide Paved Shoulders	\$	60,000	Ditches along both sides of roadway, above ground utilities on both sides		7
Medium	Burlington Rd. (US 70) – A	Town Limits	Rockhurst Dr.	0.40	Bicycle, Pedestrian	Sidewalks + Bicycle Lanes	\$	150,000	Ditche utilities or	es along both sides of roadway, above ground n south side, Dr. Joseph McLean House historic site on north side	2
Medium	Blue Lantern Rd.	Simmons Lake Dr.	Sedalia Rd.	1.09	Bicycle	Wide Paved Shoulders	\$	80,000	Ditches along both sides of roadway, above ground utilities on south side		1
Medium	Simmons Lake Dr.	Blue Lantern Rd.	Bethel Church Rd	0.49	Bicycle	Wide Paved Shoulders	\$	40,000	Abc	we ground utilities on east side of roadway	9
Low	Sedalia Rd – B	Blue Lantern Rd.	Town Limits	0.44	Bicycle	Wide Paved Shoulders	\$	40,000	Ditches along both sides of roadway, above ground utilities on both sides		8
				Su	btotal Bicycle and	d Pedestrian Linear Facilities	\$	830,000			
				Sh	nared Use Path F	acilities					
High	Burlington Road (US 70) Sidepath	West of Bloomfield Rd.	Town Limits	1.35	Shared Use Path	Shared Use Path	\$	450,000	Ditche utilities or	es along both sides of roadway, above ground a south side, historic district on both sides by the Charlotte Hawkins Brown Historic Site	32
Subtotal Shared Use Path Linear Facilities					\$	450,000					
TOTAL						\$	1,280,000				
*Costs have been	Costs have been rounded to the nearest hundred or thousand.										

Table 5-2: Proposed Short-Term Bicycle, Pedestrian, and Shared Use Path Linear Facilities

**Map ID does not denote project ranking.



PRIORITY	FACILITY LOCATION	FACILITY GROUP	FACILITY	C ESTI	OST MATE*	POTENTIAL IMPLEMENTATION CONSTRAINTS	
High	Charlotte Hawkins Brown Historic Site	Bicycle	Bike Parking	\$	500	Coordination should be undertaken with the Charlotte Hawkins Brown Historic Site	19
High	Post Office	Bicycle	Bike Parking	\$	500	Coordination should be undertaken with the Post Office	22
High	Sedalia Elementary School	Pedestrian	Crossing Guard	\$	4,000***	The stationing of a crossing guard on Burlington Road (US 70) may be difficult due to high vehicular speeds. Coordination should be undertaken with NCDOT Division 7 and the Guilford County School System	
High	Sedalia Elementary School	Bicycle	Bike Parking	\$	500	Coordination should be undertaken with the Guilford County School System	23
High	Sedalia Elementary School	Pedestrian	Crossing Island	\$	10,000	Implementation of a crossing island on Burlington Road (US 70) may be difficult due to high vehicular speeds. Coordination should be undertaken with NCDOT Division 7 and the Guilford County School System	24
Medium	Sedalia Rd. and Blue Lantern Rd.	Pedestrian	Improved Signage	\$	800	Ditches on northwest side of intersection, above ground utilities on all sides, high vehicular speeds on Sedalia Road	25
High	Sedalia Rd. and Burlington Rd. (US 70)	Pedestrian	Improved Signage	\$	800	Sidewalks may be required before a crosswalk and pedestrian signal are installed. Coordination should be undertaken with NCDOT Division 7	26
Low - High	Shared use path intersections with roads	Shared Use Path	Access Points (2)	\$	5,200	Access points to shared use paths may require private land. Efforts should be taken to locate them in public right-of-way when possible.	27
High	Town Hall	Bicycle	Bike Parking	\$	500	Implementation constraints not anticipated	30
Medium	Town Hall	Shared Use Path	Hub Spot	\$	4,900	Implementation constraints not anticipated	31
			TOTAL	\$	27,700		

Table 5-3: Proposed Short-Term Bicycle, Pedestrian, and Shared Use Spot Facilities

*Costs have been rounded to the nearest hundred or thousand.

Map ID does not denote project ranking. *Annual, recurring cost.

GSO K



Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit 5-1: Short Term Proposed Bicycle Projects

Bicycle Spot Improvements							
	Bicycle Parking						
Bicycle Linear Facilities							
_	Bike Lane						
	Wide Paved Shoulder						
	Interstate						
	US Route						
	Local Road						
	Stream						
	Waterbody						
	Charles W. Bundrige Athletic Field						
	Historic District						
	Sedalia Town Limits						
	Guilford County						





Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit 5-2: Short Term Proposed Pedestrian Projects

Pedestrian Spot Improvements							
\bigcirc	Crossing Island						
\bigcirc	Improved Signage						
Pedestrian Linear Facilities							
	Sidewalk						
	Interstate						
	US Route						
	Local Road						
	Stream						
	Waterbody						
	Charles W. Bundrige Athletic Field						
	Historic District						
	Sedalia Town Limits						
	Guilford County						





Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit 5-3: Short Term Proposed Shared Use Path Projects

Shared Use Path Spot Improvement						
\bigcirc	Access Points (2)					
	Motor Vehicle Parking					
Shared Use Path Linear Facilities						
	Shared Use Path Linear Facilities					
	Interstate					
	US Route					
	Local Road					
	Stream					
	Waterbody					
	Charles W. Bundrige Athletic Field					
	Historic District					
	Sedalia Town Limits					
	Guilford County					





Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit 5-4: Short Term Proposed **Bicycle and Pedestrian Network**

Proposed Network

	Bicycle Spot Improvements
--	---------------------------

- Pedestrian Spot Improvements
- Shared Use Path Spot Improvements
- **Bicycle and Pedestrian Linear Facilities**
- **Bicycle Linear Facilities**
- Shared Use Path Linear Facilities

Community Features

- Stream 6 Commercial Interstate G Education US Route Government Local Road 0 Health Waterbody Historic Charles W. Bundrige Place of Worship A Athletic Field Point of Interest 0 Historic District Post Office Town Limits **Guilford County** ¹∕₂ ⊒ Miles 1/4 August 2015 entucky Virginia
 - South Carolina Atlantic Ocean Georgia



Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit 5-5: Short Term Prioritized Linear Bicycle, Pedestrian, and Shared Use Path Facilities

Prioritized Bicycle and Pedestrian Facilities

High Priority

Medium Priority

Prioritized Bicycle Facilities

- High Priority
- Medium Priority
- Low Priority

Prioritized Shared Use Path Facilities

- High Priority
- Stream
- Interstate
- US Route
 - Local Road
 - Local Road
 - Waterbody

ſ	 		

Charles W. Bundrige Athletic Field

- Historic District
- Sedalia Town Limits
- **Guilford County**





5.3 Policies

The Town of Sedalia should implement policies and provisions of the Town of Sedalia Land Use Plan, Development Ordinance, Bicycle and Pedestrian Plan, and the following policies and regulations. This involves pursuing comprehensive strategies that incorporate bikeability and walkability in all future planning and development decisions.

Strategies recommended include, but are not limited to:

- Implementation of Complete Streets policy
- Coordination of bicycle and pedestrian facilities in the Town of Sedalia
- Implementation of bicycle and pedestrian improvements contained in the Town of Sedalia Land Use Plan and the Town of Sedalia Bicycle and Pedestrian Plan
- Formation of a Bicycle and Pedestrian Advisory Committee or appointment of a Town Council member to focus on bicycle and pedestrian issues
- Coordination with neighboring towns and cities to expand the regional network of shared use path facilities
- Annual review of the implementation of programs and projects recommended by this Plan

Including safe and alternative options to vehicular use can help encourage residents to walk or bike for both transportation and leisure purposes. Redevelopment and new development permitted in Sedalia should therefore promote cycling and walking. The Town Council should encourage bicycling and pedestrian activity by:

- Requiring bicycle and pedestrian facilities in local ordinances for all new planned office, institutional, commercial and residential development
- Reducing reliance on the automobile as the only viable transportation option and promote bicycling and walking for healthy living
- Promoting expansion of bicycle and pedestrian amenities on roadways through local ordinances
- Promoting shared use path facilities for recreation through local ordinances
- Requiring bicycle and pedestrian facilities on all roadway improvements through local ordinances
- Promoting bicycle, pedestrian, and shared use path connectivity in Sedalia and surrounding communities through local and regional/state ordinances

The Town should advocate that land use and zoning changes comply with bicycle, pedestrian, and land use policies. Sedalia should promote a more bicycle and pedestrian-friendly environment in and around new infill development, redevelopment, and natural areas. An example would be redevelopment of strip mall parking lots to provide ground space for new offices and/or businesses.

Requirements for new bicycle and pedestrian infrastructure should be consistent throughout the Town's planning jurisdiction as follows:

• Signage policies that designate bike usage on roadways through local and regional/state ordinances. This is an important measure to increase driver awareness of cyclists for improved safety



- All roadway resurfacing, widening, or repainting should include or consider the installment of shared lane markings for cyclists or bicycle lanes in accordance with standard NCDOT roadway widths NCDOT resurfacing schedule: https://connect.ncdot.gov/resources/Asset-Management/Pages/HMIPDIV.aspx
- Encourage commercial development that incorporates Complete Streets policies for use by both cyclists and pedestrians through local and state ordinances/regulations
- All new office/institutional/commercial and residential developments should provide sidewalks, provide buffering from vehicular traffic and off-street parking lots, and provide trees that will shade sidewalks. Sidewalks should also be provided on any frontage road adjacent to the development that does not currently have sidewalks. These sidewalks should be of adequate width according to the standards set in this Plan for future levels of pedestrian usage. Trees, utility poles, and street furniture shall not be placed where they may hinder the view from pedestrian crosswalks and intersections. In some cases, developments offer suitable walkway connections or traffic calming without the need to include sidewalks on both sides of the roadway within the neighborhood or along frontage roads and thoroughfares. If the Town feels that suitable pedestrian linkages exist or when residential densities are less than four dwelling units per acre facilities such as an off-road path may be proposed. These recommendations should be included or updated in local ordinances and zoning codes
- When a bicycle, pedestrian, or shared use path project is included as part of a new development, it should be built to the

minimum standards as recommended in this Plan and per existing and future local ordinances and zoning codes

- When an existing sidewalk or path is closed for construction or maintenance reasons – on the walkway itself or on adjacent property – an adequate detour route should be established if feasible and in accordance with local and/or state standards
- All local, state, and federal road and bridge project planning and construction projects must include reasonable non-motorized accommodation for both bicycles and pedestrians. According to NCDOT policy, 5 to 6 foot-wide sidewalks shall be included on new bridges, and a determination on providing bicycle lanes or sidewalks on one or both sides of new bridges will be made during the planning process according to the NCDOT Pedestrian Policy Guidelines. NCDOT shall fund all or part of the cost of sidewalks or wide-paved shoulders when they are mapped and recommended as part of a transportation plan
- All walkways and shared use paths must in compliance with ADA accessibility standards

Local Ordinance Recommendations

There are development standards in the Town's current Development Ordinance that should be modified to require bicycle, pedestrian, and shared use path facilities consistent with standards contained in this Plan for more bicycle and pedestrian-oriented development.

The existing regulations for pedestrian facilities as defined in Sedalia's zoning code should be amended to require a minimum distance of 4 feet from the edge of pavement to the center of shared



lane markings, a minimum 4 feet (recommended 5 feet) for a bike lane, and 8 feet for sidewalks in office/institutional/commercial districts. Other areas, including residential districts should have 4 feet (recommended 5 feet) for bike lanes and 5 foot-wide sidewalks with a minimum of 2 foot-wide planting strips. Eight foot-wide buffers are recommended for the planting of any shade tree.

Bicycle infrastructure including bike lanes, bicycle boulevards, paved shoulders, shared and marked lanes, and shared use paths should have designated signage to help direct cyclists and enforce motorists of common roadway use. Signage and shared lane markings become an important measure for enforcement when bicycle infrastructure is planned with joint on-street parking. Local ordinances should encourage these measures for improved bicycle facilities and also consider implementing standards for storage and parking for cyclists where feasible.

Sidewalks should be clear of obstructions such as utility poles, sign posts, fire hydrants, bike racks, newspaper stands, etc. These objects must remain in the furniture zone or planting buffer strip. Other standards contained in Appendix C: Design Guidelines should be incorporated into the Development Ordinance. Vertical clearance should be at least 7 feet from ground level to the bottom edge of signs or the lowest tree branches.

Shared use paths should accommodate both bicyclists and pedestrians through adequate widths that consider passing needs and different uses (see section below under General Shared Use Path Recommendations). Drainage, lighting, signage, and slope should all be considered for accessibility of shared use and side paths.

General Bicycle Infrastructure Recommendations

Currently, the Town of Sedalia does not have specific bicycle facility standards in the Town's Development Ordinance. It is recommended that bicycle lane facilities be 4 to 6 feet at a minimum. For designated bike lanes with on street parking, the bike lane should be 5 feet at a minimum, and where parking is prohibited the bike lane should be 4 feet in width at an absolute minimum. Paved shoulders are recommended to be 4 feet wide at a minimum and should include pavement markings. Where speeds are 55 mph and above, paved shoulders should be 5 feet wide at a minimum. Designated bike lanes are ideal for streets with heavy vehicle traffic as it provides improved safety measures. Bicycle lanes at intersections should be included in the design and development of potential future facilities. According to AASHTO recommendations, typical shared lanes with on street parking should be placed at 11 feet from the face of curb. Streets without on street parking, shared lane markings should be at least 4 feet from the face of curb at a minimum.

General Sidewalk Recommendations

The recommendations of this Plan to require sidewalks in neighborhoods and on arterial roads to be a minimum of 5 feet wide should be included in the code and amended from the current 4 foot requirement (Ordinance 5-13.3 (G) 6). This ordinance should clearly state and require the 5 foot-wide sidewalk width requirement that NCDOT and ADA recommends (AASHTO, 2012). NCDOT Division of Highways requires sidewalks standards no less than what is required by the American with Disabilities Act (ADA), which require widths of a minimum of 3 feet for a



maximum of 200 feet in length, where level areas of 5x5 feet must be available for wheelchairs to be able to pass and reverse direction. ADA standards also restrict cross slopes of more than 2%. For these reasons, NCDOT's Division of Bicycle and Pedestrian Planning has its own Design and Construction Standards (Section 6.3.1. -Sidewalks). These standards recommend 5 feet minimum width for planting strips or buffers between curbs and sidewalks. This prevents excessive cross slopes that would otherwise occur where a driveway meets a sidewalk adjacent to the curb.

