

ROANOKE

RAPIDS

PEDESTRIAN

PLAN

June 2011

FINAL
DRAFT



Roanoke Rapids Pedestrian Plan

Prepared for
The City of Roanoke Rapids, North Carolina
And
The Peanut Belt Rural Planning Organization

In Concert with
NCDOT

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Plan Contents

Executive Summary	1
Section I: Background and Objectives	4
Introduction	4
Plan Objectives	6
Plan Scope and Purpose	7
Section II: Existing Conditions	8
Location and City Characteristics	8
Existing Sidewalks	9
Section III: Steering Committee and Community Involvement	10
Pedestrian Plan Steering Committee	10
Community Involvement	11
Section IV: Pedestrian Plan Vision and Action Strategies	13
“Dream On”	13
Action Strategies Linked to Vision Elements	14
The Plan and Implementation Considerations	17
Section V: Pedestrian Improvement Needs Assessment and Opportunities	18
The Need – Roanoke Rapids as a “Walkable” Community	18
Specific Needs for Roanoke Rapids to become a Pedestrian-friendly Community	19
Overall Pedestrian Safety and Roanoke Rapids’ Pedestrian Accidents	19
Pedestrian Safety and Roanoke Rapids Streets and Parking Lots	23
Dangerous Streets and Intersections	25
Other Unsafe Pedestrian Conditions	27
Priority Intersections for Pedestrian Improvements	28
Inconsistency and Lack of Existing Sidewalk Continuity	29
Absence of Sidewalks on Major Thoroughfares and Collectors	30
Safe Routes to School	32
City Policy and Code Revision Opportunities	33
Canal Trail Linkages and Pedestrian Access to Parks	34
Pedestrian and Driver Education Needs	35
Roanoke Rapids Pedestrian Needs and “Walkability”	35
Section VI: Pedestrian Improvements	36
Recommended Pedestrian Improvements for Roanoke Rapids	36
Sidewalk/Greenway Improvement Priority Matrix	37
State Road Pedestrian Improvement Priorities	45
Local Major Collector Road Pedestrian Improvement Priorities	46
Canal Trail Pedestrian Improvement Priorities	47
Pedestrian Improvements to Other Streets	47
Potential Costs for Pedestrian Improvement Projects	48
Examples of Engineered Pedestrian Improvement Projects and Designs	48
Intersection Design	49
Signage and Signalization	52
Design of Parking Lots and Shopping Centers	53
Sidewalk Standards	54
Greenway and Trail Design	55
Street Designs	56
Safety Education	57
Enforcement	59
Section VII. Sidewalk/Greenway Improvement Policy and Code Options	61
Current Roanoke Rapids Sidewalk Policies and Codes	61
Roanoke Rapids Pedestrian Plan Steering Committee Recommendations	62
Section VIII. Recommendations	65
General Implication of the Plan	65
General Strategies	65
Resources	69
Section IX. Appendix	73
Community Survey Results	74
Pedestrian Improvement Maps	84

Executive Summary

Although the Roanoke Rapids Pedestrian Plan is planned to be part of the Roanoke Rapids Thoroughfare Plan, its implementation rests with the local government in conjunction with NCDOT, where applicable. By using this plan the city can prioritize and pursue pedestrian improvements that ultimately will eliminate unsafe pedestrian conditions. Roanoke Rapids can and should be a “walkable”, pedestrian-friendly community. Not only will local residents benefit from safe pedestrian conditions, but a pedestrian-friendly city substantially sets Roanoke Rapids apart and adds to its overall livability for its residents as a “place to be”. In addition, Roanoke Rapids as a pedestrian-friendly city also contributes to the city’s economic vitality as an attraction and destination for new residents, businesses, industries and tourists.

One overall goal for a “walkable” community is for pedestrian facilities to provide a cohesive, connected network between destinations, neighborhoods and area facilities to encourage walking as a viable means of everyday transportation, exercise and/or recreation. At minimum pedestrian facilities include sidewalks along major roads and marked pedestrian crossings and/or signalizations at major intersections, constructed to ensure pedestrian safety and provide connections between destinations. Pedestrian facilities also include safe access for pedestrians within various commercial developments through pedestrian oriented site designs that provide safe walking conditions. This plan assists the city in working towards this goal and provides design considerations and information for facilities to foster pedestrian safety. In addition, education and enforcement along with community involvement that are also addressed in this plan are important ingredients to promote and realize a more “walkable” community.

Roanoke Rapids also has a valuable resource with its Canal Trail, a greenway that extends from the northwestern area of Roanoke Rapids into Weldon. Additional linkages from within the community to access this trail will provide added value to the neighborhoods surrounding the trail as well as increase the trail’s value. The plan also provides insight regarding these considerations.

Essentially this plan consists of useful information that addresses pedestrian improvement needs and opportunities in Roanoke Rapids. The plan also provides strategic recommendations to address pedestrian improvements. Support by the community was stressed in the development of the plan, and a Pedestrian Plan Steering Committee was assembled to provide community involvement and assist the planners in preparing the plan and its various elements. In addition, a community survey allowed the public to be more involved in the development of the plan. The priorities and specific improvement proposals were developed through the work of this Steering Committee. Membership on the Steering

Committee included City staff and members from other agencies and organizations, including the school system. The membership of the committee is detailed on pages 10-11 of this plan.

Another important part of this plan addresses priorities for various pedestrian improvements. The Steering Committee devoted their efforts to not only identifying streets needing sidewalks and other pedestrian improvements, but also prioritized these various improvements. Maps in this plan show these various prioritized improvements, including sidewalks along major State and local collectors. In addition, prioritized linkages to the Canal Trail are identified and delineated on the maps. An important vision of the Steering Committee was the development of a greenway trail along NC125 (Old Farm Road) from the Carolina Crossroads development project to 4th Street, and this proposed improvement is identified and delineated on the major State road pedestrian improvement map. The plan also includes various ways to design sidewalk improvements through graphic illustrations.

Lastly the plan sets forth strategies to guide continued efforts by the city to address and implements pedestrian improvements. For example, maps clearly show proposed sidewalk improvements prioritized for major local as well as State roads. A greenway trail improvement for Old Farm Road from 4th Street to beyond I-95 is also mapped.

Obviously funding of pedestrian improvements remains the big question, especially when economical conditions are weak. However, this plan must be viewed as a ***long term plan*** ready to be utilized if and when financial conditions improve with sufficient flexibility to consider implementation opportunities guided by this plan.

At their last meeting on June 29, 2011, the Roanoke Rapids Steering Committee approved the plan and recommended the Plan to the City Council of the City of Roanoke Rapids for their approval as a beginning guide and planning tool to address pedestrian improvements for the City. Once approved by the City Council as a beginning guide, the Plan will become part of the *Greater Roanoke Rapids Thoroughfare Plan* currently under completion by the NC Department of Transportation.

An important recommendation in this plan is the establishment by the Council of a ***Pedestrian Advisory Committee*** composed of City representatives and members from the community and other organizations. The purpose of this committee is to primarily promote Roanoke Rapids as a “walkable” community and support pedestrian improvements to achieve this by advising the Council regarding pedestrian needs and opportunities, assisting in the prioritization of pedestrian improvements, fostering community involvement and support, assisting in the review of various plans regarding pedestrian facilities, champion pedestrian improvements in plans and activities, developing funding strategies and seeking funding opportunities, serving in an advisory role to other city boards and city staff regarding pedestrian

needs and improvements, and promoting educational opportunities regarding pedestrian safety, services and improvements. Establishment of the Advisory Committee also insures that this plan will not end up on a shelf; the committee will use this plan in its efforts to promote and improve Roanoke Rapids as a pedestrian-friendly community.

The Roanoke Rapids Pedestrian Plan Steering Committee's recommendations to the City Council also include tasking the coordination of the Plan to the Planning Department who will work in cooperation with other departments and agencies in the review, consideration and recommendation of specific actions to the City Council in regards to Plan. In addition, the committee recommended that the plan be reviewed annually as part of the City's Capital Improvement Program (CIP) preparation for possible inclusion and/or implementation if and when the budget permits or resources and/or grants are available. Lastly, the Committee recommended that the General Strategies set forth in Section VIII of the Plan also be seriously considered by the City Council in order to further the relevancy of this Plan as a beginning guide and meaningful planning tool.

Section I: Background and Objectives

Introduction

Roanoke Rapids' beginnings derive from the migration of the textile industry from the North by an industrialist, John Armstrong Chanler, and a former Confederate Army Major, Thomas Leyburn Emry.¹ Together they established a power plant and textile mill on the Roanoke River in 1895. By 1897 a village consisting of the mill, mill worker houses, farm plots, recreation areas, stores, power stations, and a police force was incorporated as Roanoke Rapids. Because of the power available, the Roanoke River provided the principle reason for the establishment of the mills in this region. Throughout the early 1900s and even into the mid 1900s the resulting mills also powered the economic engines of the communities within the area, including Roanoke Rapids and Weldon.

These early textile mills resulted in the growth of small mill village communities to support the mills in the area that is now Roanoke Rapids. These early mills were also operated in a paternalistic fashion, providing all kinds of needs for their community of workers, including housing, medical services, recreation opportunities, farmland and food processing facilities. "The mill company would come by and take care of all your house needs. I can remember as a young boy they would come by and set up the paint box in the street and they would paint your house,"² (former Mayor D.N. Beale)



Although this paternalistic attitude drastically ended with the purchase of the mill by Stephens, Roanoke Rapids' early characteristics reflect this mindset of the early mill owners in providing almost everything for their workers, like they were family. Perhaps the change from paternalism to a business approach by Stephens contributed greatly to the later unrest of mill workers and ultimately to the unionization of the mills in the early 1970s. Even though the last mill left Roanoke Rapids in 2003 and most have been or are being torn down, the legacy of the mills and their impact on the city and the area remains today.



The paternalistic mill owners and related upper class mill families perhaps helped set the stage for continued community enrichment throughout the 1900s. Although the town now

¹ Taylor, Dr. Greg, Chowan University, NC, History Professor, "It's About Time: Race, Class, Gender, and the 1960's Ethos that Facilitated Unionization in the Textile Mills of Roanoke Rapids, North Carolina"

² Beale, Mayor D. N., Previous Roanoke Rapids comments as reported in WRAL.com, <http://www.wral.com/news/local/story/111071/>

may only be known by many as merely a “pit stop” for weary travelers along I-95, the town’s amenities, including its grand recreational facilities, impressive architecture, quiet pedestrian-friendly residential streets, and varied community facilities and services speak volumes about the



quality of life in Roanoke Rapids. With a 2010 population of 15,754 residents and named in the top 25 “micropolitan” areas in mid 2000, a new urban economic designation by the US Census Department, Roanoke Rapids is an urban center in a growing rural area.³ As an urban center, Roanoke Rapids has also continued to provide and support efforts to enrich the community and offer resources for the region and beyond. The recently constructed Roanoke Rapids Theater within the proposed Carolina Crossroads Entertainment District attests to this long community tradition in providing quality facilities and services to its residents and the region.



As an urban center Roanoke Rapids not only attracts businesses for the development of tourism opportunities for visitors along I-95, but it is the quiet inner city that also makes Roanoke Rapids very special. Miles of interconnected tree-shaded



sidewalks serve numerous older residential neighborhoods, community facilities, and recreational areas with abundant open spaces in this inner city, attracting residents and visitors alike. Another visitor and resident attraction is the Roanoke Canal Museum and Trail, a 7.5 mile 19th century navigation canal along the Roanoke River. Rivaling early 1800s industrial canal facilities in the North, the Roanoke Rapids canal was an extensively used facility to transport goods prior to the industrial

³ “Small-town USA goes ‘micropolitan’, USA Today, June 28, 2004

revolution and introduction of railroads into the area in mid to late 1800s. This canal area has now been converted into a canal trail walk that traverses sections along the Roanoke River and connects Roanoke Rapids with Weldon. Although not directly linked to Roanoke Rapids' sidewalk system, except at the museum area off Roanoke Avenue, this trail offers a splendid greenway system for walking and bike riding along a magnificent river that can only be envied by other communities. This trail is also a site on the NC Coastal Plains Birding Trail among many other travel web sites and is ideal for nature study while hiking or biking.



Plan Objectives

An overriding and essential accomplishment for the Roanoke Rapids Pedestrian Plan is *“to identify the needs of pedestrians in Roanoke Rapids and prioritize improvements that will make the city safer for pedestrians as well as a more “walkable” community”*, as expressed by Roanoke Rapids Pedestrian Plan Steering Committee at their November 4, 2010 meeting. .

Specific objectives for the plan as set forth by the Steering Committee include:

- ✓ Provide measured goals, objectives and time frames and addressing safety, future policy and connectivity issues;
- ✓ Create a 1, 3, 5 and 10 year prioritized plan to accomplish the plan, using the plan as a motivating factor for CIP and future budget decisions, and providing a prioritization tool to help with Capital Improvement Plan pedestrian improvement project planning;
- ✓ Identify funding sources and use as a tool for future grant applications or to obtain grant funds;
- ✓ Develop a cohesive master plan of sidewalk priorities and how decisions for sidewalk installation and improvements are made by defining areas of responsibilities (who approves) and revising current approval processes used;
- ✓ Develop priorities for intersection improvements;
- ✓ Provide tools to City Planner and City Council to achieve Comprehensive Plan Goals and use as a guide to amend the Land Development Ordinance and other current city code requirements;
- ✓ Provide for a fair, enforceable method of required pedestrian improvements when new construction or road improvements occur and adopting ordinances that require sidewalks in new development by the developer;



- ✓ Develop logical connections between existing walks and trails and linking sidewalks and our neighborhoods with business, commercial developments and amenities and linkages to access the Canal Trail; and
- ✓ Use the plan to make council and the public aware of the importance of sidewalks and encouraging healthy choices (walking).

These objectives are important in providing specific, noteworthy targets for the plan and helping shape the content of the plan towards meeting these targets. Focusing on meeting these targets also helps insure that the final plan better meets the interests of the community as reflected in the committee's make-up and involvement, as well as offering opportunities for achieving the desires and needs of the committee.



Plan Scope and Purpose

Although this plan is funded as part of the Peanut Belt Rural Planning Organization (PBRPO) transportation planning efforts, which include the greater Roanoke Rapids area, the focus of this plan will concentrate within the Roanoke Rapids corporate limits and become part of the NCDOT Thoroughfare Plan for the city. As a pedestrian plan, its major purpose is to enlist community involvement and participation in determining the pedestrian improvement needs for the city. This will be accomplished by the establishment and utilization of a Steering Committee composed of a variety governmental and community representatives. In addition a Community Survey was conducted to obtain wider participation from the community residents. Section III of this report provides details regarding community involvements and the work of the Steering Committee.

Section II: Existing Conditions

Location and City Characteristics

Located in the northern portion of NC abutting and directly West of I-95 approximately 10 miles south of the Virginia border, Roanoke Rapids is the largest city in Halifax County with a 2010 population of 15,654 persons. The map on the right illustrates Roanoke Rapids location in NC. The intersection of US 64 and I-95 is approximately 30 miles south of Roanoke Rapids and is also an entrance to Rocky Mount the largest closest city to Roanoke Rapids in NC with over 50,000 in population.



The Roanoke River flows north of the city and provides a scenic vista along the entire northern portion of the city, especially along the Canal Trail that traverses this area. This Canal Trail with its Museum is an attraction within itself for Roanoke Rapids' residents and visitors to the city. Another attraction, historic Halifax, is within 10 miles of the city to the South and together with the businesses in Roanoke Rapids and surrounding areas that cater to the traveling public along I-95, numerous attractions and services are provided along this portion of the I-95 corridor.

Major US and State routes extend through Roanoke Rapids. Included is US158, a major entry into Roanoke Rapids off I-95 with numerous businesses that cater to the I-95 traffic. This highway also serves Weldon a city directly abutting Roanoke Rapids on its eastern side. Weldon boasts a renovated mill (Riverside Mill) that houses space for antique dealers, clothing gallery, specialty shopping, food products and craft/art products produced by regional and national artists. This successful reuse demonstrates potential redevelopment opportunities in the area.

One State route extending into Roanoke Rapids is NC 125 that crosses I-95 in southern most portions of Roanoke Rapids where the Carolina Crossroads features the Roanoke Rapids Theater, a magnificent theater offering a top notch entertainment venue for I-95 travelers, is located. Lastly, NC48 extends through the entire downtown portions of the inner city and is named Roanoke Avenue. As with most communities, these roads were designed and continue to be maintained and/or improved exclusively for vehicular traffic. Although there are

crosswalks for pedestrians primarily within the downtown areas, there are no pedestrian signalized intersections within the community.

Based upon data from City-Data.com, primary industries in this city are manufacturing (19%), retail trade (14%), construction (12%), public administration (9%), health and social services (6%), accommodation and food services (6%) and educational services (5%). Most people are employed in health and social assistance (31%), educational services (15%), retail trade (13%) and accommodation and food services (19%).⁴ The map on page 30 shows general location of community facilities, schools, business areas and other service locations within the community.

Also, according to data from City-Data.com Average household size in Roanoke Rapids is 2.4 persons, slightly less than the NC household size (2.5 persons per households). About 67% of the total population makes up family households as compared to 69% for the State. Thus a large amount of Roanoke Rapids' population appears to be concentrated in family settings and suggests the need for family activities, including walking and related leisure activities.

Between 2000 and 2010, the city lost population, declining from 16,957 in 2000 to 15,754 in 2010 for a loss of 1,203 persons or about 7%. In the 2011 Census approximately 2,330 person are ages 65 and over, and 3,418 are ages 14 and under. Certainly the younger and older population groups are supported by the variety of recreational activities available within the city, including community centers, active recreational programs, walking and natural areas. However, both these age groups are also the population groups perhaps most vulnerable in pedestrian and related accidents. Younger people may not understand all the rules governing pedestrians on the roads as well as dangers along the road system, and older persons may be less agile and slower to respond in hazardous situations.

Existing Sidewalks

Sidewalks exist in Roanoke Rapids, but are primarily in the inner city area. There are a few recently constructed sidewalks in the city's fringe areas. For example, the sidewalks along both sides of Bolling were recently constructed to provide safe walking to Belmont Elementary School. The map on page 84 delineates locations of Roanoke Rapids' existing sidewalk system. Except for the downtown area with its wide sidewalks, sidewalk widths throughout the rest of the community range from about three feet to four feet.

⁴ See City-Data.com (<http://www.city-data.com/city/Roanoke-Rapids-North-Carolina.html>)

Section III: Steering Committee and Community Involvement

Pedestrian Plan Steering Committee

Early in the Roanoke Rapids Pedestrian Plan effort a Steering Committee was formed from governmental, business and other interests. Although not officially appointed, this newly self-formed steering committee represented major interests in the community and played a vital role in shaping the plan and guiding the planning process to produce a product that reflected the interests of the city and its citizens. Recommendations of this committee are also a crucial part of the final plan that is submitted to the Roanoke Rapids City Council and to the Rural Planning Organization.

The Steering Committee members who directly or indirectly worked on this project are as follows.

- Paul Sabiston**, City Manager
City of Roanoke Rapids
- Amanda Jarratt**, Director of Planning
City of Roanoke Rapids
- Lance Jenkins**
Roanoke Rapids Canal and Museum
- Rev. LaCount Anderson**
Roanoke Valley Union Mission Liaison
- Kim Taresco**
Boys and Girls Club
- Michael Felt**
Halifax Social Services Department
- Lori Medlin**
Halifax County Tourism
- Charles Williams**
Roanoke Ave. Business Alliance
- Chris Wicker**
Grants and Special Projects
City of Roanoke Rapids
- Joe Maye**
Jo Story Senior Center
- Doug Miller**
Roanoke Rapids City Schools
- John Simeon**, Recreation Director
City of Roanoke Rapids



Richard Parnell/ Danny Acree, Public Works
City of Roanoke Rapids
Chris Rountree, Halifax Co. Planning Director
Lt. Barry Evans, Police Dept. Representative
City of Roanoke Rapids
Ronnie Keeter, NCDOT Halifax District Engineer
Terry Ellis, NCDOT Halifax District Engineer
Andy Brown, NCDOT Division Traffic Engineer
Bob Mosher, Planning Program Manager
NCDOT Bicycle & Pedestrian Division 1552 Mail Service Center
Ernest Bobbitt, City Council Representative
Charles Landen, Roanoke Rapids Planning Board Representative
Roy Edmonds, Roanoke Rapids Planning Board Representative
Franz Enders, Engineer
NCDOT Halifax Office
Saeed Mohamed
NCDOT Planning Branch

Although some of these members did not attend the meetings, all received updates of the committee's progress and were able to appropriately respond upon review of the information.

Community Involvement

A Community Survey to determine interests of Roanoke Rapids citizens regarding pedestrian needs and improvements was conducted in November and December 2010. City staff also distributed surveys and additional opportunity for responding to the survey was accomplished via a survey web site linked to the main page of the City's web site. Although not a scientific survey, a total of 84 surveys were collected and the results provide an indication of the interests of citizens regarding pedestrian improvements. Detailed survey results are included in the Appendix. A summary of the results include:

- ✓ Regarding pedestrian habits, very few never walked and a majority (41%) walked occasionally, with 32% walking daily and 16% weekly
- ✓ Most walked the canal followed by parks and the mall as well as Old Farm Road, Becker, 5th Street, 7th Street and Roanoke Ave.
- ✓ More respondents indicated that sidewalk improvements were most needed on 10th, 5th, Old Farm Road, West 10th, Julian Allsbrook, Park Ave., downtown, Chaloner School area, and Roanoke Ave.
- ✓ Condition of existing sidewalks was also an issue for some
- ✓ Traffic, no traffic controls and no sidewalks were the most often mentioned as why sidewalks are needed; also problems with tree roots creating uneven sidewalks was equally important
- ✓ Most respondents favored use of local funds and requiring sidewalks in new developments as ways to improve sidewalks; other use of State funds received high responses

- ✓ Most respondents were from Roanoke Rapids (87%); A few more females responded than males (47 compared to 37); major age groups that responded included the 30-39, 40-49, and 50-59 age groups
- ✓ In the additional comment section, respondents indicated the need for bicycle paths, improved night lighting, education of bike riders, pedestrians and motorists, need for cross walks and safer intersection,

In addition, two “drop-in” structured community involvement sessions were implemented during the same time period as the Community Survey. One session was held at the Lloyd Andrews building and the other at the TJ Davis Recreation Center. These public meetings were well advertised utilizing the City Page of the local newspaper, City Website, and numerous flyers displayed and distributed to the public. The session at the TJ Davis was very successful in obtaining many additional surveys, because staff was able to hand out numerous surveys to visitors at the center who completed the surveys while at the center.

The Steering Committee at their May 18, 2011 meeting opted for a less structured community outreach approach for the final plan report. The Committee agreed that the final plan or summary of the plan would be made available on the City’s web site, as well as other web media outlets in the city. In addition, printed copies would be made available at the library, Community Centers, City Hall, and other governmental and/or private organizations. Comments regarding the plan could be received by designated city contacts.

Section IV: Pedestrian Plan Vision and Action Strategies

“Dream On”

If you have built castles in the air, your work need not be lost; there is where they should be. Now put foundations under them. (Henry David Thoreau)

At their September 27, 2010 and November 4, 2010 meetings the Steering Committee developed Vision Elements for the Roanoke Rapids Pedestrian Plan. The numbers in parentheses represent the number of “voting” dots given to different element by individual committee members who voted with their dots at the meetings. The higher the number, the more “voting” dots the element received. All together this list of Vision Elements defines a general direction that the Committee desired for the development of a pedestrian-friendly community in Roanoke Rapids. The category names were developed by the Steering Committee and provide meaningful descriptors for the Vision Elements.

PHYSICAL SIDEWALK IMPROVEMENTS

- ✓ Safe routes to all school facilities (9)
- ✓ Sidewalks built from old Farm Rd. Extension to exit 171 at I-95 for pedestrian safety (5)
- ✓ Pedestrian bridge or pedestrian activated lights for safety crossing J. R; Allsbrook Highway in shopping center area (4)
- ✓ Attractive sidewalks on all major streets (2)
- ✓ Clear pedestrian crossings with lights, different types of paving, and bright lines with reflective paint (2)
- ✓ Benches and/or water fountains along used walking/running areas (1)
- ✓ A successful “walkable” business/shopping district is in place (1)
- ✓ Equitable investment in diverse neighborhoods (1)
- ✓ Roads have sidewalks with rain shelters (1)
- ✓ Pedestrian walks over I-95 (1)
- ✓ Sidewalks are clean-well maintained
- ✓ Non concrete surfaces used for walking
- ✓ Sidewalks that lead to shopping districts, the mall, and connect areas, such as old Farm Road, Becker Drive, etc.
- ✓ Traffic calming measures (i.e., speed bumps, narrower roads, and trees along roads)
- ✓ Safe sidewalks in neighborhoods

AESTHETIC SIDEWALK/TRAIL IMPROVEMENTS

- ✓ Greenways between (nicer) parks (not ditches) and attractions (2)
- ✓ Greenway along Chokoyotte Creek to Aqueduct (2)

- ✓ Emphasis on landscaping to make walks more pleasant (1)
- ✓ Canal trail expanded to connect to other trails eventually to the Appalachian Trail
- ✓ Yards are well landscaped along the pedestrian walkways
- ✓ Walking trails are used

PEDESTRIAN WELLNESS PROGRAMS

- ✓ Walking tour developed through downtown highlighting historic Roanoke Rapids – tie into Canal Museum (5)
- ✓ People are healthier walking and enjoying city life (1)
- ✓ Businesses offer a walking incentive program to employees – employees are given 30 minutes once or twice a week to walk (1)
- ✓ Pedestrian/driver awareness education (1)
- ✓ Walking clubs sponsored by clubs, city and businesses
- ✓ Neighborhood walking programs
- ✓ Walking fitness program through parks and recreation
- ✓ Everyone in town are using the sidewalks
- ✓ Parents are using sidewalks to walk children to school

As Vision Elements, the above list offers guidance as various programs, facilities and services are considered. Although all Vision Elements that received 2 or more “voting” dots are important, the more important Vision Elements are those that received more the most “voting” dots, because they represent the Steering Committee’s priority Vision Elements:

- ✓ Safe routes to all school facilities (9)
- ✓ Sidewalks built from old Farm Rd. Extension to exit 171 at I-95 for pedestrian safety (5)
- ✓ Pedestrian bridge or pedestrian activated lights for safety crossing J. R; Allsbrook Highway in shopping center area (4)
- ✓ Walking tour developed through downtown highlighting historic Roanoke Rapids – tie into Canal Museum (5)

Action Strategies Linked to Vision Elements

At their May 18, 2011 meeting the Steering Committee had the opportunity to develop Action Strategies to help implement the priority Vision Elements. Below are listed the priority Vision Elements along with their corresponding Action Strategies identified by the committee. The numbers in parentheses represent the number of “voting” dots given to each different Vision Element by individual committee members at the September 27, 2010 and November 4, 2010 meetings. All Vision Elements with 2 or more “voting” dots are on this priority list.

