



Agenda

Planning and Zoning Commission

June 21, 2011

6:30 PM

Council Chambers, City Hall, 200 West Fifth Street

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- I. CALL MEETING TO ORDER -
- II. INVOCATION - Tony Parker
- III. ROLL CALL
- IV. APPROVAL OF MINUTES - May 17, 2011
- V. NEW BUSINESS

PRELIMINARY PLATS

1. Request by V-SLEW, LLC for a preliminary plat entitled "River Bend, Sections 1, 2 & 3". The property is located north of NC Highway 33 at its intersection with L.T.Hardee Road and west of Rolling Meadows Subdivision. The proposed development consists of 145 lots on 31.565 acres.

OTHER

2. Petition to close a portion of West Gum Road
3. Presentation on the ECU Master Plan
4. Presentation on the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan
5. Update on Review of Vegetation Requirements

- VI. ADJOURN

DRAFT OF MINUTES PROPOSED FOR ADOPTION BY THE GREENVILLE PLANNING
AND ZONING COMMISSION

May 17, 2011

The Greenville Planning and Zoning Commission met on the above date at 6:30 p.m. in the Council Chambers of City Hall.

Mr. Allen Thomas - *
Mr. Dave Gordon - * Ms. Linda Rich - *
Mr. Tony Parker - * Mr. Tim Randall - *
Mr. Bill Lehman - * Mr. Godfrey Bell, Sr. - *
Ms. Shelley Basnight - * Mr. Hap Maxwell – *
Mr. Charles Garner - X Ms. Cathy Maahs – Fladung - *
Mr. Brian Smith - *

The members present are denoted by an * and the members absent are denoted by an X.

VOTING MEMBERS: Gordon, Parker, Lehman, Basnight, Rich, Randall, Bell, Maxwell

PLANNING STAFF: Merrill Flood, Community Development Director; Chantae Gooby, Planner; Michael Dail, Planner; Valerie Paul, Secretary

OTHERS PRESENT: Marion Blackburn, City Council Representative; Dave Holec, City Attorney; Rik DiCesare, Engineer; Jonathan Edwards, Communications Technician

MINUTES: Motion was made by Mr. Lehman, seconded by Mr. Bell, to accept the April 16, 2011 minutes as presented. Motion carried unanimously.

NEW BUSINESS

Rezoning

Ordinance requested by Kyle and Amy Kay Moore to rezone 0.2785 acres located along the northern right-of-way of West 6th Street and 500+ feet west of South Memorial Drive from MS (Medical-Support) to MCH (Medical-Heavy Commercial).

Ms. Chantae Gooby, Planner, delineated the location of the property. The rezoning request is located near the intersection of W. Fifth Street and Memorial Drive; it is for 3/10ths of an acre. A photograph of the property was presented. Fifth Street is a Gateway Corridor and Memorial Drive is a Connecting Corridor; both are designed to contain higher intensive uses. This rezoning may net an increase of 97 trips. It is currently zoned Medical Support and the rezoning request is for Medical Heavy Commercial. Due to the size of the property, there will not be a significant impact either way and it is in a transitional area. In staff's opinion, this request is in compliance with the Horizons: Greenville's Community Plan and the Future Land Use Plan Map.

Mr. Kyle Moore spoke in favor of the request. He owns the property on Fifth Street and he feels that with the size of the property there will not be any major impact.

Mr. Bell said that had knowledge of the area and he was in favor of the request.

Motion was made by Mr. Gordon, seconded by Mr. Randall, to approve the proposed amendment to advise that it is consistent with the comprehensive plan and other applicable plans and to adopt the staff report which addresses plan consistency and other matters. Motion carried unanimously.

Rezoning

Ordinance requested by Ward Holdings, LLC to rezone 0.47 acres located along the southern right-of-way of Green Springs Drive, adjacent to Village Green Apartments, and 150+ feet west of Monroe Street from OR (Office-Residential) to CG (General Commercial).

Ms. Chantae Gooby, Planner, delineated the location of the property. The rezoning request is located in the eastern section of the city, specifically between E. Tenth Street and Green Springs Drive. A photograph of the property was presented. This lot fronts on both Tenth Street and Green Springs Drive, but the rezoning request is only for the back portion. Currently the lot is split-zoned and if the rezoning request is approved, then it will all be one zoning. E. Tenth Street is a Connector Corridor and it is anticipated to contain a variety of higher intensive uses. The property is currently zoned OR (Office-Residential) and the request is for CG (General Commercial). This rezoning could generate an increase of 1,900 trips, which would be a worst case scenario for this piece of property; the traffic would be distributed onto Fifth Street and Tenth Street. In staff's opinion, this request is in compliance with the Horizons: Greenville's Community Plan and the Future Land Use Plan Map.

Mr. Jim Ward, owner of the property, spoke on behalf of the application and offered to answer any questions that the Board may have.

Mr. Parker said that it seemed like an excellent example of infill building and he made a motion to approve the proposed amendment to advise that it is consistent with the comprehensive plan and other applicable plans and to adopt the staff report which addresses plan consistency and other matters. Ms. Rich seconded and the motion carried unanimously.

Rezoning

Ordinance requested by V-SLEW, LLC to rezone 6.587 acres located along the northern right-of-way of East 10th Street, 250± feet east of Bayt Shalom Synagogue and 1,300± feet west of Rolling Meadow Subdivision from OR (Office-Residential) to CG (General Commercial).

Chairman Thomas asked to be recused from the V-SLEW, LLC and Century Financial Services Group, LLC/Reuben Turner rezoning requests.

Bill Little explained that Chairman Thomas requested to be recused due to a conflict of interest. A family member has a financial interest in one of the properties and the rezonings are adjacent to one another. A motion with a simple majority was required. Mr. Thomas has the option to remain seated or sit in the audience, but he would not be able to participate in the discussions or votes.

Motion made by Mr. Lehman, seconded by Mr. Randall to recuse Mr. Thomas. Motion passed unanimously.

Mr. Bell asked that Mr. Thomas sit in the audience and for Brian Smith, alternate, to sit with the commission.

Ms. Chantae Gooby explained that since the rezonings were adjacent to one another there will be one presentation with 2 separate public hearings. She explained that the rezonings are zoned the same and are requesting the same zoning. In 2007, V-SLEW, LLC requested their property to be rezoned and annexed. The property was zoned to OR. Later in 2007, a rezoning request and an annexation request were made for the Century Financial Services Group, LLC and Reuben Turner properties. The requests were submitted by Allen Thomas. The properties were rezoned to OR. In December 2010, Horizons: Greenville's Community Plan and the Future Land Use Plan Map were updated. As part of the update, the Future Land Use Plan Map was amended from office/institutional/multi-family to commercial along the northern right-of-way of East 10th Street between the Bayt Shalom Synagogue and Eastbend Estates Mobile Home Park. The V-SLEW property is vacant and the Century Financial/Turner properties consist of Greenville Mobile Home Estates and Eastbend Estates Mobile Home Park. These rezoning are part of the Intermediate Focus Area located at East 10th Street and Portertown Road where commercial is anticipated and encouraged. The V-SLEW request will net an increase of a little over 4,000 trips per day and those trips will be divided 80% to the east and 20% to the west on 10th Street. The Century Financial/Turner request will net an increase of 3,500 trips per day and those trips will be divided 80% to the east and 20% to the west on 10th Street. There are potential wetlands located on both rezonings. The wetlands will be delineated at the time of development. Currently, the properties are zoned office-residential and are requesting general commercial. In staff's opinion, the requests are in compliance with the Horizons: Greenville's Community Plan and the Future Land Use Plan Map.

Mr. Bell opened the public hearing for the V-SLEW, LLC rezoning.

Chairman Bell asked if both requests would be a total of roughly 8,000 additional trips.

Ms. Gooby answered that was correct.

Mr. Lehman asked what the zoning was prior to the OR zoning.

Ms. Gooby stated residential-agricultural for the V-SLEW, LLC property and rural residential (county zoning) for the Century Financial/Turner properties.

Mr. Parker asked if Portertown Road was included in the traffic study.

Ms. Gooby advised that Portertown Road had not been included.

Mr. Jim Hopf spoke on behalf of V-SLEW, LLC request. He explained the request complies with Horizons and the Future Land Use Plan Map. The request is consistent with the character

and uses of properties in that area. Staff's recommendations indicated that the request is desirable and in the public interest. The size of the area that was recommended for commercial on the Future Land Use Plan Map is considerably larger than the size of this request. The request is in compliance with Horizons and the Future Land Use Plan Map.

Mr. Jon Day spoke in favor of the request. As the community grows, there is a need for larger retail centers and smaller retail centers. He feels that this request would serve the community well.

Steven Hardy-Braz spoke in opposition of the request. He is an avid cyclist and he is concerned about an increase in car trips when there are no requirements for infrastructure for sidewalks and bike lanes. He asked the Commission to think about how the request will limit citizens' ability to walk and bike.

Mr. Hopf spoke in rebuttal. He said that the road can handle the development. He is not sure that V-SLEW can address concerns about bike paths because that is an issue for NCDOT and the City, but they would adhere to City rules.

Mr. Barney Kane spoke in opposition in rebuttal. He thinks that while the request is in compliance with the Horizons Plan, it is also consistent with sprawl. It serves those that are outside of the city, east of the boundary, because it will drive up their property value since they will be closer to shopping areas, but it does not serve the people inside the city.

Mr. Parker stated he was disconcerted that Portertown Road was left out of the traffic report and wished it had been included in the traffic report.

Mr. Maxwell stated that he rode out to Portertown Road in the middle of the day and found there was a lot of traffic on Portertown Road and East 10th Street. He felt that the residents on Portertown Road had voiced their concerns and that no one had addressed their concerns.

Motion made by Mr. Maxwell, seconded by Mr. Parker to deny the proposed amendment that though the proposed amendment is in consistent with the Comprehensive Plan, there is a more appropriate classification for this area.

Mr. Lehman called for further discussion. He asked staff if it were possible to create a natural type of transportation system for all of the neighborhoods in the area to access the businesses.

Ms. Maahs-Fladung offered comments about Logan, Utah. She explained that Logan was similar in size to Greenville and has natural areas, numerous bike paths and free transportation. One of the problems that she has is that she thinks that this will increase the emphasis on developing the areas outside of the city rather than the downtown area.

Mr. Flood explained that the City recently adopted a Pedestrian-Bicycle Master Plan. He explained that the recent policy of NCDOT was to look at ways to provide interconnectivity with a combination of sidewalks and bike lanes. He wasn't sure if there were plans for that particular corridor. That information can be gathered and provided to the Commission.

Mr. Lehman did not anticipate that the developer was responsible for developing that network. He felt that it's something that needs to be looked at by the City to enhance the business area and alleviate people's fears about what is going to happen in that area.

Mr. Flood said that sidewalks are required as part of the subdivision process and staff would be looking at that for this area.

Mr. Parker said that it depends on who owns the road. A lot of this talk about the infrastructure is years out and you have to ask for what you want; if you don't ask for it, it won't be built.

Mr. Bell asked why Portertown was not included.

Mr. DiCesare said that the consultant for Wal-Mart did a comprehensive study and it included a number of intersections including Portertown Road. The study showed a level of decrease at each intersection. The capacity will not be felt along the roadway, but at the intersections. The big question is where will all this traffic collect and access onto the roadway, but staff does not have sufficient information yet. Wal-Mart submitted a new site plan where the stoplight was moved 100 feet to the east. The proposed signal will be located 2,200 feet from Portertown Road, but the NCDOT has not made a decision. That is where you will feel the first demise in level of capacity, not necessarily the roadway.

Mr. Parker asked if NCDOT studied the road.

Mr. DiCesare said that there had not been one relative to the Wal-Mart development.

Mr. Parker asked if the City had done a study of Portertown Road and 10th Street.

Mr. DiCesare answered no.

Mr. Randall asked if NCDOT was staunch about requiring the traffic signal to be about half-a-mile from that intersection.

Mr. DiCesare said that their original request was to try and develop the corridor at 2,500 foot spacing because the next signal down would be 7,500 feet and that would provide even spacing. DOT was willing to accept 2,200 feet because that was the eastern limit of the Wal-Mart site.

Mr. Lehman asked if there was a common access point for Wal-Mart site and the other commercial property on the other side of the street.

Mr. DiCesare said that the common access is about 1,200 feet from Portertown Road.

Mr. Randall asked if there would be a stoplight.

Mr. DiCesare said that the state would not allow a signal at that point.

Mr. Maxwell said that Wal-Mart wanted a light there but the state said that was too close to Portertown.

Mr. DiCesare confirmed that he was correct. That request was for 1,200 feet rather than 2,200 feet like the state had requested. The plan that Wal-Mart came back with moved the light 100 ft. to the east rather than 700 ft.

Mr. Randall said that they spent months reviewing the Future Land Use Plan Map for their update. Not all of the changes were approved, but this one was. It was voted on just a few months ago and Mr. Parker had made the motion to approve it. He thought the request was in compliance with the adopted plan that they had just approved.

Mr. Smith said that it would be hard to find 6.5 acres of land downtown to develop on and once everything gets built then Portertown will be made into a four lane road.

Mr. Parker asked where it stops. He asked if the City would keep going out and annexing.

Mr. Gordon said that when he came here over 40 years ago there were only 20,000 people. If Greenville had stopped growing at that point then there wouldn't be a hospital, medical school and other places. Growth means that others are interested in this town. If you like the planners that build cities, like Columbia, Maryland, which has commercial areas that intermingle with residential areas you don't have to drive downtown. He said that the city that Ms. Maahs-Fladung mentioned did it the opposite way.

Ms. Maahs-Fladung said that Logan is a planned city, as well.

Mr. Gordon said that they planned to do it downtown and leave the outside areas.

Ms. Maahs-Fladung said that their focus was to maintain some of the small businesses that they had. They do have Wal-Mart and other large businesses, but they wanted to maintain the opportunities for the small businesses.

Mr. Gordon asked if the people in the outside of the central areas had any places to shop.

Ms. Maahs-Fladung answered that they did, but this is also a Wal-Mart.

Mr. Randall said that it could be an opportunity for a small business owner to utilize this property.

Mr. Smith stated that this could help the traffic on Greenville Boulevard.

Mr. Maxwell said that this is how Greenville Boulevard started years ago.

Mr. Bell said that there are small businesses that will be removed and it will be their choice to relocate, but this is all part of the growth pattern.

Mr. Little reminded the Commission that there was a motion on the floor.

Mr. Gordon asked for staff to clarify who would not be voting.

Mr. Little stated that the alternates, Mr. Smith and Ms. Maahs-Fladung, could not vote.

Those voting in favor of the denial: Mr. Maxwell and Mr. Parker. Those voting in opposition: Mr. Lehman, Mr. Gordon, Mr. Randall, Mr. Basnight, and Ms. Rich. Motion failed.

Motion made by Mr. Randall, seconded by Mr. Gordon, to approve the proposed amendment to advise that it is consistent with the comprehensive plan and other applicable plans and to adopt the staff report which addresses plan consistency and other matters. Those voting in favor: Mr. Lehman, Mr. Gordon, Mr. Randall, Ms. Basnight, and Ms. Rich. Those in opposition: Mr. Maxwell and Mr. Parker. Motion carried.

Rezoning

Ordinance requested by Century Financial Services Group, LLC and Reuben Turner to rezone 4.753 acres located along the northern right-of-way of East 10th Street, 1,000± feet east of Bayt Shalom Synagogue and 1,100± feet west of Rolling Meadow Subdivision from OR (Office-Residential) to CG (General Commercial).

Chairman Bell opened the public hearing for the Century Financial/Reuben rezoning request.

Mr. Mike Baldwin spoke on behalf of the Century Financial/Turner request. He said that the City had gone through significant lengths to update Horizons and the Future Land Use Plan Map. This area was amended to recommend commercial. It was approved by the City Council and so the request is in compliance. This is one of the few areas where infrastructure beat the growth. V-SLEW, the City and GUC spent close to \$800,000 putting in a regional lift station to serve a service area of about 750 acres in this area. The residents of Eastern Pines are shopping in Washington and this commercial node will allow Eastern Pines residents to shop and keep their money in the city. Traffic along 10th Street is at about a 50% service level; the staff report shows the average daily trips are about 21,000 based on a 2007 count adjusted for a 2% annual growth rate. Mr. Baldwin didn't think that the area had seen a 2% annual growth rate. He had a NCDOT 2008 study done in front of Lowe's and west of the Simpson cutoff. He took the two studies and averaged them. He came up with 17,000 trips per day, which on a design of 33,000 trips per day, would put them at 50%. Mr. Baldwin reiterated the request was in compliance with Horizons and the Future Land Use Plan Map. Also, that there are enough rules to prevent 10th Street from being another Greenville Boulevard.