General Shared Use Path Recommendations

Paths should be 10 feet in width to accommodate both bicyclists and pedestrians including enough space for bicyclists to pass another user in the same direction (NCDOT, 2007). Access points and crossings should be conspicuous to both road and path users with sight lines should be maintained for cross visibility. A path should have a graded (sloped) area of at least 3 to a minimum (recommended 5 feet) to accommodate drainage and vegetation. The MUTCD (FHA standard highway signs and markings) requires a minimum of 2 feet clearance to post mounted signs or other traffic control devices. Shared use paths should be ADA compliant, including access points. These and other standards should be incorporated into Development Ordinances for the Town of Sedalia moving forward.

Speed Limits

The Town should evaluate policies that incorporate low speed design in residential and commercial street improvements and plans. As Sedalia develops the proposed bicycle and

pedestrian facilities, streets will change to accommodate these uses. Narrow lane widths, curvy alignments, landscaping, shorter building setbacks, wide-paved shoulders, bicycle lanes, sidewalks, and other traffic calming features could eventually and naturally decrease the current driving speed. Lower posted speed limits on roads with higher design speeds, and increased law enforcement would be necessary to deter where speeding, particularly cyclists and pedestrians must share the roadway with cars. Residential streets with bike lanes or sidewalks will become safer and thus more attractive to the pedestrian and cyclist if the speed limit were to be reduced to 20 mph or less.



5.4 Programs

Several programs to provide education, promote safety, and enforce applicable traffic laws are recommended for Sedalia. These programs are organized in the following sections: education, safety, enforcement and evaluation, events, and beautification. Sedalia may want to focus on the Watch for Me NC and Safe Routes to School programs in particular. The benefits of these programs are described in more detail within this section.

Essential to the implementation of these programs is an appointed Town Council member or a Bicycle and Pedestrian Advisory Committee to oversee these efforts.

Bicycle and Pedestrian Advisory Committee/Appointed Council Member

The Steering Committee helped inform this Plan and facilitate its adoption. The efforts of the Committee should not end here. Rather, the Sedalia Town Council may appoint a council member or form a Bicycle and Pedestrian Advisory Committee to continue bicycle and pedestrian planning efforts and program implementation in Sedalia. The choice to appoint a council member or form a committee may be based on whether a committee is warranted for a small community and whether there is interest by Town residents to serve.

If an Advisory Committee is formed, it may include some existing Steering Committee members, Planning Board members, and additional residents concerned about bicycle and pedestrian issues and needs in the community. Membership of the Committee should reflect the demographic makeup of the Town in terms of age, race, and socioeconomic status. Representatives from community groups, schools, and businesses should be members.

The Advisory Committee would be charged with the principal objective of advocating for bicycle and pedestrian safety and mobility through education campaigns and infrastructure projects.

The Committee would research funding opportunities, grant applications, and play a role in selecting and monitoring the work of consultants designing and building pedestrian infrastructure. It would also serve to form partnerships between schools, businesses, and surrounding town and cities including Greensboro and Burlington.

The Committee should meet regularly and provide updates to the Sedalia Town Council. In addition to implementing infrastructure projects as discussed in Section 5.2, the following education, safety, enforcement and evaluation, events, and beautification are recommended as well.

Education

Driver Education

Driver education is essential for teaching and reminding drivers of all ages the applicable laws and responsibilities of motorists as they pertain to safely sharing the road with bicyclists and pedestrians.

Although children aged 5 to 15 are not yet old





enough to drive, it can be expected that the majority will become automobile users. At the same time young drivers are very impressionable and this provides excellent opportunities to educate the driving population. Pedestrian safety, as well as how to safely maneuver an automobile while in the presence of pedestrians and bicycles can be an instrumental part of any driver's education program in Sedalia. This training will allow this new generation to be more aware of the simple fact that motorized vehicles do not have sole right to the transportation network, and it is everyone's responsibility to be careful when in the roadways.

Education of bicycle and pedestrian users is one component of providing safe and responsible facilities. Law enforcement, and particularly police officers, should also be educated on applicable bicycle and pedestrian laws and expectations. Not only are these individuals also users of facilities, they also help to enforce and provide guidance for a community of bicyclists and pedestrians.

Specifically, Sedalia may partner with the Guilford County Sherriff's Office to hold workshops and place signs around the community reminding drivers to slow down and pedestrians to walk opposing traffic.

More information can be found at http://www.ncdot.gov/dmv

The NC Bicycle and Pedestrian laws can be found at http://www.ncdot.gov/bikeped/lawspolicies/laws/

Bicycle and Pedestrian Education

Many bicycle and pedestrian crashes occur because a traffic law(s) was disobeyed. Crossing signalized intersections on the red phase, bicycling or walking on the roadway in the same direction as traffic, and darting across traffic lanes are not only dangerous, they are illegal.

There is often confusion about the direction a bicyclist should ride when using on-road facilities. Bicyclists are legally expected to ride with the flow of traffic because a bicycle is deemed a vehicle according to the Motor Vehicle Laws of North Carolina. Similarly, cyclists must stop at stop signs and red lights like any roadway user. Lights and other reflectors should be used at night or during inclement weather, the law requires a headlight and rear light for bicyclists. Passing and turning when using a bicycle should use signal turns with arms and hands. There are many resources regarding bicycle education online for distribution purposes.

Indeed, much of the reasoning why a pedestrian breaks the law is because of conditions unknown to the motorist such as the scarcity of proper crossing locations or the absence of walkways out of the roadway. Unfortunately, many pedestrians take unnecessary risks, may not know which traffic laws apply to them, or actively choose not to follow the law. In addition to creating safe walking areas for pedestrians, walkers must be taught to respect the laws for their own safety. Pedestrian education courses should be offered at schools, libraries, or on informational web sites.

There are many national sources to help provide input for bicycle and pedestrian education. A few of these include:

Pedestrian and Bicycle Information Center: http://www.pedbikeinfo.org/programs/education.cfm

Designing Sidewalks and Trails for Access:

 Part I of II: Review of Existing Guidelines and Practices http://www.fhwa.dot.gov/environment/bicy cle pedestrian/publications/sidewalks/



 Part II of II: Best Practices Design Guide https://www.fhwa.dot.gov/environment/bic ycle_pedestrian/publications/sidewalk2/

League of American Bicyclists Bicycle Education: http://www.bikeleague.org/programs/education/

Watch for Me NC

With more than 2,400 pedestrians and 960 bicyclists hit by each vehicles each year in North Carolina, NCDOT in collaboration with municipalities and universities has launched the Watch For Me NC campaign to reduce crashes through education and enforcement. Education materials in the form of a website, public service announcements, pamphlets, bus wraps, billboards, and bumper stickers have been developed and distributed to increase awareness of pedestrians and bicyclists and applicable laws. The campaign provides increased training to law also enforcement. Sedalia may coordinate with the City of Greensboro, which has participated in the Watch for Me NC campaign.

Many of these resources are downloadable from the More information can be found at Watch for Me NC

http://www.watchformenc.org/



Watch for Me NC Campaign bumper sticker

Safety

Bicycle Helmet Initiative

Facilitated by NCDOT's Department of Bicycle and Pedestrian Transportation (DBPT), the Initiative works to reduce bicycle related accidents of children through the promotion of helmet use, developing proper usage into and through adulthood. The DBPT supports local agencies and schools to encourage the program, offering a maximum of 24 helmets per year to each involved organization or group.

Partners include: Department of Public Instruction (DPI), Department of Health and Human Services (DHHS), Department of Insurance's NC Safe Kids

Let's Go NC - Bicycle and Pedestrian Curriculum

Aimed to instruct children between grades k-5, the program focuses on walking and biking safety and skills. As a way to promote healthy and active lifestyles, a curriculum was developed that includes aspects of the Safe Routes to School program, and classroom, video, and exercise materials.

Partners include: NCDOT, DPI, NC Safe Kids, NCATA

More information can be found at: https://connect.ncdot.gov/projects/BikePed/Pages/L etsGoNC.aspx



Safe Routes to School



Sedalia may consider implementing a Safe Routes to School (SRTS) Program to further improve bicycle and pedestrian safety for the students who bike or walk to school.

Safe Routes to School (SRTS) is a program that enables and encourages children to walk and bike to school. The program helps make walking and bicycling to school a safe and more appealing method of transportation for children. SRTS facilitates the planning, development, and implementation of projects and activities that will improve safety and reduce traffic. fuel consumption, and air pollution in the vicinity of schools.

The North Carolina Safe Routes to School Program is supported by federal funds through SAFETEA-LU and MAP-21 legislation. Please note that all SRTS projects "shall be treated as projects on a Federal-aid system under chapter 1 of title 23, United States Code." Although no local match is required and all SRTS projects are 100% federally funded under the SAFETEA-LU, agencies are encouraged to leverage other funding sources that may be available to them, including grant awards, local, state, or other federal funding. SRTS funds can be used for proposed projects that are within 2 miles of a school public or private, K-8, in a municipality or in the county jurisdiction. In response to the Strategic Transportation Investments law of June 2013, proposed SRTS projects will be considered as part of the Bicycle and Pedestrian project input with Strategic Prioritization Office for funding consideration. Most of the types of eligible SRTS projects include sidewalks or a shared-use path. However, intersection improvements (i.e. signalization, marking/upgrading crosswalks, etc.), on street bicycle facilities (bike lanes, wide paved shoulders, etc.) or off-street shared-use paths are also eligible for SRTS funds. For a more inclusive list, please visit the FHWA SRTS program at: http://www.fhwa.dot.gov/environment/safe_rou tes_to_school/overview/

The general steps of a SRTS Program are outlined below by the North Carolina Division of Bicycle and Pedestrian Transportation:

- 1. Bring the right people together. Identify people who want to make walking and bicycling to school a safe and appealing transportation alternative. Provide a mechanism for a variety of community members to share concerns, interests, and knowledge, which will enable the group to tackle many different issues.
- 2. Hold a kick-off meeting. The kick-off has two goals: to create a vision for the SRTS program and to generate the next steps to take.
- 3. Gather information and identify issues. Specific barriers to address through the program will be identified by collecting useful information at the outset. This baseline data also provides a



means by which the group can measure its success.

- 4. Identify solutions. Each issue identified will have a unique solution to address it. Comprehensive solutions will include a combination of engineering, education, encouragement, and enforcement strategies.
- 5. Make a plan. Every SRTS action plan should include the strategies and solutions identified through step 4 as well as a time schedule to implement them. Plans also should include a map of the area it covers and a process for evaluating and fine-tuning the program.
- 6. Get the plan and people moving. Some parts of the SRTS action plan can be implemented right away, with little to no funding – take advantage of these opportunities while waiting for other parts, and keep the big picture in mind.
- 7. Evaluate, adjust, and keep going. As the program is implemented, monitor the impact it is making and gauge the effectiveness of each strategy. Continue ones that are working well, and modify or redirect strategies that are not providing satisfactory outcomes.

The Active Routes to School program is a NC Safe Routes to School Project supported by a partnership between the NC Department of Transportation and the NC Division of Public Health. Project coordinators across the state work to make it easier for elementary and middle school students to safely walk and bike to school. The project coordinators work with partners in their communities to increase:

• One-time awareness events about the importance of Safe Routes to School

- The number of ongoing programs that encourage walking and biking to or at school
- The number of trainings on how to implement Safe Routes to School-related activities.
- The number of policies that support walking and biking to or at school.
- The number of safety features near schools.

More information can be found at Safe Routes to School National Partnership

http://saferoutespartnership.org/state/srts-in-your-state/northcarolina

http://www.ncdot.gov/download/programs/srts/srts. pdf

More information about the Active Routes to School program can be found at:

http://www.communityclinicalconnections.com/What _We_Do/Active_Routes_To_School/index.html



School Safety Patrol Programs

School Safety Patrol Programs across the United States have been responsible for decreased pedestrian/vehicle collisions. The American Automobile Association (AAA), municipalities, and schools have sponsored these important safety programs in the past, and could be implemented at Sedalia Elementary School. AAA offers training and equipment to start safety patrol programs.

More information can be found at:

http://exchange.aaa.com/safety/childsafety/aaa%E2%80%99s-school-safety-patrol/

WalkBikeNC: Safety and Health



North Carolina has an overweight/obesity rate of more 65%, increasing the risk of disease and adverse health conditions statewide (WalkBikeNC Report, Page 1-7). Through the provision of bicycle facilities, pedestrian paths and sidewalks, alternative routes to school, and improvements to roadway crossings, Sedalia can improve the safety of alternate transit as a way to encourage the physical activity and health of its residents. The WalkBikeNC Plan outlines a series of programs and initiatives that can work in parallel to local and NCDOT efforts to support pedestrian infrastructure.

More information can be found at WalkBikeNC http://www.ncdot.gov/bikeped/planning/walkbikenc

Enforcement and Evaluation

Essential to pedestrian safety is enforcing existing driving laws and speed limits. It is recommended that the Guilford County Sherriff's Department continues to enforce the Town's speed limits to minimize bicycle and pedestrian related safety concerns.

Pedestrians also have a responsibility to abide by laws pertaining to them such as crossing at crosswalks and walking in the direction of oncoming traffic. Town police should encourage pedestrians to follow the laws in the interest of safety.

Speed Limit Reduction

The average speed limit in the Town of Sedalia is 35 mph to 45 mph on major roads including Sedalia Rd (45 mph) and Blue Lantern Rd (35 mph). The Town may consider reducing speed limits especially on 45 mph roads, which would greatly improve bicycle and pedestrian safety. Other communities have instituted a program called "Twenty's Plenty" to raise awareness on automobile speeds and pedestrian safety. As illustrated with national data in the graphs to the right, the severity of pedestrian/automobile incidents greatly decreases with lower automobile speeds. At 20 mph, the percentage of pedestrians killed by being struck by a car dramatically decreases Pedestrian and Bicycle Information Center (2013).





Bicycle Information Center http://www.pedbikeinfo.org/

Bicycle and Pedestrian Needs Checklist

The Town staff can work to identify improvements on an ongoing basis for the purpose of evaluation and possible enforcement. This includes both identification of bicycle and pedestrian needs but also an opportunity for facility inspection and maintenance. A checklist can be defined using the identification of facilities in this Bicycle and Pedestrian Plan, but should be expanded on an as-needed basis.

Pedestrian Safety Education Campaign

The Guilford County Sherriff's Department should develop a Pedestrian Safety Education Campaign to place signs along road that remind pedestrians to walk facing traffic. In addition to these signs, a campaign may also include: workshops for motorists and pedestrians on applicable laws and safety and events to raise awareness such as walks.

More information can be found nationally and North Carolina specific at:

http://safety.fhwa.dot.gov/local_rural/pedcampai pe/

http://www.ncdot.gov/bikeped/safetyeducation/ materials/

Events

Bicycle Rodeos

A bicycle rodeo is a skills event that offers bicyclists an opportunity to develop and practice for becoming a better bike rider. More specifically, the program is "designed to help show kids in local neighborhoods how to be safer on bikes." This includes active learning opportunities for improved awareness' and safety. Often hosted by a municipality, a bicycle rodeo involves skilled instructors who focus on training in bike handling skills and on-street experiences to develop confidence in traffic. The Organizer's Guide to Bicycle Rodeos provides the fundaments of an effective program and includes organization tools, planning and designing the course(s), and various games that can be played during the event.