Steering Committee members reviewed the list of priority Vision Elements prior to the meeting in order to be better prepared at the meeting to identify Action Strategies regarding what the town or other governmental agencies or private organizations can and should do to implement a particular Vision Element. In framing their Vision Element-related Action

Strategies Steering Committee members were instructed to include in their development of the Action Strategies various information that the committee had previously reviewed regarding Roanoke Rapids as a more “walkable” community, such as policy/code improvements, site designs for pedestrian safety, priority intersection improvements, sidewalk and greenway linkage improvements, opportunities for community involvement, and need for continuation of the planning effort.

After the Steering Committee identified their Action Strategies the committee then ranked the various Action Strategies to include in this final report as Vision related Action Strategies as recommendations from the Steering Committee for the Roanoke Rapids City Council and others to consider and utilize in improving Roanoke Rapids’ pedestrian system. The rankings of the Action Strategies to help carry out the priority vision elements are shown by an underlined number representing the number of “voting” dots received for a particular Action. Those without dots are important, but those with the most dots are the most important for the committee.

Because of the extensiveness of the Vision Elements and corresponding recommended potential Action Strategies for consideration, one can easily become disillusioned and express a “Dream On” attitude. However, as Oscar Hammerstein expressed so clearly: *“If you don’t have a dream, how are you going to make a dream come true?”* Or perhaps Robert Schuller who is even more convincing: *“It is unfulfilled dreams that keep us alive”*, or Travis White who points out that *“Dreams can often become challenging, but challenges are what we live for”*. These eloquent statements attest to the real meaning and usefulness of the work of the Steering Committee, who have worked diligently to develop a ***long term***, 20 to 30 year plan for pedestrian improvements in Roanoke Rapids. The Steering Committee fully recognizes that this plan will not be accomplished overnight, but instead is a direction for Roanoke Rapids to pursue now and in the future in order to become a more pedestrian-friendly city.

The prioritized Action Strategies by the Steering Committee are presented in this final plan as Vision-related recommendations from the Steering Committee for the Roanoke Rapids City Council and others to consider utilizing in order to implement this plan and improve Roanoke Rapids’ pedestrian system. Along with the General Strategy Recommendations beginning on page 65, these specific action strategies will help guide Roanoke Rapids in achieving a more “walkable” community. (Priorities are the ones with underlined high numbers.)

A. PHYSICAL SIDEWALK IMPROVEMENTS

1. Safe routes to all school facilities (**9**)
 - a. Get City, County and State folks around the table to create a cooperative plan to address (the sidewalk improvement opportunities and needs in the plan). **4**
 - b. Use portion of property tax for schools (safe routes to schools).
 - c. Seek State funds through the Safe Routes to School (SRTS) Program.
 - d. Fill in sidewalks where missing along routes to school, such as Hinson and Oakley.

2. Sidewalks built from old Farm Rd. Extension to exit 171 at I-95 for pedestrian safety (5)
 - a. Include sidewalks along Old Farm Road in the City's 5-year CIP program and fund (this portion) of the CIP. 6
 - b. Include in Development Plans (sidewalks to be included in all development plans). 5
 - c. Include in NCDOT's future year construction plans. 1
3. Pedestrian bridge or pedestrian activated lights for safety crossing J. R; Allsbrook Highway in shopping center area (4)
 - a. Meet with representatives from DOT, Halifax, EDA, and Chamber to develop funding strategies for the proposed improvements. 2
 - b. Prepare cost study and investigate funding sources. 1
4. Attractive sidewalks on all major streets (2)
 - a. Request information as to what is available from City Public Works and DOT and start implementing (sidewalk/pedestrian) improvements when other type of road improvement work is to be done on a road. 4
 - b. Make attractive sidewalks part of the Capital Improvement Program priorities by concentrating on the most realistic plan opportunities, including funding recommendations from the Pedestrian Plan in the CIP over the next 5 to 10 year budget years, and developing options for beautification, such as having school children decorate (or paint) designated sidewalks. 2
 - c. Apply a rational process (this process can be applied to all pedestrian improvement project implementation opportunities): 1
 - ✓ Prepare Plan and Engineering Plan and costs
 - ✓ Determine strategy for phased completion
 - ✓ Place in the CIP
 - ✓ Seek local and State funding and other grants
 - ✓ Implement project
5. Clear pedestrian crossings with lights, different types of paving, and bright lines with reflective paint (2)

B. AESTHETIC SIDEWALK/TRAIL IMPROVEMENTS

1. Greenways between (nicer) parks (not ditches) and attractions (2), and
2. Greenway along Chokoyotte Creek to Aqueduct (2)
 - a. Determine who has ultimate responsibility and fiscal responsibility and oversight for the greenways, create a plan to implement, clearly identify responsible party for ownership and maintenance, and develop options for construction funding, including selling brick pavers or signs with the donator's names, and use of Boy/Girl Scouts or interested trail groups for construction. 10

C. PEDESTRIAN WELLNESS PROGRAMS

1. Walking tour developed through downtown highlighting historic Roanoke Rapids – tie into Canal Museum (5)
 - a. With the Tourism Authority charged with the creation of a tour plan, a partnership of the Roanoke Avenue Business Alliance (RABA), Canal Museum and Tourism Authority all working together to develop a home tour and other walking tour(s). 6

Approval and Recommendation of the Plan by the Steering Committee

At their June 29, 2011 meeting the Pedestrian Plan Steering Committee concluded that the major strengths of the Roanoke Rapids Pedestrian Plan was that it provides a long term planning tool that sets forth relevant information about pedestrian needs, opportunities, and potential future improvements, such as additional sidewalk facilities for the community. The plan is a beginning guide that provides ideas as to where future pedestrian improvements need to be made. The plan also promotes a “friendly” community in the broadest sense by providing a plan that fosters connectivity for pedestrians throughout the community. Lastly, the plan was formulated in a Steering Committee with a diversity of different perspectives as well as diversity of meaningful information and relevant sources that was used by the Committee.

However, the plan has an obviously weakness - the absence of adequate or dedicated funding. This problem is especially acute in this period of economic downturn that has impelled even more essential projects. Unfortunately this plan has been completed at a time when capital resources are nonexistent or extremely low, and interest in major capital projects is not much higher, resulting in the absence of needed confirmed support. But even under these conditions, the Plan can still be useful as a future planning tool and beginning guide in an annual review of facility needs for the Roanoke Rapids’ Capital Improvement Program. The Plan also provides essential information for grants, if and when they become available for pedestrian improvements. Upon conclusion of the transitions among various key City staff members, the Plan will also provide a continuing guide for recommending implementation opportunities in the future as economic conditions improve. Most importantly, the acceptance of the Plan by the City Council insures its appropriate use by City Departments as a tool for reviewing future pedestrian improvement opportunities, and as appropriate, recommending implementation considerations.

At their June 29, 2011 meeting the Roanoke Rapids Pedestrian Plan Steering Committee approved the Roanoke Rapids Pedestrian Plan as a beginning guide and planning tool for pedestrian improvements in Roanoke Rapids. The Committee also recommended the Plan to the City Council for their approval as a beginning guide for pedestrian improvements within the city that should be tasked within the Planning Department who will work in cooperation with other departments and agencies in its review, consideration and application. In addition, the committee recommended to the City Council that the plan be reviewed annually as part of the City’s Capital Improvement Program (CIP) preparation for possible inclusion and/or implementation if and when the budget permits or resources and/or grants are available. Lastly, the Committee recommended that the general recommendations set forth in Section VIII of the Plan also be seriously considered by the City Council in order to further the relevancy of this Plan as a beginning guide.

Section V: Pedestrian Improvement Needs Assessment and Opportunities

The Need – Roanoke Rapids as a “Walkable” Community

“...There is a growing need and responsibility for cities and towns to provide opportunities for people to walk, to walk more often, to walk to more places, and to feel safe while doing so. The benefits of walking can be expressed in terms of improved environmental and personal health, reduced traffic congestion, enhanced quality of life, and economic rewards, among others.”

From: <http://www.walkinginfo.org>

There are many benefits in Roanoke Rapids becoming a more “walkable community”.



Perhaps foremost is the health of individuals as well as the environment and community. Improved walkability in a community decreases the use of vehicular traffic and all the associated problems, including congestion and air quality. Walking is also healthy activity and helps address health problems including obesity. Less automobiles and more walking essentially improves the overall quality of life in a community.

The web site devoted to “walkable communities”, www.walkinginfo.org, offers the following list of benefits in a community becoming a more pedestrian-friendly environment:

- ✓ Health of the environment and individuals
- ✓ Reduced traffic congestion
- ✓ Improved quality of life
- ✓ Economic rewards through reduced health care costs and reduced dependency on auto ownership costs
- ✓ Increased economic vitality of communities that emphasize pedestrian mobility
- ✓ More equitable society that provides transportation choice for all citizens.

Specific Needs for Roanoke Rapids to become a Pedestrian-friendly Community

There are a variety of needs for Roanoke Rapids to consider in its efforts to become a more pedestrian-friendly community. The following is a listing of the major needs for Roanoke Rapids in addressing pedestrian-friendly improvements:

Overall pedestrian safety

Irresponsible driving habits

Pedestrian and driver education needs

Dangerous streets, parking lots and Intersections for pedestrians

Inconsistency and lack of existing sidewalk continuity

Absence of sidewalks and intersection pedestrian controls along major thoroughfares and collectors

Inadequate safe routes to school

City Policy and code limitations

Isolation of Canal Trail (lack of linkages)

Each of these needs is described in more detail in the following sections. Other sections of this plan are devoted to addressing these needs and offering recommendations for improving Roanoke Rapids as a pedestrian-friendly community.

Overall Pedestrian Safety and Roanoke Rapids

There is a typical problem with pedestrian safety in many communities. “Pedestrian-friendly” may be of great importance, but realizing such a condition in a transportation environment primarily dominated by the vehicular traffic may be very difficult. As shown in a 1997 survey by the National Highway Traffic Safety Administration, walking is a dangerous activity.⁵ For example, walking is far more dangerous than driving or flying, per mile traveled:

Automobile	1.4 deaths/100 million miles traveled
Airplane	0.16 deaths/100 million miles flown
Pedestrians	50 deaths/100 million miles walked

For each mile traveled, walking is 36 times more dangerous than driving, and over 300 times more dangerous than flying. About 13% of all people who died in traffic accidents were pedestrians and for every pedestrian killed by a car, approximately fourteen more were injured.⁶

⁵ See <http://www.transact.org/report.asp?id=149>

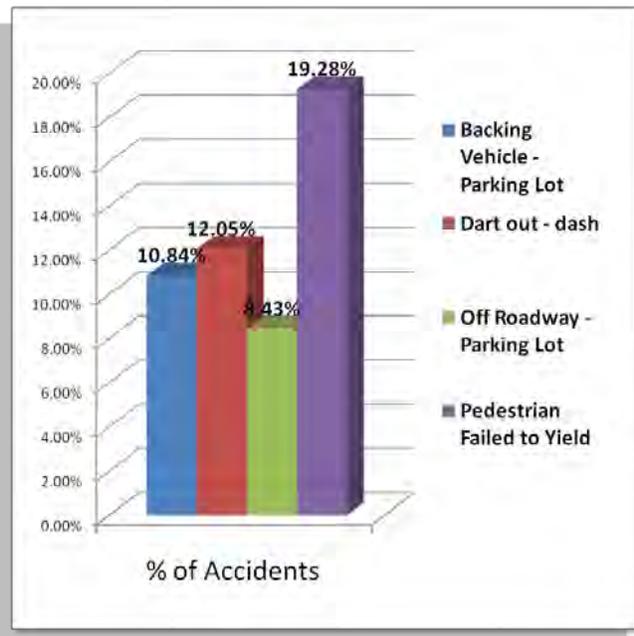
⁶ See <http://www.transact.org/report.asp?id=149>

Roanoke Rapids is not immune to pedestrian accidents. Between 1997 and 2008, Roanoke Rapids experienced 83 pedestrian accidents involving motor vehicles, with 2 (2.4%) pedestrians killed and 12 (14.5%) seriously injured. Compared to the statewide pedestrian injuries, Roanoke Rapids had slightly more seriously injured pedestrians from a percentage standpoint (12.5% statewide compared to 14.5% for Roanoke Rapids).⁷ For both the statewide and Roanoke Rapids injuries older adults and young children are especially vulnerable.



Regarding major types of pedestrian accidents in Roanoke Rapids as compiled by the NC Department of Transportation from statewide pedestrian accident data, parking lot accidents, darting out into traffic accidents and pedestrian failure to yield make up the lions share as shown in the charts beginning on this page.⁸

The following chart displays data from the Department of Transportation regarding Roanoke Rapids pedestrian accidents:



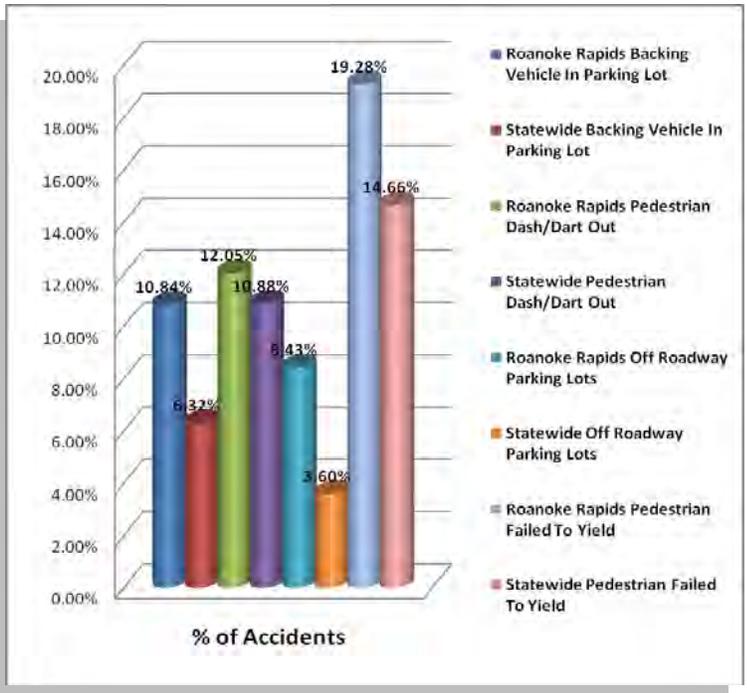
Major Types of Pedestrian Accidents In Roanoke Accidents

- Between 1997 and 2008 there were 83 pedestrian related accidents.
- Major accident categories were parking lot related and unsafe pedestrian movement
- 15% were disabling
34% were obvious injuries
.2% resulted in death
43% were possible injuries

Comparing pedestrian accidents in Roanoke Rapids with statewide accidents reveals that although statewide accidents were similar to those in Roanoke Rapids (parking lot related, unsafe pedestrian movement and failure to yield), Roanoke led the statewide percentages in all these categories:

⁷ See: <http://www.ncdot.gov/bikeped/researchreports/>

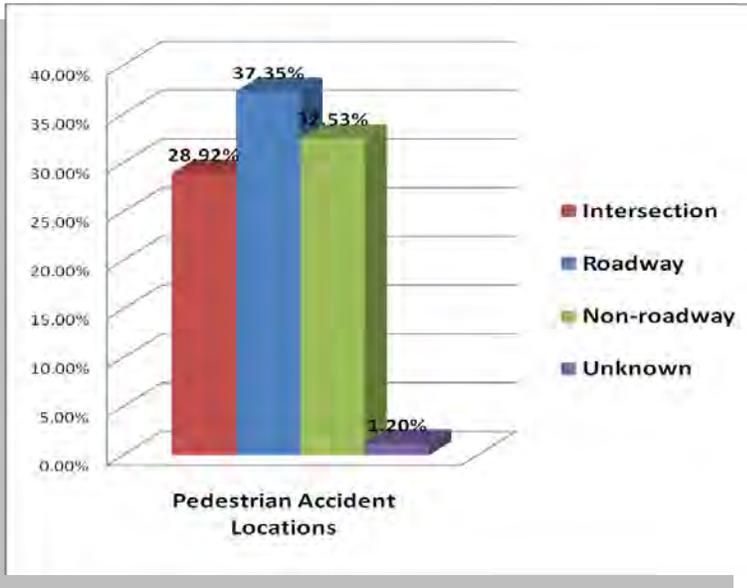
⁸ See: <http://www.ncdot.gov/bikeped/researchreports/>



Major Types of Pedestrian Accidents

- Between 1997 and 2008 there were 28,474 pedestrian related statewide accidents.
- Like Roanoke Rapids major statewide accident categories were parking lot related, unsafe pedestrian movement, and failure to yield
- During this period Roanoke led the State in all these categories

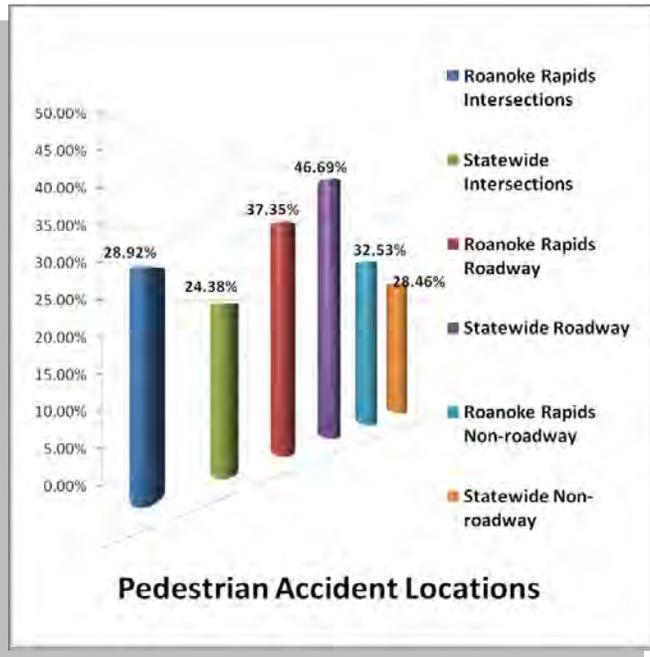
Location of accidents in Roanoke Rapids was also revealing with most (55 or 66%) occurring at intersections and along roadways:



Pedestrian Accident Locations in Roanoke Rapids

- Major accident categories were along roadways (37%) and at intersections (28.9%)
- 27 accidents (32.5%) were non-roadway or intersection related
- 12 were disabling
- 28 had obvious injuries
- 2 resulted in death
- 36 were possible injuries

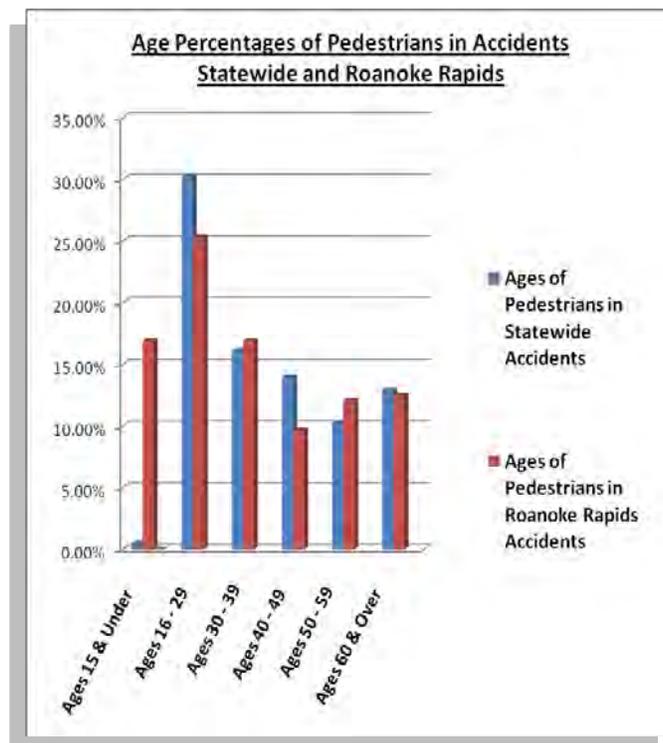
The following data compares location of accidents in Roanoke Rapids with statewide information. Of note is that in every category, Roanoke Rapids led the statewide percentages.



Pedestrian Accident Locations

- Between 1997 and 2008 most Statewide pedestrian accidents (6,941 or 71% out of 28,474) were at intersections or along roadways.
- Major accident categories were along roadways (46.69%); intersections (24.38%), and non-roadway or intersection related (32.5%)
- Roanoke led the State in all but one of these categories (Roadway)

Except for under the age of 15, ages of pedestrian accident victims are very similar between Roanoke Rapids and statewide information.



Ages of Pedestrians In Accidents

- There were proportionally few accidents in the ages 15 and under category statewide; but Roanoke Rapids experienced proportionally substantially more. (17% vs. <1%)
- In other age categories statewide accidents were proportionally slightly higher than Roanoke Rapids, except for age groups 30-39 and 50-59 ages.
- Both statewide and Roanoke Rapids accidents ages 16-29 experienced highest numbers
- The 60 and over age group proportionally experienced similar percentages

The type, location and percentage of pedestrian accidents as compared to statewide data strongly suggest that there is a definite linkage between pedestrian improvements to make Roanoke Rapids a more “walkable community” and pedestrian accidents in Roanoke Rapids. For example, implications for the Roanoke Rapids Pedestrian Plan as related to the pedestrian accidents in Roanoke Rapids include:

- ✓ Although accidents in parking lot and unsafe movements contributed to substantial numbers of pedestrian accidents, failure of motorist to yield resulted in even more pedestrian accidents
- ✓ Together, intersections and along roadways are the major locations of pedestrian accidents
- ✓ A high percentage of accidents occur among the young

Pedestrian Safety and Roanoke Rapids Streets and Parking Lots

Pedestrian safety in Roanoke Rapids is related to location and cause. For example, parking lots are major locations for pedestrian accidents with over 1/3 of total pedestrian accidents between 2008 and 2010 occurring in parking lots.⁹ Such accidents and pedestrian accidents appear to not only occur within a number of parking lots, but are also concentrated in certain parking lots within Roanoke Rapids. Of particular interest is the latest data (2008-2010) gathered by the Roanoke Rapids Police Department for this Pedestrian Plan that clearly showed pedestrian accidents highest along streets followed by parking lots during this time period:

Number of Pedestrian Accidents By Type 2008-2010 (Compiled by RR Police Reports)					
Type	2008	2009	2010	Total	%
Intersections	2	0	2	4	12%
Streets	8	1	8	17	52%
Parking Lots	5	7	0	12	36%
Total	15	8	10	33	100%

The following chart documents a report by the Roanoke Rapids Police Department regarding pedestrian accidents in parking lots from 2008-2010. Out of 12 pedestrian accidents in parking lots for specific uses, including businesses and shopping centers, most occurred at the new Wal-Mart shopping area. Perhaps the direct travel entry lane into the parking lot that traverses along the front of the Wal-Mart complex contributed to these accidents. Parking lots are particular dangerous in Roanoke Rapids as in other cities, because most designs of parking lots rarely take into account the full needs of pedestrians and their safety considerations, and they also lack special walking lanes or islands separated from traffic and/or other pedestrian safety improvements. Other related problems include the lack of pedestrian diligence in assuring safe walking habits and driver awareness of close-by pedestrians.

⁹ Report compiled by Roanoke Rapids Police Department on Pedestrian accidents from 2008-2010.

Number and Location of Pedestrian Accidents at Shopping Area or Business Parking Lots (Compiled by RR Police Department) 2008-2010		
Wal-Mart	4	33.3%
Tractor Supply	1	8.3%
Belk	1	8.3%
McDonalds	2	16.7%
Western Grocery	1	8.3%
Murphy	1	8.3%
AAA	1	8.3%
First Christian	1	8.3%
Total	12	99.8%

The chart below lists information from a report by the Roanoke Rapids Police Department about the possible causes of pedestrian related accidents from 2008-2010. Of special note is that out of 20 driver caused accidents, 5 were identified as intentional. The one pedestrian death was attributed to pedestrian fault as a result of poor visibility weather and wearing dark clothing. In most cases (63%) the driver was at fault. Even driving a vehicle in Roanoke Rapids is not particularly safe as there were 949 total wrecks in 2008, 784 in 2009 and 839 in 2010 according to the Roanoke Rapids Police Department accident report. This accident data suggests the need for additional driver and pedestrian safety educational opportunities.

Number of Pedestrian Accidents By Fault (Compiled by RR Police Department) 2008-2010					
Cause*	2008	2009	2010	Total	%
Pedestrian at Fault	7	1	2	10	31%
Driver at Fault	6	7	7	20	63%
Unknown Case	1	0	1	2	6%
Total	14	8	10	32	100%
Deaths	1	0	0	1	
*NOTES: Pedestrian Fault due to darting or walking in front of vehicle; wearing dark clothes; and/or poor visibility due to weather Driver Fault due to unsafe movement; not watching while turning or backing up; and/or intentional					

The high accident levels in Roanoke Rapids as compared to the statewide data and reported by the Roanoke Rapids Police Department not only suggest the pressing need for driver and pedestrian education, but also calls for improved pedestrian safety facilities, such as sidewalks and other pedestrian improvements, including improved pedestrian/vehicle controls,

signalization at intersections and improved site designs for parking lots that emphasize pedestrian safety and separation of pedestrians from traffic.

Dangerous Streets and Intersections

The community survey provided insight as to dangerous streets and intersections in Roanoke Rapids. For example, the following specific streets were sighted in the community survey as problem areas for walking in the city:

**10th
Becker
Roanoke Avenue.
Julian Allsbrook
Old Farm Road
Park Avenue**

In addition, the Recreation Director and Public Works Director for Roanoke Rapids identified various streets serving the larger community and city's major parks that need pedestrian improvements:

TJ, Doyle, Aquatic Center, Long & Smith

- East 6th. Street – from Raleigh St. to Washington St.

Chockoyotte

- Chockoyotte St.- From 4th. Ave to Hwy 158

Mlk

- Lewis St. – from Virginia Ave to Carolina Ave.
- Wyche St. – from Virginia Ave to Georgia Ave.