Mr. Lehman asked Mr. Baldwin to address the issue of access on the north of 10th Street.

Mr. Baldwin said that Wal-Mart would have to take the lead in that issue.

Mr. Randall asked if current city standards require commercial development areas like this to have sidewalks.

Mr. Parker said that a lot of people complained about the sidewalks on Fire Tower Road, but it was amazing to see how many people use them.

Ms. Janet Thomas spoke in favor of the request and offered to answer any questions.

Mr. Steven Hardy-Braz spoke in favor of the application. He is familiar with the Bike-Pedestrian plan because he was involved in the process. He said that he hoped the City will look to the future. He said bike lanes are for other cars to pass him quickly and safely. He is fine riding with traffic because he is traffic. Without bike lanes in the plan, 17,000 extra cars will slow down traffic and makes it safer. Greenville Boulevard is one of the safest roads in town to ride on because the cars cannot go very fast. Some towns are very progressive and develop complete street policies so that it is fair for all development. He is in favor of more congestion if you're not going to balance it out with more bike lanes and sidewalks because it will slow it down and make it safer for everybody.

Mr. Jon Day spoke in favor of the request. He thinks that there is an opportunity to serve the neighborhoods that are on the north side of 10th Street so that those residents can walk, ride a bike and have commercial services close to their home. All comments about bicycle paths and walkways can be worked into the plan.

Mr. Bob Shedler, a resident a Lake Glenwood, spoke in opposition of the request. He stated he was not against commercial or growth, but he feels that there should be a moratorium of at least 5-8 years for additional commercial properties in that area. L.T. Hardee Road and Portertown Road are not prepared to handle extra traffic. He will shop at the new Wal-Mart, but he'll have to get onto Portertown Road and that's already an issue as it is. He checked with the NCDOT and there will not be a light at L.T. Hardee Road and that is a big issue. In his opinion, it is inappropriate to add more commercial after Wal-Mart. Residents of the Lake Glenwood and the community area have been bulldozed and not heard. Some of his neighbors have come before the Commission and the City Council. He stated that they have needed a stoplight at Portertown Road and Eastern Pines Road for the past 5-8 years. NCDOT does not intend to put a light there. The increased traffic will be extensive, but the road is not prepared for it. He said that he heard that additional commercial was needed out there, but in his opinion, extra commercial was not needed. He came out of desperation and he offered to answer any questions that the Commission might have.

Mr. Kane spoke in opposition. He served on the Greenville Utilities Commission and as Chair for one year. GUC runs their lines where the developers want them to run; this promotes sprawl. You should not let Greenville Utilities, who has a bigger budget, tell you where to go. He was surprised that city staff did not know the impact on alternative transportation. In his opinion, if you approve this, you would be promoting the ghastly conditions that are on Greenville

Boulevard. This one area may not be, but it could prove to be a domino effect. Promoting sprawl and building highways to fix that problem is like trying to lose weight by loosening your belt line.

Mr. John Hylant, resident of the River Hills neighborhood, spoke in opposition. He read from a NCDOT traffic report about the section of 10th Street from Greenville Boulevard to Portertown Road. He stated 10th Street is considered a major thoroughfare corridor and currently carries 30,000 vehicles per day. Since 1998, traffic has increased from 19,000 vehicles. From February, 2006 – January, 2011, 45% of the crashes along this corridor involved cars turning onto or off of 10th Street. From 2006 – 2008, the average was 65 crashes per year. In 2009, there were 82 crashes reported. In 2010, there were 53 crashes reported. The statewide crash-rate for an NC route with two or more lanes and a center lane is 386.7; the crash-rate for this section of 10th Street is 483.65. He asked the Commission to table the request.

Mr. Baldwin spoke in rebuttal. He said that the Planning Board, Planning staff and City Council had spent extensive time amending Horizons and the Future Land Use Plan Map and this request was in compliance. He used data provided to him by Ron Beechum at the NCDOT. He used information taken at Lowe's and information taken west of the intersection to Simpson and he was not trying to mislead the Commission. He respects the comments given, but the request stands on its own merits.

Mr. Dave Barham, resident of Highland Mobile Home Park on Portertown Road, spoke in rebuttal. He stated the bike paths and sidewalks are nice and the traffic will increase, but he's always depended on free enterprise and he's always thought that it's a good thing and a way to make a living. If you don't want the traffic, cut the college, hospital and hotels in half. He'll work around the traffic; he's not worried about it because it's just another deal.

Mr. Parker said his biggest concern is infrastructure on Portertown Road and the access roads. He's not opposed to commercial, but believes in infill building before than sprawling out.

Motion was made by Mr. Randall, seconded by Ms. Basnight, to approve the proposed amendment to advise that it is consistent with the comprehensive plan and other applicable plans and to adopt the staff report which addresses plan consistency and other matters. Those voting in favor: Mr. Lehman, Mr. Gordon, Mr. Randall, Mr. Basnight, and Ms. Rich. Those voting in opposition: Mr. Maxwell and Mr. Parker. Motion carried.

Chairman Bell asked that Mr. Thomas switch with Mr. Smith and come back to the Board and he turned the Board back to Mr. Thomas.

Mr. Flood introduced the City's new Chief Planner, Chris Padgett, to the Board.

Mr. Padgett greeted the Board and told them that he looks forward to working with them.

Mr. Parker made a comment about the meeting and said that this was the beauty of America

where you can debate a topic, vote and majority wins. He expressed his appreciation in working with his fellow Board members.

Ms. Maahs-Fladung said that she agreed.

Chairman Thomas thanked them for their comments.

Mr. Randall asked staff who the Commission can go to and ask to look into bike plans and sidewalk plans.

Mr. Flood said staff has discussed the need to bring those plans forward. The Bike-Pedestrian Plan is rather new and they get a lot of the improvements put in during the Subdivision Process; they will bring that information back to the Commission.

Mr. Maxwell said that it's crazy that all the neighborhoods that are that close to the property will have to get into a car to get there.

Mr. Parker asked if Daryl Vreeland could bring the MPO out.

Mr. Flood said that they could schedule Mr. Vreeland to do a presentation to the Board.

Mr. Gordon asked if the Greenway comes out this way.

Mr. Flood said that there branch that comes out this way.

Mr. Randall said that the Bike Plan is like the Greenway Plan and it has already been done.

Mr. Flood said that staff could schedule presentations on both.

With there being no further business, Mr. Lehman made a motion, Mr. Parker seconded and the motion passed unanimously to adjourn at 8:04 p.m.

Respectfully Submitted,

Merrill Flood, Secretary



City of Greenville, North Carolina

Meeting Date: 6/21/2011
Time: 6:30 PM

Title of Item: Request by V-SLEW, LLC for a preliminary plat entitled "River Bend, Sections 1, 2 & 3". The property is located north of NC Highway 33 at its intersection with L.T.Hardee Road and west of Rolling Meadows Subdivision. The proposed development consists of 145 lots on 31.565 acres.

Explanation: This property was annexed into the City and zoned to R-6S, Single Family Residential, on June 9, 2011.

Sidewalks will be constructed on one side of all proposed streets and a detention pond will be provided.

There is a ditch that runs along the eastern property line adjacent to Rolling Meadows Subdivision that will not be piped due to potential adverse impacts to the existing septic tanks in Rolling Meadows Subdivision.

It is anticipated that the developers will work with the adjoining property owner to connect Rolling Meadows Drive to this development. This connection is desired, but not required due to their being other means of egress. The project designer has submitted a sketch plan that illustrates a potential street layout that will be adjusted to accommodate the proposed Wal*Mart traffic light when its location is determined.

Due to the Fire Code, a second access will be required upon the completion of 30 homes. This will not be a public street but an all weather gravel / stone drive that can accommodate fire apparatus.

There are a couple of adjoining properties that were created under Pitt County's jurisdiction and do not have direct access to a public street. The City of Greenville Zoning Ordinance states that every lot shall have access to a public street. The Subdivision Ordinance has language that says when a new subdivision adjoins unsubdivided lands that do have have direct and adequate access to a public street, then the new streets will be carried to the boundaries of the tract to insure direct and adequate access and streets shall not be arranged so

as to create a hardship on adjoining property owners. In the past, the Planning and Zoning Commission denied a preliminary plat because it did not give a landlocked adjoiner access to a public street. The Planning and Zoning Commission should make the determination if such a street extension is necessary.

Fiscal Note: There will be no costs to the City of Greenville associated with this development.

Recommendation: The City's Subdivision Review Committee has reviewed the plat and it meets all technical requirements with the Planning and Zoning Commission making a determination on public street access.

Viewing Attachments Requires Adobe Acrobat. [Click here](#) to download.

Attachments / click to download

- [📎 River Bend Master Sketch Plan](#)
 - [📎 River Bend Sheet 1](#)
 - [📎 River Bend Sheet 2](#)
 - [📎 River Bend Sheet 3](#)
 - [📎 River Bend Sheet 4](#)
 - [📎 Lot Frontage requirements 899698](#)
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Excerpts from the City of Greenville Zoning Ordinance

SEC. 9-4-96 LOT FRONTAGE REQUIREMENTS.

(A) *Generally.* Unless otherwise provided, no principal and/or accessory building, structure or use shall be erected, expanded, enlarged, increased or initiated on any lot that does not abut a public street a minimum distance of 50 feet, except on the radius of a cul-de-sac where such distance may be reduced to 40 feet. The minimum distance shall be measured along the right-of-way line of the public street.

Excerpts from the City of Greenville Subdivision Ordinance

Sec. 9-5-2. Purpose.

(a) Public health, safety, economy, good order, appearances, convenience, and the general welfare require the harmonious, orderly and progressive development of land within the city and its extraterritorial planning jurisdiction. In furtherance of this intent, regulation of land subdivision by the city has the following purposes, among others:

- (1) To encourage economically sound and stable development in the city and its environs;
- (2) To ensure the timely provision of required streets, utilities and other facilities and services to new land developments;
- (3) To ensure adequate provision of safe, convenient vehicular and pedestrian traffic access and circulation in and through new land developments;
- (4) To ensure provision of needed public open spaces and building sites in new land developments through the dedication or reservation of land for recreational, educational and other public purposes or the provision of funds in lieu of dedication;
- (5) To ensure, in general, the wise and timely development of new areas in harmony with comprehensive plans as prepared and adopted by the city;

(b) These regulations are intended to provide for the harmonious development the city and its environs, and in particular:

- (1) For coordinating streets within new subdivisions with other existing planned streets or official adopted thoroughfare plan street;
- (2) For appropriate shapes and sizes of blocks and lots;

- (3) For providing land for streets, school sites, and recreational areas and providing easements for utilities other public facilities and services;
- (4) For distribution of population and traffic which will tend to create conditions favorable to health, safety, convenience, prosperity or general welfare;

Sec. 9-5-81. Street design standards.

The following design standards shall apply to all streets in proposed subdivisions:

- (1) The arrangement, character, extent, width, grade and location of all streets shall be considered in their relation to existing and planned streets, to topographical and soil conditions, to public convenience and safety and in their appropriate relation to the proposed use of the land to be served by such streets.
- (3) The arrangement of streets in new subdivisions shall make provision for the continuation of the existing streets in adjoining areas.
- (4) Where a new subdivision adjoins unsubdivided land susceptible to being subdivided, then the new streets shall be carried to the boundaries of the tract proposed to be subdivided; and such arrangement shall make provision for the logical and proper projection of such streets.
- (5) Where a new subdivision adjoins unsubdivided lands that do not have direct and adequate access to an approved public street, then the new streets shall be carried to the boundaries of the tract proposed to be subdivided to insure the adjoining lands of direct and adequate access. Private streets shall not constitute direct and adequate access for purposes of this section.
- (8) The street arrangement within new subdivisions shall not be such as to cause hardship to owners of adjoining property in platting their own land and providing convenient access to it or affect the health, safety and welfare of property owners and residences in the surrounding area. Streets within or adjacent to subdivisions intended for residential purposes shall be so designed that their use by through traffic shall be discouraged, except however, where such streets are existing or proposed thoroughfares.

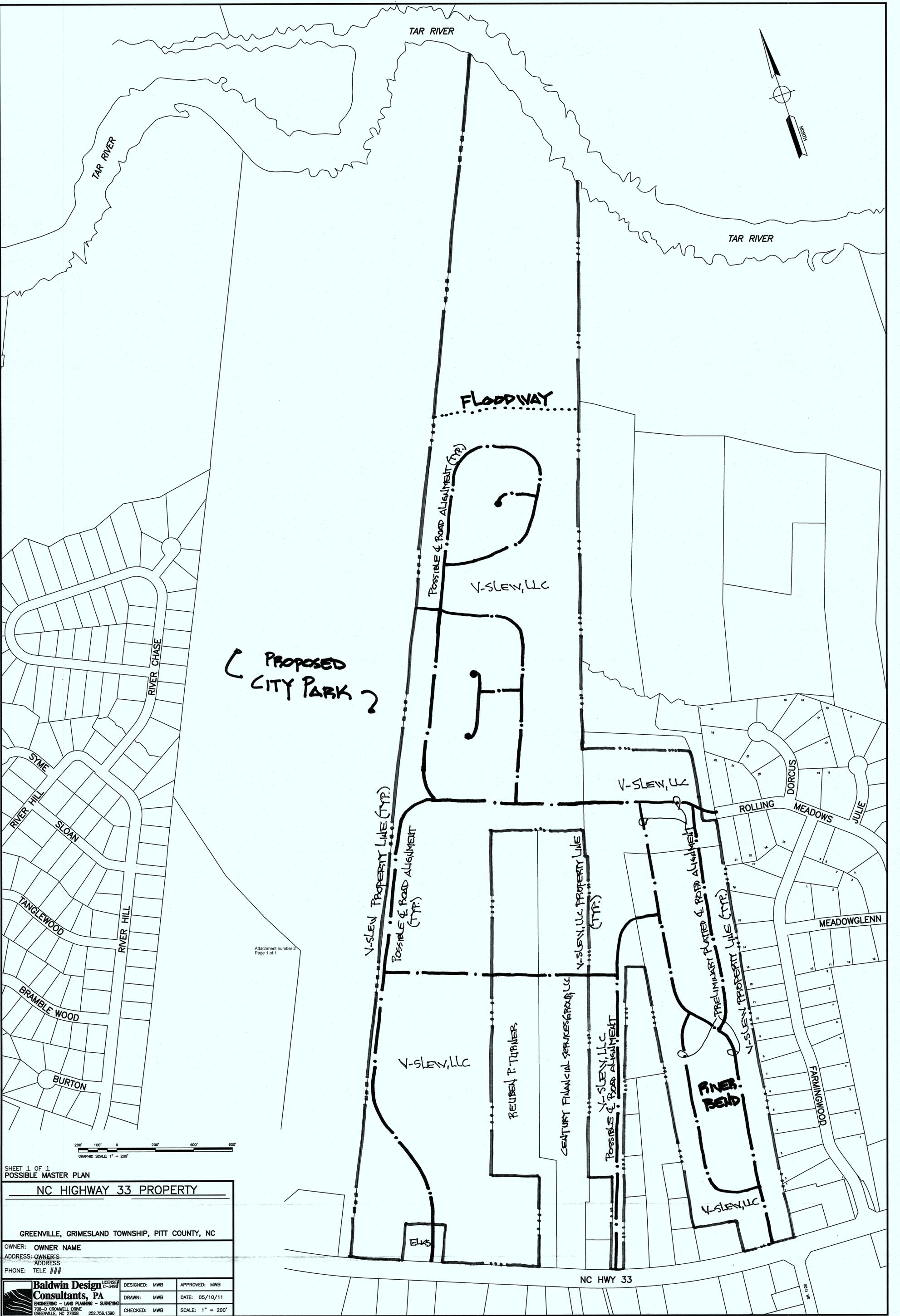
Sec. 9-5-84. Projection of easements to adjacent undeveloped property.

Where a new subdivision is adjacent to undeveloped property that does not have direct access to public utility lines or facilities, adequate easements may be reserved on each side of all rear lot lines and along certain side lot lines where necessary for the future extension of utilities to such undeveloped property. (Ord. No. 1941, § 1, 1-12-89)

Sec. 9-5-95. Block standards; general design.

Block lengths, widths and areas within bounding roads shall be such that:

- (1) Adequate building sites, suitable to the contemplated or probable use are provided.
- (3) Lengths between intersecting streets do not exceed one thousand four hundred (1,400) feet or be less than three hundred (300) feet.



PROPOSED CITY PARK

FLOODWAY

V-SLEW, LLC

V-SLEW, LLC

V-SLEW PROPERTY LINE (TYP.)