More information can be found at An Organizer's Guide to Bicycle Rodeos http://www.bike.cornell.edu/pdfs/Bike_Rodeo_404.2. pdf

Bicycling and Walking Programs

A "Weekend Walkabout" can be coordinated with the NCDOT to bring attention to pedestrian infrastructure and highlight places to walk in the community. The event can be organized around historic sites, park walks, or neighborhood tours. Walking programs offer not only awareness, but also encourages community and/or families to be more physically active. The "Walk to School Day" and the "Bike Month," both which take place nationally every fall, can also be a used in conjunction to stimulate bicycling and walking in Sedalia. This concept is included in the statewide WalkBikeNC Plan.

More information can be found at WalkBikeNC http://www.ncdot.gov/bikeped/planning/walkbikenc

Program recommendations can be found at http://www.walkbikenc.com/plan-resources/#program

Bicycling or Walking Youth Engagement Contest

In the past, the NCDOT helped to host a statewide competition to both educate and engage students about walking and bicycling activities. This has been accomplished through school districts to schedule either audio, visual, or other media forms to market the health and recreational benefits of walking and/or bicycling. Events have been planned around the contest and a final vote on the best educational and promotional final project. This contest is encouraged by the WalkBikeNC Plan.

More information can be found at WalkBikeNC http://www.ncdot.gov/bikeped/planning/walkbikenc

Program recommendations can be found at http://www.walkbikenc.com/plan-resources/#program

Bike or Walk to Work, Shop, School and Play Days

Designate a day, or ideally a week or month where people walk to their destinations. This can coincide with International Walk to School Week, or with Bike to Work Week, or with another common "Hike, Bike, and Bus" week that some municipalities sponsor. Advertise these events, have some fun events along common pedestrian routes, and offer prizes and recognition for model participants. International Walk to School Week typically falls on the first week of October. Walk to School events can be as simple as a few kids and parents meeting to walk to school or can be very elaborate celebrations. Event logistics range from a central walking location to people walking from their homes. Successful events have the support and participation of the principal, police and parents, and programs such as this give public agencies and representatives the opportunity to publicly support health, environment and safety initiatives.

More information can be found at Walk to School http://www.walktoschool.org/

Walking School Bus

A walking school bus is a group of children walking to school with one or more adults. It can be as informal as two families taking turns walking their children to school to an event that is more structured such as a route with meeting points, a



timetable and a regularly rotated schedule of trained volunteers.

More information can be found at Walking School Bus http://www.walkingschoolbus.org/

Walk a Child to School in North Carolina

Thanks to the national initiative and support from the NC Governor's Highway Safety Program, Walk a Child to School Programs have gained a foothold in North Carolina and are growing each year. To date more than 5,000 students in 12 communities in the state have participated.

Access International Walk to School's website at www.walktoschool.org to let them know about what the Town of Sedalia is doing today to encourage children to walk (or bike) to school.

More information can be found at Walk Bike to School http://www.walkbiketoschool.org/

Open Street Events

Once some of the recommended projects are constructed, it would create a perfect opportunity for regular special events. A festival could be set up at the Town Hall, at a park, or on a greenway spurring a new experience that may draw more interest in pedestrian facilities.

An international trend is to turn major Town roads into "Sunday Parkways." This concept takes long strips of roadways (linear or in a looping pattern) and converts one or both directions of traffic to pedestrian malls or for bicycle rides during a portion of every Sunday and holiday. This encourages people to get out and walk or bicycle, increases the amount of public space, and motivates people to walk more often throughout the rest of the week. This concept is included in the statewide WalkBikeNC Plan.

More information can be found at WalkBikeNC http://www.ncdot.gov/bi keped/planning/walkbike nc

Program recommendations can be found at http://www.walkbikenc.co m/planresources/#program



Beautification

Adopt a Sidewalk Program

Adopt a Road programs are common, enabling members of the community to sponsor and help to clean a road with litter and other debris. Sedalia can begin a similar program for its sidewalks and multi-use paths once they are built. This program could also be used as a means for the community to alert the Town when there is a maintenance issue with a sidewalk, or as a means for a sidewalk get special attention, funding, and to improvements because of the dedication of its community sponsor. This program will encourage a sense of pride and ownership of the sidewalks and paths.

IMPLEMENTATION STRATEGY



6.0 Implementation Strategy

Achieving the vision, goals, and objectives of this Plan will require the commitment of Town Officials and Staff, Bicycle and Pedestrian Advisory Committee or appointed Town Council member, GUAMPO, NCDOT, the Region 5 Active Routes to School Coordinator, as well as support and leadership from the community and other partner organizations. Guided by the goals, objectives, and strategies, the Town will continue working to improve bicycle and pedestrian safety and connectivity.

The implementation strategy for this Plan includes several components to assist with translating this document into implemented programs and constructed bicycle and pedestrian facilities:

- Key Action Steps
- Project Development Strategies
- Funding Process and Sources
- Performance Evaluation Measures

Adopting this Plan is a necessary first step for improving bicycle and pedestrian safety and mobility in Sedalia. Coordination with local NDOT Division 7 and Greensboro Urban Area Metropolitan Planning Organization (GUAMPO) will be critical to implementing the infrastructure projects proposed in this Plan. Sedalia has a representative on GUAMPO's Transportation Advisory Committee (TAC) that could assist with coordination.

GUAMPO is currently in the process of updating its Long Range Transportation Plan (LRTP) and bicycle and pedestrian plan. The plans are expected to be finalized in Fall 2015. The timing of these plans with this one provides an opportunity for including Sedalia's top priority projects in the GUAMPO plans. This would make these top projects more competitive for funding.

It is important to note that all bicycle and pedestrian facility recommendations along NCDOT-maintained roadways will require review and approval by NCDOT Highway Division 7 prior to implementation.

6.1 Key Action Steps

The Bicycle and Pedestrian Advisory Committee (BPAC) or appointed Town Council member is entrusted with overseeing the implementation of the Plan with assistance from Town Staff and participation by the stakeholders. The BPAC would be responsible for meeting regularly to receive updates and guide progress on the action steps. It would also author the annual progress report submitted to the Town Council on bicycle and pedestrian conditions in Sedalia.

Table 6-1 identifies key action steps for the successful implementation of this Plan. The timeline for the action steps is a meant as a general guide and can be modified as necessary.



	Step	Action	Stakeholder	Timeline	Relevant Plan Section
1	Adopt the Sedalia Bicycle and Pedestrian Plan	Present the Plan to the Sedalia Town Council for adoption	Town Council and Town Staff	Winter 2015	
2	Establish a Bicycle and Pedestrian Advisory Committee or Appoint a Town Council Member	Form an advisory committee of Town residents or appoint a Town Council member to oversee the implementation of the Plan	Town Council and Town Staff	Winter 2015	Section 5.4 Programs
3	Form partnerships with Charlotte Hawkins Brown Historic Site, GUAMPO, and Sedalia Elementary School	Hold an initial meeting with the stakeholders to provide an overview of the Plan's recommendations and identify opportunities for collaboration	Charlotte Hawkins Brown Historic Site, GUAMPO, and Sedalia Elementary School, Sedalia GUAMPO representative, Region 5 Active Routes to School Coordinator	Winter 2015 and ongoing	Chapter 5.0 Recommendations
4	Coordinate with NCDOT Division 7	Hold an initial meeting with NCDOT Division to review how the Plan's bicycle and pedestrian projects may be incorporated in upcoming transportation projects affecting Sedalia including the Division's resurfacing schedule	NCDOT Division 7 and Town Staff	Ongoing	Section 5.2 Recommended Facilities
5	Coordinate with GUAMPO to include infrastructure projects in the regional	Hold an initial meeting with GUAMPO to review the Plan's infrastructure projects to include them where appropriate in regional plans including the	GUAMPO and Town Staff	Winter 2015 and ongoing	Section 5.2 Recommended Facilities

Table 6-1: Key Action Steps


	Step	Action	Stakeholder	Timeline	Relevant Plan Section
	planning process	updated GUAMPO Bike and Pedestrian Plan, Long-Range Transportation Plan			
6	Amend Town Ordinances	Draft amendments of Town Ordinances following the recommendations of this Plan in order to support bicycle and pedestrian infrastructure in new development	Town Council and Town Staff	Winter 2015	Section 5.3 Policies
7	Apply for alternative funding sources for the Plan's projects and programs	Referring to the funding sources identified in this Plan, apply for funds in addition to the STIP process to implement the Plan's programs and projects	BPAC or appointed Town Council member and Town Staff	Ongoing	Section 6.3 Funding
8	Town Budget Planning	Identify potential funding sources for bicycle and pedestrian programs and projects in the town's budget such as Powell Bill funds. Most infrastructure projects will require a local match.	BPAC or appointed Town Council member, Town Council and Town Staff	Spring 2016	Section 6.3 Funding
9	Implement Policies and Programs	Implement policies and programs to improve safety and promote exercise, health, and wellbeing. One such program is NCDOT's Watch for Me NC campaign, which raises safety awareness and provides educational resources. Applications are typically due in the spring.	BPAC or appointed Town Council member and Town Staff	Ongoing	Section 5.3 Policies and Section 5.4 Programs
10	Sedalia Bicycle and Pedestrian Annual Memo/Report	Prepare the first Sedalia Bicycle and Pedestrian Annual Memo/Report assessing progress made over the past year using the performance and evaluation measures included in this Plan	BPAC or appointed Town Council member and Town Staff	Spring 2017	Section 5.4 Programs



6.2 Project Development Strategies

Before constructing the infrastructure projects proposed in this Plan, the project development process will need to occur, which involves:

- Engineering and design (feasibility study)
- Identifying right-of-way availability and needs
- Affected property owners
- Public Involvement
- Design-level cost estimates

The project development process will vary depending on whether the project is on-road or off-road on new location. Bicycle lanes and sidewalks would be considered on-road facilities because they are constructed within the road rightof-way. The shared use paths proposed in Sedalia are off-road facilities because they would not be built within the road right-of-way.

Both on-road and off-road projects will require an engineering and design phase, also known as a feasibility study. Likely, a feasibility study would be done for each proposed project, or a small group of projects. This study will examine the utility and right-of-way issues associated with a proposed facility and provide detailed plans and profiles. The study would determine if right-ofway acquisition is necessary for the project. The study should be conducted in consultation with NCDOT. Sedalia may need to fund or provide a local contribution towards this study.

Public involvement is a critical component to solicit community input on the location, design, and function of the facility project. The key differences in the project development strategies between on-road and off-road facilities are explained below.

Pedestrian and Bicycle Facilities

Pedestrian and bicycle projects proposed in this Plan would be on-road facilities that require coordination with NCDOT. In Sedalia, the local highway division is NCDOT Division 7. As identified in the key action steps table, coordination with the Division should be initiated following the adoption of this Plan. There may be opportunities to include the on-road bicycle and pedestrian facilities proposed by this Plan in road repaving and widening projects.

For example, by coordinating with the Division early on, bicycle lanes and sidewalks could potentially be included in the bridge replacement project on Sedalia Road or the US 70 Bypass around Sedalia.

There are more state funding opportunities for bicycle and pedestrian projects that are included as part of a larger road project than those that are independent projects. This funding distinction between incidental and independent projects is discussed further in Section 6.3: Funding.

Shared Use Facilities

Shared use projects proposed in this Plan would be off-road facilities that require different strategies for project development. The key difference between on-road and off-road facilities is that off-road facilities are often constructed outside of the road right-of-way. They are typically planned parallel to streams, which in many cases is



on privately owned property. In these instances, private land will need to be acquired or a land easement negotiated with the private landowner in order for the project to be realized.

Sedalia may partner with Guilford County as well as with conservation and land trust organizations to secure needed easements or acquire land for the shared use projects. The county has an open space program to conserve land. Shared use paths may be a permitted use on lands protected by this program. The local land trust in Guilford County is the Piedmont Land Conservancy. Its mission is:

"Piedmont Land Conservancy permanently protects important lands to conserve our region's rivers and streams, natural and scenic areas, wildlife habitat, and farmland that make the Piedmont a healthy and vibrant place to live, work and visit for present and future generations."

For facilities that are planned adjacent to streams and waterbodies, it is important to consider buffer regulations and applicable watershed protections. Sedalia is in the Cape Fear River Basin. During the engineering phase, coordination should be undertaken with the Guilford County Planning Department, which includes Soil and Water Conservation. and the North Carolina Department of Environment and Natural Resources (NCDENR) in order to ensure that facilities are engineered to avoid buffer zones or ecologically sensitive areas.

These facilities may be designed in conjunction with enhancing or constructing vegetated stream buffers to improve water quality. Such projects may be eligible for funding from the Clean Water Management Trust Fund, as discussed in the next section.

6.3 Funding

This section discusses the state funding process and other potential funding sources. Bicycle and pedestrian projects fall into two funding categories: independent projects and incidental projects. Independent projects are those that are unrelated to a roadway project such as adding sidewalks to an existing road. Adding sidewalks on Burlington Road (US 70) would be an example of an independent project.

Incidental projects are those that are included as part of a roadway project. For example, bicycle lanes proposed on the US 70 Bypass around Sedalia would be an incidental project because they would be implemented when the road is constructed.

State Funding Process

In June 2013 the North Carolina General Assembly overhauled the process for funding state transportation projects by ratifying the Strategic Transportation Investments (STI) Law (House Bill 817). This law establishes the Strategic Mobility Formula to allocate funds based on quantitative criteria and local input. The formula is intended to: "to maximize North Carolina's existing transportation funding to enhance the state's infrastructure and support economic growth, job creation and high quality of life."

The formula funds projects according to three categories: Division Needs (30%), Regional Impact (30%), and Statewide Mobility (40%). The local NCDOT division and Metropolitan/Rural Planning Organization (M/RPO) provide input in the Division Needs Category.



Bicycle and pedestrian projects (separate from facilities included as part of a roadway project) may only be funded through the Division Needs category and with certain restrictions. In the current STIP (2016-2025) bicycle and pedestrian projects represent 23% of Division Needs projects.

Coordination with NCDOT Division and MPO

Sedalia may coordinate with NCDOT Division 7 and GUAMPO on several funding sources for implementing bicycle and pedestrian infrastructure. The Congestion Mitigation and Air Quality Improvement (CMAQ), Highway Safety Improvement Program (HSIP), and Surface Transportation Program - Direct Allocation (STP-DA) are three programs that could potentially fund bicycle and pedestrian infrastructure projects in Sedalia.

CMAQ is administered by the NCDOT Transportation Planning Branch and requires that the local applicant estimate the positive impacts of building a bicycle or pedestrian project on local air quality. HSIP funds bicycle and pedestrian projects based on crash history and safety factors through a competitive process. It is administered by the NCDOT Transportation Mobility and Safety Unit. STP-DA is managed by GUAMPO and is eligible for use on bicycle and pedestrian projects. CMAQ and STD-DA require 20% local matches.