Chaloner Rec

- Glover St. – From 158 to Dixie
- Dixie St.- from Glover St. to Bridge

Wheeler Park

- Willow St. – from Americus St. to Oak St.
- Oak St. – from Willow St. to Roanoke Ave.

Ledgerwood

- Vance St.- from park entrance near mill to West 10th. St.
- West 11th. St. – from Franklin St. to Wilson St.
- Wilson St. – from West 11th St. to West 10th. St.
- Rapids St. – from West 11th. St. to West 10th. St.
- Cedar St. - From West 11th. St to West 10th. St.

Emry Park

- Cleveland St.- from West 9th. St to West 10th. St.
- West 9th. St.- from Cleveland St. to Rapids St.
- Rapids St. – from West 5th. St to West 10th. St.

CW Davis & Melody

- West 6th. St.- from Rapids St to Cedar St.
- Cedar St. – from West 6th. St. to West 5th. St.

Rochelle Park

- Cedar St.- from West 5th. St. to West 3rd. St.
- West 3rd. St. – from Cedar St. to Taylor St.
- Vance St. – from West 5th. St. to West 3rd. St.

Edward George

- Virginia St. - From East 10th. St. to Julian R. Allsbrook

Larger Community Pedestrian Needs

- 10th Street from Marshall to Julian Allsbrook
- Old Farm Road to Gregory
- Virginia

The numbers of pedestrian accidents along streets in Roanoke Rapids add to the list of dangerous streets as referenced in the following table on page 26 of recent pedestrian

accidents in Roanoke Rapids by streets or locations. Note the two pedestrian deaths, with one in 2006 and one in 2008.

PEDESTRIAN ACCIDENTS ON ROADS IN ROANOKE RAPIDS (2005-2010)				
LOCATION	FROM LOCATION	TO LOCATION	ACCIDENT DATE	SEREVITY
900 OAKLEY AVENUE	TENTH	JOHNSON	8/30/2005	B
900 OAKLEY AVENUE	TENTH	JOHNSON	8/30/2005	B
MONROE	FOURTH	FIFTH	10/1/2005	A
GEORGIA	JULIAN ALLSBROOK	DRAKE	12/2/2005	C
500 FIFTH ST	ROANOKE	HAMILTON	1/6/2006	B
FRANKLIN	TENTH	ELEVENTH	2/4/2006	C
SUMMIT	US 158	RYANS STEAK HOUSE	2/12/2006	C
TENTH	VIRGINIA	PARK	3/1/2006	B
1800 E 10TH ST	DRAKE	JULIAN ALLSBROOK	3/11/2006	C
1800 E 10TH ST	DRAKE	JULIAN ALLSBROOK	3/11/2006	C
OLD FARM	LOWES	US 158	5/26/2006	C
US 158	OLD FARM	SUMMIT	8/18/2006	C
JULIAN ALLSBROOK	PREMIER	SLEEP INN	8/20/2006	A
JULIAN ALLSBROOK	PREMIER	SLEEP INN	8/20/2006	A
NC 48	EIGHTH	NINTH	10/27/2006	K
US 158	OLD FARM	TENTH	11/10/2006	A
VIRGINIA	LEWIS	WILKINS	12/7/2006	O
TENTH	HAMILTON	WASHINGTON	12/12/2006	O
TENTH	HAMILTON	WASHINGTON	12/12/2006	O
CLEARFIELD	OLD FARM	BECKNER	7/19/2007	B
CLEARFIELD	OLD FARM	BECKNER	7/19/2007	NA
HAMILTON	FOURTH	THIRD	10/9/2007	B
HAMILTON	FOURTH	THIRD	10/9/2007	B
HINSON	MONROE	KIRK	12/3/2007	B
HINSON	MONROE	KIRK	12/3/2007	B
MADISON	FIFTH	FOURTH	2/15/2008	A
VANCE	ELEVENTH	TENTH	3/14/2008	O
JEFFERSON	TENTH	ELEVENTH	7/5/2008	C
JEFFERSON	TENTH	ELEVENTH	7/5/2008	C
NC 48	1RST ST	JACKSON	7/6/2008	B
TRACTOR SUPPLY	OLD FARM	MITCHELL	8/25/2008	C
INTERSECTION	FIRST	JACKSON	9/25/2008	NA
700 E 7TH ST	WILLIAM	CAROLINA	9/29/2008	B
700 E 7TH ST	WILLIAM	CAROLINA	9/29/2008	B
100 BLOCK OF SECOND	SECOND	MONROE	10/20/2008	C
TENTH	Nash	NA	11/30/2008	K
NINTH	NA	NA	12/3/2009	NA
INTERSECTION	JULIAN ALLSBROOK	VIRGINIA	2/16/2010	NA
122 ROANOKE AVE.	NA	NA	5/17/2010	NA
CHARLES CIR.	NA	NA	5/22/2010	NA
INTERSECTION	PARK	HINSON	6/17/2010	NA
1953 CARTER ST.	NA	NA	7/21/2010	NA
VANCE	NEAR EIGHT	NA	8/10/2010	NA
700 BLOCK OF HAMILTON	NA	NA	8/13/2010	NA
WILL ST. NEAR WILSON	NA	NA	9/15/2010	NA
JACKSON NEAR SECOND.	NA	NA	10/4/2010	NA
1500 CAKEY DR.	NA	NA	11/9/1010	NA

DATA SOURCE: Local Roanoke Rapids Police accident files & PBCAT (http://www.ncdot.gov/bikeped/researchreports/)
Accident Severity Codes
K = FATAL
A = A-LEVEL INJURY-Serious
B = B-LEVEL INJURY-Observed/Possible
C = C-LEVEL INJURY-None/Not Observed
O = PROPERTY DAMAGE ONLY

Other Unsafe Pedestrian Conditions

The Community Survey also highlighted other unsafe pedestrian conditions. When asked, “Why do sidewalks need improvements?” For example, 26 out of the 84 returned surveys indicated that in addition to no sidewalks or traffic controls along streets, uneven sidewalks (due to tree roots), cracked sidewalks, and personal safety concerns, including lack of lighting, were important needs. The following pictures illustrate pedestrian problems:



Lack of sidewalks at a Chaloner Middle School



Lack of sidewalks along Julian Allsbrook



Priority Intersections for Pedestrian Improvements

All intersections that have been identified as needing pedestrian improvements are shown in the following table. At the May 18, 2011 meeting each committee member had 6 “voting” dots and each member assigned each of their dots to different intersections to determine overall priorities. Several dots were assigned by absentee ballot presented by members present. The number of dots received for each intersection is shown in this table in parentheses. The priority intersections are those shown in red and include all intersections receiving 5 or more votes.

Roanoke Rapids Intersections Identified in Accident Reports, Steering Committee and Community Survey as Most Unsafe for Pedestrians*

1. Roanoke Ave. & 1 th	16. 10 th & Hamilton
2. Roanoke Ave. & 4 th	17. 10 th & Franklin (2)
3. Roanoke Ave. & 5 th (1)	18. 10 th & Oakley
4. Roanoke Ave. & 7 th (2)	19. 10 th & Park (7)
5. Roanoke Ave. & 8 th * (1)	20. 10 th & Becker (7)
6. Roanoke Ave. & 10 th (5)	21. 10 th & Smith Church (See comment below)
7. Roanoke Ave. & Hinson (7)	21. 11 th & Vance
8. Monroe & 4 th	22. NC158 & Virginia (5)
9. 1 st & Jackson	23. Julian Allsbrook & Virginia (2)
10. 3 rd & Jackson (1)	24. Julian Allsbrook & Georgia
11. 5 th & Madison	25. Julian Allsbrook & Old Farm Road (5)
12. 5 th & Franklin	26. Julian Allsbrook & Premier (5)
13. 7 th and Park (5)	27. Julian Allsbrook & 10 th (See comment below)
14. 10 th & Virginia (2)	28. Old Farm Road & Clearfield
15. 10 th & Jefferson (1)	

*NOTES: Data from RR Police Department Reports; State DOT Accident Statistic Compilations; & Community Survey; The Community Survey identified dangerous intersections along Old Farm Road, 19th Street, Roanoke Rapids & Julian Allsbrook.

Although the intersections of Julian Allsbrook and 10th as well as 10th and Smith Church were not included in the original list for prioritization by the Steering Committee, they are never-the-less of equal importance for intersection improvements, and **as major State routes they should be considered as priorities.** In addition, the following eight intersections on the original listing of intersections were specifically identified as priorities with 5 or more votes. All but one priority intersections (7th and Park) involve state routes.

10th & Becker (7); Roanoke Ave. & Hinson (7); 10th & Park (7); 10th & Becker (7)

Roanoke Ave. & 10th (5); NC158 & Virginia (5); Julian Allsbrook & Old Farm Road (5); Julian Allsbrook & Premiere (5)

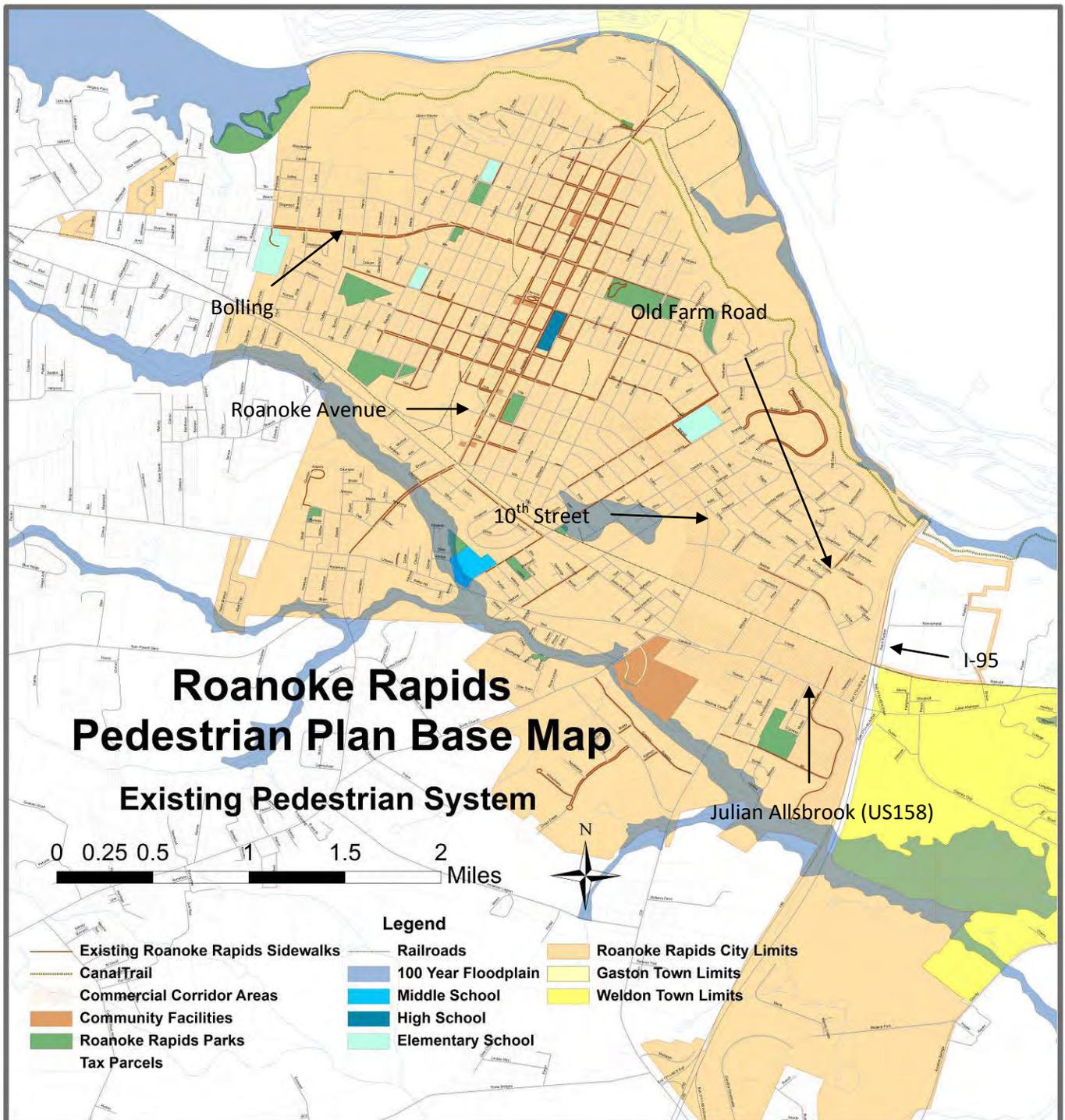
Inconsistency and Lack of Existing Sidewalk Continuity

In a drive-through survey over several days in September and October 2010, several obvious issues were noted. Not only are sidewalks missing along key major roads, but also there is inconsistency with the existing sidewalk system. Although an extensive network of sidewalks exists in the inner city, for no apparent reason these sidewalks have numerous inconsistencies in regards to continuity. This inconsistency is illustrated on a base map of the northern most portions of Roanoke Rapids on the next page.

As shown on this map, existing sidewalks are located primarily in the central area of the city, and except for Bolling, 7th, 8th, 9th and 10th, sidewalks extend only approximately 2 blocks East to West from Roanoke Avenue. Sidewalk continuity along these streets is broken in various locations. Streets in a North to South direction, including Jackson, Roanoke, Hamilton, and Washington have gaps in the continuity of their sidewalks, especially at the extremities of

these streets. There are a few sidewalks additions in new developments or along streets scattered throughout the eastern portion of the city, but major roads, such as Julian Allsbrook (US158), 10th, or Old Farm Road are absent sidewalks. Extending sidewalks to complete continuity along streets with existing sidewalks, as well as constructing new sidewalks along major state and local roads are essential to increase pedestrian safety and make Roanoke Rapids a more walkable, pedestrian-friendly city.





This base map shows almost the entire area of Roanoke except for portions on the extreme southern area. The map was based upon available 2010 GIS data (NCDOT GIS Data Layer, NC One Map GIS download data, and Halifax County GIS data from their web sites (See **Resources** in **Section VIII**)). Corporate limits, roads, and other information based upon 2010 data may not reflect more recent annexations or other considerations.

Absence of Sidewalks on Major Thoroughfares and Collectors

Major City collectors and State Roads do not have sidewalks. Unfortunately some of the busiest roads, including 10th, Old Farm Road, Julian Allsbrook (US158), and NC125 are absent sidewalks and these streets have numerous businesses, services and/or residential areas that could and should be served by a pedestrian system.

Lack of pedestrian sidewalks off 10th or Becker Drive beside Mall



Lack of pedestrian sidewalks along Old Farm Road extension



The pictures on this page illustrate some of the pedestrian safety problems due to lack of sidewalks and/or crosswalks along major streets. These streets provide access to major business, including shopping centers, restaurants, financial institutions and services. Many areas along these streets back up residential areas that could benefit from access by pedestrian improvements. For example, 10th Street is a very traffic heavy State Road with businesses fronting almost the entire eastern length, but lacks pedestrian safety systems, including sidewalks or controlled crosswalks. Residents from the residential areas backing up to this street do not have places to walk along this street except at great personal risk.



No sidewalks or crosswalks (Park & 10th)

Lack of pedestrian sidewalks and street crosswalk system along Julian Allsbrook



Safe Routes to Routes to School

Although Bolling Street serving Belmont Elementary School was recently improved with sidewalks on both sides, other areas with schools lack adequate pedestrian access, especially the Manning Elementary School and Chaloner Middle School off 10th street along Virginia Street. Students at both schools may have to cross 10th street and/or Julian Allsbrook at Virginia where there are no crosswalks or signals and sidewalks are inadequate or inconsistent in the area. Police have to man some of these areas before and after school.



In addition, sidewalks around Manning and Chaloner, including Virginia, are sporadic and do not serve the entire surrounding residential areas. US158 passes near Chaloner and allows school bus delivery of many school children to the residential areas, but there are no sidewalks or crosswalks to provide safe passage for children departing buses or walking from Chaloner. The High School is in the inner City area and well served by downtown sidewalks. However, these sidewalks as already reported are not continuous.



City Policy and Code Revision Opportunities

Current Policy regarding sidewalk improvements in Roanoke Rapids is governed by Section 151-216 of City Code:

- ✓ Sidewalks may be required on local and collector street
- ✓ Sidewalks shall be at least 4' wide
- ✓ Sidewalks shall be constructed in accord with City specifications unless otherwise allowed and environmentally desirable
- ✓ If sidewalks are not adequately provided with pedestrian sidewalk access along streets, at least 10' easements to be provided elsewhere for access
- ✓ Sidewalks are not required in lowest density zones pursuant to a Conditional Use Permit

Current Policy is also expressed in Section 151-220 of the Subdivision requirements:

- ✓ In unsubdivided multifamily development, sidewalks are to be provided to link dwelling units with other dwelling units, public streets and onsite activity centers.
- ✓ Council can require pedestrian access to schools, parks, playgrounds, or other roads or facilities and if not provided along roads developer may be required to reserve an 10'+ access easement
- ✓ Sidewalks shall be at least 4' wide constructed according to the City, except that walkways constructed with other suitable materials may be allowed if adequate to serve residents and environmentally desirable for the overall design

Ultimately the Roanoke Rapids code allows the City Council to determine the requirements for sidewalk on a case by case basis by evaluating relevant criteria (nature of area, location of existing sidewalks, public need, proximity to parks, schools, and community facilities) and recommendations of the Planning Executive Committee. Although discretion may be suitable in certain circumstances, not requiring sidewalks for any reason can also have the effect of establishing precedent that cannot be undone or will be used to undermine future pedestrian needs. Effectively applying this policy may become (if not already) politically difficult. A more definitive sidewalk requirement is a better approach. Roanoke Rapids' sidewalk policies appear weak overall primarily because of the discretionary provision. Provisions are also absent for development areas most needing pedestrian improvements, such as large scale developments or lack of continuity of pedestrian facilities along major streets.

In order to achieve a more "pedestrian-friendly" and walkable community, sidewalk requirements must be in the forefront for all new developments and subdivisions. Adopting policies that emphasize the importance of sidewalks or other alternative pedestrian systems in all developments and subdivisions not only promotes safety for pedestrians, but also recognizes the value of multi-modal transportation systems for the benefit of the citizens and the community. Flexibility in sidewalk requirements should be in how and where to install, not

whether or not to install. Mandatory sidewalk installation provisions insure that discussions about sidewalks in developments are not about their need but instead about how and where.

State Law also addresses pedestrian provisions. Pedestrians have the right of way at intersections and driveways, but must act responsibly by:

- ✓ Using pedestrian signals where they are available to cross roads
- ✓ Yielding right of way to all vehicles on the roadway and look before crossing a road or walking along or on a highway
- ✓ Exercising reasonable care for safety, keeping a timely lookout for vehicles
- ✓ Always walking facing traffic where there are no sidewalks and use light at night

Based upon the accident records previously cited, Implementation of pedestrian educational and awareness programs is needed. These programs can be sponsored and implemented through schools, public announcements, news and other media articles, and organized walking events that support pedestrian safety for both motorists and pedestrians. (See next Section)

Canal Trail Linkages and Pedestrian Access to Parks

Although the Canal Trail, with its bike riding and walking trails that cross the northern portion of Roanoke Rapids and extends into the downtown area of Weldon, is a jewel for the City, it is relatively isolated from the community with few formal access points, especially from existing residential subdivisions. There are several informal linkages that provide unimproved access to the trail along areas where there are residential developments. However, providing formal and improved linkages to this Canal Trail from the residential areas will encourage its use by more residents. In addition, the isolation of the trail does not tie the entire City into the greenway system.



Developing addition trails within the City and linkages to the Canal Trail not only provides the benefits of greenways for pedestrian travel throughout the City, but also adds to the tourist attraction for the Canal Trail and the City.

Roanoke Rapids is fortunate to have an abundance of various sized and types of parks to serve the recreational needs of the community. However, many of the parks are isolated in terms of pedestrian access due to the lack of sidewalks to serve the parks areas. Pedestrian improvements that include sidewalks and provide safe access to neighborhood and community parks are essential



and insure that residential areas served by these parks have pedestrian-friendly and walkable access to park facilities.

Pedestrian and Driver Education Needs

Given the high accident rates, especially as a result of unsafe movements by young children and the failure of drivers to yield to pedestrian, there is an educational need and opportunity in Roanoke Rapids to foster programs that help educate both drivers and pedestrians regarding safe walking and driving. Drivers not yielding to pedestrians and unsafe pedestrian behaviors, such as darting into streets, resulted in many accidents, some of which were very serious. Children may not even understand the dangers of crossing or darting into streets, and drivers appear not to be tuned to considering non-motorized traffic as they speed along on the roadways. Without separate facilities for pedestrian and motorists coupled with education for both pedestrian and motorists, Roanoke Rapids will continue to be plagued with high pedestrian accidents as both traffic and pedestrian numbers increase.

Roanoke Rapids Pedestrian Needs and “Walkability”

The pedestrian needs for Roanoke Rapids substantially contribute to the lack of pedestrian-friendly conditions in the town. A handicapped person using the street due to no sidewalks along 14th Street, or no sidewalks at a bus stop at the middle school on Virginia Avenue, or the lack of intersection controls at Virginia and 10th Street, or the lack of pedestrian sidewalks or controlled crosswalks along Julian Allsbrook or the high pedestrian accident rate compared to statewide rates all vividly point out Roanoke Rapids’ unsafe pedestrian conditions.



Along with driver and pedestrian unsafe behaviors, these conditions rob the City of being a pedestrian-friendly community with safe walkable access throughout the community for all.

Section VI: Pedestrian Improvements

Recommended Pedestrian Improvements for Roanoke Rapids

“Walking facilities play a large role in pedestrian mobility and safety. According to the National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, the majority of walking trips occur either on sidewalks or on paved roads without shoulders (45.1 percent and 24.8 percent, respectively).”

From: <http://www.walinginfo.org>

At their meeting in January 2011, the Steering Committee developed initial proposals for pedestrian improvements in Roanoke Rapids. Upon breaking into three small groups, the committee members identified pedestrian and greenway improvements on their group’s map. Each group was asked to determine among their members where new sidewalks should be



constructed, based upon the information they received at this meeting about the citizen survey, accident information and their interests. Various colors and symbols were used for drawing purposes, but were all consistent between the subgroups. For example, trails had a symbol and sidewalks another. In addition to sidewalks, each subgroup also determined and mapped the

intersections that needed improvements. Each small group viewed their efforts as a 20 plus year plan for improvements. Upon completion, each small group presented their final 20 plus year plan to the full committee through a spokesperson for each small group. The three resulting maps were displayed for all to review, and after discussing each one the committee agreed to combine all onto a final map that represented the recommendations of the committee for sidewalk improvements. The map on page 85 is a composite of the recommended sidewalk and greenway improvements proposed by the Steering Committee at their January meeting and confirmed at their March meeting.



At their March meeting the Steering Committee also reviewed a matrix of the proposed pedestrian improvements on State roads and local major collectors. Three matrixes were distributed to the committee; one matrix listed State routes, another matrix identified local major collectors and a third matrix displayed various optional linkages to the Canal Trail Greenway. Each matrix was separately addressed and each street on the matrix was divided into various sections.

Regarding the State routes matrix, State DOT representatives at the meeting pointed out that the town was responsible for Old Farm Road up to Becker, from which point the State assumed responsibility. In addition, it was pointed out that the listing also included Old Farm Road from Julian Allsbrook to beyond I-95 as a possible location for a biking/walking trail as the pedestrian improvements for this area which had been suggested at previous meetings. With this in mind the committee participants ranked the various sections of the State (or local in the case of the upper portions of Old Farm Road) roads for sidewalk improvements by using a green “voting” dots to indicate each member’s preferences for the various sections. The results of this ranking are displayed on the matrixes beginning on page 40. The resulting priorities are set forth on page 45.

Next, the committee evaluated local major collectors in like fashion, using different colored dots. The resulting rankings are displayed on the matrixes beginning on page 42, and the priorities are displayed on the matrix on page 46. Lastly, the committee evaluated the potential linkages to the Canal Trail in similar fashion using a different colored “voting” dot. Priorities for the linkages to the Canal Trail are set forth on page 47.

Sidewalk/Greenway Improvement Priority Matrix

PURPOSE AND STREET SELECTION

The Roanoke Rapids Sidewalk Improvement Matrix provides an approach to evaluate and prioritize various sidewalk improvement projects. Since major arterial or collector streets are major vehicular circulation corridors throughout the city, they also are important corridors for pedestrian circulation, linking residential areas with community facilities and services. For the most part these major arterials and collectors are State routes through the city and include Old Farm Road, Becker, 10th Street, Julian R. Allsbrook, Smith Church Street, US 158 (Littleton Highway), Roanoke Avenue, and Bolling Road. The State is primarily responsible for the maintenance of these routes.

The matrix also includes major local collectors that are important vehicular corridors throughout the city. As important access corridors, these streets can also be effective pedestrian corridors linking major corridors and other roads together and providing access to services and facilities. These corridors are the primary responsibility of the City and include 7th Street, portions of Old Farm Road, Marshall, Virginia, Park, Hamilton, Jackson, and Oakley Avenue. The importance of these major collectors for pedestrian access was also reinforced in the Community Survey. For example, except for a few of these streets, respondents indicated all were already used by pedestrian or were identified as important corridors for pedestrian improvements.

RANKING FACTORS

Since improvements of all these streets for pedestrian access must be scheduled over an extended period of time due to cost and other considerations, the matrix provides key evaluation factors to assist the Roanoke Rapids Pedestrian Steering Committee in determining various priorities for pedestrian improvements. The Ranking Factors provided a base line evaluation of each street and included factors such as, number of lanes, traffic, proximity of pedestrian land use generators, and the like. In addition, cost estimates of improvements are provided as an indicator of potential improvement costs. However, these costs reflect only the current estimated costs of sidewalk construction and not other costs associated with required infrastructure or street modifications. Specific street cross sections plans would be required to determine these costs, but this technical engineering work is beyond the scope of this plan. Examples of street cross sections with pedestrian access can be found by reviewing efforts in other communities, such as Charlotte, a city that has implemented award winning “*complete street*” designs.

Note also that travel lane widths can vary considerably with minimal widths as little as 10 to 11 feet. Sidewalks should be 5 feet wide, preferably separated from the street. A 60 foot ROW with three lanes of traffic and sidewalks on both sides is exemplified by Roanoke Rapids’ Bolling Road.