POSSIBLE ROAD ALIGNMENT (TYP.)

V-SLEW, LLC PROPERTY LINE (TYP.)

PRELIMINARY PLATED ROAD ALIGNMENT

V-SLEW PROPERTY LINE (TYP.)

V-SLEW, LLC

REUBEN P. TURNER

CENTURY FINANCIAL SERVICES GROUP LLC

V-SLEW, LLC

POSSIBLE ROAD ALIGNMENT

ONE
MILE
ROAD

V-SLEW, LLC

Attachment number 2
Page 1 of 1

200' 100' 0 200' 400' 600'
GRAPHIC SCALE: 1" = 200'

SHEET 1 OF 1
POSSIBLE MASTER PLAN

NC HIGHWAY 33 PROPERTY

GREENVILLE, GRIMESLAND TOWNSHIP, PITT COUNTY, NC

OWNER: OWNER NAME
ADDRESS: OWNER'S ADDRESS
PHONE: TELE ###

| | | |
|---|--|------------------|
| <p>Baldwin Design Consultants, PA ENGINEERING - LAND PLANNING - SURVEYING 708-D CROMWELL DRIVE GREENVILLE, NC 27636 252.756.1390</p> | DESIGNED: MWB | APPROVED: MWB |
| | DRAWN: MWB | DATE: 05/10/11 |
| | CHECKED: MWB | SCALE: 1" = 200' |
| | CAD FILE: 05-136 V-SLEW\TAX MAP\05-136 POSSIBLE MASTER.DWG | |

SANITARY SEWER LENGTHS & SIZES C/L MH TO C/L MH

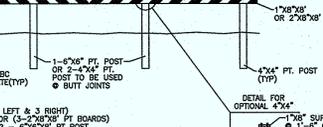
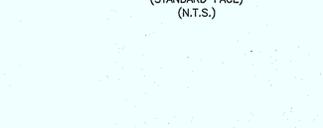
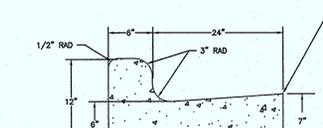
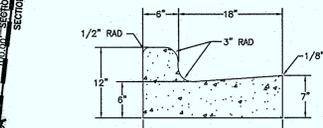
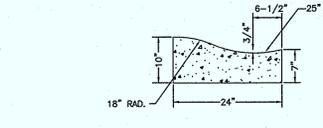
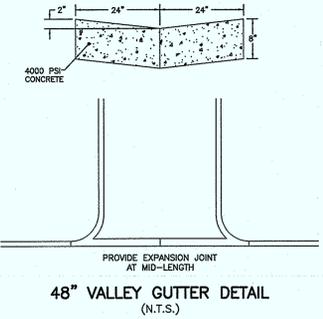
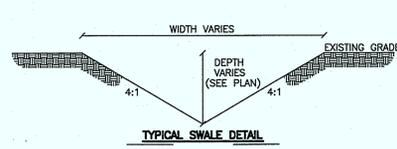
| | |
|----------------|----------------------------|
| MH# 3 TO MH# 4 | - 395LF 12" SANITARY SEWER |
| MH# 4 TO MH# 5 | - 257LF 12" SANITARY SEWER |
| MH# 5 TO MH# 6 | - 50LF 12" SANITARY SEWER |
| MH# 6 TO MH# 7 | - 73LF 12" SANITARY SEWER |
| MH# 4 TO MH# 8 | - 289LF 8" SANITARY SEWER |
| MH# 8 TO MH# 9 | - 288LF 8" SANITARY SEWER |
| MH# 9 TO MH#10 | - 425LF 8" SANITARY SEWER |
| MH# 9 TO MH#29 | - 138LF 8" SANITARY SEWER |
| MH# 5 TO MH#19 | - 387LF 8" SANITARY SEWER |
| MH#19 TO MH#20 | - 400LF 8" SANITARY SEWER |

STORM DRAINAGE DATA

| | |
|----------------|-----------------|
| CB#23 TO CB#22 | - 180LF 36" RCP |
| CB#22 TO CB#21 | - 180LF 42" RCP |
| CB#21 TO CB#20 | - 180LF 42" RCP |
| CB#20 TO CB#19 | - 219LF 42" RCP |
| CB#19 TO CB#18 | - 54LF 42" RCP |
| CB#18 TO CB#17 | - 49LF 42" RCP |
| CB#17 TO DI#50 | - 120LF 48" RCP |
| DI#50 TO FES#2 | - 35LF 48" RCP |
| DI#38 TO CB#37 | - 112LF 15" RCP |
| CB#37 TO CB#21 | - 48LF 15" RCP |
| DI#36 TO CB#35 | - 112LF 15" RCP |
| CB#35 TO CB#20 | - 35LF 15" RCP |
| CB#9 TO CB#7 | - 132LF 24" RCP |
| CB#7 TO CB#6 | - 208LF 24" RCP |
| CB#6 TO CB#5 | - 180LF 24" RCP |
| CB#5 TO CB#4 | - 189LF 30" RCP |
| CB#4 TO CB#3 | - 28LF 30" RCP |
| CB#3 TO CB#2 | - 36LF 30" RCP |
| CB#2 TO CB#1 | - 30LF 30" RCP |
| CB#1 TO FES#1 | - 145LF 36" RCP |
| CB19A TO CB#19 | - 39LF 15" RCP |
| CB#14 TO CB#6 | - 40LF 15" RCP |
| CB#13 TO CB#5 | - 35LF 15" RCP |
| CB#12 TO CB#4 | - 38LF 15" RCP |
| DI#11 TO CB#2 | - 88LF 15" RCP |
| OCS TO DI#51 | - 40LF 60" RCP |
| DI#50 TO FES#5 | - 152LF 60" RCP |

NOTE: SECTION 3 STORM DRAINAGE TO BE INSTALLED IN SECTION 2 WITH EXCEPTION TO THE FOLLOWING:

| | |
|-----------------|-----------------|
| DI#38 TO CB#37 | - 112LF 15" RCP |
| DI#36 TO CB#35 | - 112LF 15" RCP |
| CB#12 TO CB#4 | - 38LF 15" RCP |
| DI#11 TO CB#2 | - 88LF 15" RCP |
| CB#19A TO CB#19 | - 39LF 15" RCP |



MATERIAL LIST

- 6 - BARRICADE PANELS (3 LEFT & 3 RIGHT)
- 1 - 12\"/>

REVISIONS:

- REVISED: 06/10/2011 (CITY COMMENTS)(JUB) - REMOVE NOTE FOR SECTION 3 PIPE INSTALLATION. CONTINUE DRAINAGE EASEMENT TO BLUE LINE STREAM.
- REVISED: 04/14/2011 (CITY COMMENTS)(JUB) - INCREASED WIDTH OF PHASE LINE FOR CLARITY. REMOVE IMPROVEMENTS FROM WILLIAM S. HARDEE PROPERTY. SHOW EMERGENCY VEHICLE TURNAROUNDS/EASEMENTS. ADDITIONAL ELECTRICAL EASEMENTS. DRAINAGE EASEMENT FOR POND OUTLET. ADDITIONAL POND MAINTENANCE EASEMENT. ADJUST POND FOR MAINTENANCE ACCESS. LABEL NEW DITCH FOR CLARITY.

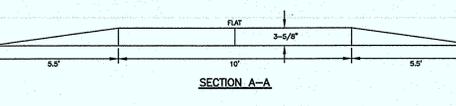
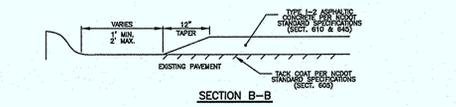
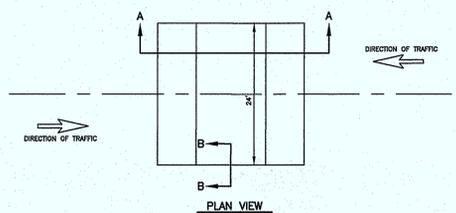
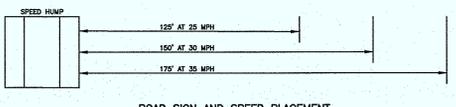
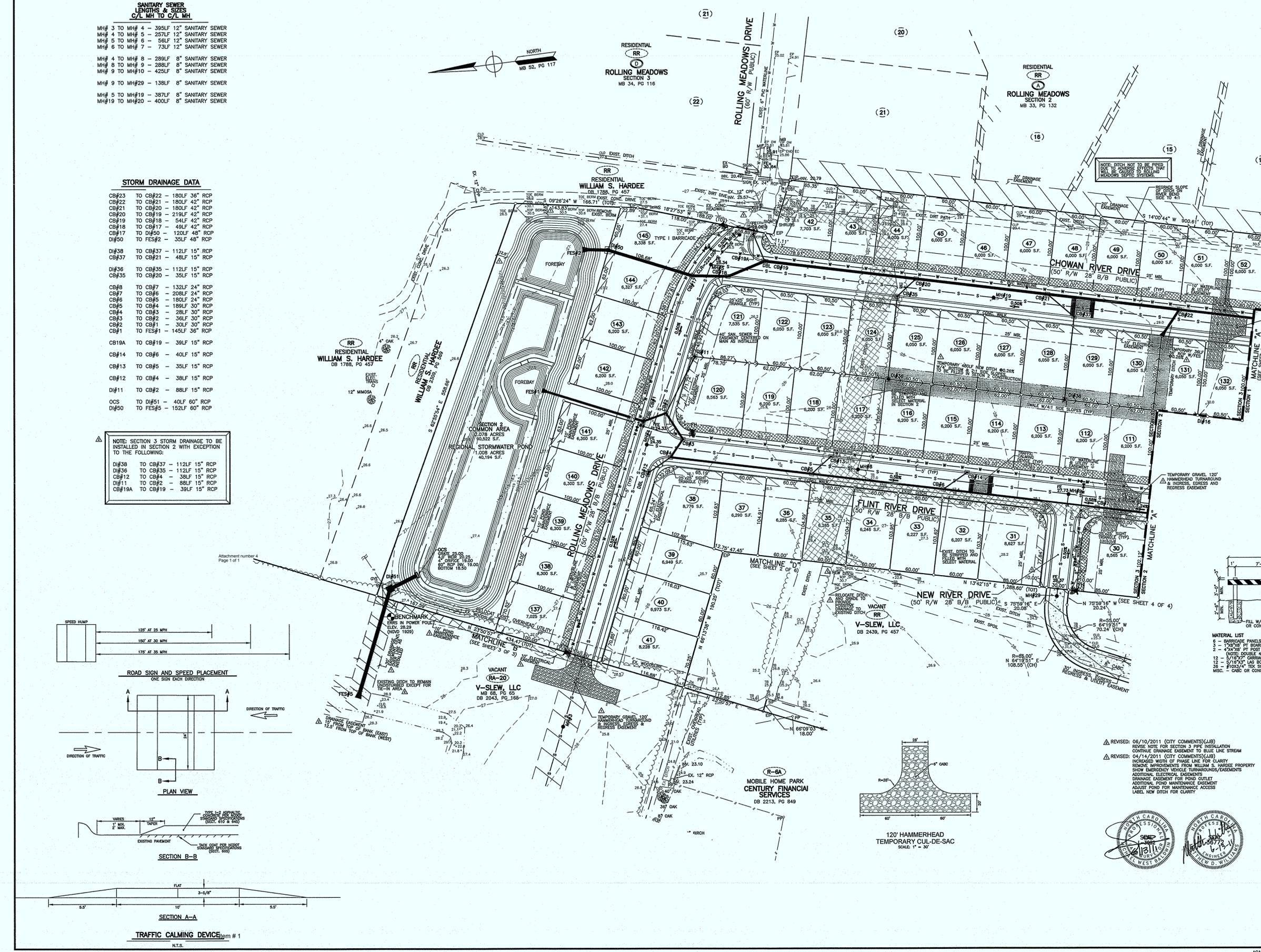
GRAPHIC SCALE: 1" = 50'

SHEET 2 OF 4
PRELIMINARY PLAT

River Bend
SECTIONS 1, 2 & 3
REFERENCE: DEED BOOK 2411, PAGE 49 AND A PORTION OF THE PROPERTY DESCRIBED IN DEED BOOK 2439, PAGE 457 OF THE PITT COUNTY REGISTRY
GREENVILLE, GRIMESLAND TOWNSHIP, PITT COUNTY, N.C.

OWNER: V-SLEW, LLC
ADDRESS: 2625 CHARLES BLVD. GREENVILLE, N.C. 27858
PHONE: (252) 321-9904

Baldwin Design Consultants, PA
DESIGNED: MWS/MW APPROVED: MWS/MW
DRAWN: JAM/JUB DATE: 03/21/2011
CHECKED: MWS SCALE: 1" = 50'



TRAFFIC CALMING DEVICE #1
N.T.S.



STORM DRAINAGE DATA

OCS TO D#50 - 40LF 60" RCP
D#51 TO FES#5 - 152LF 60" RCP

SANITARY SEWER LENGTHS & SIZES
C/L MH TO C/L MH

EX. MH TO MH# 1 - 128LF 12" SANITARY SEWER
MH# 1 TO MH# 2 - 396LF 12" SANITARY SEWER
MH# 2 TO MH# 3 - 395LF 12" SANITARY SEWER
MH# 3 TO MH# 4 - 395LF 12" SANITARY SEWER

Attachment number 5
Page 1 of 1

VACANT
CITY OF GREENVILLE
DB 1530, PG 549
MB 52, PG 117

VACANT
CITY OF GREENVILLE
DB 1530, PG 549
MB 52, PG 117



SHEET 3 OF 4
PRELIMINARY PLAT

River Bend

SECTIONS 1, 2 & 3
REFERENCE: DEED BOOK 2411, PAGE 49 AND A PORTION OF THE PROPERTY DESCRIBED IN DEED BOOK 2439, PAGE 457 OF THE PITT COUNTY REGISTRY
GREENVILLE, GRIMESLAND TOWNSHIP, PITT COUNTY, N.C.

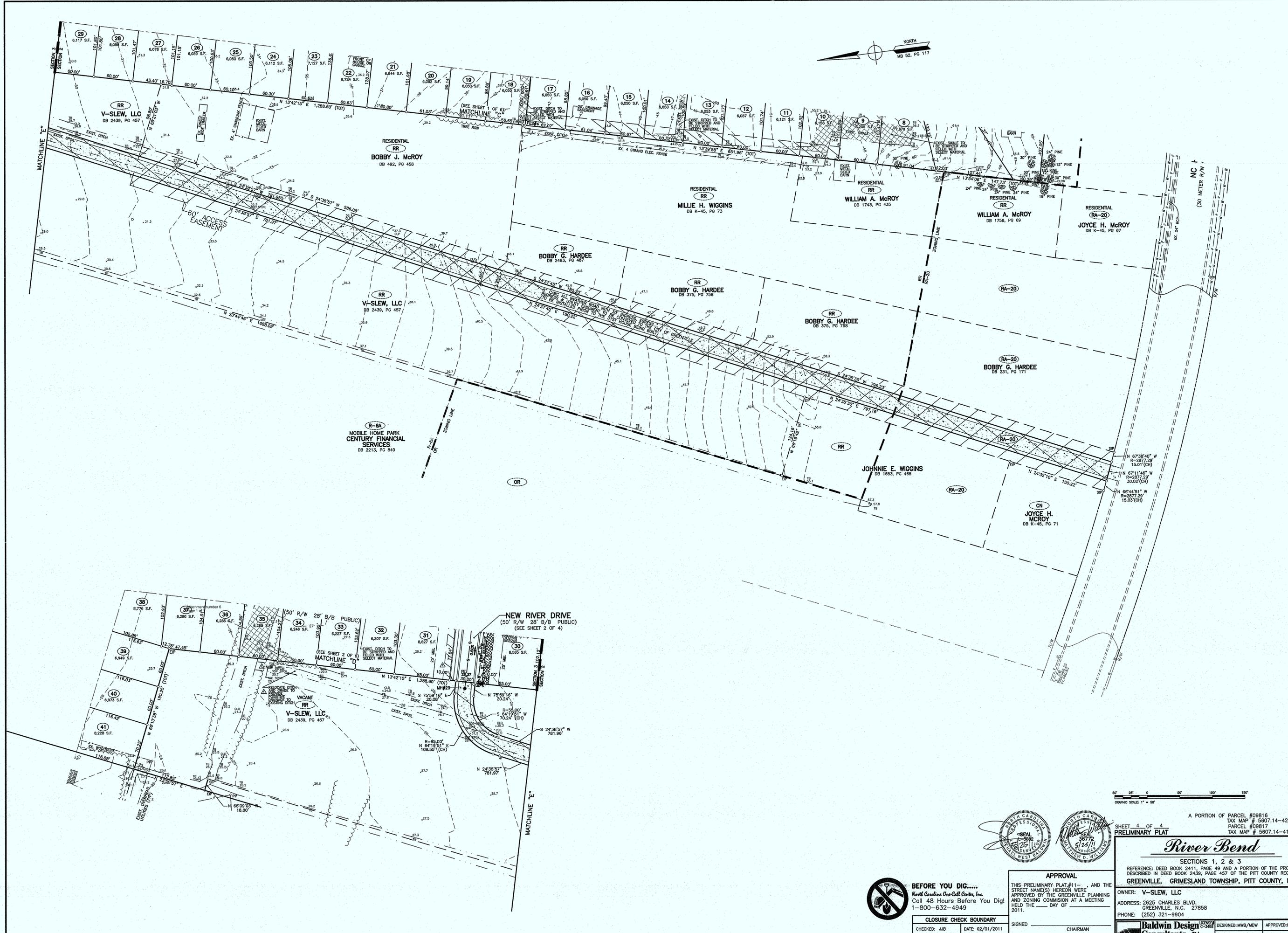
OWNER: V-SLEW, LLC
ADDRESS: 2625 CHARLES BLVD.
GREENVILLE, N.C. 27858
PHONE: (252) 321-9904