Additionally, the inclusion of Sedalia's bicycle and pedestrian projects in GUAMPO's updated Long Range Transportation Plan (LRTP) and bicycle and pedestrian plan would make them more competitive for funding. The plans are expected to be finalized in Fall 2015.

Powell Bill Funds

Sedalia may use its allocation of Powell Bill funds from the state to fund bicycle and pedestrian infrastructure projects. These funds are generated by the motor fuel sales tax and appropriated annually by the State to qualifying municipalities. Sedalia is an eligible municipality and received approximately \$15,430 in 2014 (North Carolina State Street-Aid Allocations to Municipalities, 2014). According to state statutes, funds "shall be expended only for the purposes of maintaining, repairing, constructing, reconstructing or widening of local streets that are the responsibility of the municipalities or for planning, construction, and maintenance of bikeways or sidewalks along public streets and highways." The use of these funds would be at the discretion of the Town Council.

Nonprofit Funding Sources

In addition to federal and state funding sources, Sedalia may seek funds for bicycle and pedestrian programs and infrastructure projects from local, state, and federal nonprofits and foundations. Each grant has different eligibility requirements, funding amounts, and application timelines. A listing of potential nonprofits and foundations is provided in Appendix D: Funding Sources.



Other Funding Sources

Sedalia may consider alternate funding sources to augment state funds for bicycle and pedestrian projects, which are competitive. These programs may be used to fund entire projects or be directed towards covering the cost of spot improvements like crosswalks or amenities such as benches and signage. Potential funding sources are listed below more details are included in Appendix D: Funding Sources.

Federal Funding Sources

- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Highway Safety Improvement Program (HSIP)
- State and Community Highway Safety Grant Program (Section 402)
- Surface Transportation Program (STP)
- Transportation Alternatives Program (TAP)
- Urbanized Area Formula Program (UZA)

State Funding Sources

- Clean Water Management Trust Fund
- Land and Water Conservation Fund
- Parks and Recreation Trust Fund (PARTF)
- Powell Bill
- Recreational Trails Program
- Strategic Mobility Formula
- Safe Routes to School (SRTS)

Local Funding Sources

- Capital Reserve Fund
- Fees
- General Obligation Bonds

Nonprofit Funding Sources

- Blue Cross Blue Shield of North Carolina Foundation
- The Community Foundation of Greater Greensboro
- Kate B. Reynolds Charitable Trust
- Robert Wood Johnson Foundation
- Weaver Foundation
- 6.4 Performance and Evaluation Measures for Plan Implementation

In order to evaluate the progress and effectiveness of the Sedalia Bicycle and Pedestrian Plan, the following table (Table 6-2) lists evaluation criteria and examples of achieved progress that the Bicycle and Pedestrian Advisory Committee or appointed Town Council member and Town Council can use. These criteria and milestones are based on the goals and objectives of this Plan, which are described in Section 2.3.

The evaluation of the Plan should occur annually and be published in the form of a memo or report made available to the residents of Sedalia. The report should detail the progress made to date and the priorities for the coming year. This annual memo or report will help to demonstrate the benefits of pedestrian infrastructure and programs as well as generate further support for the ongoing work of the Town's bicycle and pedestrian projects. This page left intentionally blank



PLAN GOAL	PLAN OBJECTIVE	PERFORMANCE EVALUATION	EXAMPLES OF PROGRESS ACHIEVED			
GOAL & OBJECTIVE 1: Bicycle and Pedestrian Safety						
	Improve education and training for	Number of safety education campaigns in the community	Participation in the Watch for Me NC program			
Improve safety for pedestrians and cyclists, with an emphasis on already heavily used routes	both the public and professionals regarding safe driving, walking, and biking in the Sedalia community	Number of bicycle and pedestrian- related safety incidents	Decrease in number of bicycle and pedestrian-related safety incidents			
	bining in the sedana community	Posted speed limits on roads within the town	Speed limits reduced to improve bicycle and pedestrian safety			
	GOAL & OBJECTIVE 2: Bic	ycle and Pedestrian Network				
Create and provide safe bicycle and pedestrian networks, remove barriers and enhance connections between community origins and destinations such as schools, stores, and places of worship	Develop bicycle and pedestrian accommodations along Sedalia's roadways and off-road shared use paths	Miles of pedestrian, bicycle, and shared use facilities constructed in a specific period of time (e.g. 3 miles within 5 years)	Goal achieved for the miles of pedestrian, bicycle, and shared use facilities constructed			
(GOAL & OBJECTIVE 3: Physica	l Activity, Health, and Wellbeing	g 5			
Encourage walking and biking to promote physical activity, health and well-being, sustainability and economic benefits	Partner with schools, community groups, organizations, and town government to plan and hold events such as walk-to-school days that encourage walking and biking	Bicycle and pedestrian counts Number of miles walked or biked	Increase in bicycle and pedestrian activity as measured by bicycle and pedestrian counts and number of miles walked or biked			

Table 6-2: Performance and Evaluation Measures for Plan Implementation



PLAN GOAL	PLAN GOAL PLAN OBJECTIVE PLAN CBJECTIVE					
	GOAL & OBJECTIVE 4: Conn	ect Cultural and Historic Sites				
Connect Sedalia's cultural and	Create walking and bicycling	Implemented infrastructure projects that connect cultural and historic sites	Sidewalks, bicycle lanes, and shared use paths constructed that connect cultural and historic sites			
historic sites through sidewalks and bike paths	information and wayfinding to Sedalia's cultural and historic sites	Interpretive signage and maps on bicycle and pedestrian facilities that describe the cultural and historic context of the area	Enhanced wayfinding on constructed sidewalks and multi-use paths			
	GOAL & OBJECTIVE 5: Bicy	cle and Pedestrian Education				
Educate the community as to the benefits of pedestrian activity and applicable rules and regulations	Increase awareness of safe walking, biking, and driving practices through community events and signage	Yearly events to enhance community understanding of safety measures for pedestrians and cyclists	Driver and pedestrian education and Safe Routes to School Programs implemented; WalkBikeNC strategies utilized			
	GOAL & OBJECTIVE 6: Funding and Partnerships					
Seek funding and partnerships to	Identify funding sources and partnerships with local businesses, nonprofits, and GUAMPO	Sedalia's bicycle and pedestrian infrastructure projects included in the State Transportation Improvement Program (STIP)	Funding secured to implement bicycle and pedestrian infrastructure projects			
implement the Plan	implement the Plan implement the Plan	Applications for funding sources in addition to the STIP process	Grant funds and other alternative funding sources awarded to implement infrastructure and programmatic improvements			



PLAN GOAL	PLAN OBJECTIVE	PERFORMANCE EVALUATION	EXAMPLES OF PROGRESS ACHIEVED
		Sponsorships of bicycle and pedestrian awareness events with local businesses, schools, or places of worship	Bike to School Day held in partnership with Sedalia Elementary School

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APPENDICES

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Appendix A: Public Involvement

This appendix contains the following documents:

- Pre-Project Meeting Minutes
- First Steering Committee Meeting Agenda
- First Steering Committee Meeting Sign-In Sheet
- First Steering Committee Meeting Minutes
- Second Steering Committee Meeting Agenda
- Second Steering Committee Meeting Sign-In Sheet
- Second Steering Committee Meeting Minutes
- Public Workshop Agenda
- Public Workshop Sign-In Sheet
- Public Workshop Comments



Town of Sedalia NCDOT Bicycle & Pedestrian Plan Steering Committee Meeting November 14, 2014

Attendees:

Cam DungeeOphelShinita WrenwickRoberMarian JefferiesAndyJesse WalkerSandrDuane BryantMarie

Ophelia Jones Robert Jones Andy Gann Sandra Hamlett Marie Martin

<u>Minutes</u>

I. Introduction of committee members, stating name, address and affiliation to Sedalia.

II. Summary:

The Town of Sedalia applied for the NCDOT Bicycle & Pedestrian Planning Grant Initiative in 2012. Alley Williams Carmen & King helped the town with the application process, but unfortunately Sedalia was not accepted. The Town Council agreed to apply again in 2013 and this time the Wooten Company helped with the submitting process. Sedalia was thrilled to learn that our application was chosen and would be granted funds to complete a comprehensive plan for the town. The fully executed planning agreement (contract) was approved by the council in August 2014. One of the requirements is to put together a steering committee, which will represent the community and give feedback for development of the plan. The committee will also provide information on the existing conditions, ensure that the plan accurately reflects Sedalia, and that it is tailored to meet the outcome that the towns desires. Cindy Camacho and her team from URS Corp. has been assigned to help manage this project. They have copies of our Land Use Plan and our Development Ordinance. At the request of URS Corp., the clerk also sent them copies of our previous grant applications (NCDOT Bike/Ped Planning Grant & NCDOT Powell Bill Grants). The team has already been very helpful thus far, and they are excited about our future development. URS is a leading provider of engineering, construction, and technical services for public agencies and private sector companies around the world. It was learned that AECOM Technology Corporation, which is the world's #1-ranked engineering design firm, recently announced its merger with URS Corporation. Sedalia will be in good hands as this merger makes them the #1 ranked engineering company in the world. The Guilford County Mapping Dept. provided base maps for us to work with, and once the draft map is done, it will be sent directly to the team. URS Corp. will meet with us after the holidays for our big working session. This time together will be approx. 4-5 hours long, which will include lunch or dinner depending on the time of day. A good January date needs to be decided that works best for the majority of the committee members. Please come prepared to walk some of the streets in the community in order to get a visual of what's needed and desired.



III. Topics of Discussion:

17

- The committee discussed the main roads that people generally walk and ride bikes.
- The subject of what type surfaces should or can be used for the greenway space, whether asphalt, concrete, gravel or dirt. It was discussed how the town would be responsible for the upkeep and maintenance. Everyone needed a clear definition of greenway trails and pedestrian paths. The committee would prefer sidewalks on the main roads and maybe bike paths through the woods that would connect to the main roads. Some ideas of greenway trails are paths that go by the main roads, and are used as means of transportation (walking, jogging, and biking).
- There were concerns that emergency vehicles would need access to the paths in the woods. There were also concerns about safety issues, loitering, and lighting.
- It was decided to put all sidewalks on the sides of the roads already traveled by walkers and bikers (see map)
- Would all trails, paths, sidewalks need to be wheelchair accessible.
- Overall, the committee wants to provide basic transportation needs, promote healthy lifestyles, and provide safe routes to the schools, stores, and churches.
- It was mentioned that the town would need to provide signage (ex: compliments of Town of Sedalia and distance signs) as well as trash cans along the paths.
- Suggestions from Jeremy Tesh, who was absent but gave some input prior to the meeting. It might be a good idea to consider a hub spot where people can park cars, congregate, and meet up with other walkers, and bikers. There could be an agreement between the town and maybe the elementary school or CHB Museum that could provide parking spaces. He also suggested to maybe create a walking path that comes back around to the starting point and shows distanced traveled.
- It was also suggested that the hub could be an area to install bike racks.

IV. Committee located and labeled on the map the proposed sidewalks and greenway trails. The areas were color coded as shown below:

- Blue----- Pedestrian Crossings
- Yellow-----Historic Areas
- Pink-----Sidewalks
- Green-----Greenway Paths
- Purple------Relevant Areas Outside of Town
- Orange----- Future Parking (hub)
- Red------ Subdivisions
- Multi-color --- Commercial



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting

Agenda – Steering Committee Kick-off Meeting and Working Session January 17, 2015 10:00 AM – 3:00 PM

January 17, 2015 10.00 AW -

10:00 AM INTRODUCTIONS

Introductions by the Town Staff, Steering Committee, URS Team

10:15 AM PROJECT OVERVIEW

Discuss the Purpose, Tasks, Project Schedule, and Role of the Steering Committee

Project Schedule

Task/Milestone	Oct '14	Nov '14	Dec '14	Jan '15	Feb '15	Mar '15	Apr '15	May '15
Notice to Proceed	☆							
Task 1: Project Kick-off Meeting and Data Collection	-			o۵				
Task 2: Preliminary Pedestrian and Bicycle Plan						Δ		
Task 3: Second Steering Committee Mtg. & Public Mtg./Open House							٥A	
Task 4: Final Plan								_Δ
Task 5: Project Management								





Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting

10:30 AM VISION, GOALS, AND OBJECTIVES

Review the vision, goals, and objectives of the Sedalia Bicycle and Pedestrian Plan. (Refer to Attachment A)

11:00 AM FIELD VISIT – WALKING TOUR

Please come prepared to walk some of the streets in the community to inform our discussion of bicycle and pedestrian needs. (Refer to Attachment B)

Please let us know of any concerns prior to the meeting by contacting Cam Dungee, Town Clerk at <u>sedaliatownhall@gmail.com</u> or 336-449-1132, or Cindy Camacho, Project Manager at <u>cindy.camacho@urs.com</u> or 919-461-1441.

12:30 PM LUNCH

Lunch and drinks will be provided.

1:00 PM WORKING SESSION

Complete a map illustrating pedestrian issues and constraint based on the findings of the walking tour.

Review the Steering Committee's map of and preliminary recommendations for bicycle and pedestrian projects created during the November 14 meeting. Revise the map if necessary based on the findings of the walking tour.

Review the criteria for project prioritization provided by the URS Team. (Refer to Attachment C)

- 3:00 PM NEXT STEPS
- 3:30 PM ADJOURN



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting

> Attachment A Vision, Goals, and Objectives

Vision of the Plan

The Town of Sedalia will be a place where people of all ages and diverse backgrounds have access to bicycle and pedestrian facilities and programs that promote: exercise and wellbeing, safety, connectivity, and celebration and discovery of Sedalia's rich culture and history.