In determining final priorities, Committee members reviewed the ranking factors and completed their priorities as a committee at their March 30th meeting. In addition, some modifications were suggested by the Committee prior to determining final priority ranking (see last column in Matrix). The Committee used colored “voting” dots to identify member’s priorities and the numbers in the last column represent the number of dots received by the different members. The State routes, as well as major local collectors and linkages to the Canal Trail were evaluated and priorities assigned. One additional major local collector was identified, but no priority was assigned to this street. The finished Matrixes are part of this section and are set forth beginning on page 40.

GREENWAY IMPROVEMENTS

A Greenway Improvement Matrix (page 44) identified proposed greenway linkages to the Roanoke Rapids Canal Trail. Ranking Factors were also developed as indicated by the Ranking Factor Total, and the committee had an opportunity to prioritize the various proposed linkages at their March meeting. The optional linkages to the Canal Trail Greenway are identified in the Greenway Linkage Matrix. The final committee rankings determined at the March 30, 2011 committee meeting are displayed in the last column.

PARK/GREENWAY LINKAGE CONCEPT

One of the Pedestrian Plan Committee members developed a conceptual proposal for linking the various parks with the Canal Trail. This concept involves developing a landscaped walking and biking trail to form a linear greenway around the city, linking all the major parks and the Canal Trail. This park/greenway trail system will use existing or improved sidewalks and by incorporating existing sidewalks and improved sidewalks, constructing new sidewalks along streets and trails using underutilized vacant areas, a linear sidewalk/trail systems with landscaped areas is conceivable that links various city parks, important portions of the downtown, residential sections and the Canal Trail into a continuous sidewalk/greenway trail system that traverses major sections of the inner city. Although conceptual in scope, the proposal has merit in linking major sections of the city and integrating important recreational areas by sidewalks and greenway trails in a continuous trail or walkway for pedestrian and biking activities. This concept also includes the potential for extended greenways developed along the major streams within the Roanoke Rapids area, with Chockoyotte Creek offering a potential area for a greenway as shown in this concept.



Locating and designing such a concept trail system into a refined route requires additional detail studies, evaluation of the area to determine routes that offer high potential for development of a trail, and landscape design to visualize the concept. As a concept it is also subject to serious evaluation as to potential costs, and community interest and utilization. A park/greenway linkage trail could be of significant benefit to the city and with further study could become a reality.



After review the Pedestrian Plan Steering Committee agreed to include the concept in the plan for possible further study. The maps illustrating the recommended sidewalk



improvements for the city also show this conceptual park/greenway trail system that uses existing or improved sidewalks along with new greenway trails.

ROANOKE RAPIDS SIDEWALK IMPROVEMENT PRIORITY MATRIX

RANKING FACTORS:

HIGH TRAFFIC COUNT OR HEAVILY USED MAJOR ARTERIAL/ COLLECTOR:

POSSIBLY HIGH AADT = 2; 5,000-10,000 AADT = 3; 10,000-15,000 AADT = 4; OVER 15,000 AADT = 5

NUMBER OF TRAVEL LANES: 2 LANES = 2; 3 LANES = 3; 4 LANES = 4; 5 LANES+ = 5

SCHOOL OR PARK & COMMUNITY CENTERS PROXIMITY (WITHIN 4 BLOCKS) = 5

OTHER PEDESTRIAN GENERATORS IN CLOSE PROXIMITY OR NEAR BY WITHIN 3 BLOCKS:

COMMERCIAL OR MAJOR COMMUNITY FACILITY= 5; HEALTH CARE = 4; LOWER INCOME OR ELDERLY NEIGHBORHOODS = 3; TOWN CENTER = 2; MAJOR RESIDENTIAL AREAS = 1

GAPS IIN SIDEWALK = 3

SURVEY INTEREST (IDENTIFIED BY RESPONDENTS): OFTEN MENTIONED = 5; MENTIONED SOME = 2

NOTES: * = LENGTH FOR BOTH SIDES; ** = ESTIMATED COSTS FOR TWO SIDES EXCEPT WHERE LENGTH IS FOR BOTH SIDES GIVEN (2006 costs)

STATE ROADS

ROAD	LOCATION	RIGHT-OF-WAY	SIDEWALKS LOCATION NEED	2009 TRAFFIC COUNTS (AADT)	EXISTING TRAVEL LANES	SCHOOL/PARK PROXIMITY	PRIMARY PEDESTRIAN GENERATOR	GAPS OR MISSING LINKS IN EXISTING SIDEWALKS	SURVEY INTEREST	RANKING FACTORS TOTAL	ONE SIDE LENGTH (LF)	ESTIMATED \$ COST (\$50/LF)**	COMMITTEE PRIORITY
OLD FARM ROAD													
OLD FARM ROAD	FROM BECKER TO JULIAN ALLSBROOK	60 FEET	BOTH SIDES	2	2		5	3	5	17			7
OLD FARM ROAD	FROM JULIAN ALLSBROOK TO GREGORY	100 FEET	BOTH SIDES	2	5	5	5		5	22	3,132	313k	6
OLD FARM ROAD	FROM GREGORY OR JULIAN ALLSBROOK TO I-95 & EWSTSIDE	80-100 FEET	ONE SIDE TRAIL FOR WALK AND BIKE USE	2	2		1				12.2K	UA	5
10th STREET													
10 TH STREET	FROM BOLLING TO HINSON	60 FEET	BOTH SIDES	2	2		3		5	12	4,536	454K	5
10 TH STREET	FROM HINSON TO RAPIDS	60 FEET	BOTH SIDES	2	2	5	3	3	5	20	2,769	277K	6
10 TH STREET	FROM JEFFERSON TO JULIAN R. ALLSBROOK	60 FEET	BOTH SIDES	4 (14,000)	5	5	5		5	24	7,837	784K	2
SMITH CHURCH ROAD													
SMITH CHURCH ROAD	FROM JULIAN R. ALLSBROOK TO GREGORY	60 FEET	BOTH SIDES	3 (8,900)	5		4			13	1,174	177K	5

STATE ROADS (CONTINUED)

RANKING FACTORS:

HIGH TRAFFIC COUNT OR HEAVILY USED MAJOR ARTERIAL/ COLLECTOR:

POSSIBLY HIGH AADT = 2; 5,000-10,000 AADT = 3; 10,000-15,000 AADT = 4; OVER 15,000 AADT = 5

NUMBER OF TRAVEL LANES: 2 LANES = 2; 3 LANES = 3; 4 LANES = 4; 5 LANES+ = 5

SCHOOL OR PARK & COMMUNITY CENTERS PROXIMITY (WITHIN 4 BLOCKS) = 5

OTHER PEDESTRIAN GENERATORS IN CLOSE PROXIMITY OR NEAR BY WITHIN 3 BLOCKS:

COMMERCIAL OR MAJOR COMMUNITY FACILITY= 5; HEALTH CARE = 4; LOWER INCOME OR ELDERLY NEIGHBORHOODS = 3; TOWN CENTER = 2; MAJOR RESIDENTIAL AREAS =1

GAPS IIN SIDEWALK = 3

SURVEY INTEREST (IDENTIFIED BY RESPONDENTS): OFTEN MENTIONED = 5; MENTIONED SOME = 2

NOTES: * = LENGTH FOR BOTH SIDES; ** = ESTIMATED COSTS FOR TWO SIDES EXCEPT WHERE LENGTH IS FOR BOTH SIDES (2006 costs)

ROAD	LOCATION	RIGHT-OF-WAY	SIDEWALKS LOCATION NEED	2009 TRAFFIC COUNTS (AADT)	EXISTING TRAVEL LANES	SCHOOL/PARK PROXIMITY	PRIMARY PEDESTRIAN GENERATOR	GAPS OR MISSING LINKS IN EXISTING SIDEWALKS	SURVEY INTEREST	RANKING FACTORS TOTAL	ONE SIDE LENGTH (LF)	ESTIMATED \$ COST (\$50/LF)**	COMMITTEE PRIORITY
BECKER DRIVE													
BECKER	FROM 10 th STREET TO OLD FARM ROAD	60 FEET	BOTH SIDES	2	3		5	3	5	18	1,233	123K	7
BECKER	FROM OLD FARM ROAD TO I-95	60 FEET	BOTH SIDES	2	3		5	3	5	18	1,678	168K	4
JULLIAN R ALLSBROOK HIGHWAY													
JULIAN R ALLSBROOK	FROM I-95 TO OLD FARM ROAD	100 FEET	BOTH SIDES	5 21,000	5+	5	5		5	25	1,949	195K	5
JULIAN R ALLSBROOK	FROM OLD FARM ROAD TO 10 th ST.	100+ FEET	BOTH SIDES	5 24,000	5+		5		5	20	2,125	213K	6
JULIAN R ALLSBROOK	FROM 10 th STREET TO ROANOKE	60 FEET	BOTH SIDES	4 11,000	2	5	5	3	5	24	2,855	286K	5
BOLLING ROAD													
BOLLING ROAD	FROM PINECREST TO 10 th STREET	60 FEET	BOTH SIDES	2	3	5	1			11	5,492	549K	6
ROANOKE AVE													
ROANOKE AVE	FROM JULLIAN R. ALLSBROOK TO JACKSON	80 FEET	BOTH SIDES	3 (8,400-9,000)	3-4	5	2	3	5	23-24	2,310	231K	6
US 158 (LITTLETON ROAD)													
US 158	FROM JULLIAN R. ALLSBROOK TO ROANOKE	100 FEET	ONE SIDE	4 (11,000)	2	5	3			14	6,605	66K	9
US 158	FROM ROANOKE TO LIMITS	100 FEET	ONE SIDE	4 (12,000)	2	5	3			14	1,494	75K	5

ROANOKE RAPIDS SIDEWALK IMPROVEMENT PRIORITY MATRIX

RANKING FACTORS:

HIGH TRAFFIC COUNT OR HEAVILY USED MAJOR ARTERIAL/ COLLECTOR:

POSSIBLY HIGH AADT =2; 5,000-10,000 AADT = 3; 10,000-15,000 AADT = 4; OVER 15,000 AADT = 5

NUMBER OF TRAVEL LANES: 2 LANES = 2; 3 LANES = 3; 4 LANES = 4; 5 LANES+ = 5

SCHOOL OR PARK & COMMUNITY CENTERS PROXIMITY (WITHIN 2-4 BLOCKS) = 5

OTHER PEDESTRIAN GENERATORS IN CLOSE PROXIMITY OR NEAR BY WITHIN 2 -4 BLOCKS:

COMMERCIAL OR MAJOR COMMUNITY FACILITY= 5; HEALTH CARE = 4; LOWER INCOME OR ELDERLY NEIGHBORHOODS = 3; TOWN CENTER = 2; MAJOR RESIDENTIAL AREAS =1

GAPS IIN SIDEWALK = 3

SURVEY INTEREST (IDENTIFIED BY RESPONDENTS): OFTEN MENTIONED = 5; MENTIONED SOME = 2

NOTES: * = LENGTH FOR BOTH SIDES; ** = ESTIMATED COSTS FOR TWO SIDES EXCEPT WHERE LENGTH IS FOR BOTH SIDES (2006 costs)

MAJOR LOCAL COLLECTOR ROADS

ROAD	LOCATION	RIGHT-OF-WAY	SIDEWALKS LOCATION NEED	2009 TRAFFIC COUNTS (AADT)	EXISTING TRAVEL LANES	SCHOOL/PARK PROXIMITY	PRIMARY PEDESTRIAN GENERATOR	GAPS OR MISSING LINKS IN EXISTING SIDEWALKS	SURVEY INTEREST	RANKING FACTORS TOTAL	ONE SIDE LENGTH (LF)	ESTIMATED \$ COST (\$50/LF)**	COMMITTEE PRIORITY
7th STREET AND OLD FARM ROAD													
7 th STREET	FROM HAMILTON TO PARK	60 FEET	ONE SIDES	2	2	5	3	2		14	3.9K*	194K	2
OLD FARM ROAD	FROM PARK TO GREENBRIER	60 FEET	ONE SIDE	2	2	5	1		5	14	5.4K*	271K	5
OLD FARM ROAD	FROM GREENBRIER TO BECKER	60 FEET	TWO SIDES	2	2	5	1		5	14			7
MASHALL													
MARSHALL	FROM 6st TO 10 th STREET	60 FEET	BOTH SIDES	2	2	5	3	3		15	2,275	228K	6
MARSHALL	FROM 10 th TO JULIAN ALLSBROOK	60 FEET	BOTH SIDES	2	2	5	3			12	3,050	305K	6
GEORGIA													
GEORGIA	FROM STONEY BROOK TO 10 th STREET	60 FEET	BOTH SIDES	2	2	5	1			10	1,350	134K	2
GEORGIA	FROM 10 th TO JULIAN ALLSBROOK	60 FEET	BOTH SIDES	2	2	5	3			12	1,915	192K	6
GEORGIA	FROM JULIAN ALLSBROOK TO US158	60 FEET	BOTH SIDES	2	2	5	3	3		15	1572	157K	1
HAMILTON													
HAMILTON	LAST BLOCK N OF 1st	60 FEET	BOTH SIDES		2	5	3			10	860*	43K	4
HAMILTON	FROM 10 th TO JULIAN ALLSBROOK	60 FEET	BOTH SIDES	2	2	5	3	3		15	3K*	114K	6

MAJOR LOCAL COLLECTOR ROADS (CONTINUED)

RANKING FACTORS:

HIGH TRAFFIC COUNT OR HEAVILY USED MAJOR ARTERIAL/ COLLECTOR:

POSSIBLY HIGH AADT =2; 5,000-10,000 AADT = 3; 10,000-15,000 AADT = 4; OVER 15,000 AADT = 5

NUMBER OF TRAVEL LANES: 2 LANES = 2; 3 LANES = 3; 4 LANES = 4; 5 LANES+ = 5

SCHOOL OR PARK & COMMUNITY CENTERS PROXIMITY (WITHIN 2-4 BLOCKS) = 5

OTHER PEDESTRIAN GENERATORS IN CLOSE PROXIMITY OR NEAR BY WITHIN 2 -4 BLOCKS:

COMMERCIAL OR MAJOR COMMUNITY FACILITY= 5; HEALTH CARE = 4; LOWER INCOME OR ELDERLY NEIGHBORHOODS = 3; TOWN CENTER = 2; MAJOR RESIDENTIAL AREAS =1

GAPS IIN SIDEWALK = 3

SURVEY INTEREST (IDENTIFIED BY RESPONDENTS): OFTEN MENTIONED = 5; MENTIONED SOME = 2

NOTES: * = LENGTH FOR BOTH SIDES; ** = ESTIMATED COSTS FOR TWO SIDES EXCEPT WHERE LENGTH IS FOR BOTH SIDES (2006 costs)

ROAD	LOCATION	RIGHT-OF-WAY	SIDEWALKS LOCATION NEED	2009 TRAFFIC COUNTS (AADT)	EXISTING TRAVEL LANES	SCHOOL/PARK PROXIMITY	PRIMARY PEDESTRIAN GENERATOR	GAPS OR MISSING LINKS IN EXISTING SIDEWALKS	SURVEY INTEREST	RANKING FACTORS TOTAL	ONE SIDE LENGTH (LF)	ESTIMATED \$ COST (\$50/LF)**	COMMITTEE PRIORITY
VIRGINIA													
VIRGINIA	FROM OLD FARM TO 10 th STREET	60 FEET	BOTH SIDES	2	5	5	3	3	5	22	1,659	166K	4
VIRGINIA	FROM 10 th STREET TO US 158	60 FEET	BOTH SIDES	2	5	5	3	3	5	22	3.9K*	195K	4
PARK AVENUE													
PARK	FROM 10 th STREET TO MARSHALL	60 FEET	BOTH SIDES	2	2	5	5	3	5	22	3.3K*	165K	7
OAKLEY AVENUE													
OAKLEY	FROM BOLLING TO 10 th STREET	60 FEET	BOTH SIDES	2	2	5	3			12	2,064	206K	7
JACKSON													
JACKSON	FROM ROANOKE TO 5 th STREET	60 FEET	BOTH SIDES	2	2	5	5	3		17	3.1K*	152K	4
JACKSON	FROM 5 th STREET TO 11 th STREET	60 FEET	BOTH SIDES	2	2		5	3		10	2.4K*	118K	2
OTHER COLLECTORS													
5 th STREET	FROM CAROLINA TO WOODLAND												0

ROANOKE RAPIDS GREENWAY LINKAGE PRIORITY MATRIX

RANKING FACTORS:

COMBINATION TRAIL (BIKE AND PEDESTRIAN OR PARKING): PEDESTRIAN AND BIKE = 2; PEDESTRIAN, BIKE AND PARKING = 5

RESIDENTIAL PROXIMITY: SIDEWALK ACCESSIBLE OR PROPOSED = 5 NO SIDEWALK = 2

SCHOOL OR PARK & COMMUNITY CENTERS PROXIMITY (WITHIN 5 BLOCKS) = 5

OTHER PEDESTRIAN GENERATORS IN CLOSE PROXIMITY OR NEAR BY WITHIN 3 BLOCKS:

LOWER INCOME OR ELDERLY NEIGHBORHOODS = 5; TOWN CENTER = 4; SIDEWALK LINKAGE = 3; LINKAGE TO OTHER ATTRACTION = 2

EASEMENT ALREADY AVAILABLE (EX. WATER OR SEWER) = 4

OTHER INTEREST EXPRESSED (SURVEY OR COMMENTS) = 2

NOTES: * = 20' TRAIL LENGTH; ** = ESTIMATED COSTS FOR 10' WIDE EXCEPT WHERE 20' WIDE TRAIL PROPOSED (PARKING LOT COSTS NOT INCLUDED)

LINKAGE TO CANAL TRAIL GREENWAY

GREENWAY CONNECTION LOCATION	FACILITIES	EASEMENT OR ROW NEEDED (FEET)	TRAIL WIDTH (FEET)	COMBINATION TRAIL	RESIDENTIAL PROXIMITY AND ACCESSIBLE	SCHOOL OR PARK PROXIMITY	PRIMARY PEDESTRIAN GENERATOR	EASEMENT AVAILABLE	OTHER INTERESTS	RANKING FACTORS TOTAL	TRAIL LENGTH (LF)	ESTIMATED 2006 \$ COST (\$75/LF)**	COMMITTEE PRIORITY
NORTHERN SECTION (NORTH OF ROANOKE AVE.)													
KEMP AVE.	WALKING & BIKE TRAIL	25	20	2	5	5	5		2	19	590*	88.5K	5
CEDAR ST.	WALKING TRAIL	20	10		2	5	5			12	528	39.6K	0
FRANKLIN ST.	WALKING & BIKE TRAIL & PARKING AREA (AT END OF FRANKLIN)	25	20	5	5	5	5		2	22	477*	71.6K	3
Henry ST.	WALKING TRAIL	20	10		2	5	5			14	414	31K	0
MIDDLE SECTION (ROANOKE RAPIDS AVE. TO PARK)													
JEFFERSON & WILLIAMS STREETS	WALKING TRAIL	20	10		2	5	5		2	14	1,511	113K	6
4 th STEET AND ALLEYS	WALKING & BIKE TRAIL	25	20	2	2	5	5	4	2	20	2,254*	338K	1
LEE STREET	WALKING TRAIL	20	10		5	5	2			12	279	21K	1
SOUTHERN SECTION (PARK TO I-95)													
RIVERS EDGE	WALKING & BIKE TRAIL	25	20	2	5	5	3		2	17	473*	71K	0
NEAR DUNSHILL	WALKING TRAIL	20	10		5		3			8	252	19K	3
DOWNS-BROOK	WALKING & BIKE TRAIL	25	20	2	5		3		2	12	488*	73K	0
END OF BLODER LN.	WALKING & BIKE TRAIL & PARKING AREA	25	20	5	5		3		2	15	413*	62K	0
END OF GRACE EAST OF I-95	WALKING & BIKE TRAIL & PARKING AREA	25	20	5			2		2	9			5

State Road Pedestrian Improvement Priorities

Listed below are the priorities for pedestrian improvements along State Routes, as determined by a ranking of 5 or more “voting” dots. The costs are estimates based upon 2006 costs. *Although 10th Street from Jefferson to Julian Allsbrook received only 2 voting dots, this State Route due to its traffic volume and surrounding pedestrian generators needs sidewalks and is also recommended for sidewalks on both sides.* The page 89 map displays these Routes.

OLD FARM ROAD

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM BECKER TO JULIAN ALLSBROOK	60 FEET	BOTH SIDES			7
FROM JULIAN ALLSBROOK TO GREGORY	100 FEET	BOTH SIDES	3,132	313k	6
FROM GREGORY OR JULIAN ALLSBROOK TO I-95 & WESTSIDE	80-100 FEET	ONE SIDE TRAIL FOR WALK AND BIKE USE	12.2K	UA	5

10th STREET

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM BOLLING TO HINSON	60 FEET	BOTH SIDES	4,536	454K	5
FROM HINSON TO RAPIDS	60 FEET	BOTH SIDES	2,769	277K	6

SMITH CHURCH ROAD

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM JULLIAN R. ALLSBROOK TO GREGORY	60 FEET	BOTH SIDES	1,174	177K	5

BECKER DRIVE

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM 10 th STREET TO OLD FARM ROAD	60 FEET	BOTH SIDES	1,233	123K	7

JULLIAN R ALLSBROOK HIGHWAY

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM I-95 TO OLD FARM ROAD	100 FEET	BOTH SIDES	1,949	195K	5
FROM OLD FARM ROAD TO 10 th ST.	100+ FEET	BOTH SIDES	2,125	213K	6
FROM 10 th STREET TO ROANOKE	60 FEET	BOTH SIDES	2,855	286K	5

BOLLING ROAD

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM PINECREST TO 10 th STREET	60 FEET	BOTH SIDES	5,492	549K	6

ROANOKE AVE

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM JULLIAN R. ALLSBROOK TO JACKSON	80 FEET	BOTH SIDES	2,310	231K	6

US 158 (LITTLETON ROAD)

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM JULLIAN R. ALLSBROOK TO ROANOKE	100 FEET	ONE SIDE	6,605	66K	9
FROM ROANOKE TO TOWN LIMITS	100 FEET	ONE SIDE	1,494	75K	5

Local Major Collector Road Pedestrian Improvement Priorities

Listed below are the priorities for pedestrian improvements along Local Collector Roads, as determined by a ranking of 5 or more “voting” dots. The costs are estimates based upon 2006 costs. The map on page 87 displays these priorities.

7th STREET AND OLD FARM ROAD

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM PARK TO GREENBRIER	60 FEET	ONE SIDE	5.4K*	271K	5
FROM GREENBRIER TO BECKER	60 FEET	TWO SIDES			7

MASHALL

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM 6 st STREET TO 10 th STREET	60 FEET	ONE SIDE	1,138	114K	6
FROM 10 th STREET TO JULIAN ALLSBROOK	60 FEET	BOTH SIDES	3,050	305K	6

GEORGIA

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM 10 th STREET TO JULIAN ALLSBROOK	60 FEET	BOTH SIDES	1,915	192K	6

HAMILTON

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM 10 th TO JULIAN ALLSBROOK	60 FEET	BOTH SIDES	3K*	114K	6

PARK AVENUE

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM 10 th STREET TO MARSHALL	60 FEET	ONE & BOTH SIDES	1,300	52K	7

OAKLEY AVENUE

ROAD SEGMENT	ROW	SIDEWALKS	LENGTH	COST	RANK
FROM BOLLING TO 10 th STREET	60 FEET	BOTH SIDES	2,064	206K	7

Canal Trail Pedestrian Improvement Priorities

Listed below are the priorities for pedestrian improvements for the linkages to the Canal Trail, as determined by a ranking of 5 or more. The map on page 86 displays these priorities. The costs are estimated based upon 2006 costs.

NORTHERN SECTION (NORTH OF ROANOKE AVENUE)

LOCATION	TYPE TRAIL	ROW	WIDTH	LENGTH	COST	RANK
KEMP AVE.	WALKING & BIKE TRAIL	25	20	590*	88.5K	5

MIDDLE SECTION (ROANOKE RAPIDS AVE. TO PARK)

LOCATION	TYPE TRAIL	ROW	WIDTH	LENGTH	COST	RANK
JEFFERSON & WILLIAMS STREETS	WALKING TRAIL	20	10	1,511	113K	6

SOUTHERN SECTION (PARK TO I-95)

LOCATION	TYPE TRAIL	ROW	WIDTH	LENGTH	COST	RANK
END OF GRACE EAST OF I-95	WALKING & BIKE TRAIL & PARKING AREA	25+	20	NA	NA	5

Pedestrian Improvements to Other Streets

Of importance for pedestrian safety is the installation of sidewalks on other streets throughout the city. Although the Steering Committee did not prioritize any other sidewalks, the committee did recognize the importance of these sidewalks and in two meetings identified many streets through the city in need of sidewalks. A map on page 84 shows all potential sidewalk improvements along streets in Roanoke Rapids as recommended by the committee at their March meeting. Priorities among these streets should be determined by the City Council, or reviewed as part of the annual Capital Improvement Program. Upon review by the City Council specific pedestrian improvements can be added to the city's Capital Improvement Program on an annual basis in order to work towards installation of sidewalks along these streets as well as major streets on a systematic, prioritized basis in the annual budget as funds become available or petitions are received for their installation.

Potential Costs for Pedestrian Improvement Projects

A pedestrian improvement cost chart for various improvements is included below. Although these costs are from 2006, they provide an indication of the potential cost for various pedestrian projects. The estimated costs in the matrixes were derived from this chart. However, average inflation since 2006 to 2011 has been about 2% per year, and the cost estimates in the matrixes should be increased at least 2% per year from 2007 through 2011 (or about 10%) to provide a more realistic cost for the various projects listed in the matrixes. Obviously inflation most likely will continue and when a project is ready to be considered, its estimated costs should be reevaluated at that time based upon current inflation and/or actual materials, construction, and other related costs as determined for a particular project.