REVISD: 06/10/2011 (CITY COMMENTS)(LUB)
CONTINUE DRAINAGE EASEMENT TO BLUE LINE STREAM
04/14/2011 (CITY COMMENTS)(LUB)
SHOW EMERGENCY VEHICLE TURNAROUNDS/EASEMENTS
ADDITIONAL ELECTRICAL EASEMENTS
DRAINAGE EASEMENT FOR POND OUTLET
ADDITIONAL POND MAINTENANCE EASEMENT
ADJUST POND FOR MAINTENANCE ACCESS



Baldwin Design Consultants, PA
DESIGN - LAND PLANNING - SURVEYING
2100 CROWELL DRIVE
GREENVILLE, NC 27603 252.756.1390

| | |
|-------------------|-------------------|
| DESIGNED: MWB/MDW | APPROVED: MWB/MDW |
| DRAWN: JAM/JUB | DATE: 03/21/2011 |
| CHECKED: MWB | SCALE: 1" = 50' |



A PORTION OF PARCEL #09816
 TAX MAP # 5507.14-42-6579
 PARCEL #09817
 TAX MAP # 5607.14-41-8569

River Bend
 SECTIONS 1, 2 & 3
 REFERENCE: DEED BOOK 2411, PAGE 49 AND A PORTION OF THE PROPERTY DESCRIBED IN DEED BOOK 2439, PAGE 457 OF THE PITT COUNTY REGISTRY GREENVILLE, GRIMESLAND TOWNSHIP, PITT COUNTY, N.C.

OWNER: V-SLEW, LLC
 ADDRESS: 2625 CHARLES BLVD.
 GREENVILLE, N.C. 27858
 PHONE: (252) 321-9904

Baldwin Design Consultants, PA
 DESIGN: MMB/MDW APPROVED: MMB/MDW
 DRAWN: JAM/JUB DATE: 03/21/2011
 CHECKED: MMB SCALE: 1" = 50'



APPROVAL
 THIS PRELIMINARY PLAT, #11-... AND THE STREET NAME(S) HEREON WERE APPROVED BY THE GREENVILLE PLANNING AND ZONING COMMISSION AT A MEETING HELD THE ___ DAY OF 2011.

SIGNED _____ CHAIRMAN
 SIGNED _____ CITY PLANNER

BEFORE YOU DIG....
 North Carolina One-Call Center, Inc.
 Call 48 Hours Before You Dig!
 1-800-632-4949

CLOSURE CHECK BOUNDARY
 CHECKED: JJB DATE: 02/01/2011
GRADE CHECK
 CHECKED: MOW DATE: 02/25/2011



City of Greenville, North Carolina

Meeting Date: 6/21/2011
Time: 6:30 PM

Title of Item: Petition to close a portion of West Gum Road

Explanation: Perdue Agri Business is requesting to close a ten (10) foot strip of West Gum Road (right of way reduction) running along the northern right of way of West Gum Road from Julie Street to Seaboard Coastline Railroad right of way.

Perdue Agri Business removed and replaced a silo on the property adjacent to W. Gum Road. The silo removed was considered an existing non-compliant structure per the zoning ordinance. Construction of the replacement silo was started without the owner first obtaining a building permit. This issue was discovered by the City's Building Inspections Division and a stop work order issued. The owner then applied for a building permit which also involves the issuances of a zoning compliance. A zoning compliance could not be issued because the replacement silo even though on the same foundation of the removed structure does not comply with the front yard setback. Several options were considered to resolve this issue. The option selected is to reduce the right of width of the street. This reduction in right of way will make the silo compliant with the zoning ordinance.

A drainage and utility easement will be retained by the City and GUC over that area in the street right of way that is to be closed.

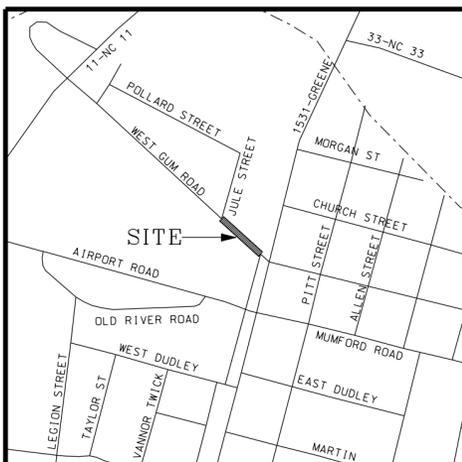
Fiscal Note: The City will not incur any costs associated with this street closing.

Recommendation: Forward the request to City Council with a positive recommendation to close a ten (10) foot strip of West Gum Road (right of way reduction) running along the northern right of way from Julie Street to Seaboard Coastline Railroad.

Viewing Attachments Requires Adobe Acrobat. [Click here](#) to download.

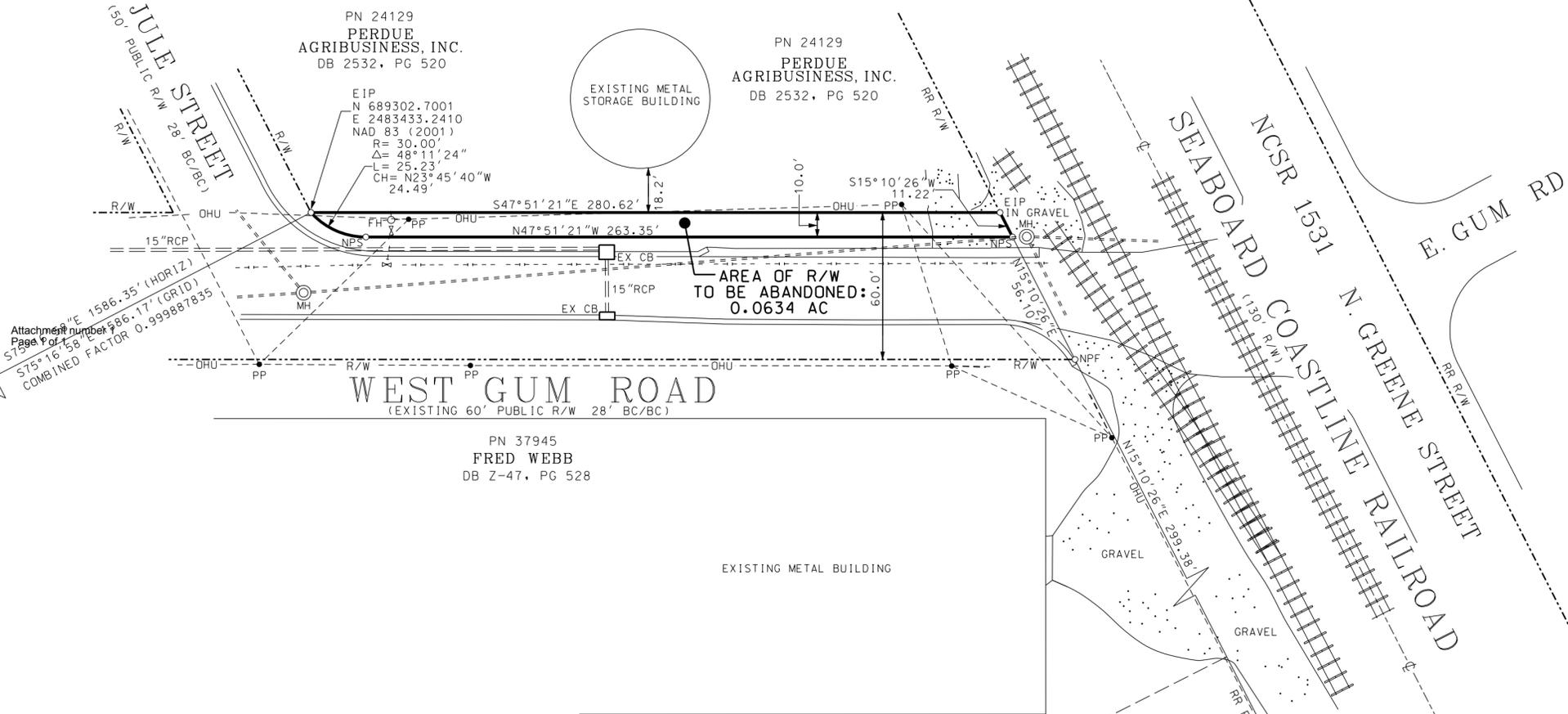
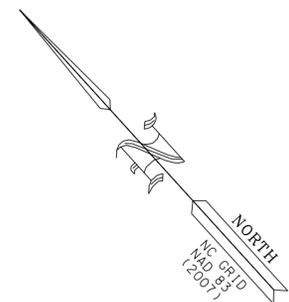
Attachments / click to download

 [West Gum Rd Street Closing](#)



VICINITY MAP
N.T.S.

- LEGEND:**
- EIP= EXISTING IRON PIPE
 - R/W= RIGHT-OF-WAY
 - NPS= NO POINT SET
 - NPF= NO POINT FOUND
 - BC= BACK OF CURB
 - HORIZ= HORIZONTAL
 - OHU= OVERHEAD UTILITY
 - PP= POWER POLE
 - RR= RAILROAD
 - NGS= NATIONAL GEODETIC SURVEY
 - C= CENTERLINE
 - = NOT TO SCALE
 - N.T.S.= NOT TO SCALE



**PRELIMINARY DRAWING
NOT FOR RECORDATION
CONVEYANCES OR SALES**

REVIEW OFFICER CERTIFICATE

NORTH CAROLINA, PITT COUNTY
I, _____,
REVIEW OFFICER OF PITT COUNTY,
CERTIFY THAT THIS MAP OR PLAT TO
WHICH THIS CERTIFICATION IS AFFIXED
MEETS ALL STATUTORY REQUIREMENTS
FOR RECORDING.

REVIEW OFFICER _____
DATE _____

SURVEYOR'S CERTIFICATE

I, HOWARD O. BARNUM, CERTIFY
THAT THIS MAP IS OF A
SURVEY OF ANOTHER CATEGORY
AND IS AN EXCEPTION TO THE
DEFINITION OF A SUBDIVISION.
THIS MAP IS OF A SURVEY FOR
A PARTIAL ROAD CLOSING.

PROFESSIONAL LAND SURVEYOR _____

I, HOWARD O. BARNUM, CERTIFY THAT UNDER MY
DIRECTION AND SUPERVISION THIS MAP WAS DRAWN
FROM AN ACTUAL FIELD SURVEY, THAT THE RATIO
OF PRECISION IS 1: 72,536, THAT THE MONUMENTS
HAVE BEEN PLACED AS SHOWN, THAT THIS MAP
WAS PREPARED IN ACCORDANCE WITH G.S. 47-30
AS AMENDED.

WITNESS MY HAND AND SEAL THIS _____ DAY
OF _____, _____.

PROFESSIONAL LAND SURVEYOR L-3634

MAYOR'S CERTIFICATE

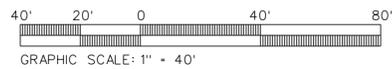
THIS IS TO CERTIFY THAT THE CITY COUNCIL
OF THE CITY OF GREENVILLE HAS PASSED A
RESOLUTION TO CLOSE A PORTION OF WEST
GUM ROAD.

RESOLUTION NO. _____

SIGNED _____
MAYOR

SIGNED _____
CITY CLERK

Item # 2



| | |
|--|--|
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ABANDONMENT MAP FOR A PORTION OF <h2 style="text-align: center;">WEST GUM ROAD</h2> | |
| GREENVILLE, GREENVILLE TOWNSHIP, PITT COUNTY, NORTH CAROLINA | |
| CLIENT: PERDUE AGRIBUSINESS, INC. ADDRESS: 242 PERDUE ROAD COFIELD, NC 27922 PHONE: W.E. "BILLY" MIZELLE, JR. (252) 209-9261 | SURVEYED: HOB/DTB DRAWN: DTB APPROVED: HOB DATE: 4-18-11 SCALE: 1" = 40' SHEET 1 OF 1 |
| STROUD ENGINEERING, P.A. 107B COMMERCE ST. GREENVILLE, NC (252) 756-9352 LICENSE NO. C-0647 | |

PROJECT NO. LS718~001



City of Greenville, North Carolina

Meeting Date: 6/21/2011
Time: 6:30 PM

Title of Item: Presentation on the ECU Master Plan

Explanation: In an effort to foster greater levels of communication and understanding between the City and East Carolina University related to the University's plans for further growth and development, the Community Development Department invited Vice Chancellor for Campus Operations, Bill Bagnell, to make a presentation on the ECU Master Plan to the Planning and Zoning Commission.

Fiscal Note: There is no fiscal impact to the City associated with this item.

Recommendation: Listen to the presentation on the ECU Master Plan by Associate Vice Chancellor for Campus Operations, Bill Bagnell.

Viewing Attachments Requires Adobe Acrobat. [Click here](#) to download.

Attachments / click to download



City of Greenville, North Carolina

Meeting Date: 6/21/2011
Time: 6:30 PM

Title of Item: Presentation on the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan

Explanation: The Bicycle and Pedestrian Master Plan provides the Greenville Urban Area Metropolitan Planning Organization and its members (City of Greenville, Town of Ayden, Town of Winterville, Village of Simpson, and Pitt County) recommendations for improving the pedestrian and bicycle environment in the urban area. The plan accomplishes this goal by providing recommendations for infrastructure improvements, policy changes, and by providing a reference manual for implementing these changes.

The plan:

- Evaluates existing conditions;
- Recommends a bicycle and pedestrian network;
- Recommends standards and guidelines for the development of bicycle and pedestrian facilities;
- Provides a prioritized list of recommended strategic and low cost improvements;
- Recommends changes to policies to support bicycling and walking as an alternate form of transportation; and
- Recommends programs, maintenance requirements and funding sources.

The development of the Bicycle and Pedestrian Master Plan began in August, 2010. Greenways, Inc. was the planning consultant selected to develop the master plan. They specialize in the development of non-motorized transportation plans.

Public outreach efforts included 6 public information workshops, Facebook and Twitter updates, a “Community Walk” online-mapping tool available for public use, along with a public comment and review period for the draft plan and network. Over 700 people submitted comment forms and 175 people attended public workshops.

A Resolution adopting the Plan was approved by the Greenville City Council on February 10th, 2011. The MPO's Transportation Advisory Committee adopted a similar Resolution on March 17th, 2011.

NOTE: Three Sections of the Plan (Executive Summary, Pedestrian Network Recommendations, and Bicycle Network Recommendations) have been included as background information for the Commission's review. The full plan is available on-line at http://greenways.com/greenvillenc_download.html.

Fiscal Note: The Plan is completed and adopted. Any fiscal impact associated with Plan Implementation will be determined upon specific policy changes.

Recommendation: Listen to Plan Presentation by City Transportation Planner, Daryl Vreeland; Direct Staff regarding any additional information the Commission desires.

Viewing Attachments Requires Adobe Acrobat. [Click here](#) to download.

Attachments / click to download

-  [Executive Summary of Bicycle and Pedestrian Master Plan](#)
 -  [Pedestrian Network Recommendations](#)
 -  [Bicycle Network Recommendations](#)
-



EXECUTIVE SUMMARY

*Executive Summary
Contents*

Overview

The Process

Vision Statement

Measurable Goals

*Health and Wellness
& Alternative
Transportation*

*Assessing Needs and
Opportunities*

Bicycle Network

Pedestrian Network

*Bicycle and Pedestrian
Programs*

*Implementation:
Realizing the Vision*

*Project Cutsheets and
Development*

*Policies/Administrative
Action Steps*

Additional Resources

Overview

In summer 2010, the City of Greenville and the Greenville Urban Area Metropolitan Planning Organization (MPO) began developing a Bicycle and Pedestrian Master Plan. The purpose of this Bicycle and Pedestrian Master Plan is to provide clear priorities, tools and programs for improving the bicycle and pedestrian environments in the Greenville urban area, which includes the City of Greenville, Town of Ayden, Town of Winterville, Village of Simpson, and portions of Pitt County.