Goals of the Plan

- Improve safety for pedestrians and cyclists, with an emphasis on already heavily used routes (Sources: November 14 Steering Committee Meeting, 2035 LRTP, 2006 GUAMPO Bike & Pedestrian Plan)
- Encourage physical activity and wellbeing (Sources: November 14 Steering Committee Meeting, 2035 LRTP, 2006 GUAMPO Bike & Pedestrian Plan)
- Provide safe pedestrian and bicycle routes between community origins and destinations such as schools, stores, and churches (*Sources:* November 14 Steering Committee Meeting, 2035 LRTP, 2006 GUAMPO Bike & Pedestrian Plan)
- Connect Sedalia's cultural and historic sites through sidewalks and bike paths (*Sources:* November 14 Steering Committee Meeting)
- Educate the community as to the benefits of pedestrian activity and applicable rules and regulations (Suggested addition)

Objectives of the Plan

- Survey the Sedalia community in order to craft a bicycle and pedestrian plan representative of the community
- Implement policies and programs to improve pedestrian and cyclist safety and educate the community
- Identify and prioritize infrastructure projects such as sidewalks and bike lanes to improve safety and connectivity
- Review and recommend amendments/model ordinances to provide pedestrian and cyclist safety and infrastructure in future developments
- Identify funding sources and partnerships with local businesses, nonprofits, and the Greensboro Urban Area Metropolitan Planning Organization (GUAMPO) for implementing the Plan



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting

> Attachment B Walking Tour

To: Page 2 of 2

2015-01-05 14:43:34 (GMT)

From: Cam Dungee

Walking Tour Roads - Town of Salatia * Burlington Road ... * Rockhurst Drive * Sedalia Road * Blue Lantern Road



4



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting

Attachment C Prioritization Criteria

Please rate the following prioritization criteria according to the rubric below:

- 5 Most important
- 4 Important
- 3 Somewhat important
- 2 Less important
- 1 Not very important

Name:	Date:

- ____ Existing Bicycle or Pedestrian Route
- ____ School Proximity (1/4 mile radius)
- _____ Historic Site Proximity (1/4 mile radius)
- ____ Store Proximity (1/4 mile radius)
- ____ Reported Bicycle or Pedestrian Count Location
- ____ Reported Bicycle or Pedestrian Crash Location
- ____ Demographics Population density greater than the Sedalia average
- ____ Demographics Minority population areas greater than the Sedalia average
- ____ Demographics Households without a vehicle less than the Sedalia average
- ____ Demographics Households earning less than the Sedalia average
- ____ Demographics Youth (< 18 years old) greater than the Sedalia average
- ____ Demographics Elderly (65+ years old) greater than the Sedalia average
- ____ Top 1-3 Recommendations from Public Comments
- Project included in existing plan (e.g. 2035 Long Range Transportation Plan)

Please submit to Cam Dungee in person or by email: sedaliatownhall@gmail.com

Thank you!



Town of Sedalia Bicycle and Pedestrian Plan	January 17, 2013 Steering Committee Meeting Sign-In Sheet

Name	Address	Phone Number	Email Address
Charles E. Bron	Dia 644 Sedalia Rd.	(33 6) 6 84-9358	· · ·
Tim Moore	6201 Rolling Acres bridgen	859.420.4223	Timothy. Moure grousboo-NCogov
Howard Morgan	6209 Blue anterin RD	590 4960	Howard Karry Zag Tala
Marian Jeffries	609 Sedalia Rd	(336) 446-6744	jefferesmarian @ yakoo.com
Sandra B Hamlett	619 Morgan Summers Rd Seddia	336 446-2008	Sandrahamlette Centurylink. net
Robert C. Jours	PO Box 53, Sedulla	336-449-6521	REWes 6508 @ Adl. Com
4	NC 27342		
Hound MURAN	4263 Blue Lanten Rd. SedAliA	W. 336767-2723	Morg Anhi 3@ Aol.com
Duane Bryant	627 Morgan Summers Rd	314-2154	d vane Abryant Ogol. com
Opholie me	6508 Rolling te. Dr.	336-449-6521	d
Can Dunsee	6308 Rolling Acres Drive	(336) 449-1132	Camdungee @ gmgil. Com
Marie W. Martin	209 Grand Date Drive (336 697 9852	3 ()
JESSE WALKER	665 SEDALIA Rd.	336 749+6194	
		1	
		× * * * *	



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting Minutes

Minutes - Steering Committee Kick-off Meeting and Working Session January 17, 2015 10:00 AM - 3:00 PM

ATTENDEES

- Ophelia Jones, ٠ Town of Sedalia Mayor and Steering **Committee Member**
- Cam Dungee, Town of Sedalia Clerk and Steering **Committee Member**
- Charles E. Broadie, Steering Committee Member
- Duane Bryant, Steering Committee Member
- Sandra B. Hamlett, Steering Committee Member
- Marian Jeffries, Steering Committee Member
- Robert C. Jones, Steering Committee Member

- Marie W. Martin, Steering Committee Member
- Tim Moore, Steering Committee Member
- Howard Morgan I, **Steering Committee Member**
- Howard Morgan II, Steering Committee Member
- Jesse Walker, Steering Committee Member
- Adam Migliore Meyer, Project Consultant
- Todd McAulliffe, **Project Consultant**

MINUTES

The Steering Committee for the Town of Sedalia Bicycle & Pedestrian Plan met on Saturday, January 17, 2015 at Town Hall located at 6121 Burlington Road, Gibsonville, NC 27249. Twelve committee members were present including Mayor Jones and Cam Dungee, Town Clerk. Project consultants Adam Migliore Meyer and Todd McAulliffe from AECOM were present. AECOM Project Manager Cindy Camacho was unable to attend due to being sick. NCDOT Project Manager John Vine-Hodge regretted that he could not attend due to a conflict.

Introductions

The kick-off meeting began with introductions by the project consultants followed by the committee. Members were asked to introduce themselves and state why this plan is important to them. Members represented a diverse array of reasons why the plan is important:

- Increasing access to community resources such as Town Hall and the post office
- Addressing safety concerns, particularly on highly traveled US 70 / Burlington Road
- Connecting neighborhoods
- Promoting exercise and wellbeing



Town of Sedalia

NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting Minutes

Project Overview

Following the introductions, Mr. Meyer gave an overview of the project emphasizing that the plan is a critical step in establishing a vision for future bicycle and pedestrian infrastructure and programs in Sedalia. He mentioned that the plan would include recommended and prioritized bicycle and pedestrian infrastructure as well as programs and policies to educate the community and improve safety.

Mr. Meyer clarified that engineering studies and construction are not within the scope of the NCDOT grant. Several committee members asked about available funding for implementing the plan. Mr. Meyer and Mr. McAulliffe mentioned that the plan would include recommended funding sources.

Mr. Meyer reviewed the role of the Steering Committee, which is to:

- Attend and actively participate at steering committee meetings
- Provide feedback and recommendations on each task
- Assist with public outreach by inviting friends and neighbors to participate as well as serving as facilitators at the public workshop
- Following the adoption of the Plan, assist with the formation of the Bicycle and Pedestrian Advisory Committee.

Tasks, Project Schedule

The project tasks and schedule were reviewed. The preliminary plan is expected to be presented to the committee for comment in March with the next committee meeting occurring in April. The next committee meeting will coincide with a public workshop to solicit public input on the plan.

Vision, Goals, and Objectives

The committee reviewed the drafted vision, goals, and objectives provided as an attachment in the agenda packet. The committee commented that the vision, goals, and objectives accurately reflected the committee's November 14th meeting and direction for moving forward. The only change was to modify the order of the goals such that Goal #3 is now Goal #2. (Refer to Attachment A).

Field Visit - Walking Tour

After the morning discussion, the committee and project consultants went on a walking tour of Sedalia to better understand the existing pedestrian and bicycle conditions. Due to time constraints and weather, the committee did not walk the entire walking tour as shown in Attachment B, but rather concentrated on the main areas of concern: US 70, Sedalia Road, and Blue Lantern Road. Members visited the bridge on Blue Lantern Road planned for replacement. During the walk, members noted the high vehicular speeds and curves on US 70 as important concerns for pedestrian and cyclist safety. Drivers going too fast on US 70 have veered off the road and hit the prominent sign in front of Sedalia Elementary School four times in recent memory. Committee members also pointed out dangerous curves and the lack of pedestrian crossings, sidewalks, and bike lanes.



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting Minutes

Working Session

Following a break for lunch, the committee gathered around plotted maps of the town for a working session. Mr. McAulliffe annotated the map while the committee discussed pedestrian and bicyclist origins and destinations, activity, and areas of concern:

- Many pedestrian and bicycle destinations are in the Stoney Creek shopping center, east of Sedalia
- Pedestrian and bicycle activity occurs on residential streets, particularly on Blue Lantern Road and Sedalia Road.
- Dangerous curves are on US 70, west of the intersection with Rockhurst Drive, in front of Sedalia Elementary School, and east of Sedalia Road
- The intersection of Blue Lantern Road and Sedalia Road was noted as a dangerous intersection

During the session, the committee discussed plans for upgrading US 70 (Project: U-2581B/ R2910). There are several options under consideration including bypasses north and south of the town. Project consultants will research this project further and consider it in the plan.

After identifying pedestrian and bicycle activity and areas of concern, the committee then discussed opportunities for pedestrian and bicycle facilities building upon the discussion at the November 14 committee meeting:

- Sidewalks on the north side of US 70 / Burlington Road (same side as existing utilities)
- Sidewalks on the north side of Blue Lantern Road
- Sidewalks on the east side of Rockhurst Drive
- Sidewalks on the east side of Grand Oaks Drive
- Sidewalks on the east side of Sedalia Road
- Greenways on undeveloped land in the area bounded by Rockhurst Drive, Blue Lantern Road, Sedalia Road, and Burlington Road
- Pedestrian crossing on US 70 / Burlington Road at Sedalia Elementary School
- Hub spots for parking and congregating at Sedalia Elementary School, Charlotte Hawkins Brown Museum, and Town Hall.

The committee discussed pedestrian safety at Sedalia Elementary School noting that stationing a crossing guard or police officer would be an integral component of improving safety at the US 70 / Burlington Road crossing.

Committee members discussed the facility types. It was noted that it may be advantageous to build multi-use paths in order to accommodate both pedestrians and cyclists. The project consultants will consider options for various facility types in the plan, taking into account cost and right-of-way needs.



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting Minutes

The pedestrian and bicycle facilities will be prioritized according to the prioritization criteria adopted by the Steering Committee. The results from this process are presented in Attachment C. Committee members ranked each criterion according to the following rubric:

- 5 Most important
- 4 Important
- 3 Somewhat important
- 2 Less important
- 1 Not very important

Next Steps

Mr. Meyer and Mr. McAulliffe then discussed the next steps in the planning effort, which are to prioritize the pedestrian and bicycle facilities, develop a preliminary pedestrian and bicycle plan, and receive input from the committee. The next steering committee meeting will be held in March.

The meeting was adjourned at 1:45 pm.



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting Minutes

Attachment A ADOPTED Vision, Goals, and Objectives

Vision of the Plan

The Town of Sedalia will be a place where people of all ages and diverse backgrounds have access to bicycle and pedestrian facilities and programs that promote: exercise and wellbeing, safety, connectivity, and celebration and discovery of Sedalia's rich culture and history.

Goals of the Plan

- 1. Improve safety for pedestrians and cyclists, with an emphasis on already heavily used routes (*Sources:* November 14 Steering Committee Meeting, 2035 LRTP, 2006 GUAMPO Bike & Pedestrian Plan)
- Provide safe pedestrian and bicycle routes between community origins and destinations such as schools, stores, and churches (*Sources:* November 14 Steering Committee Meeting, 2035 LRTP, 2006 GUAMPO Bike & Pedestrian Plan)
- Encourage physical activity and wellbeing (Sources: November 14 Steering Committee Meeting, 2035 LRTP, 2006 GUAMPO Bike & Pedestrian Plan)
- 4. Connect Sedalia's cultural and historic sites through sidewalks and bike paths (*Sources:* November 14 Steering Committee Meeting)
- Educate the community as to the benefits of pedestrian activity and applicable rules and regulations (Suggested addition)

Objectives of the Plan

- 1. Survey the Sedalia community in order to craft a bicycle and pedestrian plan representative of the community
- 2. Implement policies and programs to improve pedestrian and cyclist safety and educate the community
- 3. Identify and prioritize infrastructure projects such as sidewalks and bike lanes to improve safety and connectivity
- 4. Review and recommend amendments/model ordinances to provide pedestrian and cyclist safety and infrastructure in future developments
- 5. Identify funding sources and partnerships with local businesses, nonprofits, and the Greensboro Urban Area Metropolitan Planning Organization (GUAMPO) for implementing the Plan



Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting Minutes

> Attachment B Walking Tour

To: Page 2 of 2

2015-01-05 14:43:34 (GMT)

From: Cam Dungee

Walking Tour Roads - Town of Sodalia *Burlington Road * Rockhurst Drive * Sedalia Road * Blue Lantern Road



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Town of Sedalia NCDOT Bicycle & Pedestrian Plan First Steering Committee Meeting Minutes

Attachment C ADOPTED Prioritization Criteria

Results from the Steering Committee rating of the prioritization criteria:

- 5 Most important
- 4 Important
- 3 Somewhat important
- 2 Less important
- 1 Not very important
- 4.9 Existing Bicycle or Pedestrian Route
- 4.5 School Proximity (1/4 mile radius)
- 4.1 Historic Site Proximity (1/4 mile radius)
- 3.5 Store Proximity (1/4 mile radius)
- 3.3 Reported Bicycle or Pedestrian Count Location
- 4.1 Reported Bicycle or Pedestrian Crash Location
- 3.5 Demographics Population density greater than the Sedalia average
- 3.7 Demographics Minority population areas greater than the Sedalia average
- 3.4 Demographics Households without a vehicle less than the Sedalia average
- **<u>2.8</u>** Demographics Households earning less than the Sedalia average
- 3.5 Demographics Youth (< 18 years old) greater than the Sedalia average
- 4.2 Demographics Elderly (65+ years old) greater than the Sedalia average
- 3.9 Top 1-3 Recommendations from Public Comments
- 4.0 Project included in existing plan (e.g. 2035 Long Range Transportation Plan)



Town of Sedalia NCDOT Bicycle & Pedestrian Plan Second Steering Committee Meeting and Public Open House

Agenda – Steering Committee Meeting and Working Session April 18, 2015 10 AM – 1 PM

STEERING COMMITTEE MEETING

10:00 AM INTRODUCTIONS

Introductions by the Town Staff, Steering Committee, URS Team

10:05AM PROJECT UPDATE

Discuss the current progress made on the Sedalia Bicycle and Pedestrian Plan and the next steps following the Public Workshop

Project Schedule

Task/Milestone	Oct '14	Nov '14	Dec '14	Jan '15	Feb '15	Mar '15	Apr '15	May '15
Notice to Proceed	☆							
Task 1: Project Kick-off Meeting and Data Collection	-			o۵				
Task 2: Preliminary Pedestrian and Bicycle Plan						Δ		
Task 3: Second Steering Committee Mtg. & Public Mtg./Open House							٥Δ	
Task 4: Final Plan								_Δ
Task 5: Project Management								





Town of Sedalia NCDOT Bicycle & Pedestrian Plan Second Steering Committee Meeting and Public Open House

10:10 AM	DRAFT PLAN
	Review the draft plan and discuss comments or questions from the Steering Committee
10:55 AM	ADJOURN AND PREPARE FOR THE PUBLIC OPEN HOUSE
	PUBLIC OPEN HOUSE
11:00 AM	INTRODUCTIONS
11:10 AM	PRESENTATION OF THE DRAFT PLAN
11:30 AM	WORKING SESSION

1:00 PM PUBLIC OPEN HOUSE CONCLUDES

2


Town of Sedalia Bicycle and Pedestrian Plan | April 18, 2015 Public Open House Sign-In Sheet

Name	Address	
1. GLORIA CORLEY	302 GRAND DAts DRIDE GBSQUILLE at 27249	
2. Hile Quer-Brook	212 Grand Oulds Dr. Gibsonville NL 27249	
3. Marie Martin	209 Grand Oats Mr. Dehomuille M273 A	
" addie a. watson	301 Martingal De Litsonville, M.C. 2 Dely	
5 Berto tousette	20,5 Grand Daks Nr. Gipsmirlle, N.C. 27249	
6 harles E. Brondie.	614 Sedalia Rd.	
7. Annette G. Dickens	P.D. Box 34 620 Morgan-Summers Rd. Sedalia,	ЯC,
SESCO BABATUNDE	PRAWER F SEDALIA NCU 27342	2/1346
9.	,	
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Town of Sedalia NCDOT Bicycle & Pedestrian Plan Draft Plan Steering Committee Comment Form

STEERING COMMITTEE COMMENT FORM

Please provide comments on the Draft Sedalia Bicycle and Pedestrian Plan by printing them in the table below along with the page number. Use the reverse side of this page for additional comments.