VARIOUS CONSTRUCTION COSTS ESTIMATES	
(2006 COSTS UNLESS OTHERWISE NOTED)	
10' WIDE TRAIL (DOT 2008 COSTS)	\$235,000/MILE OR \$45/LF
SIDEWALKS (5FT. CONCRETE)	\$20-\$40 PER LINEAR FT. DEPENDING ON TERRAIN
8 TO 10 FT WIDE MULTI-PURPOSE ASPHALT PATH	\$35-\$100 PER LINEAR FT. (ASPHALT PLUS SUB-BASE) DEPENDING ON THE TERRAIN
8 TO 10 FT CRUSHED STONE WALKWAY	\$15 - \$25 PER LINEAR FT.
6 TO 8 FT WOODEN OR RECYCLED SYNTHETIC MATERIAL BOARDWALK	\$200 - \$250 PER LINEAR FT.
SIMPLE CROSSWALK (SIGNS AND PAVEMENT MARKINGS)	\$200 - \$250 PER LINEAR FT.
ENHANCED CROSSWALK (SPECIAL REFLECTIVE STENCIL, COLORED & STAMPED ASPHALT, SPECIAL SIGNAGE)	\$5000 - \$7500
RAISED CROSSWALK (SPEED TABLE)	\$5,000 - \$15,000
SPEED HUMP (SIGNAGE AND PAVEMENT MARKINGS)	\$1700 - \$2000 PER HUMP
REFUGE ISLAND	\$10,000 - \$40,000
PEDESTRIAN SIGNAL	\$40,000 - \$75,000
PEDESTRIAN SIGNS	\$250 - \$350
CURB EXTENSION	\$10,000 PER CORNER
CURB & GUTTER	\$15 - \$25 PER LINEAR FT.
RETAINING WALL	\$125 PER LINEAR FOOT
ENGINEERING, SURVEYING, ADMINISTRATIVE	15% OF CONSTRUCTION COSTS
DATA SOURCE: GREENWAYS INC., URS CORP., NC DOT, CITY OF BREVARD'S PEDESTRIAN PLAN (2006) AND THE CITY OF ASHEVILLE	

Examples of Engineered Pedestrian Improvement Projects and Designs

Examples of street cross sections with pedestrian access are shown on the following pages. Street profile sections are illustrated as well as examples of trails and "complete street" concept designs where biking, walking and pedestrian ways are integrated with vehicular travel lanes. In addition, crosswalk designs and other pedestrian safety devices are illustrated, including pedestrian-friendly parking lot designs.

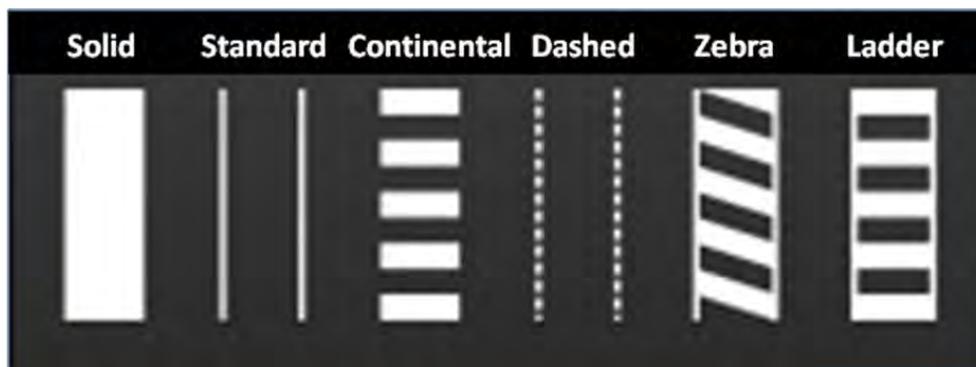
An overall goal for a “walkable” community is for pedestrian facilities to provide a cohesive, connected network between destinations, neighborhoods and area facilities to encourage walking as a viable means of everyday transportation, exercise and/or recreation. Pedestrian facilities include sidewalks and marked crossing locations constructed on major roads to ensure pedestrian safety and provided as connections between destinations and within development and developing areas. Specific pedestrian improvements involve:

- ✓ Proper width sidewalks to provide safe walking areas along streets and sidewalks with barriers added to further separation between pedestrians and traffic.
- ✓ Highly visible, marked crosswalks defined by pavement markings, texture, and color with activated pedestrian signals and adequate lighting to provide safe convenient places for pedestrians to cross the street or intersection and alert motorists of their presence.
- ✓ Pedestrian oriented development designs to encourage and promote safe pedestrian passage in heavy development areas.

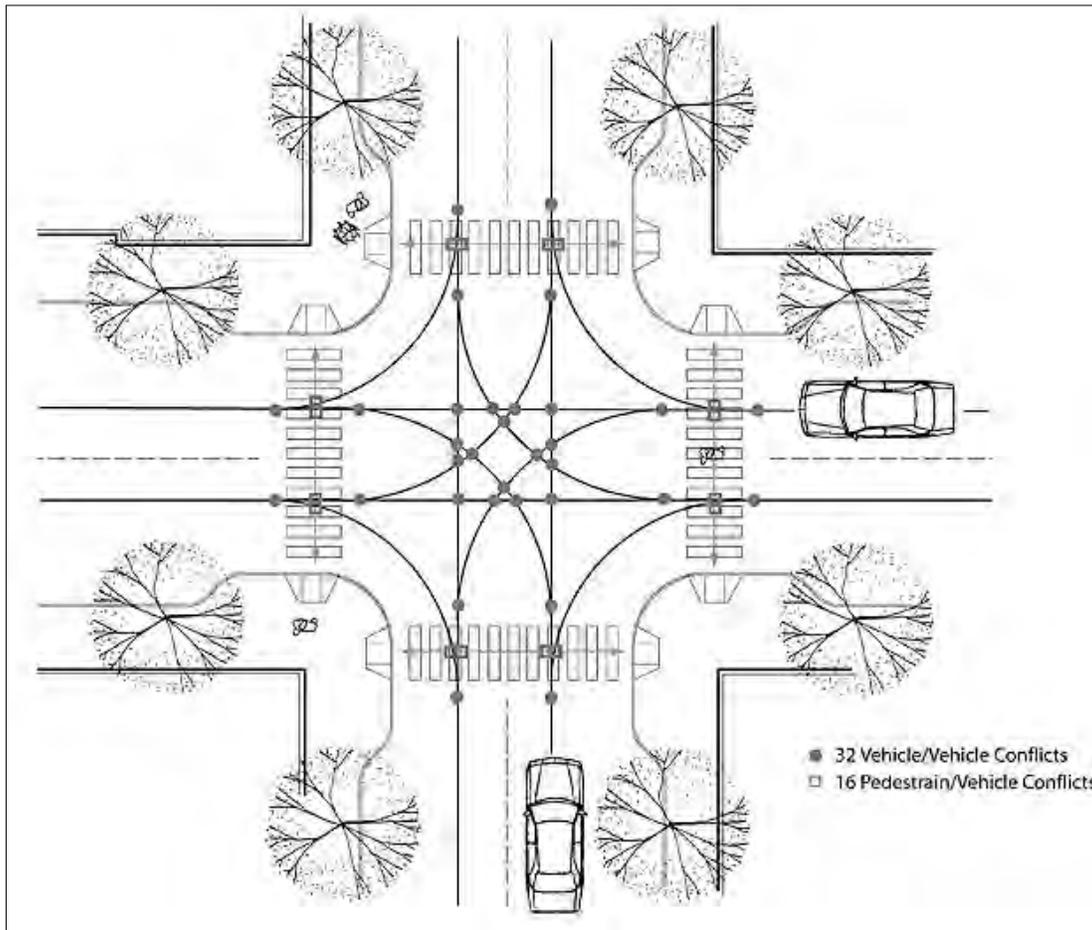
Multi-use pedestrian routes also contribute to a “walkable” community and add opportunity for “greenways” and other alternative trail systems that can include both pedestrian and bicycle usage, such as the proposed park/greenway linkage concept..

Intersection Design

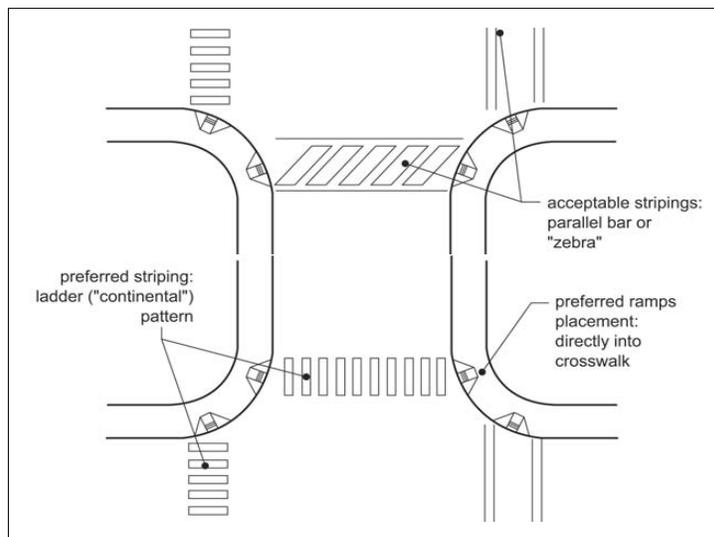
Intersections pose high risks for pedestrians. A variety of crosswalk marking styles offer opportunity for improved intersection safety:



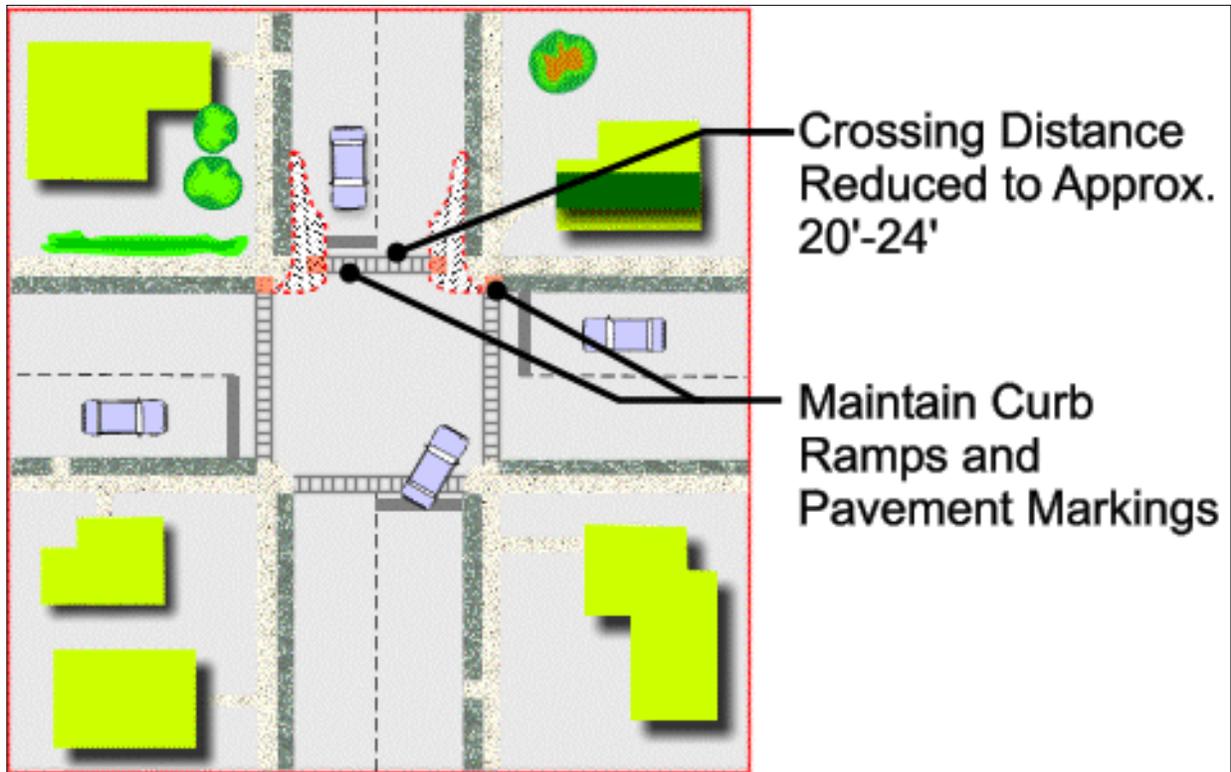
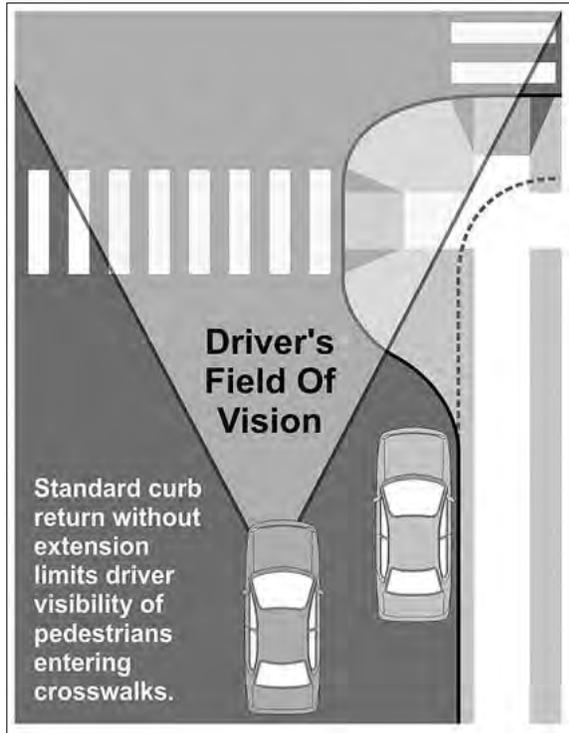
Pedestrians are particularly vulnerable in intersections, having to deal with at least 16 pedestrian/vehicle conflict areas as shown on the following graphic:



Intersection designs for pedestrian safety consist of a variety of markings as illustrated in the diagram on the right.

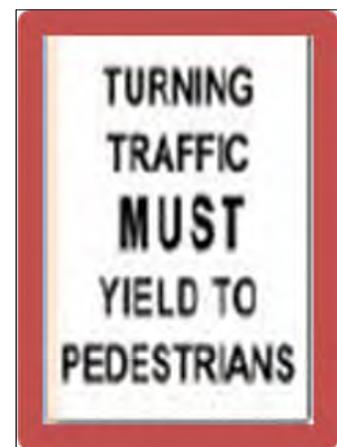


Extended curbs add safety to pedestrian crosswalks. Center refuge areas add more safety for longer crosswalks and colored or textured crosswalks add even more safety.



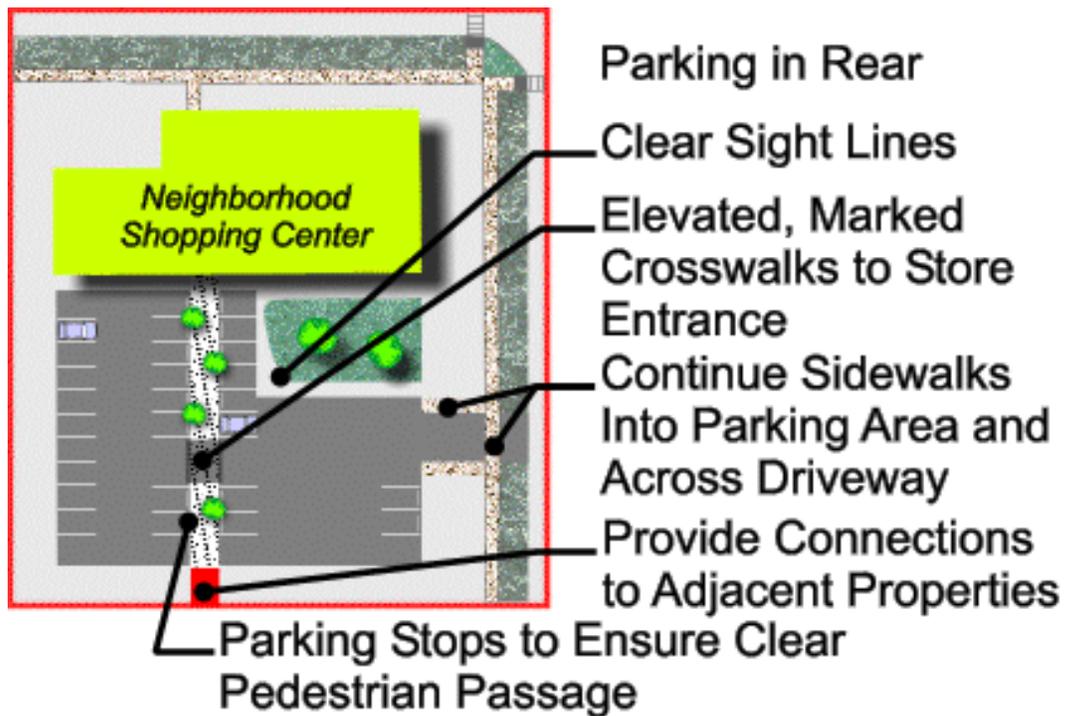
Signage and Signalization

Pedestrian safety can be enhanced with various signages from signalization to specific signs that promote safety considerations for pedestrians. Promotional activities also aid in creating a safer pedestrian environment. Pedestrian signalization is particularly effective in high traffic intersections. Conducting a school class on pedestrian safety could feature children holding traffic signs warning drivers to be aware of pedestrians.



Design of Parking Lots and Shopping Centers

Emphasizing pedestrian orientation and safety over traffic and parking assures improved pedestrian access in shopping centers and other developments with parking facilities. Typically commercial areas are also established as isolated developments along a corridor, accessible primarily by automobile with travel to a close by restaurant or other store limited to vehicle access only. Extending sidewalks along parking areas and between rows of parking spaces as well as creating continuity of walking areas between buildings helps increase safe pedestrian access.

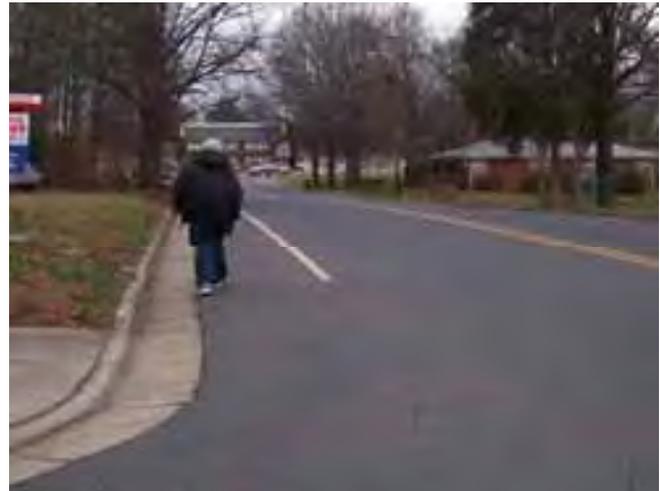


These examples of pedestrian improvements in parking lots or shopping centers illustrate separation of pedestrians and traffic.



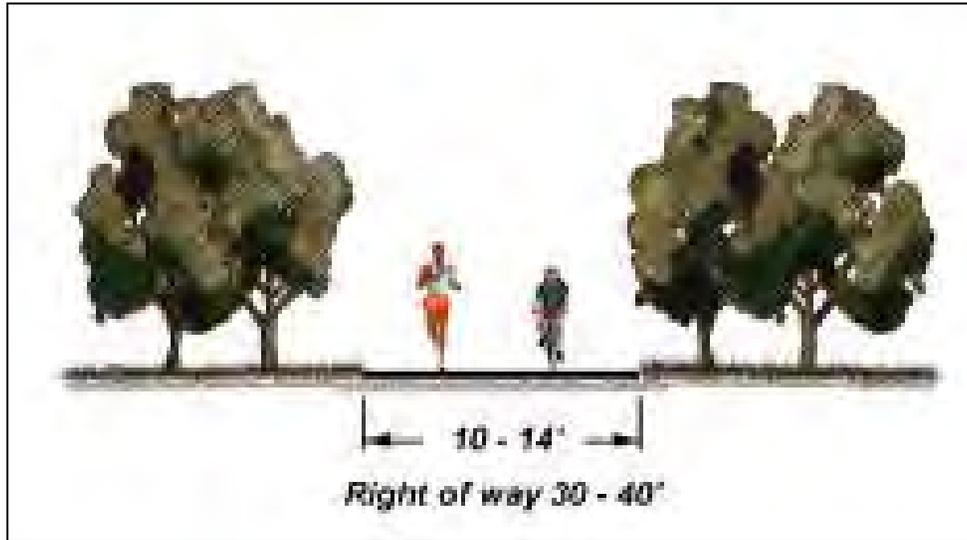
Sidewalk Standards

A 5 foot wide concrete sidewalk with a 3 foot wide separation to the curb is the accepted NCDOT standard. Depending upon conditions, alternatives in materials and design can be considered. Barriers can separate sidewalks from the street, and streets can also have a marked walking area along the side of the street where right-of-way space for sidewalks is limited or restricted.

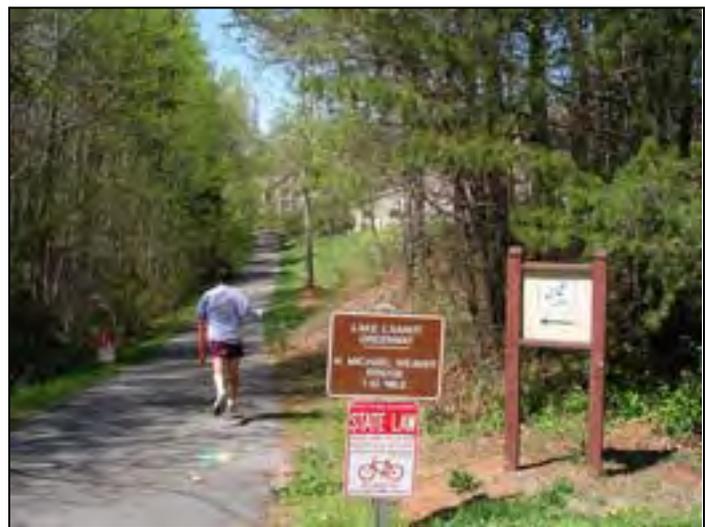


Greenway and Trail Design

Multiuse trails allow both walkers and bicyclists. Greenways are particularly valuable for such usage. Typical trail widths range from 10-15 feet with a ROW of 30-40 feet. Multiuse trail surfaces should support bike as well as walking use.



These pictures provide examples of greenways or walking/biking trails.

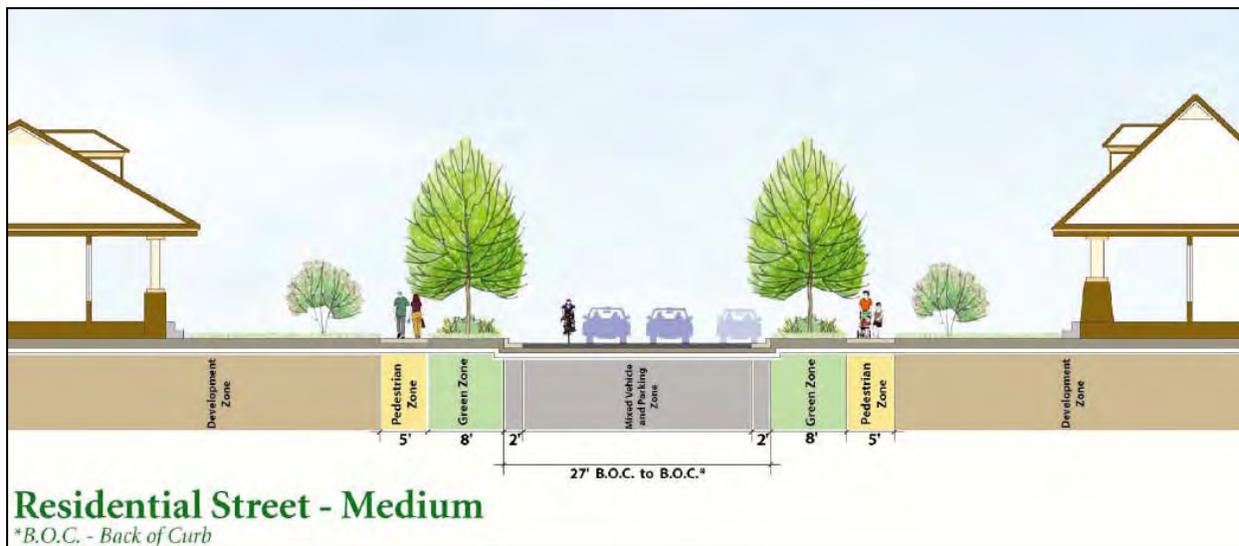
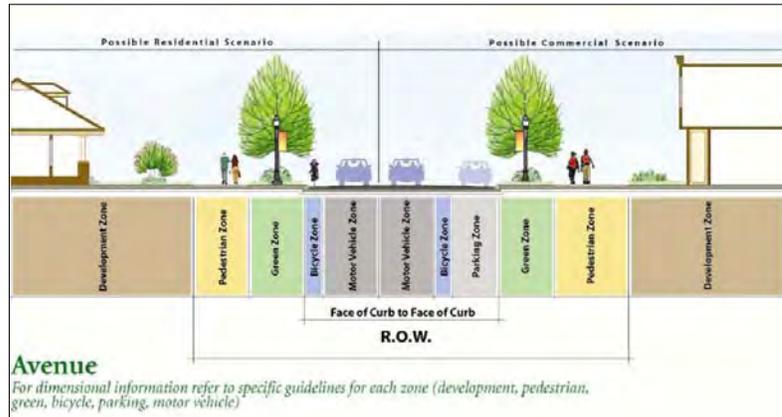


Street Designs

Examples of Cross Sections:

Charlotte Department of Transportation
 600 East Fourth Street
 Charlotte, NC 28202
 Tracy Newsome
 (704) 353-0778
tnewsome@ci.charlotte.nc.us

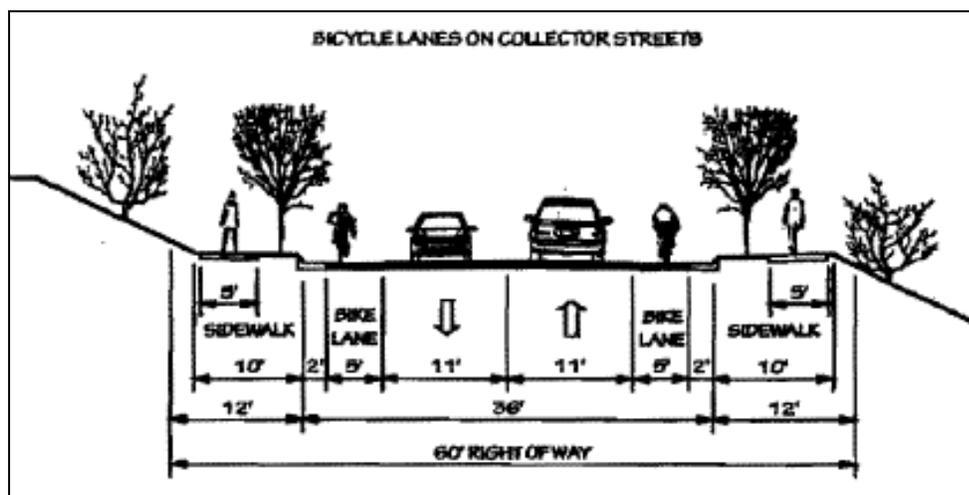
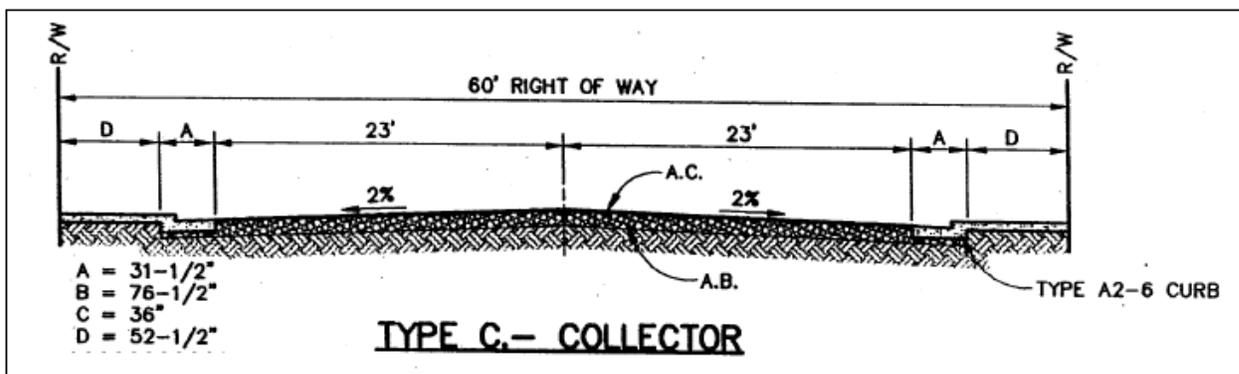
Charlotte's Context Based Complete Street Designs



Examples from Other Cities:



Example of a “complete street” for vehicular traffic, walking and biking within a 60’ ROW:



NCDOT also has an inventory of street information and cross section designs in various manuals, reports and plans that could be evaluated for applicability in Roanoke Rapids. One in particular, *Traditional Neighborhood Development Manual*, may have merit for new development options.