Nationally, such issues as unstable gas prices, environmental concerns, and a growing interest in health and wellness are demonstrating the need for bicycle and pedestrian-friendly cities. On a local level, this Plan represents a strong commitment to take on such issues, translating them into affordable personal mobility, carbon-free transportation, and healthy, active lifestyles for Greenville urban area residents. The chief outcome of this Plan will be an integrated, seamless transportation framework to facilitate walking and biking as viable transportation alternatives throughout the region.

The development of this Plan included an open, participatory process, with area residents providing input through public workshops, stakeholder meetings, the project Steering Committee, social media, and an online comment form.

This Plan features:

- A thorough analysis of current conditions for walking and biking in Greenville
- A comprehensive recommended bicycle and pedestrian network
- Standards and guidelines for the development of bicycle and pedestrian facilities
- A prioritized list of recommended strategic and low-cost improvements
- Integration of bicycle and pedestrian policy into codes and ordinances
- Recommendations for programming, maintenance, and funding



The Planning Process

The planning process began in August 2010 and concludes in early 2011. This diagram illustrates the main steps of the planning process. Public participation (through workshops, steering committee meetings, and the online survey) plays a key role in plan development.



Vision Statement

This Bicycle and Pedestrian Master Plan will expand opportunities for transportation, recreation, and healthy lifestyles throughout the region. Our streets, sidewalks, and trails will be designed and maintained to allow safe interaction between all modes of travel. In addition to physical improvements for walking and bicycling, this plan will also promote connectivity, accessibility, and safety for pedestrians and bicyclists through programs and policies that focus on education, encouragement, and enforcement.

Measurable Goals

The ultimate goal is for this Plan to be fully implemented within a 30-year time frame.

Bi-annual meetings should be held for the evaluation of progress on each of the following goals, including an official plan update in 2016. During each evaluation, City and MPO staff and members of the Bicycle and Pedestrian Advisory Commission (BPAC) should identify steps to be taken before the next evaluation.

1. Continually reduce the number of bicycle and pedestrian accidents per year.
2. Increase the miles of bike lanes as a percent of total regional roadways.
3. Complete five high priority bicycle and pedestrian projects by 2012 and complete the top 10 bicycle and pedestrian projects by 2014.
4. Earn a designation for Greenville as a ‘Bicycle-Friendly Community’ through the League of American Bicyclists by 2012.
5. Earn designations for Greenville, Winterville, Ayden, and Simpson as a ‘Walk-Friendly Communities’ through the Pedestrian & Bicycle Information Center by 2014.
6. Double the 2000 Census bicycle and pedestrian commute rate by 2016.
7. Launch or participate in three new bicycle or pedestrian programs in three years:

A) Bike-Walk Education and Encouragement Programs

- Continue to work with the Bicycle and Pedestrian Advisory Commission, specifically in their implementation of this plan.
- Produce online and hardcopy walking, bicycle, and transit maps and obtain a variety of educational materials for distribution and online display that cover bicycle and pedestrian safety, etiquette, and rules and regulations.
- Engage and partner with multiple Greenville area schools to become involved with national Safe Route to School programs and funding opportunities.

B) Bicyclist, Pedestrian, and Motorist Enforcement Program and Internal Training

- Provide officers with an educational brochure to be given out during pedestrian and bicycling-related citations and warnings.
- Offer training for planning, public works, engineering, and law enforcement staff that focuses on walking and bicycling-related issues.

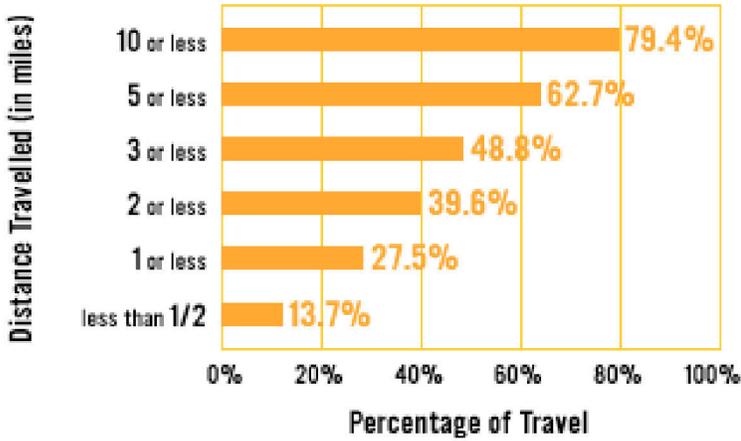
C) Bicycle Facility Development Program

- Hire a full-time multi-modal planner for the MPO.
- Establish regular CIP and TIP funding for roadway retrofits and restriping.
- Integrate bicycle-related improvements with scheduled roadway maintenance and restriping projects.
- Add bicycle parking at 50 key locations throughout the region.



Health and Wellness & Alternative Transportation

Daily Trip Distances



Above: By walking or biking for our trips that are less than 2 miles, we could eliminate 40% of local car trips.



It is well documented that an active community is a healthy community. The declining health of America's population is alarming. Study after study affirms that sedentary lifestyles and prolonged periods of inactivity are major deterrents to health, leading to a rise in the occurrence of cardiovascular disease, hypertension, diabetes, osteoporosis and some cancers. Land use and transportation are quickly becoming areas of focus as communities strive to become more walkable, bikeable and accessible. Transportation safety and enhanced mobility along with the pattern and density of development are proven corollaries to community health and wellness.

Safer roadways, greenways, and improved facilities for pedestrians and bicyclists, aid in safety, improve the environment, and encourage more people to enter the outdoors for transportation, recreation, and day-to-day activities.



3

Utility bike for everyday trips, like grocery shopping (image from www.yubabike.com)

Item # 4

Assessing Needs and Opportunities

FIELDWORK AND ANALYSIS

The consultant team conducted an in-depth analysis, photo inventory, and evaluation of current conditions for biking and walking:

- 71 intersections were inventoried (including photos) for pedestrian crossing facilities. Pedestrian treatments were recommended for each intersection.
- Over 200 miles of arterial, collector, and some local roads were analyzed and measured for possible on-road bicycle facilities.
- Special attention was paid to school areas, Downtown areas, roadway crossings, and key destinations.



Analysis included an on-the-ground evaluation.



Above: Examples of good existing infrastructure.

Below: Opportunities for improvement.



GEOGRAPHIC INFORMATION SYSTEMS (GIS)

GIS data for existing trails, sidewalks, and bicycle facilities was supplemented with aerial photography, transportation data, trip attractors, schools, parcels, waterways, etc. to provide a comprehensive map and tool for developing the recommended bicycle and pedestrian networks. These data resources revealed numerous gaps in the existing sidewalk system and opportunities for new facilities.

EXISTING PLANS

Numerous plans, guidelines, and strategies have addressed issues relating to bicycle and pedestrian facilities in the Greenville Urban Area. They have addressed land use, alternative transportation, roadway design, open space, parks and recreation, and other initiatives. Special consideration was given to current community plans, policies, and documents to better integrate this Plan into the fabric of area planning efforts, and to incorporate the insights, visions, and findings of past plans as appropriate.

PUBLIC INPUT

The consultant team developed numerous products to facilitate public comments that included:

- An online comment form and hardcopy companion
- Project website with links to project information
- Facebook page, Twitter page & Community Walk map input website
- Flyers for public workshops
- Newsletters with project updates

A series of public workshops were held in October and December 2010 to receive input into the process.

| How important to you is improving walking and biking conditions in the Greenville urban area? | | Response Percent | Response Count |
|---|--|------------------|----------------|
| Very important | | 88.7% | 638 |
| Somewhat important | | 9.5% | 68 |
| Not important | | 1.8% | 13 |

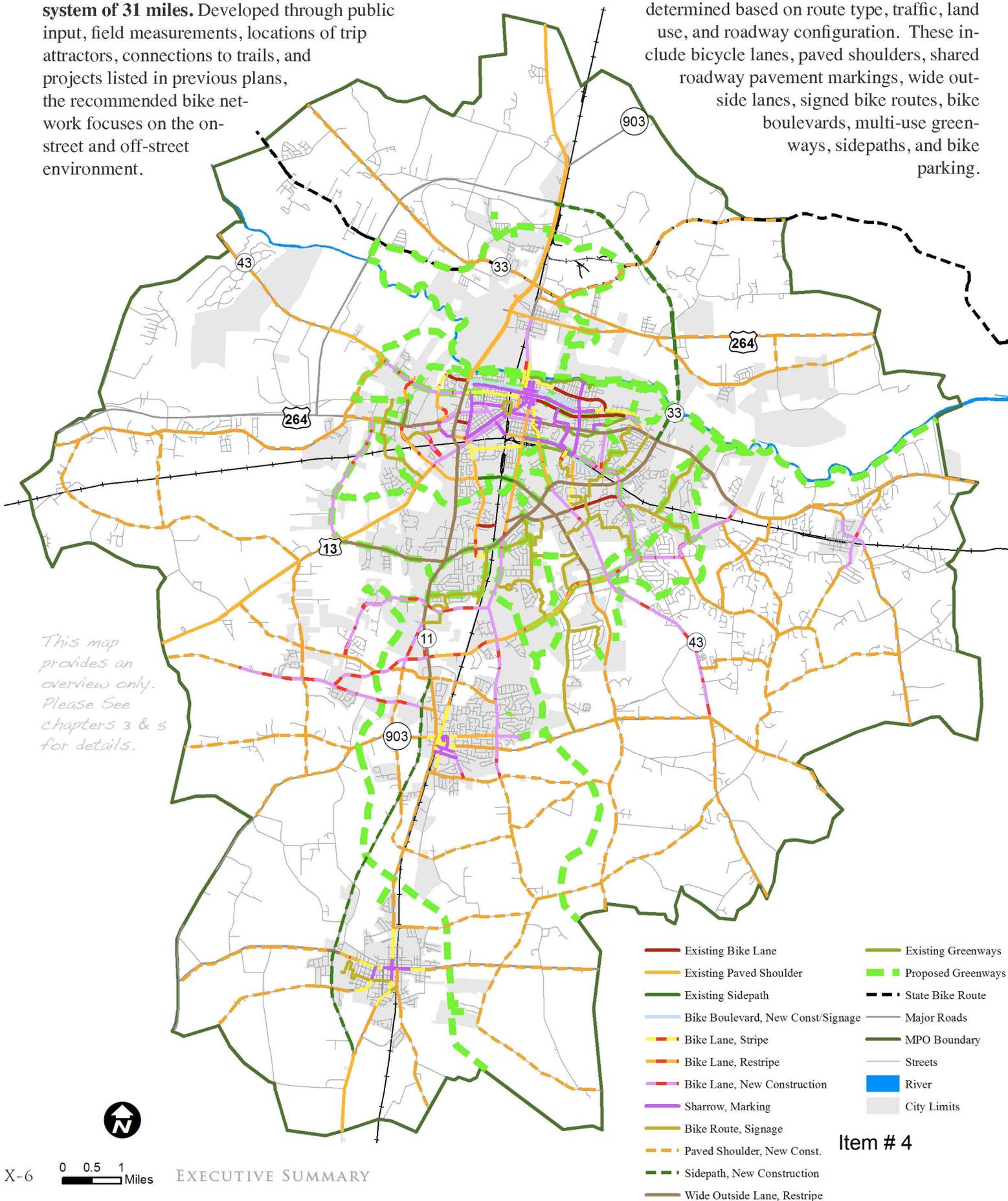
Above: More than 700 people responded to the comment form, the large majority indicating the importance of this Plan.

Item # 4

Bicycle Network

Approximately 286 miles added to current system of 31 miles. Developed through public input, field measurements, locations of trip attractors, connections to trails, and projects listed in previous plans, the recommended bike network focuses on the on-street and off-street environment.

Several facility types are recommended and determined based on route type, traffic, land use, and roadway configuration. These include bicycle lanes, paved shoulders, shared roadway pavement markings, wide outside lanes, signed bike routes, bike boulevards, multi-use greenways, sidepaths, and bike parking.

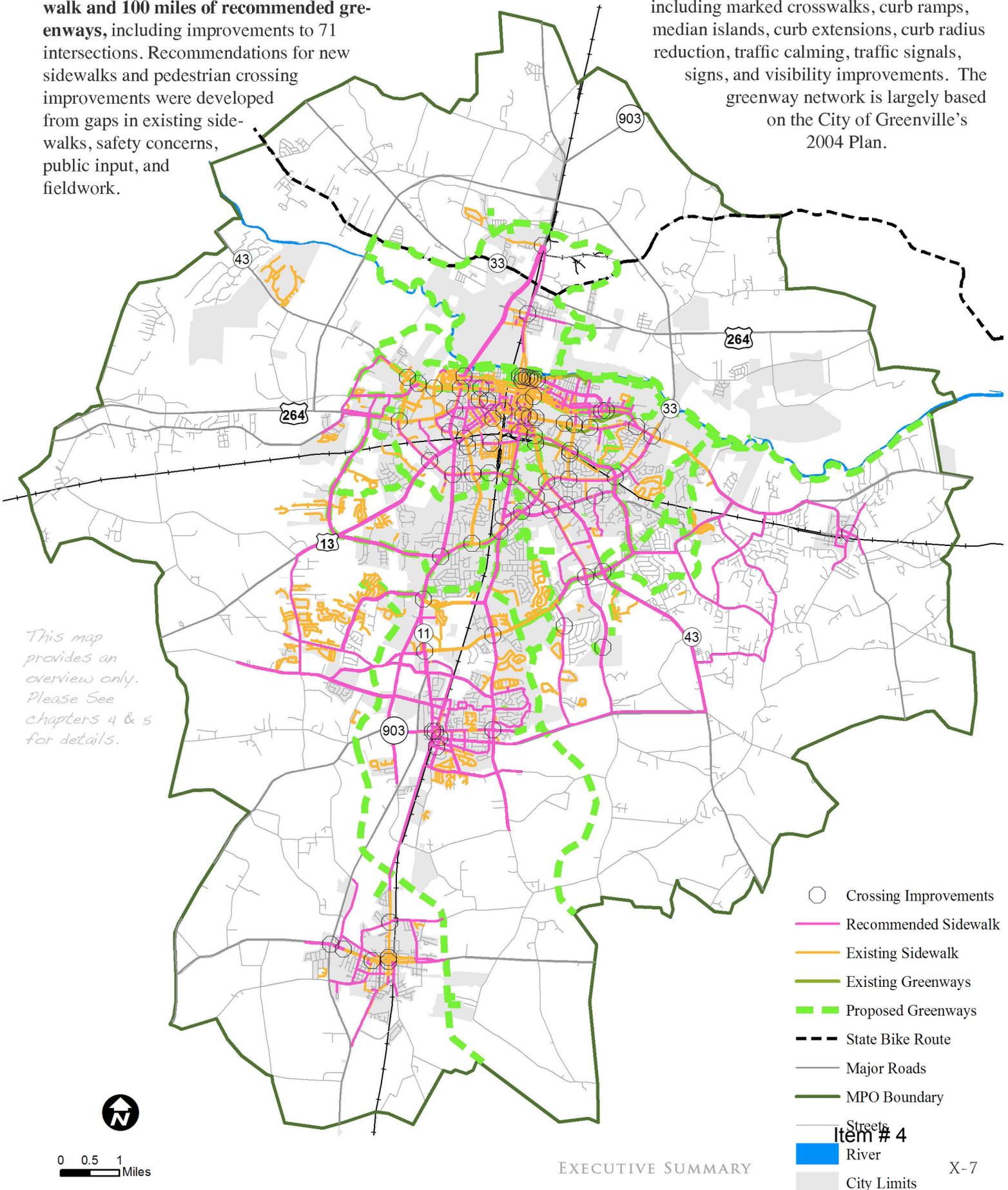


Item # 4

Pedestrian Network

Approximately 190 miles of recommended sidewalk and 100 miles of recommended greenways, including improvements to 71 intersections. Recommendations for new sidewalks and pedestrian crossing improvements were developed from gaps in existing sidewalks, safety concerns, public input, and fieldwork.

A combination of treatments are considered including marked crosswalks, curb ramps, median islands, curb extensions, curb radius reduction, traffic calming, traffic signals, signs, and visibility improvements. The greenway network is largely based on the City of Greenville's 2004 Plan.