Please submit the comments at the Steering Committee Meeting on April 18, 2015, or by contacting Cam Dungee at: (336) 449-1132 or: sedaliatownhall@gmail.com

Your name is optional. Thank you for your interest and feedback!

Name: Cam Dungee

Date: April 9 -- 15, 2015

PAGE	COMMENT
HONDER	Сомини
2	The word education is listed twice (top right).
4	Question: Is the listed amount of \$3,276,700 for proposed improvements, the total amount need for construction of the plan?
4	Question: The town was not aware a Bicycle and Pedestrian Advisory Committee (BPAC) was needed. Is this essential? If so, how often should we meet?
5	Corn Tassel Drive & Havenbrook Drive is not on the map. There is another body of water located on Burlington Road past Sedalia Road on left hand side going east. The same for the map on pages 21, 49, 51, 53, and 55. We also need commercial signage on the appropriate maps for Subway & Dollar general.
20	Sedalia Old Time Country Store is no longer in business. Bethany United Church of Christ is now known as Bethany Community Church of Sedalia. Ellusions Styling & Tanning Salon is located on Burlington Road (6050 Burlington Road), and CVS (outside town limits) is also on Burlington Road (6310 Burlington Road)
23	Regarding this sentence: Two large road projects are proposed in Sedalia: a bypass to US 70 and extension of High Rock Road. High Rock Road is not far away, but it is not within the town limits.
25	It might be helpful to add that the Sedalia Town Council just recently adopted revisions to the Land Use Plan (effective 4/6/15)
28	Hub spots for parking at Sedalia Elementary School would have to be after hours, and it has not been arranged for that to happen at the CHB Museum.
29	Question: Where is the Northeast Community Trail? The plan says its west of Sedalia, and continues along Burlington Road (US 70) within the Town?



, **`**,

Town of Sedalia NCDOT Bicycle & Pedestrian Plan Draft Plan Steering Committee Comment Form

33	Question: Need Explanation on this whole paragraph. The LRTP proposes to extend High Rock Road south to Sedalia Road and to connect Sedalia Road with Rock Creek Dairy Road at
	the interchange with I-85. Sidewalks are proposed on the segment of this project between
1	Rock Creek Dairy Road and Bethel Church Road. Bicycle lanes are proposed between Rock
	Creek Dairy Road and Sedalia Road. Wide outside lanes are proposed on the existing portion
	of Sedalia Road. North of Bethel Church Road to High Rock Road, paved shoulders are
	proposed.
43	This sentence regarding Blue Lantern Road is incorrect based on my understanding. Bicycle
	lanes and sidewalks are proposed on both sides of this road. Also say "former business
1	Sedalia Old Time Country Store" or just remove it.
44	Simmons Lake Drive has now been paved by NCDOT
45-46	Question: Is the Rock Creek Greenway being proposed by Sedalia?
47	Question: What are bollards?
53	Question: Are there plans for 21 actual motor vehicle parking places throughout the town?
60	Under Sedalia Road A, the wording "absence of" is stated twice in one sentence. For last
	sentence on page, Simmons Lake Drive is paved now.
	the day Description for Changel Lies Dath, shows of This was for the second with
68	Under Description for Shared Use Path, change "This was factor was scaled"
77 . 93	Question: Which programs are most recommanded for Sadalia? "Watch For Me" campaign
//-05	"Save Routes to school" "Twenty's Penty" "Bike Rodeo" "Weekend Walkabout" "Walk to
	School Day" "Bike Month" "Hike Bike Bus Week" etc
81	Sedalia does not have a police dent. The Guilford county Sherriff Dent. does the
	enforcement
85	Question: Is timeframe with Key Action steps flexible?
86	Question: Who is the Sedalia Bicycle and Pedestrian Annual Report submitted to?
	······································
88	
	Question: Who starts or helps with a land easement negotiation?
C-10 & 11	Question: Does NCDOT or the town provide regulatory signs and way finding guide signs



Town of Sedalia NCDOT Bicycle & Pedestrian Plan Draft Plan Steering Committee Comment Form

STEERING COMMITTEE COMMENT FORM

Please provide comments on the Draft Sedalia Bicycle and Pedestrian Plan by printing them in the table below along with the page number. Use the reverse side of this page for additional comments.

Please submit the comments at the Steering Committee Meeting on April 18, 2015, or by contacting Cam Dungee at: (336) 449-1132 or: sedaliatownhall@gmail.com

Name:	Ophelie Jone Date: (1pril 18,20)5
PAGE NUMBER	COMMENT
13	Bodies of water - Rupe, / Maynare
52	Name of Community facilities
	delete: #3 an church
	add and Julian Cenad
	Escopheri Holistie House
35	The Town maintains several unpaved residential stricts off of Rockhuit Drive,
	Palmer Form Road and Blue Lantern Road
	2 P - High Rock Road? 30 - (See Section 0)?
	1p - Creek have and fernie Dr. (SP)
41	Side paths? - Northeast Community Thail? (proposed along Hury 70



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Name:	Ophelin Jonez Date: april, 18 20 6	5
PAGE NUMBER	COMMENT	
43	High Rock Rd? LRTP	
44	warp - incidental?	
45	Table 3:4 -> Bethel Church Rd to Knox Re to Gorden A. Dr.	P
58	Rockhurt Dr - From Hury 70 to Gateway Dr?	
	to end of Rockhurst Drive.	
59	delete Sedalia Old Time Country Store	
71	What is "Shared Use Path Leneor Faculities (Red	1)
76	Simmons Lake Dune is paved (lost	
79	. Rock Creek Greenway? A, B, C	



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	Name:	Ophelia Jonez Date: april 18, 201	5
	PAGE NUMBER		
q	164	Draft Amendments of Town Ordeanie following	-
'		Bi/Peo. infrudructure.	
	P2	AECOM -	



Town of Sedalia NCDOT Bicycle & Pedestrian Plan Draft Plan Steering Committee Comment Form

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Date: 4-18-15 ryant Name: PAGE NUMBER COMMENT Paragraphs Look disjointed, not connected on flowing properly? 28 How can our town legally build trails, like you see for hiking/biking at Guilford/Mackintan & Northeast parks, that are just birl; som Somehow, these do not have to be paved or concrete or very wide, after only 2-4 feet wide. OWE could quickly and the ponsively implement these along the norther identified (Site and in the Town of Sedalia Biggle And Pediatrian Plan, then improve, widen, pare, concrete as funds become available. use Path



Town of Sedalia NCDOT Bicycle & Pedestrian Plan Public Open House

Comment Sheet

Name:	Helen Quick-Brooks
Address:	212 Grand Daks Dr

Your rankings

Please place **one** sticky dot beside your <u>top</u> bicycle and pedestrian projects on the Linear Bicycle and Pedestrian Facilities board.

Please place one sticky dot beside your top shared use path projects on the Linear Shared Use Facilities board.

Your comments:

Please share your comments on the recommended bicycle and pedestrian projects and priorities or on the Sedalia Bicycle and Pedestrian Plan in general:

Use Sand rook, on greenways vs rocks Combine bicycle + rfalking side walks together

If you need more space, please continue your comments on the back of this page ightarrow



Town of Sedalia NCDOT Bicycle & Pedestrian Plan Public Open House

Comment Sheet

Name:	ES		ABA	TINDE D	2		_
Address:	PO	BOD	F	SEVALIA	NC	27342-0210	_
/100/055							-

Your rankings

Please place **one** sticky dot beside your <u>top</u> bicycle and pedestrian projects on the Linear Bicycle and Pedestrian Facilities board.

Please place one sticky dot beside your top shared use path projects on the Linear Shared Use Facilities board.

Your comments:

Please share your comments on the recommended bicycle and pedestrian projects and priorities or on the Sedalia Bicycle and Pedestrian Plan in general:

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Town of Sedalia NCDOT Bicycle & Pedestrian Plan Public Open House

Comment Sheet

Name:	GLORIA CORLEY
Address:	302 GRAND ONES DRIVE
	GIBSODU, UR NC 27249

Your rankings

Please place **one** sticky dot beside your <u>top</u> bicycle and pedestrian projects on the Linear Bicycle and Pedestrian Facilities board.

Please place one sticky dot beside your top shared use path projects on the Linear Shared Use Facilities board.

Your comments:

Please share your comments on the recommended bicycle and pedestrian projects and priorities or on the Sedalia Bicycle and Pedestrian Plan in general:

Is TO COMBINE BIKE & WALKING TRAIL KECOMPLEDATION_ JEUT.

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If you need more space, please continue your comments on the back of this page ightarrow



Appendix B: State and Federal Policies

Applicable state and federal policies pertaining to bicycle and pedestrian programs and facilities are summarized in Table B-1 below.

POLICY	APPLICABILITY TO BICYCLE AND PEDESTRIAN PLANNING
	Federal Policies
Americans with Disabilities Act (ADA) (1990)	Ratified in 1990, ADA prohibits discrimination on the basis of disability. Title III pertains to public accommodations including transportation. Federally funded bicycle and pedestrian projects must comply with the Americans with Disabilities Act.
American Association of State Highway and Transportation Officials (AASHTO)	AASHTO publishes design standards for transportation facilities including bicycle and pedestrian projects. These standards are often adopted by state departments of transportation, helping in the design of safe and efficient bicycle and pedestrian facilities.
Manual on Uniform Traffic Control Devices (MUTCD) (2009)	The MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public travel. The MUTCD is published by the Federal Highway Administration (FHWA) under 23 Code of Federal Regulations (CFR), Part 655, Subpart F.
Moving Ahead for Progress in the 21 st Century (MAP-21) (2012)	 MAP-21 funds surface transportation programs and creates a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. MAP-21 reorganizes many of the dedicated bicycle and pedestrian funding programs into other functions. Applicable programs under MAP-21 for bicycle and pedestrian projects include: Transportation Alternatives Program (TAP), Congestion Mitigation and Air Quality Improvement (CMAQ), and Surface Transportation Program (STP).
Title VI of the Civil Rights Act of 1964 and Executive Order 12898 (1964, 1998)	 Title VI of the Civil Rights Act of 1964 requires that each federal agency ensure that no person is excluded, denied, or discriminated based on race, color, national origin, age, sex, disability. Executive Order 12898 signed by President Bill Clinton in 1994 requires that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Table B-1: State and Federal Policies



POLICY	APPLICABILITY TO BICYCLE AND PEDESTRIAN PLANNING
United States Department of Transportation Mission Statement (2010)	The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.
	State Policies
	The NCDOT Bicycle Policy affirms that "bicycling is a bonafide highway purpose subject to the same rights and responsibilities and eligible for the same considerations as other highway purposes" The policy also states that bicycle facility planning be included in state thoroughfare and project planning process.
NCDOT Bicycle Policy	Website: http://www.ncdot.gov/bikeped/download/bikeped_laws_Bicycle_Policy.pdf
NCDOT Board of Transportation Resolution for Bicycling and Walking	The Board of Transportation adopted a resolution in 2000 to make "bicycling and walking a critical part of the state's transportation system." The resolution cites the benefits of walking and biking: cleaner air, reduced congestion, more livable communities, more efficient use of road space and resources, and healthier people. <i>Website:</i> http://www.ncdot.gov/bikeped/download/bikeped_laws_BOT_Mainstreaming_Resolution.pdf
	The NCDOT Bridge Policy states that sidewalks should be included on new bridges with curb and gutter approaches that are not controlled access facilities. Sidewalks may be on one or both sides of the bridge. The sidewalk should be a minimum of 5 to 6 feet wide.
NCDOT Bridge Policy	Website: https://connect.ncdot.gov/projects/Roadway/RoadwayDesignAdministrativeDoc uments/Bridge%20Policy.pdf
	Adopted in July 2009, the Complete Streets policy encourages alternative forms of transportation; increases connectivity between neighborhoods, streets, and transit systems; and improves safety for pedestrian, cyclists, and motorists.
NCDOT Complete Streets	Website: http://www.completestreetsnc.org/

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TOWN OF SEDALIA BICYCLE AND PEDESTRIAN PLAN

POLICY	APPLICABILITY TO BICYCLE AND PEDESTRIAN PLANNING
NCDOT Division of Bicycle and Pedestrian Transportation	The NCDOT Division of Bicycle and Pedestrian Transportation assists communities across the state improve bicycle and pedestrian safety and mobility. The Division provides technical assistance, design guidelines, and resources such as the Watch for Me NC campaign.
NCDOT Greenway	NCDOT adopted administrative guidelines in 1994 to include existing and planned greenways and greenway crossings during the highway planning process. The intent of these guidelines is to minimize impacts to existing and planned greenways as a result of highway projects. <i>Website:</i> http://www.ncdot.gov/_templates/download/external.html?pdf=http%3A//ww
Policy NCDOT Mission Statement	w.ncdot.gov/bikeped/download/bikeped_laws_Greenway_Admin_Action.pdf NCDOT's mission is: "Connecting people and places safely and efficiently, with accountability and environmental sensitivity to enhance the economy, health and well-being of North Carolina." Bicycle and pedestrian facilities help to accomplish this mission by improving safety, encouraging physical activity, and providing environmentally friendly alternatives to motorized transportation.
NCDOT Bedestrier	NCDOT adopted these guidelines in 1993 (updated in 2001) to prevent hazards to pedestrians resulting from TIP projects. The general policy is to replace existing sidewalks disturbed as a result of a highway improvement and construct new sidewalks provided that the municipality covers the cost of construction and maintenance.
Policy Guidelines	http://www.ncdot.gov/bikeped/download/bikeped_Ped_Policy.pdf
Strategic Mobility Formula	The Strategic Transportation Investments (STI) law signed June 2013 establishes the Strategic Mobility Formula for funding transportation projects in North Carolina. The formula divides bicycle and pedestrian projects into incidental and independent projects. Incidental projects are included in larger transportation projects while independent projects are standalone such as adding a sidewalk to an existing road. Independent projects are capped at 20 projects per M/RPO annually.