(See <http://www.ncdot.org/doh/preconstruct/altern/value/manuals/>)

Another NCDOT manual, *Roadway Design*, provides additional information on sidewalk construction:

(<http://www.ncdot.org/doh/preconstruct/altern/value/manuals/RDM2001/part1/chapter1/pt1ch1.pdf>)

The NCDOT *Policy and Procedure Manual* addresses sidewalk policy, funding and construction in Chapter 28:

(<http://www.ncdot.org/doh/preconstruct/altern//value/manuals/ppm/ppm28/ppm28-1.pdf>)

Safety Education

To be successful pedestrian and driver education must also be combined and proper engineering of pedestrian systems as well as enforcement. Reaching young children in the school system is a valuable approach.

Obviously reaching younger children in schools is an effective way to provide pedestrian safety education, especially if the lessons are taught, and then opportunities to practice these lessons are given. In many cases parents and others overestimate the skill levels of children in regards to safety around streets. Parents also need to take an active role in educating their children by walking with them and correcting behavior that could be harmful to their children. Children need to learn how to cross streets and walk on sidewalks. Both parents and the school system can help in this regard. There is even pedestrian safety curriculum available for the classroom that can easily be adapted to any school setting.¹⁰ Also, safety assemblies, classroom skill level building lessons, parent involvement, and skill practice opportunities in structured environments are all valuable options for the schools to help educate younger children in safe pedestrian movement. It is important that the school lessons are geared to the appropriate groups. For example, children up through classes K-2 require close supervision while crossing the street, while older children may have the cognitive skills to cross streets alone after learning proper safety behavior.

Use of proper messages when educating safe walking habits is essential. Avoid general statements such as, “Be Safe” or “Be Alert”, and instead be specific with messages, such as, “Look for Cars at Driveways”. Key messages for children include. “Look Before Crossing” or “Look for Cars Turning”.

For adults the messages about safe walking and pedestrian education should be placed on maps, public brochures, and other materials read by adults, such as newspapers. Placing safety messages on the City’s web site would also be helpful. Incorporating messages into public relations efforts and providing information to educate parents are also helpful ideas.

Seniors need education as well, especially regarding backing vehicles in parking lots, crossing intersections and ways to be better seen. The Elderly may also place too much faith in the system and need to be more aware of true dangers in walking and assuming that drivers completely adhere to the laws governing pedestrians. Key messages for the elderly include picking safe routes to walk, watching for turning traffic, understanding how to use signals (if available), and crossing intersections with caution. Lastly elderly walkers need a contact

¹⁰ <http://www.nhtsa.gov/ChildPedestrianSafetyCurriculum>

number or person with the city to call in order to register a complaint about unsafe sidewalk conditions or other problems related to walking.

Also, of major importance is for all pedestrians to make themselves visible by wearing clothes that can be adequately seen by drivers. Educational pedestrian workshops for the general public would provide opportunities to get this message out. Such educational workshops need to be targeted to specific groups. One group that certainly could benefit from education is composed of drivers. Topics such as distractions, use of cell phones, laws governing pedestrians and traffic, speeding and improper maneuvers, especially in intersections and parking lots, are suggested. Brochures on pedestrian safety issues provided at the time of licensing may help, but requiring such workshops for violators of pedestrian laws might work better. Unfortunately walkers may trust drivers to do the right thing and follow the laws. However, drivers must be educated to “do the right thing”.

Strategies to get the message out and educate the public requires a concerted effort by a concerned interest group organized in the city to work with various organizations (such AARP, area aging agencies, schools, city agencies, health care establishments, churches, senior centers, nursing or assisted living homes and retirement communities, etc.) to develop opportunities for educating the public. One idea for educating is not only educating these groups about safe walking, but to develop Safe Walking Zone Maps for 5 to 30 minute walks in various areas. Safe walking routes can be identified and appropriate maps and street signage created. In addition, a Walking Zone Map could be devoted to a 5 to 30 minute walking distances from major employers to encourage additional “walk to work” opportunities. Perhaps employers could even support such an effort and encourage their employees in a “Walk to Work” campaign to help relieve traffic congestion and parking problems at work places, as well as promote worker health.

Residents in various neighborhoods with sidewalks can also become more involved by taking care of their sections of the sidewalks, clearing debris, keeping trash picked up and notifying the city of any hazards, including deteriorating sidewalks.

In order for these educational concepts and ideas to be implemented the city and school system may need to jointly appoint a committee or advisory group, such as a Pedestrian Safety Advisory Committee, to steer the development of educational activities and programs within the city and school system. The proposed Pedestrian Advisory Committee in the strategy recommendations on page 68 could also serve in this capacity.

Enforcement

Pedestrian safety requires the big E's, *Education, Enforcement and Engineering*. Regarding enforcement it is important to recognize that when law enforcement officers are

committed to pedestrian safety, pedestrians and the public alike know that the police care about their safety and respond positively with greater trust in the system and being less fearful of walking. The threat of enforcement is even a deterrent in some cases. However, due to limitations in resources and staffing, law enforcement must concentrate on enforcing the major pedestrian safety problems:

- ✓ Speeding
- ✓ Failure to yield to pedestrian
- ✓ Running red lights
- ✓ Unsafely passing stopped cars in multi-lanes with pedestrian cross walks
- ✓ Passing school buses
- ✓ Driving while distracted

Also, unsafe behaviors by pedestrians that violate laws need to be addressed, such as disobeying signals, not looking before crossing, and crossing in undesirable locations.

The 85% concept for effective enforcement is applicable. Basically, this concept references opportunities to make a difference with enforcement. If 85% of the drivers are doing the wrong things, enforcement will do little. On the other hand, if 85% of the drivers are doing the right things, then enforcement can be very effective in managing the remaining 15% of violators. It may not be effective to ticket jay walking, depending upon location, conditions and other variables. However, knowing the laws is extremely important for drivers and pedestrians.

In addition the community must be involved and can assist in the enforcement by holding neighborhood speed watches, placing slow down signs in the neighborhood, driving in cars with “pace car” signs and setting a safe driving model for other drivers, neighborhood “fight back programs” or organized community watch-type to address problem conditions in a neighborhood, and community organizations, and adult crosswalk guards. Greensboro NC is an example of the use of these ideas to improve enforcement.

Law enforcement can improve enforcement for pedestrian safety by:

- ✓ Involving the community
- ✓ Educating to raise awareness
- ✓ Providing officer training
- ✓ Establishing hot lines for the public
- ✓ Using uniformed officers as pedestrian decoys to determine and address violations
- ✓ Doubling fines for critical pedestrian safety violations (school zones, passing school buses, etc.)
- ✓ Applying progressive ticketing (education, written warning, actual violation ticket)

Section VII. Sidewalk/Greenway Improvement Policy and Code Options

Current Roanoke Rapids Sidewalk Policies and Codes

The Roanoke Rapids Sidewalk policies and codes are very limited. Although the current Land Development Plan policies regarding pedestrian systems may encourage sidewalks¹¹, the town's ordinances are very weak and policies that could support sidewalk improvements, such as systematic use of an annually funded Capital Improvement Plans or mechanisms to provide "fees in lieu" or development "extractions" (required dedicated right-of-ways, easements, etc.) to use for pedestrian or greenway improvements are not current policy. Even sidewalk assessment programs, although available are rarely utilized, if ever and there are no incentives to change this situation to make them more appealing.

The town policy basically allows what limited requirements are in the ordinance for sidewalks to be determined on a case-by-case basis with Planning Board review and recommendations and final determination by City Council. Such determination is ultimately subjective, since there are no or few standards to judge applicability and allowances for not requiring sidewalks. This discretionary decision making process can easily lead to no sidewalk being considered or required, especially if development interests do not see the benefit or need for sidewalks.

Cities that value an integrated, comprehensive pedestrian system not only have Capital Improvement Programs (CIP) that support systematic pedestrian improvements, especially for improvements along priority streets for pedestrian access, but also have strict codes that require sidewalks in all new development. Various options can be applied regarding standards, including specific standards such as found in the Carrboro, NC code as shown in the table on the next page. In addition, the recommended standard sidewalk width is five feet with three foot separation between the road and the sidewalk.

Other standards can include reservation of ROW or easements within major developments to provide for future trails or sidewalk linkage systems. For example, instituting such requirements in commercial development insures that future developments can ultimately be linked together through pedestrian systems that are safe and provide alternative access to the various commercial areas or other pedestrian facilities.

¹¹ Policy 6.9 "Development of pedestrian, bikeway, greenway and other similar facilities shall be encouraged." from Roanoke Rapids Comprehensive Planning Policies and Growth Area Map 2006

CARRBORO SIDEWALK REQUIREMENTS				
TYPE STREET (WITH CURB & GUTTER)	MINIMUM ROW WIDTH	MINIMUM PAVE-MENT WIDTH	BIKE LANES	SIDEWALK REQUIREMENT
ALLEY (ONE-WAY)	20'	12'	NONE	NONE
MINOR	37'	18'	NONE	NONE
LOCAL	43'	20'	NONE	ONE SIDE
SUBCOLLECTOR	50'	26'	NONE	BOTH SIDES
COLLECTOR	60'	34'	BOTH SIDES	BOTH SIDES
ARTERIAL	NCDOT STANDARDS	NCDOT STANDARDS	BOTH SIDES	BOTH SIDES

Steering Committee Policy/Code Recommendations

After reviewing the existing policies and codes for Roanoke Rapids the Steering Committee at their March 30, 2011 meeting suggested the following modifications to city policies and codes that relate to sidewalks. In addition, the committee “voted” on the various proposals and their priorities (number of votes) for each proposal is indicated.

PRIORITY RANKING FOR POLICY/CODE MODIFICATIONS FOR PEDESTRIAN IMPROVEMENTS		
POLICY/CODE	SPECIFIC RECOMMENDATIONS	PRIORITY
CAPITAL IMPROVEMENT PLAN (CIP) EFFORT	CIP to include Sidewalks in future (street/development) projects and CIP presented and included in Budget every Fiscal Year whether funded or not.	5
	Fund the CIP for sidewalks	5
	Insure sidewalk priorities are included in CIP and then stick to the CIP	2
ASSESSMENTS	Improve incentives for residents to utilize the assessment program and participate in putting sidewalks in areas	5
CODES	Right-of-way for sidewalks need to be included in all subdivisions	6
	Require sidewalks in all new subdivisions with no discretionary decisions only waivers allowed by council (based upon specific criteria standards)	5
	Require buffers and greenways to be built in all new subdivisions where practical	4
	Implement (Create) policy to require sidewalks in new developments and along new roads	3
	Require all new roads to have sidewalks	1
	Don't require sidewalks in dead-in sections	1
	Require reservation of areas (easements or ROWs) for trails or sidewalks in all new commercial developments	1
FEES/EXTRACTIONS/ FEE-IN-LIEU-OF	Charge fees for development based upon specific standards (usage, customer or visitor base increase, etc.) and in accord with State Law* (See the Special Note on the next page)	5

Policy or code approaches with a high priority ranking by the committee include:

- ✓ CIP to include Sidewalks in future (street/development) projects and CIP presented and included in Budget every Fiscal Year whether funded or not.
- ✓ Fund the CIP for sidewalks
- ✓ Improve incentives for residents to utilize the assessment program and participate in putting sidewalks in areas
- ✓ Right-of-way for sidewalks need to be included in all subdivisions
- ✓ Require sidewalks in all new subdivisions with no discretionary decisions only waivers allowed by council (based upon specific criteria standards)
- ✓ Require buffers and greenways to be built in all new subdivisions where practical
- ✓ Charge fees for development based upon specific standards (usage, customer or visitor based increase, etc.) and in accord with State Law* (See the **Special Note** on this page)

The Capital Improvement Program (CIP) is a financial tool to identify various major capital projects with costs, description and perhaps justifications. The list is usually reviewed on an annual basis and is utilized to consider projects for the annual budget approved by the Council. Funding of a CIP project must be part of the annual budget approved by the Council.

The city needs to develop its own incentive options to encourage residents to utilize this approach. Incentives might include the city paying a greater share if the sidewalk is a priority. Other incentives could include special recognition on the City web page and other publications and offering assistance in establishing and getting neighborhood committees or involvement programs off the ground.

The subdivision and zoning codes should address right-of-way requirements in developments. The city can certainly require necessary rights of way for streets and its utilities. Care should be taken to insure that the Public Works Department develops right-of-way cross sections that take into account all facility and utility needs. The subdivision and zoning codes can also address specific requirements for sidewalks in all developments, as well set forth criteria where by the requirements can be relaxed. Perhaps in relaxing sidewalk requirements in particular situations also requires other consideration from the development, such as reservation of greenway space, fees in-lieu-of, or special design to accommodate pedestrian on-site.

***SPECIAL NOTE:** NC State law does not permit exactions without special legislature, and even with such legislation, exactions must be very carefully drafted with direct and clear connections and linkages between the calculated exaction and the reason for the exaction based upon real justifiable costs that support the exaction. The State Zoning Laws do permit reservation of ROWs, open space and “fees-in-lieu of” for recreational purposes. The town must be very cautious when using these approaches to insure direct connectivity between the fee or reservation as well as proper use of the reservation, easement or fees in keeping with State law. The town’s attorney should also be consulted on such matters prior to proceeding.

Requiring buffers and greenways to be built is a way to offer opportunity for developments to consider alternative pedestrian improvements for their site. In particular, where a greenway abuts the site or there is a real potential for a greenway through the development to link with other trail systems, then this alternative for pedestrian improvements should be mandatory, provided care is also taken to insure that sidewalks in the area are also linked to this trail or sidewalk improvements installed. At a minimal, a greenway easement can also be required in cases where future linkage is needed to serve potential greenways in the area.

Charging fees (exactions) for sidewalk improvements has legal issues that must be resolved. Fees in-lieu-of may be appropriate in cases where a recreational-type walking trail is planned and the developer has the option of installing the trail or paying this fee, especially in cases where the trail is not at the development yet but is planned or the area. However, exacting a fee for sidewalks is another matter and must be carefully structured and in synch with State Laws, perhaps even requiring special legislature. See the **Special Note** on the previous page.

These priority approaches and the other ones suggested by the committee have value in moving forward with code changes and city activities. The next step regarding code changes is to include such proposed considerations in any discussions about changes to the codes or when a rewrite of a pertinent ordinances is planned. Requiring sidewalks in all new developments will go a long ways in improving the pedestrian system in Roanoke Rapids and avoid the need to install sidewalks after the fact. Use of the CIP is a great opportunity to put forth pedestrian improvements for further budgetary consideration and prioritization.

Section VIII. Recommendations

General Implication of the Plan

Any plan is meaningless if left on the shelf with no effort to consider implementation. The Roanoke Rapids Pedestrian Plan faces the same fate if there is little or no follow-through to consider its implementation. Although the plan will be part of the Roanoke Rapids Thoroughfare Plan, its implementation rests with the local government in conjunction with NCDOT where applicable to prioritize and pursue pedestrian improvements that ultimately eliminate unsafe pedestrian conditions. Roanoke Rapids can and should be a walkable, pedestrian-friendly community. Not only will local residents benefit, but a pedestrian-friendly city substantially sets Roanoke Rapids apart and adds to its overall livability for its residents as a “place to be”. Roanoke Rapids as a pedestrian-friendly city can also contribute to the city’s economic vitality as an attractive, destination for new resident, businesses, industries and tourists.

One overall goal for a “walkable” community is for pedestrian facilities to provide a cohesive, connected network between destinations, neighborhoods and area facilities to encourage walking as a viable means of everyday transportation, exercise and/or recreation. At minimal, pedestrian facilities include sidewalks on major roads and marked crossing locations at major intersections, constructed to ensure pedestrian safety and provide connections between destinations and within development and developing areas. For example, such facilities consist of:

- ✓ Proper width **sidewalks** to provide safe walking areas along streets to separate pedestrians and traffic.
- ✓ Highly visible, marked **crosswalks defined by pavement markings, texture, and/or color** with activated pedestrian signals and adequate lighting where needed to provide safe convenient places for pedestrians to cross the street or intersection and alert motorists of their presence.
- ✓ **Pedestrian oriented site development designs** to encourage and promote safe pedestrian passage in heavy development areas.

In addition, education and enforcement along with community involvement are also important ingredients to promote and realize a more “walkable” community.

General Strategies

The following general strategies offer considerations and opportunities to improve the city’s pedestrian facilities and related activities and programs. Application of these strategies

will help guide Roanoke Rapids in its efforts to implement this plan and become a more “walkable”, pedestrian-friendly community:

- ❑ **In order for Roanoke Rapids to become a “walkable”, pedestrian-friendly community, the City’s lack of pedestrian facilities and non-continuity in its existing sidewalk system must be systematically addressed. This approach includes extension of sidewalks along major collector and local streets throughout residential and commercial areas, provision of traffic controls for pedestrians at key intersections, and providing pedestrian linkages to major facilities, parks, Canal Trail and schools for neighborhoods and the larger community.**

The Roanoke Rapids Pedestrian Plan Steering Committee’s overriding objective in preparing this report expresses this interest:

“to identify the needs of pedestrians in Roanoke Rapids and prioritize improvements that will make the city safer for pedestrians as well as a more “walkable” community”

The Roanoke Rapids Pedestrian Plan goes a long way in addressing this objective and helping the city realize this strategy to become a “walkable”, pedestrian-friendly community. Not only are initial priorities identified in the plan for pedestrian improvements, but conceptual ideas, pedestrian-friendly design opportunities for complete street, sidewalks along streets and crosswalks in intersections are presented in the plan along with optional and alternative improvement considerations. Not all parks are fully accessible by sidewalks or trails and major businesses and facilities (ex. Restaurants, shops, health care) appear to be only accessible by vehicles. Establishment of multi-use pedestrian routes are also part of walkable communities, adding opportunities for “greenways” and other alternative trail systems that can include both pedestrian and bicycle usage.

The plan addresses all these situations and opportunities and also suggests pedestrian linkages to various facilities, including linkage improvements to serve the valuable Canal Trail are prioritized. Specifically the plan sets forth information and strategies to address the following deficiencies in Roanoke Rapids’ pedestrian facilities that detract from Roanoke Rapids being a “walkable” community:

- ✓ Lack of continuity in sidewalks
- ✓ Pedestrian facilities absent at critical intersections or inadequate for crossing at major intersections
- ✓ Uncontrolled crossing locations between intersection junctions in busy areas
- ✓ Sidewalks absent along most major thoroughfares
- ✓ Few linkages to the Canal Trail, rendering more isolation from the community
- ✓ Lower grade schools not adequately served with sidewalk and pedestrian facilities

- ✓ Major residential areas and businesses not served with pedestrian facilities
- ✓ Sidewalks mostly absent from newer development

The sidewalk improvements proposed in this plan can be systematically addressed through a Capital Improvement Program (CIP), as well as establishment of a Pedestrian Advisory Committee that is discussed as an implementation strategy presented below.

□ Expand upon Roanoke Rapids’ “good” examples of sidewalks and walkways and fix the pedestrian safety problems caused by lack of pedestrian facilities.

The existing sidewalks in Roanoke Rapids set the inner city apart from the rest of the community. Here, tree-lined streets with sidewalks traverse the downtown and surrounding residential neighborhoods. However, with few exceptions, these sidewalks stop short of extending into the rest of Roanoke Rapids and leave inconsistent gaps, especially at the extremities of these sidewalks. Newer sidewalks are a “hit and miss” affair with a few scattered developments with sidewalks and most without. Areas of greatest need for sidewalks are without such pedestrian improvements, including Julian Allsbrook, 10th and Old Farm Road, to name a few.

This plan has initially prioritized major State and Local corridors for sidewalk improvement considerations. The city’s CIP is a financial tool that can be used to at least determine costs and budgetary needs for prioritized major roads and the Council can determine the feasibility of their inclusion in the city’s annual budget as it is created, reviewed and approved on a year by year basis. The prioritized State routes will assist in obtaining support for road improvements from the State as their budget allows and/or when local State roads are improved.

□ Strive to reduce Roanoke Rapids high pedestrian accident rates through pedestrian facility improvements, education and related services or promotions

With pedestrian accidents higher than statewide on a percentage basis, Roanoke Rapids must strive to address unsafe pedestrian conditions and activities. The three “E’s” are applicable, including “Engineering” to improve physical conditions, “Education” to provide relevant information to improve behavior, and “Enforcement” to insure that law enforcement is part of the commitment to address pedestrian safety issues related to unsafe driver and pedestrian behaviors. Providing sidewalks and intersection improvements for pedestrians must be accompanied with education beginning with the young through the school system and parents, and applying enforcement activities to address bad driving habits, such as speed, not yielding or other unsafe movements that jeopardize pedestrian safety. Pedestrian educational and awareness programs can be implemented through the schools, public announcements, news and other media articles,

and organized walking events that support pedestrian safety for both motorists and pedestrians. Initial educational materials can be developed by the city, placed on the city's web site and made available at all the Community Centers, library and other public service facilities.

☐ Continue to improve “safe routes to schools” including intersection improvements

Roanoke Rapids' efforts to provide safe routes to schools, such as the recently completed sidewalks along Bolling Street to serve Belmont Elementary School, must be intensified. Traffic/pedestrian controls at key intersections and crosswalks that lead to and from the Manning and Chaloner Schools are essential needs. For example, the intersections particularly at 10th and Julian Allsbrook and at Virginia Avenue and Julian Allsbrook need substantial pedestrian improvements. Outlying Chaloner School along Virginia can benefit from pedestrian improvements particularly along Virginia and US158. The initial prioritization of pedestrian improvements in this plan for major streets (both State and local), as well as key intersections, must be at the forefront of implementation efforts. Where practical additional and linked sidewalk improvements should be provided and appropriately located along major local, collector and thoroughfare roads in adjoining neighborhoods throughout the Manning and Chaloner school areas.

☐ Appropriately address policy changes in the city codes to emphasize the importance of safe pedestrian improvements and facilities and create/adopt sidewalk policies that insure sidewalks are an important element in all new developments and subdivisions

In order to achieve a more “pedestrian-friendly” community, sidewalk requirements must be forefront in all new developments and subdivisions. Adopting policies that emphasize the importance of sidewalks or other alternative pedestrian walkways in all developments and subdivisions not only promotes safety for pedestrians, but also recognizes the value of multi-modal transportation systems for the benefit of the citizens and the community. Flexibility in sidewalk requirements should be in how and where to install, not whether or not to install. Mandatory sidewalk installation provisions insure that discussions about sidewalks in developments are not so much about their need but instead about how and where.

☐ Establish an ongoing Pedestrian Advisory Committee to monitor and help coordinate pedestrian considerations and issues within Roanoke Rapids, including making recommendations for pedestrian facility and policy improvements and opportunities for educational and enforcement services.