This map provides an overview only. Please See chapters 4 & 5 for details.

- Crossing Improvements
- Recommended Sidewalk
- Existing Sidewalk
- Existing Greenways
- - - Proposed Greenways
- - - State Bike Route
- Major Roads
- MPO Boundary
- Streets
- River
- City Limits



Bicycle and Pedestrian Programs

Creation of a successful Bicycle and Pedestrian Network will involve more than facility improvements. The long-term success of the network will also depend on related education, encouragement, and enforcement programming. There are many program groups and resources already working in the region including the City of Greenville Bicycle and Pedestrian Advisory Commission (BPAC), East Carolina Injury Prevention Program (ECIPP), Safe Communities Coalition of Pitt County, Safe Kids Pitt County, Friends of Greenville Greenways (FROGGS), and others that are working to encourage walking and bicycling. These groups should work together with the MPO and its municipalities to launch additional programs, access program funding, and reach further into residents of each community.

It will be critical for the Greenville Urban Area and its partners to:

- inform pedestrians, bicyclists, and motorists about safe behaviors in a multimodal roadway environment,
- enforce laws that make pedestrian and bicycle travel safer,
- encourage people of all ages and abilities to use the bicycle and pedestrian facilities, and
- promote and develop programmatic activities that encourage physical, activity and healthy living.

Key recommended programs include:

- continue Safe Routes to School initiatives,
- Bicycle-friendly community status,
- Walk-friendly community and university status,
- a user-friendly Bicycle and Pedestrian map and website that features existing routes and related information,
- targeted enforcement in locations with heavy amounts of pedestrians or bicyclists,
- internal staff training, and
- Bike/Walk to Work Day events.

These programs will enhance the overall health and wellness of the community by promoting, teaching, and enforcing safety.



1. On-road bicycle skills workshop
2. Pedestrians at ECU.
3. Cyclist on W. Arlington Blvd.
4. Bicycle Rodeo - an education/encouragement event **Item # 4**

Implementation: Realizing the Vision

Implementing the recommendations within the Bicycle and Pedestrian Master Plan will require leadership on the part of the Greenville Urban Area and its municipalities, and a dedication to the development of a bicycle and pedestrian friendly community. The Greenville Urban Area has several opportunities that can help propel implementation:

- First, is the extensive grassroots interest among citizens, local groups, municipalities, and East Carolina University that can provide a voice and support for the Plan. For example, the City of Greenville BPAC is one of the first of its kind in the State of North Carolina. Also, almost 1,000 people participated during this planning process indicating a strong interest at the resident level.
- A second opportunity is building upon Greenville’s great system of existing greenways, sidewalks, and destinations.
- A third opportunity is to take advantage of the region’s growth by developing facilities as part of future development and construction. These opportunities provide a base and starting point for development and implementation.

Implementing the recommendations of this Plan will require a combination of funding sources that include local, state, federal, and private money. It will be necessary for the Greenville Urban Area to secure funding to undertake the short-term, top priority projects while simultaneously developing a long-term funding strategy to allow for continued development of the overall system. Community foundations and revenue-generating programs for bicycle and pedestrian facilities should also be utilized to raise funds for development and maintenance.

Below: Steering Committee meetings and public workshops.



Above: Cyclist on Elm near the Green Mill Run Greenway.



Project Cutsheets and Development

Bicycle and pedestrian facilities were prioritized by their ability to provide connectivity, serve underserved areas, and improve safety in areas of concern. Higher priorities were also assigned to facilities that could be installed at a lower cost. It is recommended that these facilities be built first to have an immediate impact on the Greenville Urban Area. However, all recommended bicycle and pedestrian facilities in this Plan should be built as opportunity arises (such as roadway reconstruction or new development).

A variety of tools provide the Greenville Urban Area MPO with a quick reference for facility development. Approximately 20 individual cutsheets for both high priority on-road bicycle facilities and sidewalk improvements have been developed for the City of Greenville. Top priority project maps and project descriptions have been developed for Pitt County, Town of Winterville, Town of Ayden, and Village of Simpson as well. Pilot projects to address critical needs were also developed to provide guidance.

Roadway construction and reconstruction projects offer excellent opportunities to incorporate facility improvements for non-motorized modes. It is much more cost-effective to provide bicycle and pedestrian facilities in conjunction with these projects than to initiate the improvements later as “retrofit” projects. Approximately 40 miles of low-cost “retrofit” projects have been identified for on-road bicycle lanes or sharrows through simple striping and restriping procedures. Roadway design guidelines are provided for project development and are important policy documents because they describe the types of facilities that should be provided during construction and reconstruction projects.



Existing conditions at the intersection of Greenville & Charles.



Photo visualization showing high visibility crosswalks and pedestrian activated countdown signals.



Existing conditions along W. 5th Street.

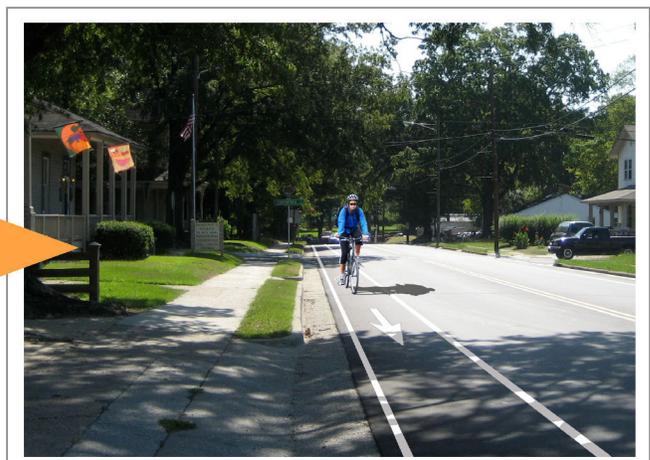


Photo visualization showing the addition of a bike lane.

Item # 4

Policy/Administrative Action Steps

The implementation chapter provides a table of 57 action steps divided into eight task categories, and three timeframe phases. The categories of steps are: 1) Local adoptions, 2) Infrastructure improvements, 3) Local and regional coordination, 4) Programs, 5) Policies, 6) Further studies, 7) Staffing needs, and 8) Evaluation and databases. This action-oriented guide should be used to implement the recommendations of this Plan. Some of the most important steps are described below:

1

ADOPT THIS PLAN

The most important action step for the Greenville Urban Area is to adopt, publicize, and champion this Plan at the City, County, MPO, and local municipality levels. This should be considered the first step in implementation. Through adoption of this document and its accompanying maps as the official bicycle and pedestrian plan, the MPO and its municipalities will be better able to shape transportation and development decisions so that they fit with the goals of this Plan. Most importantly, having an adopted Plan is extremely helpful in securing funding from state, federal, and private agencies. Adopting this Plan does not commit the MPO, County, and its municipalities to dedicate or allocate funds, but rather indicates the intent to implement this Plan over time, starting with these key action steps.

2

CREATE AN IMPLEMENTATION STRATEGY

The Greenville Urban Area MPO should develop an internal strategy to implement the Bicycle and Pedestrian Master Plan. As a part of this strategy, the MPO should identify specific individuals and program areas that will be responsible for implementing the various aspects of the Plan from day-to-day efforts to long range goals. The MPO should add a full-time Bicycle and Pedestrian Planner position to focus on the implementation of this Plan. Each municipality should assign an existing position to focus on bicycle and pedestrian-related issues and become knowledgeable about the Bicycle and Pedestrian Master Plan. The MPO should also work closely with the City of Greenville Bicycle and Pedestrian Advisory Commission (BPAC) to assist in implementation. The BPAC should provide a communications link between the citizens and the City of Greenville, as well as an avenue for reviewing/revising project priorities.

3

CONSIDER ADOPTION OF A “COMPLETE STREETS” POLICY

There is a growing national trend towards integrating bicycling, walking and transit as a routine element in roadway projects. This movement has developed under the name of “Complete Streets,” which is defined by the Complete the Streets Coalition as follows:

“Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.”

- www.completethestreets.org

By adopting a “Complete Streets” policy, the Greenville Urban Area commits to developing new roadways and reconstructing existing roadways to accommodate all users.



4

BECOME A BICYCLE FRIENDLY COMMUNITY (BFC)

The BFC campaign is an awards program that recognizes municipalities that actively support bicycling. A BFC provides safe accommodation for bicycling and encourages its residents to bike for transportation and recreation. Communities that are bicycle-friendly are seen as places with a high quality of life, and becoming a bicycle friendly community often translates into increased property values, business growth and increased tourism.

5

LAUNCH PROGRAMS

The Greenville Urban Area should continue, expand and develop education, encouragement, and enforcement programs, including the Safe Routes to School program. These programs will bring increased visibility to the process and educate the public about walking and biking safety.

6

BEGIN TOP PRIORITY PROJECTS

Top priority projects identified during this study provide an immediate impact where there is need. The on-road bike priority projects are low-cost and “shovel ready.” The MPO should establish a process of incorporating bicycle and pedestrian network recommendations during future funded roadway improvements.

7

CONDUCT FURTHER STUDIES

This plan is largely a guidance document that has identified areas of need in the Greenville Urban Area. Further studies will address these needs in a more specific manner. Additional recommended studies are: a bicycle parking study, bus stop access improvement study, pedestrian and bicycle railroad crossing study, traffic calming and speed limit reduction study, driveway access management study, and an update to the City of Greenville Greenways Master Plan.

8

EVALUATE PROGRESS

The Greenville Urban Area MPO, its partners, and municipalities should monitor implementation progress on a regular basis. This will ensure continued momentum and provide opportunities for updates and changes to process if necessary. Evaluation methods include quarterly meetings, the development of an annual performance report, update of bicycle and pedestrian infrastructure databases, pedestrian and bicycle counts, assessment of new facilities, and plan updates.

Additional Resources

In addition to these strategies and tools, the Bicycle and Pedestrian Master Plan includes other implementation resources. A list of funding sources is included to help take advantage of available options. Design guidelines for bicycle, pedestrian, and trail facilities are provided to meet facility development needs and serve as a guide for minimum standards. Policy recommendations are geared at updating language in local codes and planning documents to ensure that bicycle and pedestrian needs are addressed in future development. Finally, the plan also features a detailed action steps table that will guide implementation of the plan.



Cyclist on Item # 4 Fern.



Chapter Contents

Overview

Methodology

Pedestrian Network Facility Types

Crossing Improvement Recommendations

Long-term Recommendations

Pedestrian Network Maps

Overview

The proposed pedestrian network is a series of pedestrian improvements that creates a more connected, comprehensive system. It has been developed from past planning efforts, public input, committee input, field analysis, and geographic information systems (GIS) mapping. This chapter presents the methodology, recommended pedestrian network facility types, intersection improvement recommendations, and pedestrian network maps.

Successful development of the pedestrian network will require a long-term, cooperative effort between the City of Greenville, Town of Winterville, Town of Ayden, Village of Simpson, Pitt County, and NCDOT. Cooperative effort is important because many key recommendations come on roadways that are owned and maintained by different entities.

Methodology

The guiding philosophy in devising the network is the hubs and spokes model. Pedestrian corridors (spokes) should connect to trip attractors (hubs), such as parks, schools, Downtown, shopping centers, and other pedestrian corridors. The network then becomes a practical solution for pedestrian connectivity (see diagram at below).

Fieldwork included an examination of conditions at major intersections, conditions along primary corridors, conditions at pedestrian hubs, conditions near schools, and a consideration of gap connectivity. Map discussion and analysis was conducted at steering committee meetings and public meetings to pinpoint specific areas in need of pedestrian improvements.



The 'hubs and spokes' model conceptually illustrates how key destinations can be linked through various types of pedestrian facilities.

Item # 4

Pedestrian Network Facility Types

The Proposed Pedestrian Network for the Greenville Urban Area consists of three chief types of projects:

SIDEWALK PROJECTS

The recommended sidewalks aim to expand upon the existing network of sidewalks to provide a more connected system that connects destinations along roadways. 190 miles of new sidewalk are recommended for the Greenville Urban Area.

GREENWAY PROJECTS

The recommended greenways aim to expand upon a comprehensive off-road system that utilizes stream corridors and easements. Approximately 100 miles of greenway are recommended (These were largely derived from the 2004 Greenville Greenway Master Plan).

CROSSING IMPROVEMENTS

The crossing improvements aim to improve existing crossing facilities or create new crossing facilities at intersections and at mid-blocks. These improvements are critical in order to maintain a safe, connected system throughout the City.

In addition to these three chief capital improvement efforts, a comprehensive approach geared to walkability should be taken that includes such elements as traffic calming, driveway access management, and signage. It is recommended that a separate study be conducted to determine traffic calming needs and driveway access management needs throughout the Greenville Urban Area. Traffic calming can dramatically increase safety, even without the introduction of sidewalks. See Appendix B: Design Guidelines for more information on these types of treatments.

Crossing Improvement Recommendations

Most intersections in the Greenville Urban Area need some form of improvement. (71 intersections were analyzed in more detail with recommendations provided). Some of the treatments recommended in this chapter have been proven to reduce crashes, as shown in the 2007 FHWA Crash Reduction Factors Study (<http://safety.fhwa.dot.gov>). The table below shows some typical countermeasures and associated crash reduction factors from that study.

TABLE 4.1 PEDESTRIAN CRASH REDUCTION FACTORS

| Countermeasure | Crash Reduction Factor |
|---|------------------------|
| Install sidewalk | 74% |
| Install pedestrian countdown signal heads | 25% |
| Install pedestrian refuge islands | 56% |
| Improve/install pedestrian crossings | 25% |

Together these proposed facilities should be developed or improved to create a safe and connected pedestrian network throughout the Greenville Urban Area. On-road and off-road components should be integrated to provide a connected pedestrian transportation and recreation network. All pedestrian facility projects undertaken should aim to meet the highest standards possible when topography and right-of-way allows. Design guidelines in Appendix B provide detailed information regarding facility type, treatment, and proper placement.



Sidewalk construction on 5th Street in Greenville.



Typical crossing improvements include curb ramps, pedestrian-countdown signals, and marked crosswalks.

'Continental' striping for crosswalks is recommended for higher visibility



Item # 4

INTERSECTION RECOMMENDATION TABLES

Committee input, public input, and consultant fieldwork identified 71 key intersections in the Greenville Urban Area in need of improvement. These are by no means the only crossing improvements needed throughout the region. All intersections should meet standards provided in Appendix B: Design Guidelines. Where striping or restriping crosswalks is recommended, the new crosswalks should be high-visibility ‘continental’ striping, as shown at left.

All recommendations are developed at a planning level and will need a more detailed project-level review. The conclusions reached through further review may vary from those presented herein.