Sources: Advocacy Advance, American Association of State Highway and Transportation Officials, Federal Highway Administration, North Carolina Department of Transportation, United States Department of Transportation

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Appendix C: Design Guidelines

General design guidelines are contained in this appendix according to AASHTO (2012) Guide for the Development of Bicycle Facilities (Fourth Edition), the Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition Revisions 1 and 2, and NCDOT typical highway cross sections. NCDOT adheres to these guidelines in its design of bicycle and pedestrian facilities. The following design guidelines are included in this appendix:

- Sidewalks
- Paved Shoulders
- Bicycle Lanes
- Shared Use Paths
- Crosswalks and crossings
- Pedestrian signals
- Pavement Markings and Signage
- Wayfinding



Typical Sections



2 LANES UNDIVIDED POSTED SPEED 45 MPH OR LESS



2 LANE UNDIVIDED WITH PAVED SHOULDERS POSTED SPEED 25 - 35 MPH

2C



BICYCLE AND PEDESTRIAN

Typical Sections



2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS POSTED SPEED 25-45 MPH



2 LANE UNDIVIDED WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS POSTED SPEED 25-45 MPH



Typical Sections



2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, **BIKE LANES, AND SIDEWALKS**

POSTED SPEED 25-45 MPH

Dimensions					
Typical Section	2B	2C	2D	2E	3C
Posted Speed	45 mph or less	25 - 35 mph	25 - 45 mph	25 - 45 mph	25 - 45 mph
Paved Shoulder Width	4 ft.	4 ft.	4 ft.	-	-
Sidewalk width:	_	_	5 ft.	5 ft.	5 ft.
Sidewalk buffer width to edge of pavement:	_	_	24 ft.	6 - 8 ft.	6 - 8 ft.
Bicycle lane width:	_	_	_	5 ft.	5 ft.
Gutter pan width:	_	-	-	2 ft.	2 ft.
Travel lane width:	II ft.	10 ft.	II ft.	II ft.	II ft.
Travel lanes + turning lane:	2 lanes	2 lanes	2 lanes	2 lanes	2 +1 lanes
Right-of-way minimum:	60 ft.	50 ft.	90 ft.	60 ft.	80 ft.
Curb and Gutter	No	No	No	Yes	Yes

Source: NCDOT Typical Highway Cross Sections (2014)



SHARED USE PATHS

Typical Section



Dimensions

Shared Use Path width:

10 ft. minimum

2 ft. minimum

Shared Use Path shoulder width:

Source: NCDOT Shared Use Pathways Guidance (2007)

BICYCLE AND PEDESTRIAN

Design Guidelines



Figure 3-1. Bicyclist Operating Space



BICYCLE AND PEDESTRIAN

Design Guidelines



Figure 4-16. Typical Bike Lane Pavement Markings



BICYCLE AND PEDESTRIAN

Design Guidelines



Figure 4-5. Typical Shared-Lane Marking Cross Section on Street with Parking





Figure 4-6. Typical Shared-Lane Marking Cross Section on Street with No On-Street Parking



BICYCLE AND PEDESTRIAN

Design Guidelines



Figure 5-23. Advance Yield Signs and Markings

Source: AASHTO (2012) Guide for the Development of Bicycle Facilities (Fourth Edition). Pages: 3-7, 4-5, 4-15, 4-19, 5-2, 5-23, 5-39.



SHARED USE PATHS

Design Guidelines



Notes:

- A Advance warning signs and solid centerline striping should be placed at the required stopping sight distance from the roadway edge, but not less than 50 ft (15 m).
- ^B W11 series sign is required, supplemental plaques are optional.

Figure 5-17. Example of Mid-Block Path-Roadway Intersection-Path Is Yield Controlled for Bicyclists



SHARED USE PATHS

Design Guidelines

- On steep grades to provide additional passing area; or
- ⇒ Through curves to provide more operating space.



Notes:

^A (1V:6H) Maximum slope (typ.)

^B More if necessary to meet anticipated volumes and mix of users, per the Shared Use Path Level of Service Calculator (9)

Figure 5-1. Typical Cross Section of Two-Way, Shared Use Path on Independent Right-of-Way



Figure 5-2. Minimum Width Needed to Facilitate Passing on a Shared Use Path



SHARED USE PATHS

Design Guidelines



Source: AASHTO (2012) Guide for the Development of Bicycle Facilities (Fourth Edition). Pages: 5-4, 5-7.



SHARED USE PATHS

Design Guidelines

Sidepaths

The following design guidelines from the Pedestrian and Bicycle Information Center should be considered for sidepaths that are built parallel to roadways:

- Shared-use paths are a complement to the roadway network; they are not a substitute for providing access on streets.
- Connections to the regular street network are important, but a high number of crossings at intersections create potential conflicts with turning traffic.
- At intersections with roadways, paths should be signed, marked, and/or designed to discourage or prevent unauthorized motorized access.
- All users should be encouraged to stay right. An exception may be paths along waterways or other features that capture the attention of pedestrians. In these instances, markings and/or signage may be used to encourage pedestrians to stay on the side of the path closest to the attraction to reduce conflicts associated with pedestrians crossing the pathway.
- Since nearly all shared use paths are used by pedestrians, they need to meet the accessibility requirements of the Americans with Disabilities Act (ADA).
- In areas with extremely heavy pathway volume, it may be necessary to segregate pedestrians from wheeled users.

Source: Pedestrian and Bicycle Information Center (2015) Shared-Use Paths/Sidepaths. http://www.pedbikeinfo.org/planning/facilities_ped_paths.cfm



PEDESTRIAN TREATMENTS

Crossings

The following key issues should be considered when designing pedestrian crossings according to AASHTO:

- Assumptions: Assume that pedestrians want and need safe access to all destinations that are accessible to motorists. Additionally, pedestrians will want to have access to destinations not accessible to motorists such as trails and parks.
- Generators and Destinations: Typical pedestrian generators and destinations include residential neighborhoods, schools, parks, shopping areas, and employment centers. All transit stops require that pedestrians be able to cross the street.
- Controlled Intersections: All intersections that have signals, stop signs, or yield signs to facilitate motor vehicle crossing of streets and arterials must also be designed to accommodate pedestrians.
- Uncontrolled Locations: Pedestrians need safe access at many uncontrolled locations, including both intersections and midblock locations.
- Frequency: Pedestrians must be able to cross streets and highways at regular intervals. Unlike motor vehicles, pedestrians cannot be expected to go a quarter mile or more out of their way to take advantage of a controlled intersection.





Source: AASHTO (2004) Guide for the Planning, Design, and Operation of Pedestrian Facilities (Fourth Edition). Pages: 81, 91 and 93.



PEDESTRIAN TREATMENTS

Crosswalks

According to the Manual on Uniform Traffic Control Devices, these following guidelines apply to crosswalks:

- Crosswalk lines should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors.
- New marked crosswalks alone, without other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should not be installed across uncontrolled roadways where the speed limit exceeds 40 mph and either:
 - A. The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or
 - B. The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT



Source: Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition Revisions I and 2.



PEDESTRIAN TREATMENTS

Curb Extensions and Curb Radii

Curb extensions increase pedestrian visibility and shorten the crossing distance as shown in the diagram below. They should be located in areas where they will not create a safety hazard to pedestrians caused by larger vehicles turning and encoraching onto the curb.





	Increased Crosswalk Distance*		
5 m [16 ft]	1 m [3 ft]		
10 m [33 ft]	7 m [23 ft]		
15 m [49 ft]	12 m [39 ft]		
vidth = 2.0 m [6.6 ft]			

Smaller curb radii may be considered to limit the speed of vehicles and shorten the crossing distances for pedestrians. However, curb radii should be decided on a case-by-case basis, as they also decrease efficiency for vehicles and can increase the chance of a vehicle driving over the curb and hitting the pedestrian.

Source: AASHTO (2004) Guide for the Planning, Design, and

Operation of Pedestrian Facilities (Fourth Edition). Pages: 44, 53 and 74.



BICYCLE AND PEDESTRIAN SIGNAGE

Bicycle Signage



BICYCLE AND PEDESTRIAN SIGNAGE

Pedestrian Signage – Unsignalized



Figure 2B-2. Unsignalized Pedestrian Crosswalk Signs



BICYCLE AND PEDESTRIAN SIGNAGE

Pedestrian Signage – Signalized





BICYCLE AND PEDESTRIAN SIGNAGE

Pedestrian Signage – Signalized

Figure 2B-26. Pedestrian Signs and Plaques (Sheet 2 of 2)



Sign Design Guidelines

- Signs should only be installed when they fulfill a need based on an engineering study or engineering judgment.
- In general, signs are often ineffective in modifying driver behavior, and overuse of signs can diminish their effectiveness
- Minimum mounting height for signs where pedestrians are present is 7 feet
- As an advance warning device, the pedestrian crossing sign (W11-2) should be installed in advance of midblock crosswalks or locations where unexpected entries into the roadway by pedestrians might occur
- The school advance warning sign (S1-1) should be used in advance of the first installation of the school speed limit sign assembly and should be installed in advance of locations where school buildings or grounds are adjacent to the highway. It should be supplemented with the Ahead sign (W16-9P).

Pedestrian Signal Design Guidelines

- Symbols for pedestrian signal indications should be at least 6 inches high
- Pedestrian signal indications should be conspicuous and recognizable to pedestrians at all distances from the beginning of the controlled crosswalk to a point 10 feet from the end of the controlled crosswalk, during both day and night.
- For crosswalks where the pedestrian enters the crosswalk more than 100 feet from the pedestrian signal indications, the symbols should be at least 9 inches high
- Pedestrian signal heads should be mounted with the bottom of the signal housing including brackets not less than 7 feet nor more than 10 feet above sidewalk level and shall be positioned and adjusted to provide maximum visibility at the beginning of the controlled crosswalk
- If pedestrian signal heads are mounted on the same support as vehicular signal heads, there shall be a physical separation between them

Source: AASHTO (2004) Guide for the Planning, Design, and Operation of Pedestrian Facilities (Fourth Edition). Pages: 105, 111-114.



BICYCLE AND PEDESTRIAN SIGNAGE

Pedestrian Signage – School Areas



A - In advance of the school crossing



Notes:

1. The use of the STATE LAW legend is optional on the R1-6 series signs (see Section 7B.12).

2. The use of the SCHOOL plaque above the R1-6 and R1-6a signs is optional.

BICYCLE AND PEDESTRIAN SIGNAGE

Wayfinding Signage

Figure 2D-18. Examples of Community Wayfinding Guide Signs



A - Community Wayfinding Guide Signs with Enhancement Markers

Source: Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition Revisions I and 2.


TOWN OF SEDALIA BICYCLE AND PEDESTRIAN PLAN Appendix D: Funding Sources

Table D-1 below provides a list of funding sources, eligible projects, potential award amounts, and match requirements for bicycle and pedestrian infrastructure projects and programs in Sedalia.

SOURCE	ELIGIBLE PROJECTS	FINANCIAL						
Federal Funding Sources								
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	 Projects to improve air quality and reduce traffic congestion Projects must be in STIP Technical assistance 	 Typically requires 20% match \$2 billion authorized in FY 2013 						
Highway Safety Improvement Program (HSIP)	• Bicycle or pedestrian projects on any public road, bike path, or trail	Typically requires 10% match\$2 billion authorized in FY 2013						
State and Community Highway Safety Grant Program (Section 402)	• Education, enforcement, and research programs designed to reduce traffic crashes, deaths, injuries, and property damage	 Administered by the Governor's Representative for Highway Safety \$235 million authorized in FY 2013 						
Surface Transportation Program (STP)	Projects on federal-aid highwaySafety brochure or bookTechnical assistance	Typically requires 20% match\$10 billion authorized in FY 2013						
Transportation Alternatives Program (TAP)	 Pedestrian and bicycle facilities Recreational trails Safe Routes to School projects Technical assistance Programmed through the Strategic Transportation Investments – Strategic Mobility Formula process 	 Typically requires 20% match Can be received directly by local governments \$808 million authorized in FY 2013 						
Urbanized Area Formula Program (UZA)	 Public transportation projects In urbanized areas of more than 200,000 at least 1% of funds must be used for bicycle and pedestrian facilities 	 Typically requires 20% match \$2 billion authorized in FY 2013 						

Table D-1: Funding Sources



SOURCE	ELIGIBLE PROJECTS	FINANCIAL			
	State Funding Sources				
Clean Water Management Trust Fund (CWMTF)	 Projects that enhance or restore degraded waters, acquire land with ecological, cultural, and historic significance Greenway (shared use path) projects are eligible 	 Requires matching funds Annual grant cycle			
Land and Water Conservation Fund (LWCF)	 Land acquisition and/or development projects for public outdoor recreation and/or to protect outstanding natural or scenic resources Projects must be on a single site 	 Requires 50% match Administered by the Division of Parks and Recreation Requires 50% match 			
Parks and Recreation Trust Fund (PARTF)	• Acquisition and/or development of park and recreational projects	 Administered by the Division of Parks and Recreation 			
Powell Bill	• "Maintaining, repairing, constructing, reconstructing or widening of any street or public thoroughfare within the municipal limits or for planning, construction, and maintenance of bikeways, greenways or sidewalks."	 Annual allocation from the State to qualifying municipalities \$15,430 awarded to Sedalia in FY 2014 			
Recreational Trails Program	 Trail construction Trail facilities and amenities Programs that promote safety and environmental protection as they relate to recreational trail projects 	 Maximum grant award \$200,000 Requires 25% match Federal funds managed by the Division of Parks and Recreation 			
Strategic Mobility Formula	 Limited funding for bicycle and pedestrian projects that are at least \$100,000 and included in a locally adopted plan Programmed through the Strategic Transportation Investments – Strategic Mobility Formula process 	 State funds may not be used for a local match (except for Powell Bill funds) MPOs/RPOs may submit up to 20 bicycle/pedestrian projects Right-of-way is not an eligible expense 			
Safe Routes to School (SRTS)	 Infrastructure projects within 2 miles of a K-8 school Project must be within the public right-of-way 	 No match required Currently funding with leftover SRTS funds, once expended TAP funds will be used and programmed through the Strategic Transportation Investments – Strategic Mobility Formula process 			