Ultimately this committee can be expanded to include biking interests. Ideally the Advisory Committee should include members of the public, city and other public agencies,

as well as major private service/product providers. Specifically this committee will be organized and involved to:

- ✓ Assess local pedestrian accident reports and identify key intersections and road sections that need pedestrian improvements to address safety issues
- ✓ Recommend pedestrian policy changes that emphasize the importance of pedestrian facilities
- ✓ Initiate and assist in pedestrian educational and awareness programs, including those in schools
- ✓ Seek community involvement in pedestrian safety and needs
- ✓ Involve the business community and employees in pedestrian improvement programs and opportunities
- ✓ Maintain close contact with DOT and PBRPO and help identify funding sources
- ✓ Identify critical gaps in pedestrian facilities and advise as to which gaps are priorities for City response
- ✓ Identify priorities for pedestrian improvements and recommend pedestrian facility improvements for inclusion in the Capital Improvement Program (CIP) and consideration in the annual city budget
- ✓ Review street construction or improvement plans and make appropriate recommendation for essential modifications related to considerations for pedestrian improvements
- ✓ Review pedestrian accident reports and make recommendations for improvements that will assist in preventing future similar accidents

Resources

There is a variety of resources available to assist in the development of “walkable” communities. Listed below are websites that specifically offer information and related data to assist communities in achieving a more “walkable” community and making pedestrian improvements. A valuable starting point is the NC DOT “bikeped” program: <http://www.ncdot.org/bikeped/>. Here visitors to the site can find valuable information about the NCDOT program exclusively set forth to improve pedestrian systems. Another valuable resource is the Pedestrian and Bicycle Information Center (PBIC) in Chapel Hill, sponsored by the UNC Highway Safety Research Center

See: <http://www.hsrc.unc.edu/index.cfm> or
http://www.hsrc.unc.edu/safety_info/pedestrian/index.cfm)

The UNC Highway Safety Research Center also provides information on pedestrian safety, crash and/or accident data, Safe Routes to School, and walk to school activities. Webinars (learning

opportunities on line) are provided that are extremely helpful in addressing a variety of opportunities related to pedestrian issues. <http://www.walkinginfo.org/training/pbic/webinars.cfm?webinars>

Lesson plans and programs can also be obtained from Walkinginfo.org to be used in the school system. (See: <http://www.walkinginfo.org/library/details.cfm?id=4705>) This “Child Pedestrian Safety Curriculum teaches and encourages pedestrian safety for students grades Kindergarten through 5th Grade. It is organized into five lessons: walking near traffic, crossing streets, crossing intersections, parking lot safety, and school bus safety. Each lesson builds upon previous set of skills learned.” (as stated on their website)

Specific web sites recommended for pedestrian improvements and information include:

National and State Information Centers

- **[National Center for Safe Routes to School](http://www.saferoutesinfo.org/)** (<http://www.saferoutesinfo.org/>)
Includes steps on starting a Safe Routes program, frequently asked questions, helpful links and a list of sample programs currently in place across the country
- **[Pedestrian and Bicycle Information Center](http://www.pedbikeinfo.org/)** (<http://www.pedbikeinfo.org/>)
National clearinghouse of pedestrian and bicycle information about health and safety, engineering, advocacy, education, enforcement and access and mobility
- **www.walkinginfo.org** and **www.bicyclinginfo.org** (<http://www.walkinginfo.org/>)
Each provides a comprehensive resource on walking and bicycling, respectively, including information on recent pedestrian and bicycle research, safety tips and types of pedestrian and bicycle crashes
- **[Highway Safety Information System](http://www.hsisinfo.org/)** (<http://www.hsisinfo.org/>)
Multi-state database that contains crash, roadway inventory, and traffic volume data for a select group of states and urban centers
- **[Center for the Study of Young Drivers](http://www.csyd.unc.edu/)** (<http://www.csyd.unc.edu/>)
Provides insight into why motor-vehicle crashes are the leading cause of death among teenagers and information on the research being conducted at the Center to investigate this issue
- **[National Child Passenger Safety Board](http://www.cpsboard.org/)** (<http://www.cpsboard.org/>)
Provides program direction and technical guidance to states, communities and organizations as a means to maintain a credible, standardized child passenger training and certification program
- **[North Carolina Child Passenger Safety Resource Center](http://www.buckleupnc.org/)** (<http://www.buckleupnc.org/>)

Information about North Carolina occupant restraint laws as well as tips for choosing and using child occupant protection

Tools and Data

- **[NC Crash Data Query web site](http://www.hsnc.edu/crash/)** (<http://www.hsnc.edu/crash/>)
A data analysis tool to create tables reflecting crash, vehicle and person information for crashes in North Carolina
- **[PEDSAFE](http://www.walkinginfo.org/pedsafe/)** (<http://www.walkinginfo.org/pedsafe/>)
Allows users to effectively select and review possible engineering, education, or enforcement treatments to improve pedestrian or bicyclist safety
- **[Bike Cost](http://www.bicyclinginfo.org/bikecost/)** (<http://www.bicyclinginfo.org/bikecost/>)
Provides transportation decision makers with guidelines to evaluate the projected costs and benefits of bicycle-facility investments
- **[North Carolina Bicycle & Pedestrian Crashes](http://www.pedbikeinfo.org/pbcat/index.cfm)**
(<http://www.pedbikeinfo.org/pbcat/index.cfm>)
An online query tool that allows users to view police-reported bicycle and pedestrian crash data from North Carolina.
- **[North Carolina Alcohol Facts](http://www.hsnc.edu/ncaf/)** (<http://www.hsnc.edu/ncaf/>)
Provides statewide and county-specific data for North Carolina regarding DWI arrests and convictions as well as alcohol involvement in crashes
- **[2outof3](http://www.hsnc.edu/2outof3/)** (<http://www.hsnc.edu/2outof3/>)
Web site for the multi-year UNC Social Norm program that reduced both student drinking and driving after drinking

Events

- **[U.S. Walk to School](http://www.walktoschool-usa.org/)** (<http://www.walktoschool-usa.org/>)
Information about Walk to School events in the USA, how to get involved and resources to help plan a walk in your community
- **[International Walk to School](http://www.iwalktoschool.org/)** (<http://www.iwalktoschool.org/>)
Information about International Walk to School Month, recognized in October across the globe

GIS Data

Halifax County: http://www.halifaxnc.com/download_gis_files.cfm

NC DOT GIS: <http://www.ncdot.org/it/gis/DataDistribution/DOTData/default.html>

NC ONE Map Data: <http://www.nconemap.com/GetData/tabid/284/Default.aspx>

Pedestrian Information

NCDOT also lists many resources on their website that are available through the web, many of which are also listed above:

Pedestrian and Bicycle Information Center

- [Pedestrian and Bicycle Information Center \(http://www.pedbikeinfo.org/\)](http://www.pedbikeinfo.org/)
- [Walkinginfo.org \(http://www.walkinginfo.org/\)](http://www.walkinginfo.org/)
- [Walkinginfo.org: Develop Plans and Policies – pedestrian \(http://www.walkinginfo.org/develop/index.cfm\)](http://www.walkinginfo.org/develop/index.cfm)
- [Walkinginfo.org: Exemplary Plans \(http://www.walkinginfo.org/develop/sample-plans.cfm\)](http://www.walkinginfo.org/develop/sample-plans.cfm)
- [Walkinginfo.org: How to Develop a Pedestrian Safety Action Plan \(http://www.walkinginfo.org/training/pbic/index.cfm\)](http://www.walkinginfo.org/training/pbic/index.cfm)
- [National Center for Bicycling and Walking \(http://www.bikewalk.org/\)](http://www.bikewalk.org/)

Federal Highway Administration Bicycle and Pedestrian Program

- [Federal Highway Administration Bicycle and Pedestrian Program \(http://www.fhwa.dot.gov/environment/bikeped/\)](http://www.fhwa.dot.gov/environment/bikeped/)
- [Program Overview \(http://www.fhwa.dot.gov/environment/bikeped/overview.htm\)](http://www.fhwa.dot.gov/environment/bikeped/overview.htm)
- [Program and Design Guidance \(http://www.fhwa.dot.gov/environment/bikeped/guidance.htm\)](http://www.fhwa.dot.gov/environment/bikeped/guidance.htm)
- [Links to Other Resources \(http://www.fhwa.dot.gov/environment/bikeped/bipedlnk.htm\)](http://www.fhwa.dot.gov/environment/bikeped/bipedlnk.htm)
- [Publications \(http://www.fhwa.dot.gov/environment/bikeped/publications.htm\)](http://www.fhwa.dot.gov/environment/bikeped/publications.htm)
- [Federal Highway Administration – Pedestrian and Bicycle Safety \(http://safety.fhwa.dot.gov/ped_bike/\)](http://safety.fhwa.dot.gov/ped_bike/)

National Highway Traffic Safety Administration

- [National Highway Traffic Safety Administration \(http://www.nhtsa.gov/\)](http://www.nhtsa.gov/)

In addition to the above websites, numerous books and publication, some free of charge, are available to assist communities. For example, *A Resident's Guide For Creating Safe And Walkable Communities* (US Department of Transportation Federal High Administration), #FHWA-SA-07-016, February 2008) is available from the Federal Highway Administration. A comprehensive listing of publications is shown on the following website:

http://www.walkinginfo.org/pedsafe/moreinfo_guides.cfm

Section IX. Appendix

Community Survey

Pedestrian Habits	74
Desired Sidewalk Improvements	75
Sidewalk Improvement Needs	76
Why Sidewalks Need Improvements?	77
Most Dangerous Intersections	78
Why Are These Intersections Dangerous?	79
Funding Improvements	80
Demographic of Survey Respondents	81
Additional Comments from Respondents	82

Pedestrian Improvement Maps

Existing Pedestrian System	84
Proposed Pedestrian Improvements	85
Canal Trail Priority Linkages	86
Priority Local Major Collector Street Sidewalks	87
Old Farm Road Greenway Trail	88
Priority State Road Sidewalks	89

These maps were based upon available GIS data (NCDOT GIS Data Layer, NC One Map GIS download data, and Halifax County GIS data) from their web sites (See **Resources**). Corporate limits, roads, and other information were based upon 2010 data and may not reflect more recent annexations or other considerations.

Community Survey

From mid November through December 17, 2010, a Community Survey was distributed throughout the Roanoke Rapids area. The purpose of the survey was to offer opportunity for residents to provide information on pedestrian needs, not to obligate the City to construct pedestrian improvements, but to assist in preparing the Roanoke Rapids Pedestrian Plan.

Surveys were available at two public involvements “drop-in” sessions (Adams Center and TJ Davis Recreation Center), delivered by City Staff throughout the community, and additional opportunity provided to respond to the same survey placed on the City’s Web Site.

Although not a “scientific” random sample survey, this community survey does provide an indicator of interests regarding pedestrian improvements in Roanoke Rapids.

- ✓ Approximately 300 surveys were distributed and 51 hand-in surveys were completed
- ✓ An additional 33 were submitted over the City’s web site for a total of 84 completed surveys

Pedestrian Habits

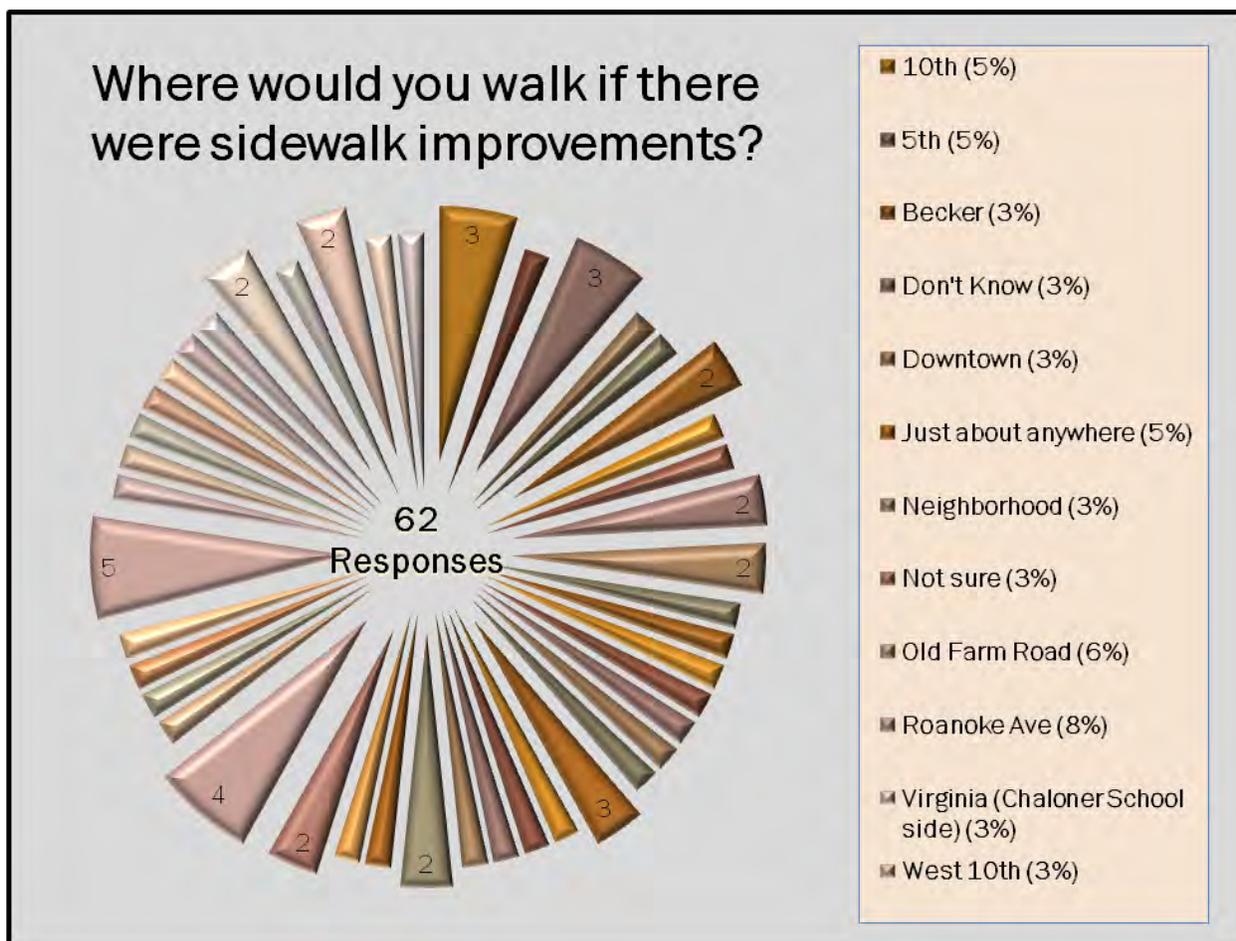


- ✓ Very few never walked and if so primarily due to sickness
- ✓ A majority (36%) walked occasionally
- ✓ Almost as much (32%) walked daily
- ✓ 16% walked weekly

Where do you mostly walk?		
Most Walked Areas	# of Respondents	% Out of 145
5th	5	3%
7th	4	3%
Becker	4	3%
Becker Village Mall	12	8%
Canal Trail	15	10%
Emry Park	4	3%
Old Farm Road	5	3%
Park	8	6%
Roanoke Ave	7	5%

Most respondents walked the Canal Trail (10%) and the parks (9%) followed by the Mall (8%) and Roanoke Ave (5%). Old Farm Road, 5th, 7th, and Becker were also identified.

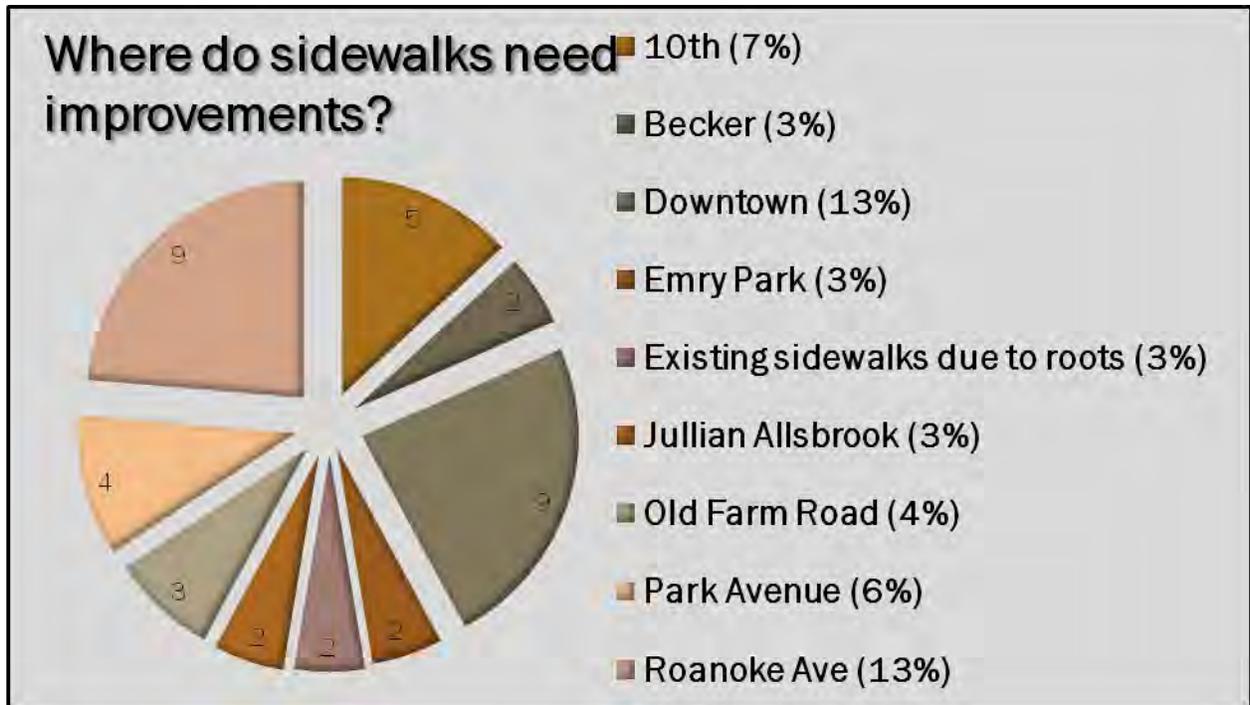
Desired Sidewalk Improvements



Only a few roads that needed pedestrian improvements for increased walking were mentioned by more than one responder. Of these *Roanoke Avenue, Old Farm Road, Becker, Virginia, 5th Street* and *10th Street* were favorites.

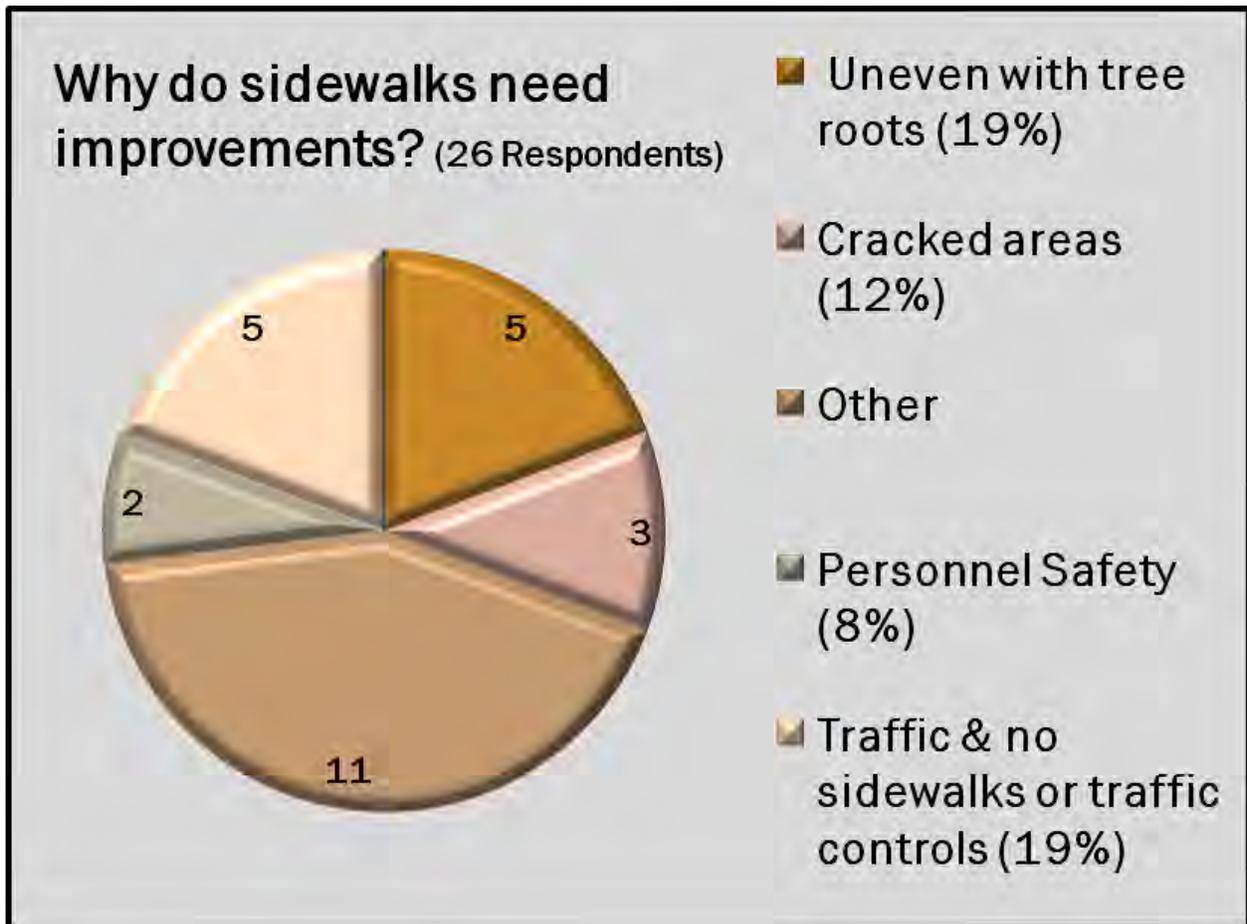
Sidewalk Improvement Needs

A limited number of streets where sidewalk improvements were needed received multiple requests.



The downtown area (13% and Roanoke Avenue (13%) received the most requests followed by 10th Street (7%), Park Avenue (6%), Old Farm Road (4%), and several streets including Julian Allsbrook, Becker and Emry Park areas with less requests (3%).

Why Sidewalks Need Improvements?



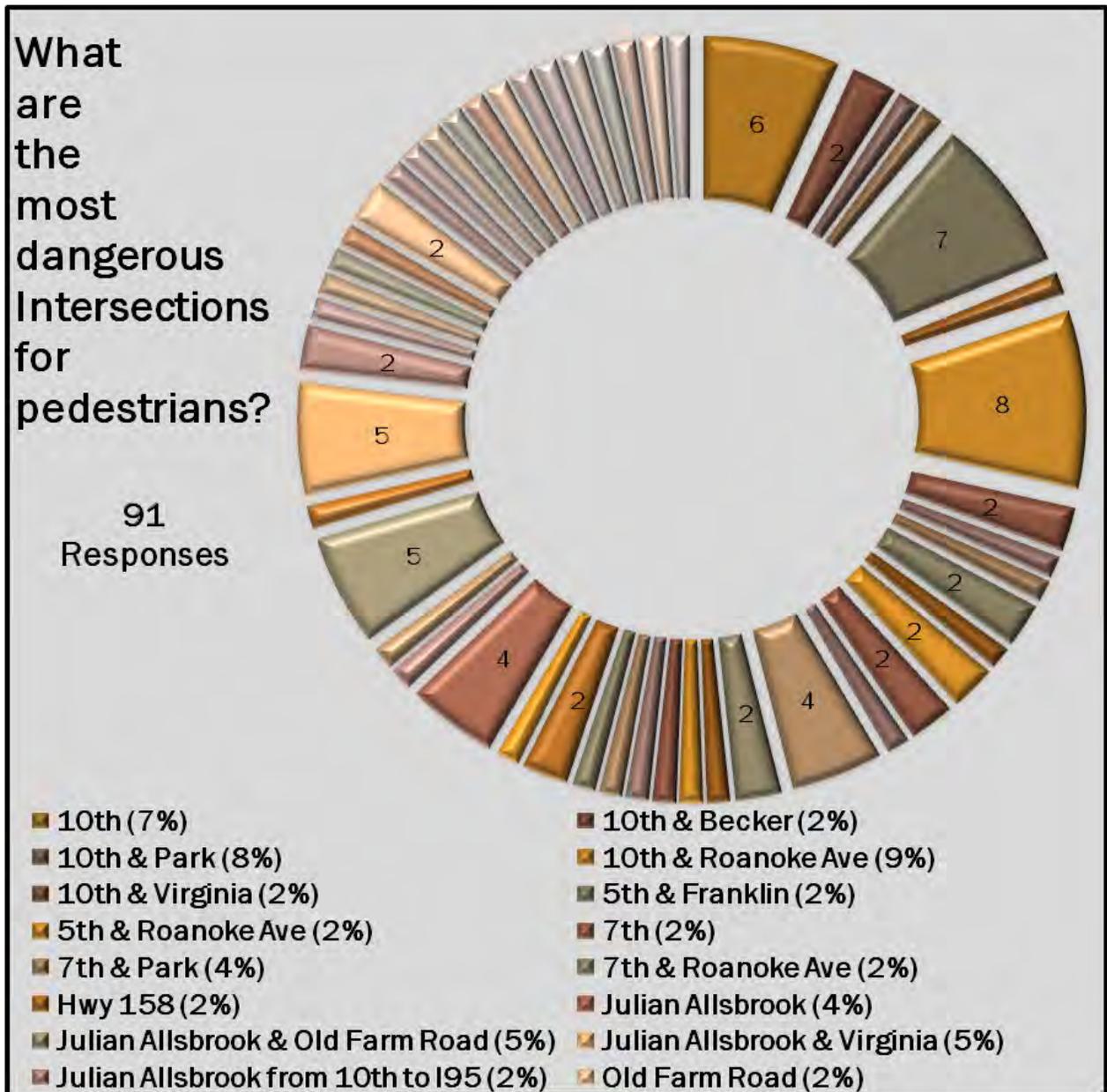
Many responders indicated that traffic, no traffic controls and no sidewalks were problems that need attention to improve sidewalks (19%).

Uneven concrete resulting from root damage and cracked surfaces were other identified major problems (31% total).

Personal safety was also mentioned (8%)

The “Other” category, although the largest, includes a number of individual streets.

Most Dangerous Intersections



Why Are These Intersections Dangerous?	
Specific Responses	# of Respondents
Heavy traffic at 10th & Roanoke Ave	2
10th is one of the busiest streets	1
Blind curve at Julian Allsbrook & Virginia	1
Bushes on NE corner 5th & Jefferson block driver vision	1
Cars speed & make wide turns on 10th	1
Dangerous school crossing at 10th & Park	1
Deep ditches on Hinson	1
Heavy traffic & driving too fast on West 7th	1
Heavy traffic at 5th & Roanoke Ave	1
Heavy traffic at 7th & Roanoke Ave	1
Heavy traffic at Julian Allsbrook & Old Farm Road	1
Heavy traffic at Weldon Road Intersections	1
Heavy traffic on Hwy 158	2
Heavy traffic on Julian Allsbrook	2
Lack of walk signs on Juliab Allsbrook	1
Narrow Road & no shoulders on Hinson	1
No crosswalk or signal at 7th & Park	2
No crosswalks on 10 th	1
No designated sidewalks to restaurants & hotels on Julian Allsbrook	1
No light at 10th & Virginia	1
No sidewalks at Julian Allsbrook & Old Farm Road	1
No Sidewalks on Hinson	1
No traffic light at 5th & Franklin	1
Parking & child pick-up problems at Manning	1
People walking along Old Farm Road	1
Poor visibility at 3rd & Jackson	1
Traffic & Children at 10th & Hamilton	1
Traffic & Children on 10 th	1
Turn lane conflicts on 10 th	1
Grand Total	30

Funding Improvements

How should sidewalk improvements be made?	
Specific Responses	# of Responses
Don't Know	1
Local Funds	35
Required in new developments	35
Required when improving or constructing streets	43
State Funds	44
Grand Total	159

- ✓ In total most responses (113) favored Local Funds and requirements for new developments or when improving /constructing streets be used to improve sidewalks
- ✓ 44 responses favored State Funds

Explanations to responses for "Other" in Question 9	
Specific Other Responses	# of Respondents
All of the above	1
Federal	1
Grants	2
Major thoroughfares used by pedestrians	1
Not sure, but do not want property taxes to increase	1
Special Tax District for Roanoke Ave. Business	1
Spilt cost between Local and State	1
What ever is available & not a burden on the tax payers	1
Grand Total	8

Some responses included other types of specific requirements or actions, including grants, Federal Program, all of the listed categories and 2 requested that improvements not be a burden on property taxes.