TABLE 4.1 INTERSECTION RECOMMENDATIONS

| Inter-section Project # | Road 1 | Road 2 | Needs Sidewalk (Y/N) | Stripe New Crosswalk (Y/N) | Restripe Crosswalk (Y/N) | Advanced Stop Lines (Y/N) | Replace Curb Ramps (Y/N) | Add New Curb Ramps (Y/N) | Median Refuge Islands (Y/N) | Curb Extensions; Curb Radius Reduction (Y/N) | Ped. Countdown Signal Heads (Y/N) | Restrict Right turn on Red | High-Visibility Ped Signs | In-Roadway Ped X-ing Signs | Remove Sight-Distance Obstruction | Ped. Underpass/Overpass | Details and Extra Notes |
|-------------------------|---------|------------|---|----------------------------|---|---------------------------|--------------------------|--------------------------|-----------------------------|--|-----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------------|-------------------------|---|
| 1 | Mumford | Greene | Y (across railroad tracks) | Y | - | Y | Y | Y | N | N | Y | N | N | N | N | N | Railroad crossing - separated space needed for pedestrians. Marked crosswalks needed across Mumford on E side, across Greene on S side |
| 2 | 1st | Reade | N | - | Y | - | - | Y (one) | N | N | N | N | Y | Y | N | N | Paint white stripes on outside of brick paver (so marked crosswalk stands out better); High-visibility marked crosswalks needed over 1st. Consider in-roadway signage and median island |
| 3 | 1st | Cotanche | N | - | Y | Y (Cotanche) | - | Y (two) | N | Y (with on-street parking on 1st) | N | N | Y | Y | N | N | Opportunity for curb extensions onto 1st (south side) where there is on-street parking |
| 4 | 1st | Evans | N | - | Y | - | - | Y (one) | N | Y (with on-street parking on 1st) | N | N | Y | Y | N | N | Opportunity for curb extensions onto 1st (south side) where there is on-street parking |
| 5 | 1st | Washington | N | - | Y | - | - | Y (all) | N | Y (with on-street parking on 1st) | N | N | Y | Y | N | N | Need curb ramps all corners. |
| 6 | 1st | Greene | N | - | Y | - | Y (with truncated domes) | N | N | N | - | N | N | N | N | N | As is, this is a well defined pedestrian crossing. Making marked crosswalks highly-visible is the key here. |
| 7 | 2nd | Greene | N | Y | N | Y (for 2nd) | Y (with truncated domes) | N | N | N | N | N | Y | N | N | N | Need high-visibility marked crosswalk all ways |
| 8 | 5th | Hickory | Y (1 side of Hickory and south side of 5th) | N | N | N | - | Y (for crossing Hickory) | Y | Y (with on-street parking) | N | N | N | Y | N | N | Utilize median island space for a refuge. Curb extension should be provided on school side. Crossing guard needed here. |
| 9 | 5th | Brownlea | Y | Y (all ways) | - | Y (for Brownlea) | Y | Y | N | N | N (unless signal added) | N | Y | N | N | N | Crossing guard needed here. With turn lanes and no stoplight, a signal may be warranted. A pedestrian activated signal or HAWK may also be considered |
| 10 | 5th | 10th | Y (all ways) | Y | - | Y | Y | Y | Y (for 5th) | N | Y | N | Y | N | N | N | This intersection is deficient for pedestrian needs. Sidewalk is a primary need here. Clear signage and crosswalks are needed. |
| 11 | 10th | Hwy 33 | Y | N | Y | - | Y | Y | N | N | Y | N | Y | N | N | N | Existing port chop island could be enhanced into a better pedestrian refuge. All crosswalks should be high-visibility. |
| 12 | 5th | Reade | N | N | Y (add white paint to outside of nearest) | - | - | Y | N | N | Y (add one crossing across Reade) | N | N | N | N | N | The existing port chop is nicely done as a refuge - curb ramps needed. A safer pedestrian space should be created on SW corner. |

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TABLE 4.1 INTERSECTION RECOMMENDATIONS (CONTINUED)

| Inter-section Project # | Road 1 | Road 2 | Needs Sidewalk (Y/N) | Stripes New Crosswalk (Y/N) | Restripe Crosswalk (Y/N) | Advanced Stop Lines (Y/N) | Replace Curb Ramps (Y/N) | Add New Curb Ramps (Y/N) | Median Refuge Islands (Y/N) | Curb Extensions; Curb Radius Reduction (Y/N) | Ped. Countdown Signal Heads (Y/N) | Restrict Right turn on Red | High-Visibility Ped Signs | In-Roadway Ped X-ing Signs | Remove Sight-Distance Observation | Ped. Underpass/Overpass | Details and Extra Notes |
|-------------------------|------------|---------------------------------|----------------------|-----------------------------|--------------------------|---------------------------|--------------------------|--------------------------|-------------------------------------|--|-----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------------|-------------------------|---|
| 13 | Evans | Reade | N | - | Y | - | Y | Y | N | N | - | - | N | N | N | N | Need consistent curb ramps with high-visibility marked crosswalk. |
| 14 | Evans | 10th | N | - | Y | - | Y | Y | N | - | N | N | N | N | N | N | Need consistent curb ramps with high-visibility marked crosswalk. |
| 15 | Evans | 14th | Y | - | Y | N | Y | Y | N | - | Y | N | N | N | N | N | Pedestrian signals needed and existing crosswalks are faded. Curb ramps missing and are needed. |
| 16 | Evans | Arlington | Y | Y | Y | Y | Y | Y | N | N | Y | N | N | N | N | N | Need sidewalk first. Marked crosswalk and signals are also needed. Curb ramps need improvement. |
| 17 | Evans | Red Banks | Y | Y | Y | Y | Y | Y | N (NE corner enhance pork chop) | N | Y | N | N | N | N | N | Sidewalk needed first. Marked crosswalks and signals also a priority. The existing pork chop space should be enhanced to a raised pedestrian refuge. |
| 18 | Evans | Greenville | Y | Y | Y | Y | Y | Y | N | N | Y | N | N | N | N | N | FURTHER ANALYSIS NEEDED AT THIS INTERSECTION. |
| 19 | Greenville | Hooker | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Very good pedestrian treatment at this intersection - no recommendations. |
| 20 | Greenville | Memorial | Y | Y | - | Y | N | Y | Y (on Memorial - enhance pork chop) | N | Y | N | N | N | N | N | Need sidewalk first. Not walkable at all right now. |
| 21 | Memorial | Fire Tower | Y | Y | - | Y | N | N | Y | N | Y | N | N | N | N | N | New truncated dome curb ramps in places. Utilize medians for refuges (long crossing distance); Need sidewalk on Memorial. Consider pedestrian overpass in future. |
| 22 | Fire Tower | Old Tar/Evans | Y | Y | Y | - | Y | N | Y | N | N | N | N | N | N | N | Make crosswalks highly-visible; Extend and formalize median refuge. |
| 32 | Memorial | 3rd | Y | N | Y | - | Y | Y | Y (across Memorial) | N | - | N | N | N | N | N | Best opportunity to extend grassy median as refuge into crosswalk. Enhance with high-visibility marked crosswalks. |
| 33 | Memorial | Greene, Greenfield | Y | Y | - | Y | - | - | Y (across Memorial) | N | Y | N | N | N | N | N | Sidewalk needed along with a safe crossing of railroad. |
| 34 | Memorial | Moye | Y | Y | Y | Y | Y | Y | N | N | Y | N | N | N | N | N | High-visibility marked crosswalks also needed across corner entrances/driveways. |
| 35 | Dickinson | Hooker, Moye | N | N | Y | - | N | N | N | N | - | N | N | N | N | N | Update crosswalks here. Many pedestrians and cyclists present. |
| 36 | Arlington | Dickinson | Y | Y | - | Y | Y | N | N | N | Y | N | N | N | N | N | This intersection needs significant improvement. Stop lines will need to move back with crosswalk addition. |
| 37 | Arlington | Memorial | Y | Y | - | Y | N | N | Y (on Memorial - enhance pork chop) | N | Y | N | N | N | N | N | This intersection needs significant improvement. Sidewalks are very important. With dedicated right turn lanes, a small pork chop island refuge would help slow traffic and help pedestrians. |
| 38 | Arlington | Hooker | Y | N | Y | - | N | N | Y (on Hooker) | N | - | N | N | N | N | N | Crosswalk should be highly-visible. Create a refuge where small median island is already located. One push button for pedestrian signal is located in an inaccessible location and should be removed. |
| 39 | Arlington | Rose High - Evans Park Midblock | Y | - | Y | N | N | Y | Y | - | - | - | Y | N | N | N | Need to add pedestrian crossing signage at midblock; Sidewalk needed on other side of Arlington as well; high-visibility marked crosswalk and curb ramps needed. |
| 39_2 | Arlington | Rose pickup dropoff | Y | N | Y | N | Y | Y | Y | N | - | - | - | N | N | N | Enhance refuge and make crosswalks highly-visible. |

TABLE 4.1 INTERSECTION RECOMMENDATIONS (CONTINUED)

| Inter-section Project # | Road 1 | Road 2 | Needs Sidewalk (Y/N) | Stripe New Crosswalk (Y/N) | Restripe Crosswalk (Y/N) | Advanced Stop Lines (Y/N) | Replace Curb Ramps (Y/N) | Add New Curb Ramps (Y/N) | Median Refuge Islands (Y/N) | Curb Extensions; Curb Radius Reduction (Y/N) | Ped. Countdown Signal Heads (Y/N) | Restrict Right turn on Red | High-Visibility Ped Signs | In-Roadway Ped X-ing Signs | Remove Sight-Distance Observation | Ped. Underpass/Overpass | Details and Extra Notes |
|-------------------------|------------|----------------|----------------------------|---|--------------------------|---------------------------|--------------------------|--------------------------|--|--|-----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------------|-------------------------|---|
| 40 | Howell | Ames | N | N | Y | N | N | Y | N | Y | N | N | N | Y | N | N | With school here, improvements are needed. Bulbouts should be provided where on-street parking is present. In-roadway signage and high-visibility marked crosswalk needed. A crossing guard should also be considered here. |
| 41 | Howell | Hooker | N | Y (across Hooker, on other side from current crosswalk) | N | - | - | Y | Y (with new crosswalk) | N | N | N | Y | N | N | N | Move crosswalk to other side for crossing Hooker because turn lane is unused there. There is opportunity for median refuge island on this side! |
| 42 | Arlington | Greenville | Y | Y | Y | Y | N | Y | N | N | Y | N | N | N | N | N | Sidewalk needed first. Pedestrian signals also important. High-visibility marked crosswalks and curb ramps needed. Driveway access management needed (marked crosswalks should be striped across major driveways) |
| 43 | Greenville | Elm | Y | Y | Y | Y | N | Y | Y (enhance existing Elm islands for refuges) | N | Y | N | N | N | Y (cut back veg.) | N | Sidewalk needed first. Countdown signals are also important here. |
| 44 | Red Banks | Tucker | Y | N | N | N | Y | Y | N | Y (but not into Bike lanes) | N | N | - | Y | N | N | In-roadway signage and bulbouts would be very helpful here at this school location. |
| 45 | Greenville | 14th | Y | Y | - | Y | N | Y | N | N | Y | N | N | N | N | N | Need sidewalk first, then significant crossing improvements. |
| 46 | 10th | Cotanche | Y | N | Y | - | N | Y | N | N | - | - | Y | N | N | N | Many pedestrians in area with heavy traffic. Crosswalk should be highly-visible. Curb ramps should be completed and consistent. |
| 47 | 10th | Charles | Y | N | Y | - | - | - | N | N | - | Y | Y | N | N | N | Many pedestrians/cyclists in area. Enhance crosswalks to be highly-visible and 2 curb ramps should be provided per corner. |
| 48 | 10th | College Hill | N | N | Y | - | Y | Y | Y | N | - | Y | - | N | N | N | Curb ramps are missing or in need of improvement. Median refuge would be very helpful (space for this now) |
| 49 | 10th | Elm | Y | N | Y | - | Y | Y | N | N | - | Y | Y | N | N | N | Sidewalk needed all ways with significant pedestrian crossing treatments. |
| 50 | 5th | Moye | Y | Y | - | Y | Y | Y | N | N | Y | N | N | N | N | N | Crosswalks are faded and need to be highly-visible. |
| 51 | 14th | Dickinson | Y | N | Y | - | Y | N | N | N | Y | N | N | N | N | N | UNUSUAL INTERSECTION; FURTHER ANALYSIS NEEDED (KH) |
| 52 | 10th | Dickinson | Y | N | Y | - | Y | N | N | N | Y | N | N | N | N | N | (KH) |
| 53 | Arlington | Stantonsburg | Y (on Arlington southward) | N | Y | N | N | N | N | N | - | N | Y | N | N | N | Crosswalks should be highly-visible. |
| 54 | Memorial | Stantonsburg | Y | Y | - | Y | Y | Y | Y (on Memorial) | N | Y | N | N | N | N | N | Significant pedestrian crossing improvements needed. Utilize median island as a refuge. Pork chop space could also be used as a refuge. |
| 55 | Memorial | 5th | Y | N | Y | - | Y | Y | Y (on Memorial) | N | - | N | N | N | N | N | Crosswalks should be highly-visible. Refuge opportunity across Memorial with existing island. |
| 56 | 14th | Fleming, Tyson | Y | N | Y | - | Y | Y | N | Y | - | Y | Y | N | N | N | Many pedestrians and cyclists in area. Curb extensions possible on couple corners. Need consistent curb ramps and high-visibility crosswalks. Crossing guard needed too. |
| 57 | Fleming | Roosevelt | N | N | Y | - | N | Y | N | Y (with on street parking) | N | N | - | Y | N | N | Add bulbouts with on-street parking and make crosswalk highly-visible. |
| 58 | 14th | 5th | N | N | Y | - | Y | Y | N | N | Y | Y | Y | N | N | N | Realign intersection if possible. Otherwise, need high-visibility marked crosswalks and signals. Curb ramps needed on all corners. |
| 59 | Arlington | Red Banks | Y | Y | - | Y | Y | Y | N | N | Y | N | N | N | N | N | Sidewalk is top priority here. Intersection needs significant improvement to make pedestrian-friendly. |

TABLE 4.1 INTERSECTION RECOMMENDATIONS (CONTINUED)

| Inter-section Project # | Road 1 | Road 2 | Needs Sidewalk (Y/N) | Stripe New Crosswalk (Y/N) | Restripe Crosswalk (Y/N) | Advanced Stop Lines (Y/N) | Replace Curb Ramps (Y/N) | Add New Curb Ramps (Y/N) | Median Refuge Islands (Y/N) | Curb Extensions; Curb Radius Reduction (Y/N) | Ped. Countdown Signal Heads (Y/N) | Restrict Right turn on Red | High-Visibility Ped Signs | In-Roadway Ped X-ing Signs | Remove Sight-Distance Observation | Ped. Underpass/Overpass | Details and Extra Notes |
|-------------------------|------------|-----------------|----------------------|----------------------------|--------------------------|---------------------------|--------------------------|--------------------------|-----------------------------|--|-----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------------|-------------------------|--|
| Avden | | | | | | | | | | | | | | | | | |
| 60 | 3rd | Snow Hill | N | N | Y | N | N | Y | N | N | Y | N | Y | N | N | N | Minor improvements will go a long way here (crosswalks, curb ramps, and signals). |
| 61 | 3rd | Lee | N | N | N | N | N | N | N | Y (with on-street parking) | Y | N | Y | N | N | N | Countdown signals important. Also, add curb extensions and improve SE corner (driveway access management an issue with car repair shop) |
| 62 | 2nd | Lee | N | N | N | Y (restripe) | N | N | N | Y (with on-street parking) | Y | N | Y | N | N | N | Driveway access management needed here as well. Countdown signals needed. |
| 63 | 3rd | Hwy 11 | Y | Y | - | Y | - | - | Y | Y | Y | N | Y | N | N | N | Sidewalk needed first. Intersection needs significant improvement. Move stop lines back and ensure median island becomes formal refuge. A pedestrian overpass could be considered in future. |
| 64 | N. Lee St. | Hines Dr. | Y | - | Y | - | Y | Y | N | Y (one corner) | N | N | Y | N | N | N | Without a stoplight present, a high-visibility marked crosswalk with signage is needed. |
| 65 | 3rd | School Entrance | N | - | Y | - | Y | Y | N | N | N | N | Y | N | N | N | A HAWK signal should be considered. A crossing guard is essential. |
| Winterville | | | | | | | | | | | | | | | | | |
| 66 | Mill | Main | Y | Y | - | Y | Y | Y | N | N | Y | N | Y | N | N | N | Additional sidewalk needed first. Driveway access management also needed. |
| 67 | Main | Railroad | Y | Y | Y | Y | N | Y | N | Y (with on-street parking) | N | - | N | Y | N | N | Railroad crossing needs to be made pedestrian-friendly. Marked crosswalks need to be repainted. Curb ramps needed as well. |
| 68 | Church | Sylvania | Y | N | Y | Y | N | Y | N | Y (with on-street parking) | N | N | Y | Y | N | N | Sidewalk needed along Church (school side especially). Curb ramps, high-visibility marked crosswalk and in-roadway signage for Church should be considered. |
| 69 | Church | Cooper | Y | N | Y | N | N | Y | N | N | N | N | Y | N | N | N | |
| 70 | Main | Old Tar | Y | Y | - | - | N | Y | N | N | N | N | Y | N | N | N | Stoplight may be warranted here. If added, also add pedestrian countdown signals. Speed a critical issue on Old Tar so reduced speed limits and clear signage are necessary. |
| Simpson | | | | | | | | | | | | | | | | | |
| 71 | Simpson | McDonald | Y | Y | - | Y | N | N | N | Y | N | - | Y | N | N | N | Sidewalk needed first. |

School Improvements

Pedestrian improvements around schools are critical to creating safe environments for children and parents to walk. Schools throughout the GUAMPO area often lack pedestrian infrastructure. In addition to sidewalks, typical improvements to consider around all schools include:

- High-visibility marked crosswalks
- Curb extensions (bulbouts)
- Signage (in-roadway and advanced warning)
- Crossing guard

The photo rendering below shows an example of how to improve a crossing at South Greenville Elementary School.