TOWN OF SEDALIA BICYCLE AND PEDESTRIAN PLAN

SOURCE	ELIGIBLE PROJECTS	FINANCIAL
	Local Funding Sources	
Capital Reserve Fund	• May be used to fund bicycle and pedestrian infrastructure projects	 The Town Council would establish the fund through an ordinance May be financed through town budget allocations, grants, and donations
Fees	 The fee ordinance would establish which projects are eligible Shared use path projects may be eligible for funds generated by stormwater fees as these projects could mitigate the effects of runoff 	 Would require adoption by the Town Council Fee types may include stormwater fees assessed per area of impervious surface or streetscape fees assessed per length of street frontage
General Obligation Bonds	• May be used to fund bicycle and pedestrian infrastructure projects	 Would require adoption by the Town Council Would require approval by town residents
	Nonprofit Funding Sources	
Blue Cross Blue Shield of North Carolina Foundation	• Focused on health-related projects. Bicycle and pedestrian projects may be eligible due to their associated benefits of increased exercise and recreation	 Check the Foundation's website for current grants: http://www.bcbsncfoundation.org
The Community Foundation of Greater Greensboro	• Bicycle and pedestrian projects are not a focus area of the foundation, but may be eligible from donors with unrestricted funds	• Contact the Community Foundation to learn more about potential eligibility: http://cfgg.org/
Kate B. Reynolds Charitable Trust	 Focused on improving health and wellness (75% of funding is directed towards health-related projects) Capital projects are eligible 	 Maximum grant award for capital projects is \$150,000 Applications submitted in February and August: http://www.kbr.org/
Robert Wood Johnson Foundation	 National organization, focused on: gathering and monitoring of health- related statistics, public education, technical assistance, and evaluations Capital projects are not eligible 	 Grants are awarded through calls for proposals: http://www.rwjf.org/



SOURCE	ELIGIBLE PROJECTS	FINANCIAL
Weaver Foundation	 Foundation serving the greater Greensboro area with the following focuses: education, children and youth, protection of the environment, economic development, and enhancement of parks, recreation, and quality of life Facilities and construction are eligible projects 	• Requesting entity submits a letter of inquiry:

Data sources: Advocacy Advance, MAP-21 Find It, Fund It!; Blue Cross Blue Shield of North Carolina; The Community Foundation of Greater Greensboro; Kate B. Reynolds Charitable Trust; NCDOT, Strategic Transportation Investments; NC Clean Water Management Trust Fund; NC Division of Parks and Recreation; Robert Wood Johnson Foundation; Weaver Foundation

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Appendix E: Cost Estimates and Prioritization

This appendix contains the cost figures used in project estimates and detailed results from the prioritization process. The cost figures are from the Pedestrian and Bicycle Information Center's *Costs for Pedestrian and Bicyclist Infrastructure Improvements*.

ITEM	ESTIMATED COST (per mile)*	DESCRIPTION
Sidewalk (Both sides of street)	\$285,000	Sidewalk is concrete and 5 feet wide, 4 inches thick.
Wide Paved Shoulders	\$70,000	A specific cost figure for wide paved shoulders was not available, so the cost estimate for bicycle lanes was increased proportionally for a 4 foot wide paved shoulder.
Bicycle Lane	\$90,000	Bicycle lane is 5 feet wide
Shared Use Path	\$330,000	PBIC Report provided a cost figure of \$261,000/mile for an 8 foot wide paved path. This was factor was increased proportionally for a 10 foot wide path.

Table E-I: Cost Estimate Figures for Linear Facilities

*Costs rounded to the nearest \$5,000.



ITEM	ESTIMATED COST (per item)*	DESCRIPTION
Striped Crosswalk	\$300	Regular striped crosswalk. Price given is per linear segment.
High Visibility Crosswalk	\$3,000	Provides more visibility than regular striped crosswalks and lasts longer. Price given is per linear segment.
Crossing Island	\$10,000	Also known as pedestrian refuges, islands are placed in the center of street at mid-block crossings
Crossing Guard	\$4,000	Volunteer or paid position to assist students, faculty, and visitors with crossing the road safely. The estimated cost is an annual recurring cost based on 2 hours per day for 180 school days a year at \$11.09 per hour. This cost figure is from the City of Raleigh Police Department.
Signalized Crossing	\$3,600	4-way audible signal with countdown timer. Estimated cost includes the push button, audible signal, countdown timer, signal head and pedestal
Bicycle Rack	\$500	A traditional inverted U-shaped rack for parking and securing bicycles
Bollard	\$700	Bollards are posts embedded in the ground at entrances to shared use paths to separate pedestrians and cyclists from motorized traffic.
Bench	\$1,700	Benches placed along shared use paths and at community features provide users places to rest and enjoy the natural beauty of the area.
Wayfinding/ information sign	\$500	Provides maps and information about the facility

Table E-2: Cost Estimate Figures for Spot Improvements

*Costs rounded to the nearest hundred or thousand.



Table E-3: Prioritized Linear Bicycle and Pedestrian Facilities

FACILITY NAME	CONNECT- IVITY	IMPLEM- ENTATION	SAFETY	PROXIMITY	COMMUNITY INTEREST	SCORE	PRIORITY
Burlington Rd (US 70) - B	3	2	3	3	2	13	High
Burlington Rd (US 70) - C	3	2	2	3	3	13	High
Sedalia Rd - A	3	2	2	2	3	12	High
Burlington Rd (US 70) - A	3	2	2	2	1	10	Medium
Blue Lantern Rd	3	2	2	1	2	10	Medium
Simmons Lake Dr	3	2	2	1	2	10	Medium
Sedalia Rd – B	2	2	2	1	2	9	Medium
Rockhurst Dr	1	2	1	2	2	8	Low
Grand Oaks Dr	1	2	1	1	2	7	Low
Stewart Bend Rd	1	2	1	1	1	6	Low



Table E-4: Prioritized Shared Use Facilities

				COMMUNITY		
FACILITY NAME	CONNECTIVITY	IMPLEMENTATION	PROXIMITY	INTEREST	SCORE	PRIORITY
Burlington Road (US 70) Sidepath	3	2	3	3	11	High
Rock Creek Branch Greenway – B	3	2	3	3	11	High
Town Hall Connector	3	2	3	1	9	Medium
Morgan-Summers Connector	3	2	2	2	9	Medium
Rock Creek Branch Greenway – C	2	2	2	3	9	Medium
Rock Creek Branch Greenway – A	2	2	2	2	8	Low
Rockhurst Connector	3	1	1	3	8	Low
Rock Creek Branch Greenway – D	2	1	3	1	7	Low
Rolling Acres Connector	2	1	2	1	6	Low

TOWN OF SEDALIA BICYCLE AND PEDESTRIAN PLAN

Appendix F: Long-Term Projects

Long-term bicycle, pedestrian, shared use path projects are presented in the table below. These projects may be implemented when funding becomes available and may coincide with other transportation projects in the area such as the addition of curb and gutter sections to roadways.

PRIORITY	FACILITY NAME	FROM	ТО	LENGTH (miles)	FACILITY GROUP	FACILITY TYPE	C ESTI	OST MATE*	POTENTIAL IMPLEMENTATION CONSTRAINTS	MAP ID**
	Bicycle and Pedestrian Facilities									
High	Sedalia Rd – A	Burlington Rd. (US 70)	Blue Lantern Rd.	0.79	Bicycle, Pedestrian	Sidewalks + Bicycle Lanes	\$	300,000	Ditches along both sides of roadway, above ground utilities on both sides	7
Medium	Blue Lantern Rd.	Simmons Lake Dr.	Sedalia Rd.	1.09	Bicycle, Pedestrian	Sidewalks + Bicycle Lanes	\$	410,000	Ditches along both sides of roadway, above ground utilities on south side	1
Medium	Simmons Lake Dr.	Blue Lantern Rd.	Bethel Church Rd	0.49	Bicycle, Pedestrian	Sidewalks + Bicycle Lanes	\$	190,000	Above ground utilities on east side of roadway	9
Medium	Sedalia Rd – B	Blue Lantern Rd.	Town Limits	0.44	Bicycle, Pedestrian	Sidewalks + Bicycle Lanes	\$	170,000	Ditches along both sides of roadway, above ground utilities on both sides	8
Low	Rockhurst Dr.	Burlington Rd. (US 70)	Gateway Dr.	0.50	Pedestrian	Sidewalks	\$	150,000	Above ground utility crossings of the roadway	6
Low	Grand Oaks Dr.	Blue Lantern Rd.	Stewart Bend Rd.	0.37	Pedestrian	Sidewalks	\$	110,000	Ditches along both sides of roadway, above ground utilities on east side	5
Low	Stewart Bend Rd.	Simmons Lake Dr.	Cushman Rd.	0.37	Pedestrian	Sidewalks	\$	110,000	Ditches along both sides of roadway, above ground utilities on north side	10
					Subtotal Bicycle a	nd Pedestrian Linear Facilities	\$	1,440,000		

Table F-I: Long-Term Proposed Bicycle, Pedestrian, and Shared Use Path Linear Facilities





PRIORITY	FACILITY NAME	FROM	ТО	LENGTH (miles)	FACILITY GROUP	FACILITY TYPE	COST ESTIMATE*		POTENTIAL IMPLEMENTATION CONSTRAINTS	MAP ID**	
	Shared Use Path Facilities										
High	Rock Creek Branch Greenway - B	Rockhurst Drive	Sedalia Rd.	0.75	Shared Use Path	Shared Use Path	\$	250,000	Privately owned land, but along a stream so as to minimize impacts to private landowners	13	
Medium	Town Hall Connector	Havenbrook Dr.	Burlington Rd. (US 70)	0.36	Shared Use Path	Shared Use Path	\$	120,000	Portion of the path would be on land already owned by the Town, other portions would be on privately owned land	18	
Medium	Morgan-Summers Connector	Morgan Summers Rd.	Rock Creek Branch Greenway – A	0.10	Shared Use Path	Shared Use Path	\$	40,000	Privately owned land	11	
Medium	Rock Creek Branch Greenway - C	Sedalia Rd.	Town Limits	0.48	Shared Use Path	Shared Use Path	\$	160,000	Privately owned land, but along a stream so as to minimize impacts to private landowners	14	
Low	Rock Creek Branch Greenway - A	Simmons Lake Dr.	Rockhurst Dr.	0.49	Shared Use Path	Shared Use Path	\$	170,000	Privately owned land, but along a stream so as to minimize impacts to private landowners	12	
Low	Rockhurst Connector	Rockhurst Drive	Blue Lantern Rd.	0.27	Shared Use Path	Shared Use Path	\$	90,000	Privately owned land	16	
Low	Rock Creek Branch Greenway - D	Town Limits	US 70	0.87	Shared Use Path	Shared Use Path	\$	290,000	Privately owned land, but along a stream so as to minimize impacts to private landowners, outside of Sedalia's town limits	15	
Low	Rolling Acres Connector	Rolling Acres Dr.	Rock Creek Branch Greenway – A	0.03	Shared Use Path	Shared Use Path	\$	10,000	Privately owned land	17	
					Subtotal Sh	ared Use Path Linear Facilities	\$	1,130,000			
						TOTAL	\$	2,570,000			

TOWN OF SEDALIA BICYCLE AND PEDESTRIAN PLAN

PRIORITY	FACILITY LOCATION	FACILITY GROUP	FACILITY	EST	COST TIMATE*	POTENTIAL IMPLEMENTATION CONSTRAINTS	
Medium	Grand Oaks Dr. and Blue Lantern Rd.	Pedestrian	Marked Crosswalk	\$	9,000	Ditches at intersection, above ground utilities on south side	20
Medium	Grand Oaks Dr. and Stewart Bend Rd.	Pedestrian	Marked Crosswalk	\$	9,000	Ditches and vegetation at intersection, above ground utilities on all sides	21
Medium	Sedalia Rd. and Blue Lantern Rd.	Pedestrian	Marked Crosswalk	\$	9,000	Ditches on northwest side of intersection, above ground utilities on all sides, high vehicular speeds on Sedalia Road	25
High	Sedalia Rd. and Burlington Rd. (US 70)	Pedestrian	Pedestrian Signal and Marked Crosswalk	\$	12,600	Sidewalks may be required before a crosswalk and pedestrian signal are installed. Coordination should be undertaken with NCDOT Division 7	26
Low - High	Shared use path intersections with roads	Shared Use Path	Access Points (11)	\$	28,600	Access points to shared use paths may require private land. Efforts should be taken to locate them in public right-of-way when possible.	27
Low	Simmons Lake Dr. and Stewart Bend Rd.	Pedestrian	Marked Crosswalk	\$	9,000	Above ground utilities on northeast side of the intersection	29
			TOTAL	\$	77,200		

Table F-2: Long-Term Proposed Bicycle, Pedestrian, and Shared Use Spot Facilities



Appendix F: Long-Term Projects | Page F-3



Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit F-1: Short and Long Term Proposed Bicycle Projects

Bicycle S	Spot Improvem	ents	
	Bicycle Parking	J	
Bicycle L	inear Facilities	\$	
	Bike Lane (Sho	ort Term)	
	Wide Paved Sh Bike Lane (Lon	noulder (Short T ng Term)	erm)
	Interstate		
	US Route		
	Local Road		
	Stream		
	Waterbody		
	Charles W. Bur	ndrige Athletic F	ield
	Historic District	, •	
	Sedalia Town L	.imits	
	Guilford County	ý	
	0	1/4	1/2

August 2015





Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit F-2: Short and Long Term Proposed Pedestrian Projects

Pedestrian Spot Improvements				
\bigcirc	Crossing Island			
\bigcirc	High Visibility Crosswalk			
	Pedestrian Signal and Crosswalk			
Pedestrian Linear Facilities				
	Sidewalk			
	Interstate			
	US Route			
	Local Road			
	Stream			
	Waterbody			
	Charles W. Bundrige Athletic Field			
	Historic District			
	Sedalia Town Limits			
	Guilford County			
August 2015	0 1⁄4 1⁄2 Miles			







Bicycle and Pedestrian Plan



Exhibit F-3: Short and Long Term Proposed Shared Use Path Projects

Shared Use Path Spot Improvement				
\bigcirc	Access Points (12) - ID 27			
	Motor Vehicle Parking			
Shared Use Path Linear Facilities				
_	Shared Use Path Linear Facilities			
	Interstate			
	US Route			
	Local Road			
	Stream			
	Waterbody			
	Charles W. Bundrige Athletic Field			
	Historic District			
	Sedalia Town Limits			
	Guilford County			
	0 1/4 1/2			





Town of Sedalia

Bicycle and Pedestrian Plan



Exhibit F-4: Short and Long Term Proposed Bicycle and Pedestrian Network

Proposed Network

	Bicycle Spot Improvements				
\bigcirc	Pedestrian Spot Improvements				
\bigcirc	Shared Use Path Spot Improvements				
	Bicycle and Pedestrian Linear Facilities				
	Pedestrian Linear Facility				
	Shared Use Path	Linear F	acilities		
Comm	unity Features		Stream		
\$	Commercial		Interstate		
\bigcirc	Education		US Route		
	Government		Local Road		
0	Health		Waterbody		
	Historic		Charles W. Bundrige Athletic Field		
	Place of Worship		Historic District		
\mathbf{O}	Point of Interest				
	Post Office		Guilford County		
August 2015 0 1/4 1/2 Miles					