Demographic of Survey Respondents

Responses were almost equally distributed between males and females and there were responses from all age groups except the below 16 year of age.

Count of Respondents by Specific Age Group, Gender and Residency							
	Females			Males			
	Resident of RR		Total	Resident of RR		Total	
Age Group	No	Yes	Females	No	Yes	Males	Total
16-24		2	2		1	1	3
25-29		4	4		3	3	7
30-39	2	10	12		5	5	17
40-49	1	6	7	1	9	10	17
40-59					1	1	1
50-59	3	11	14	1	8	9	23
60-64	1	4	5	1	2	3	8
65 & Over		3	3	1	4	5	8
Total	7	40	47	4	33	37	84
Percentage	15%	85%	100%	11%	89%	100%	

Major Findings:

- ✓ Most responders (about 87%) were residents of Roanoke Rapids
- ✓ Somewhat more females responded than males (47 to 37)
- ✓ Major age groups included the 30-39, 40-49, and 50-59 groups

Additional Comments from Respondents

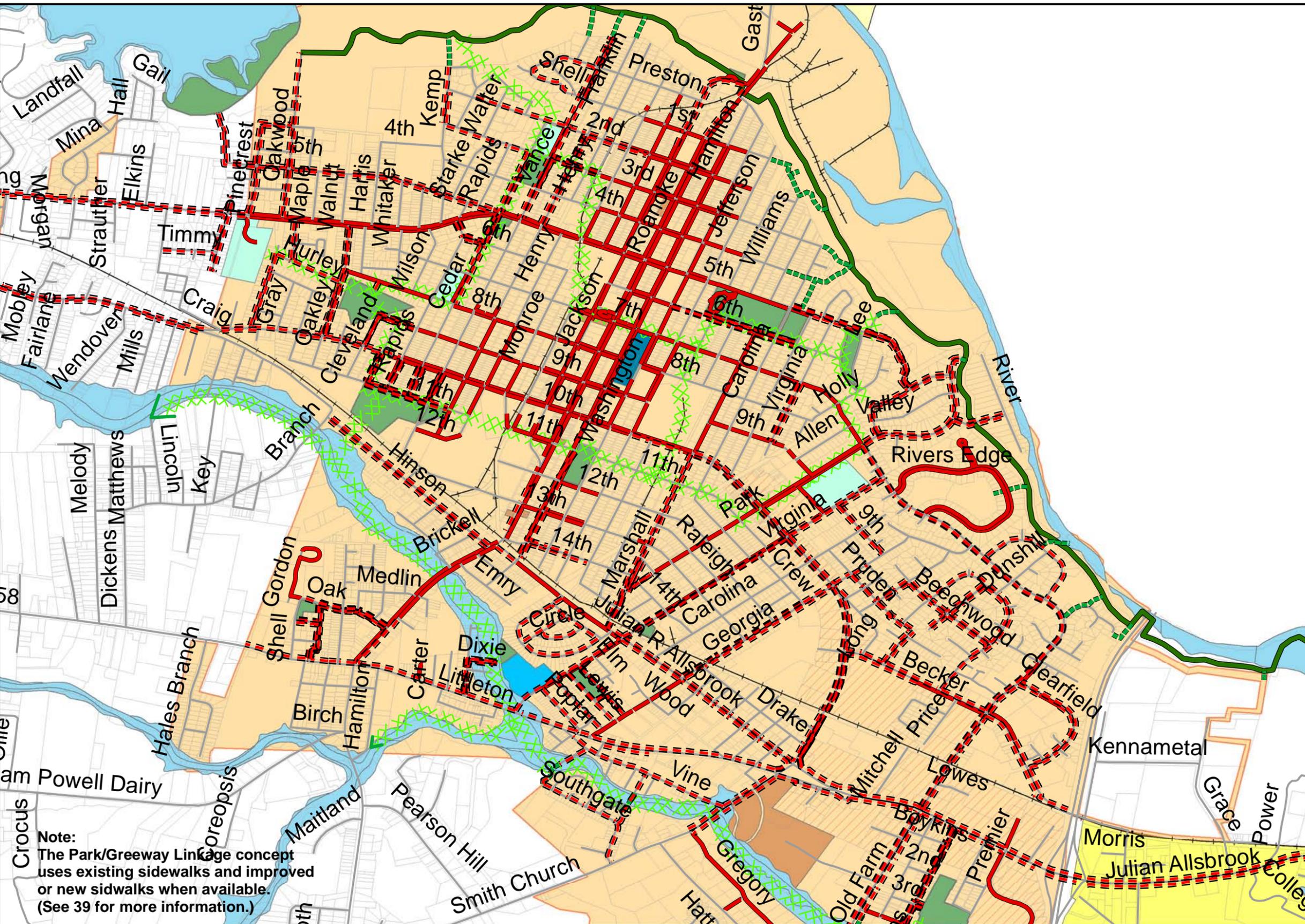
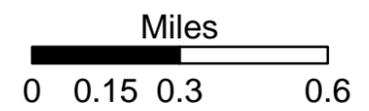
Comments by Respondents
Bicycle paths would be great as well as four wheeler paths where kids can ride and have fun without getting in trouble for crossing a street or riding on private property. The kids also need a place to skateboard and not have to be told they cannot do this on sidewalks. Kids need more activities in the city.
Bicycle riding on sidewalks
Cameras at areas with stop lights
Citizens would benefit from & appreciate safer intersections - City public safety needs to move up into 21st Century & not ignore Pedestrian safety
Dark areas not safe & people group in low lighted areas
Existing road surfaces with high crowns make walking on side of road difficult
Functioning Street lights that are bright enough to be helpful with visibility & other safety factors for crime prevention and perception of safety
Having a sidewalk on Old Farm and 5th would keep the pedestrians off the street, since it is a busy road
I realize funds for sidewalk improvement may be hard to find in the immediate future. I don't expect miracles.
I see people who are elderly or with disabilities walking/"wheel chairing" along 10th and on Julian Allsbrook with plastic shopping bags in their hands - and people who live in public housing back behind my office which is at 615 Julian Allsbrook - I worry
I would not let my child walk to school even if we had the best sidewalks in the nation. It is a matter of safety. That is the reason why more people are not walking around Roanoke Rapids. We are afraid for our life!
Lot of interest in walking and running, but most done in street because of lack of good sidewalks, causing safety concerns for drivers and pedestrians
Make sure there are no trip hazards
Need auto crosswalk signs around schools for children to know where to go
Need nice walk areas & sidewalks
People in RR do not respect walkers! More people need to get out and walk!! Often walkers have to watch out for careless drivers.
Resident of ETJ
Roanoke Rapids is a small community and making it safe for all to walk should be a priority
Sidewalks are just as important as the condition of the roads themselves

Comments by Respondents (Continued)
The mentality of the area is not to walk, but to ride. This needs to be changed from the ground up, so having improved walking trails, etc. available to the public year round would be of benefit. Need more parks with safe walking trails, not just the track which gets so boring for distances.
TJ Davis needs to be open during holidays for students out of school and on weekends
Walkways need to have time box
Waste of money
Well lit areas & safety
Why are we wasting money and resources on this?
A bicycle path to encourage more people to walk
Would like to have more areas in town to ride bikes safely – beside canal trail

Proposed Sidewalks

Legend

- Proposed Sidewalks
- Existing Sidewalks
- Proposed Greenway Linkages
- Canal Trail
- Park/Greenway Linkage Concept
- Roanoke Rapids Area Roads
- Tax Parcels
- Floodplain
- Gaston Town Limits
- Commercial Corridor Areas
- Community Facilities
- Roanoke Rapids Parks
- Railroads
- Elementary School or Preschool
- Middle School
- High School
- Roanoke Rapids City Limits
- Weldon Town Limits



Note:
The Park/Greenway Linkage concept uses existing sidewalks and improved or new sidewalks when available. (See 39 for more information.)

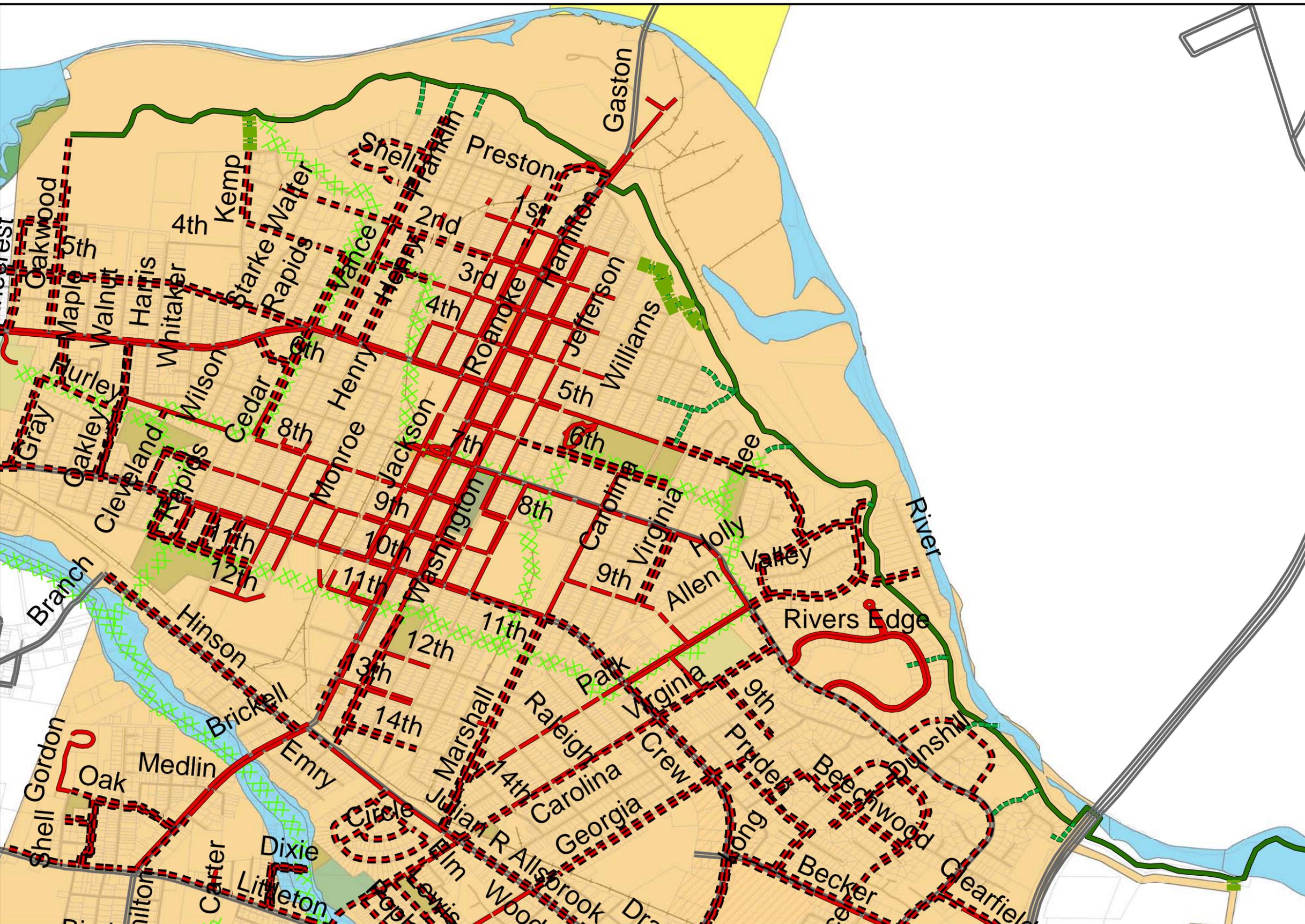
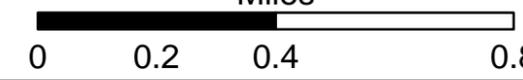
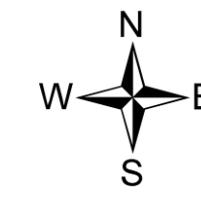
Roanoke Rapids Pedestrian Plan Proposed Sidewalks

Roanoke Rapids Pedestrian Plan

Proposed Priority Canal Trail Linkages

Legend

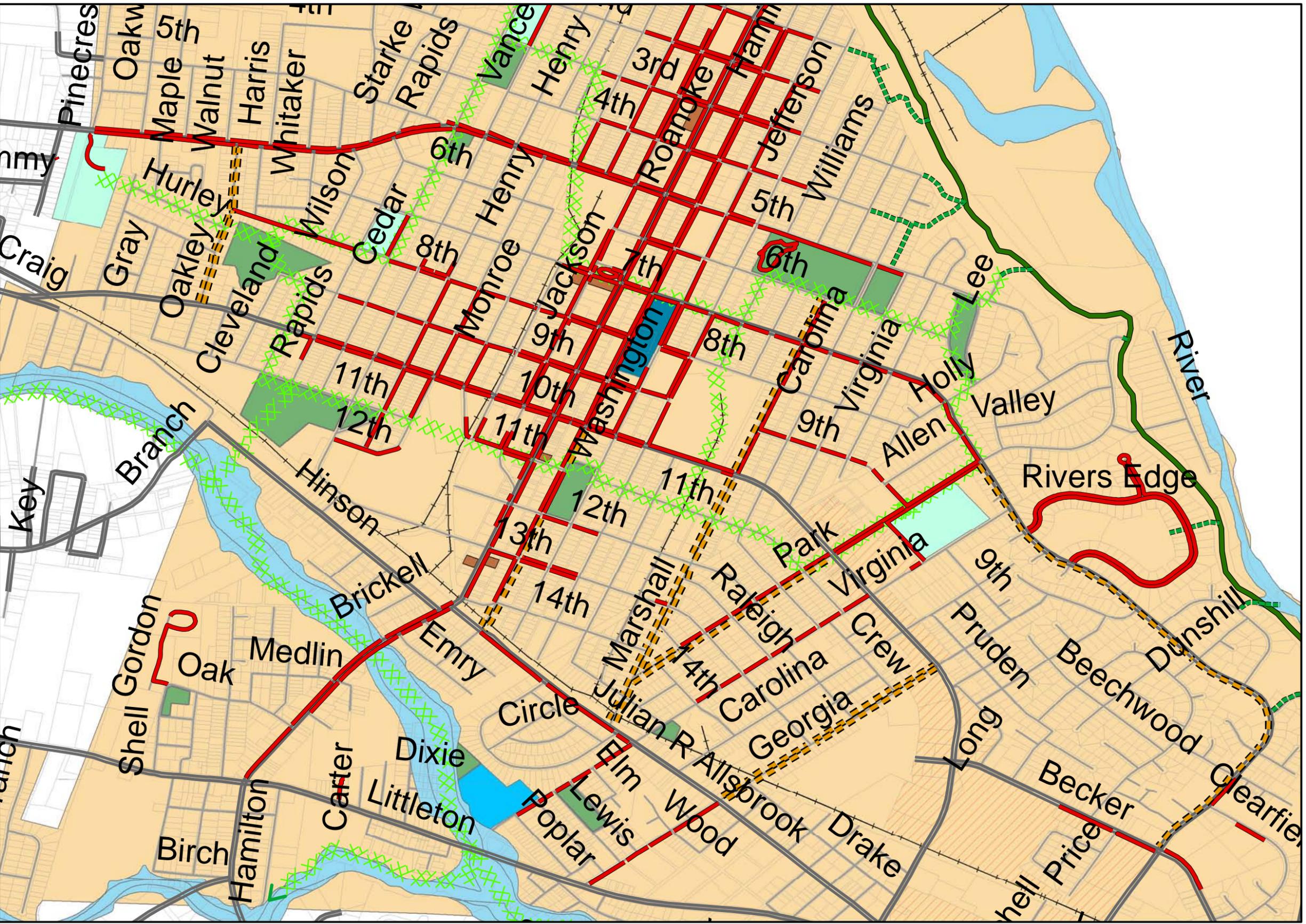
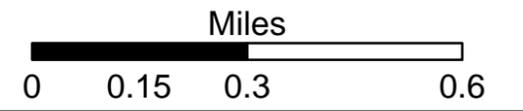
-  Priority Canal Trail Linkage
-  Optional Greenway Linkages
-  Proposed Sidewalks
-  Existing Sidewalks
-  Park Linkage Concept
-  Tax Parcels
-  Floodplain
-  Roanoke Rapids City Limits
-  Weldon Town Limits
-  Gaston Town Limits
-  Commercial Corridor Areas
-  Community Facilities
-  Roanoke Rapids Parks
-  Roanoke Rapids Area Roads
-  Railroads
-  Elementary School or Preschool
-  Middle School
-  High School



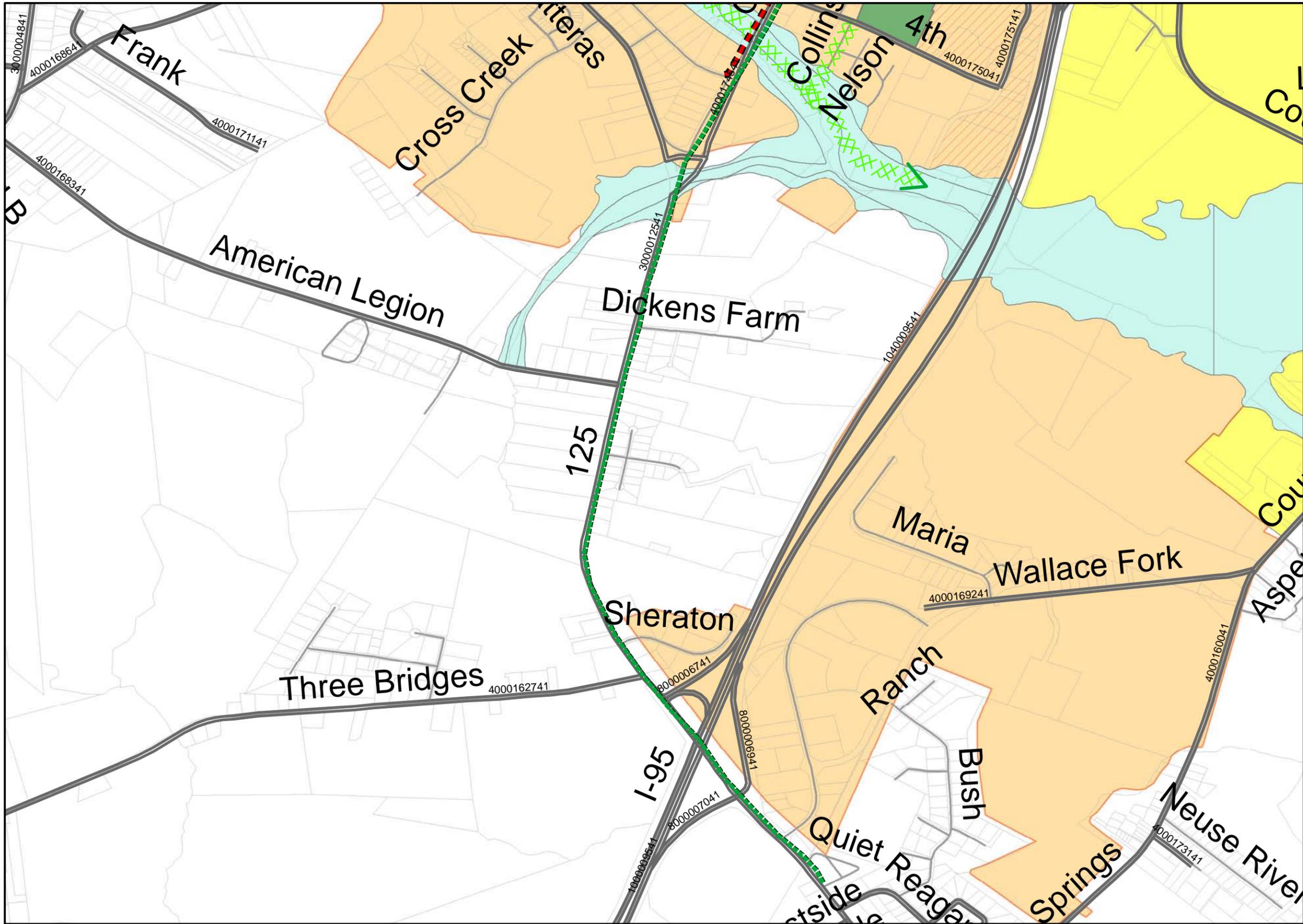
Roanoke Rapids Pedestrian Plan Canal Trail Priority Linkages

Proposed Priority Major Local Collector Pedestrian Improvements

- Legend**
- Priority Local Collectors
 - Existing Sidewalks
 - Optional Greenway Linkages
 - State Roads
 - Canal Trail
 - Park Linkage Concept
 - Commercial Corridor Areas
 - Community Facilities
 - Tax Parcels
 - Floodplain
 - Roanoke Rapids Parks
 - Roanoke Rapids Area Roads
 - Railroads
 - Elementary School or Preschool
 - Middle School
 - High School
 - Roanoke Rapids City Limits



**Roanoke Rapids Pedestrian Plan
Priority Major Local Collector Road Sidewalks**



Proposed Old Farm Road Pedestrian/Bike Greenway Trail

Legend

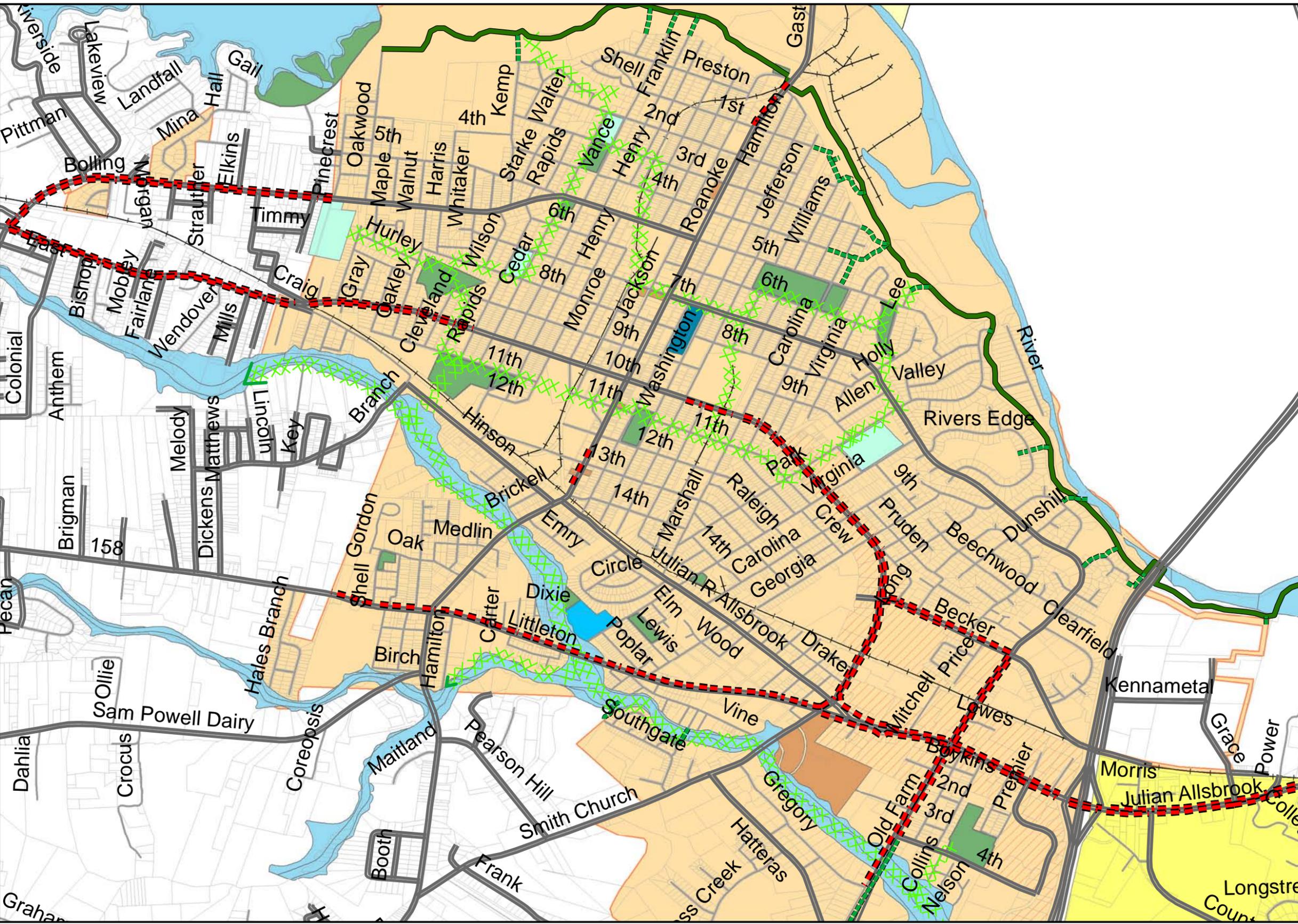
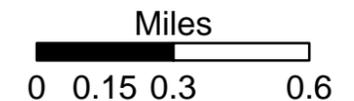
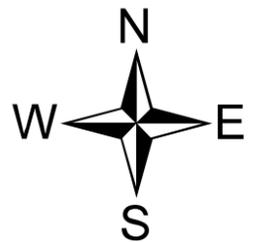
- Priority State Road Sidewalks
- Old Farm Road Greenway Trail
- State Roads
- X Park Linkage Concept
- Tax Parcels
- Floodplain
- Commercial Corridor Areas
- Community Facilities
- Roanoke Rapids Parks
- Roanoke Rapids Area Roads
- Railroads
- Roanoke Rapids City Limits
- Weldon Town Limits

**Roanoke Rapids Pedestrian Plan
Proposed Old Farm Road Greenway Trail**

Priority State Road Pedestrian Improvements

Legend

- - - State Road Sidewalks
- - - Proposed Greenway
- State Roads
- Canal Trail
- X X X Park Linkage Concept
- Tax Parcels
- Floodplain
- Gaston Town Limits
- Commercial Corridor Areas
- Community Facilities
- Roanoke Rapids Parks
- Roanoke Rapids Area Roads
- Railroads
- Elementary School or Preschool
- Middle School
- High School
- Roanoke Rapids City Limits
- Weldon Town Limits



Roanoke Rapids Pedestrian Plan Proposed Priority State Road Sidewalks