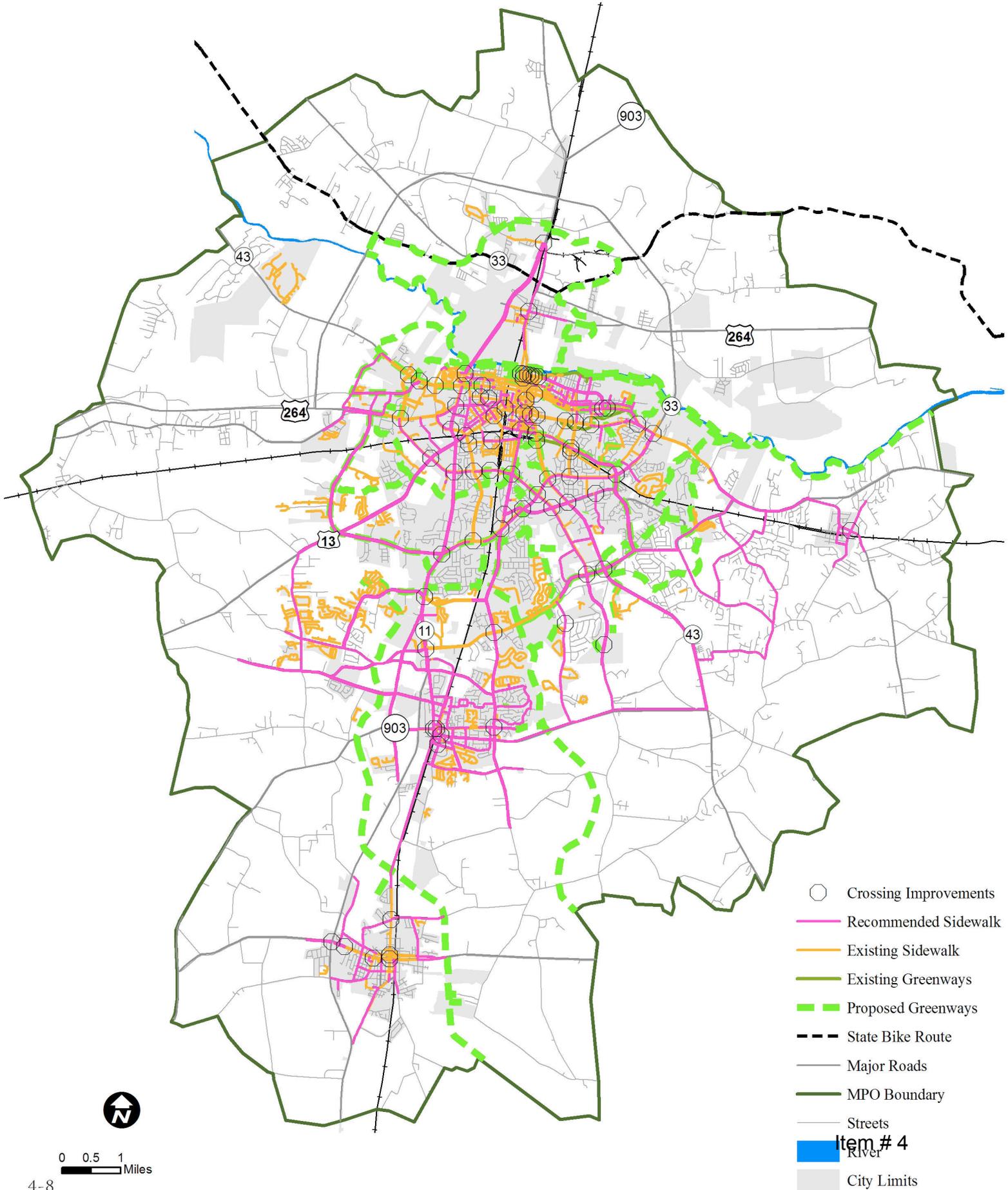
Long-term Recommendations

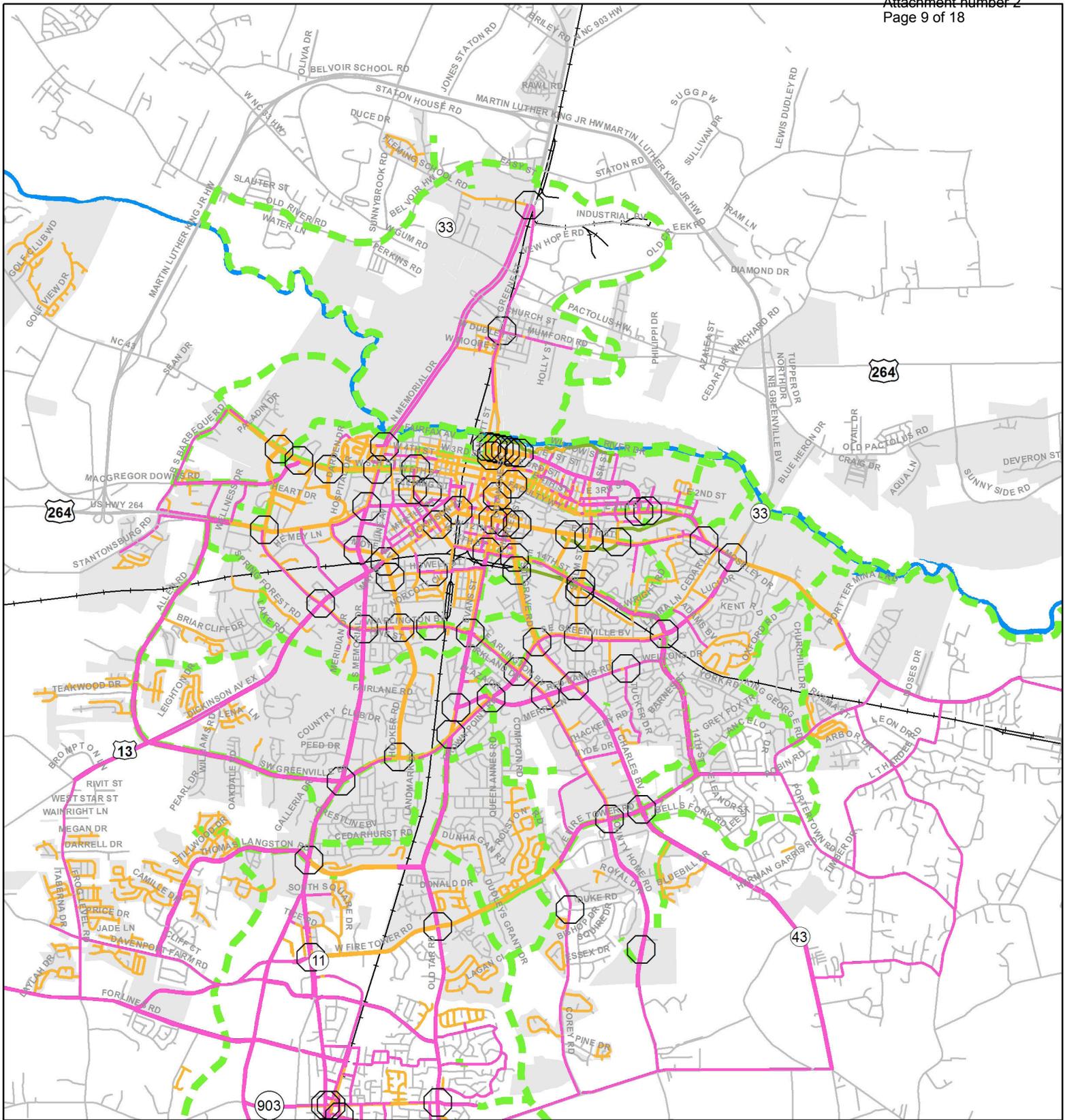
There are several long-term, higher-cost recommendations that should be considered. These include a series of bridges and overpasses identified during this planning process. These will require further study and increased funding support.

- Bike/ped accommodation over the Tar River. This would connect the Downtown area, Town Commons Park, and a greenway trail to River Park North. This bridge could be a cantilever (along Greene St.) or a separate bridge (near Ashe St.).
- Pedestrian bridge over Memorial Drive near Fire Tower Rd. This bridge would connect Pitt Community College to commercial destinations east of Memorial Drive.
- Pedestrian bridge at 3rd Street and NC 11 (Ayden). This bridge would connect residents east and west across Memorial Drive in Ayden.
- Pedestrian bridges or underpasses to hospital across Stantonsburg Road, near Arlington Blvd., and across Arlington Blvd., near Beasley Dr. These connections would link hospital workers to their residences.

Pedestrian Network Maps

The following maps display the pedestrian network recommendations (sidewalks, greenways, and crossing improvements). For priority pilot project descriptions and maps, see Chapter 5.



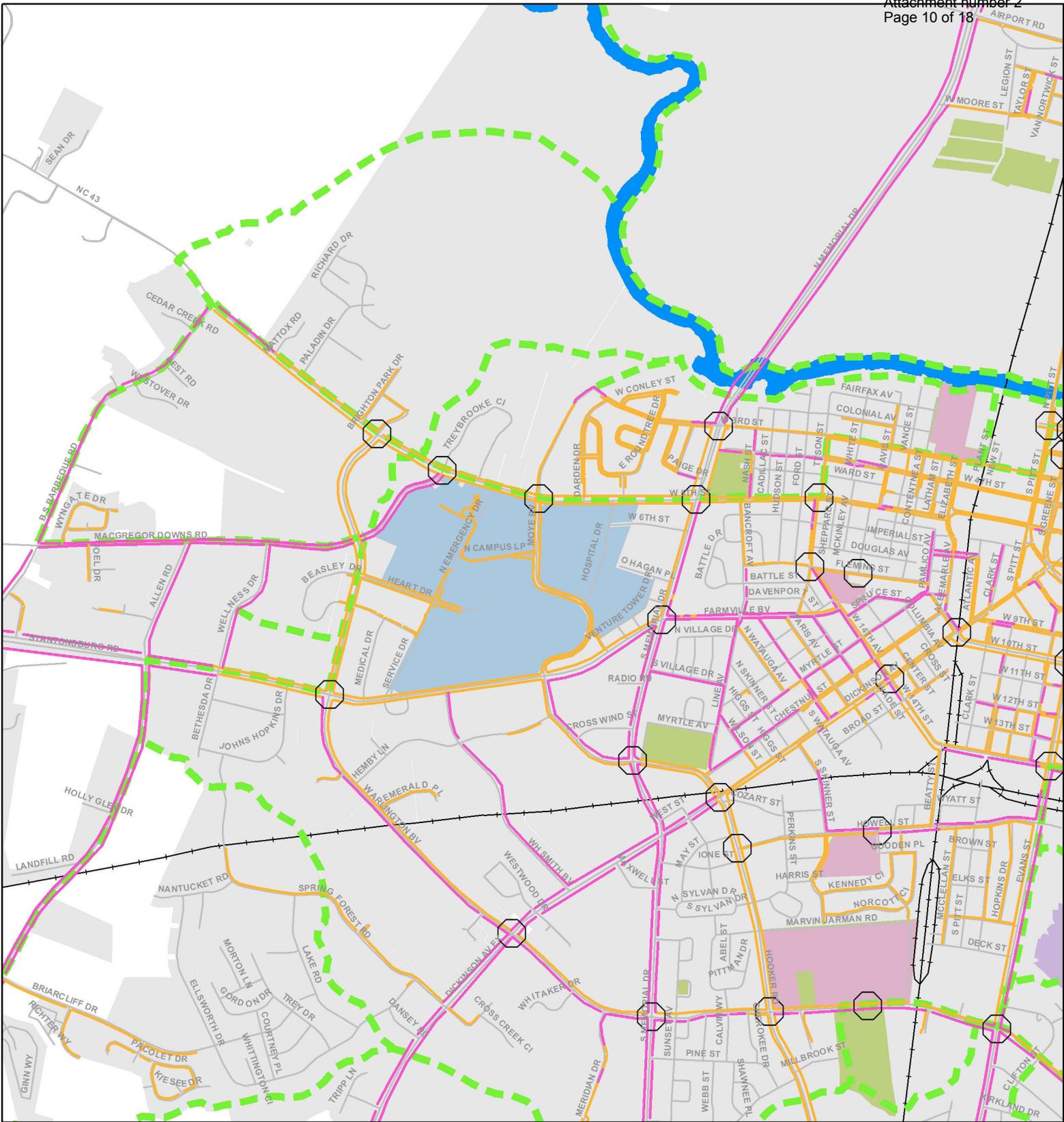


MAP 4.2 PEDESTRIAN
RECOMMENDATIONS:
GREENVILLE



0 0.5 1
Miles

- Crossing Improvements
 - Recommended Sidewalk
 - Existing Sidewalk
 - Existing Greenway
 - Proposed Greenway
 - Streets
 - River
 - City Limits
- Item # 4**

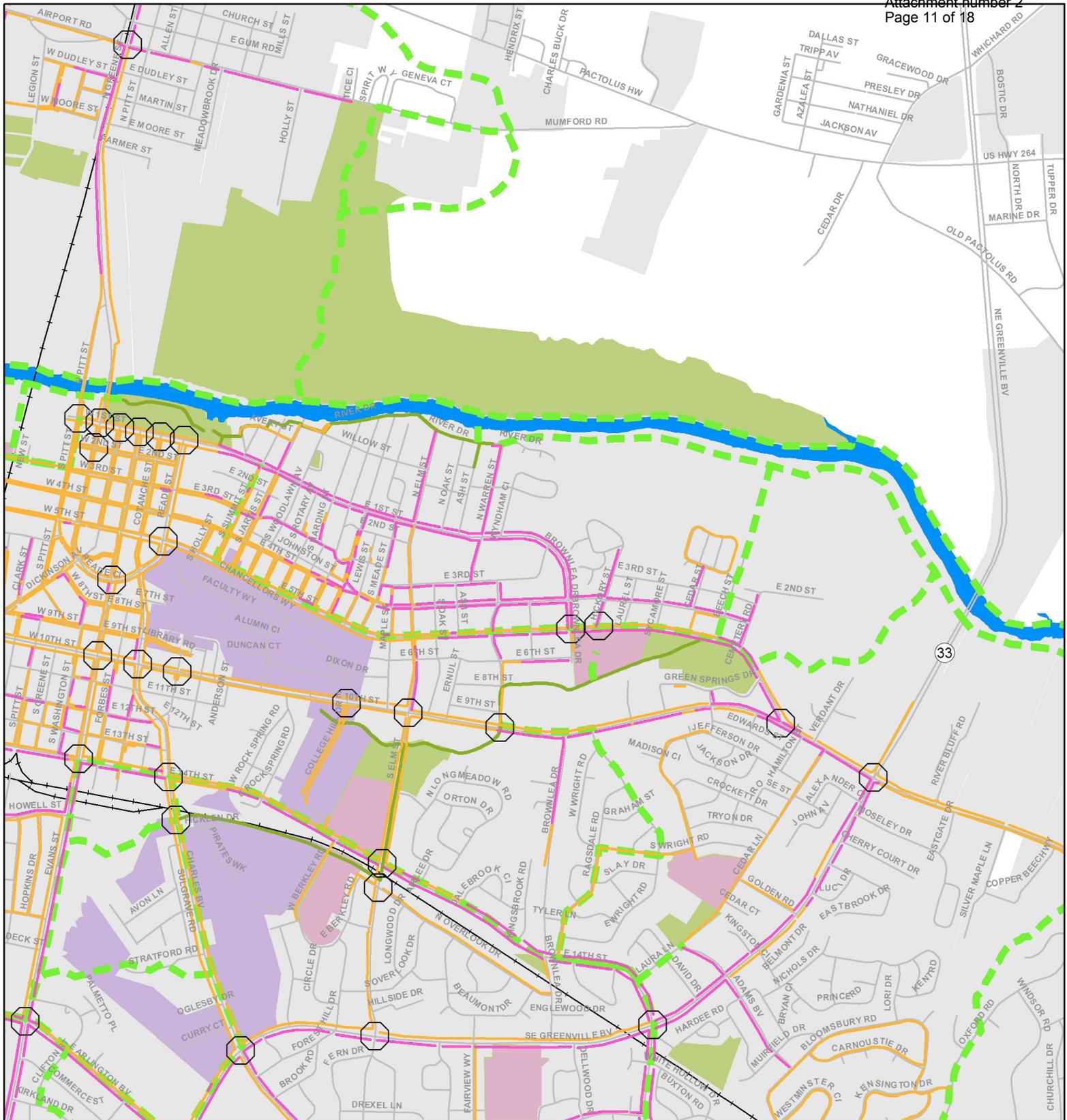


MAP 4.3 PEDESTRIAN
RECOMMENDATIONS:
GREENVILLE (NW)

- | | | | |
|--|-----------------------|---|-------------------|
|  | Crossing Improvements |  | River |
|  | Recommended Sidewalk |  | Schools |
|  | Existing Sidewalk |  | Parks |
|  | Existing Greenway |  | ECU |
|  | Proposed Greenway |  | Item # 4 Hospital |
|  | Streets |  | City Limits |



0 0.25 0.5
Miles

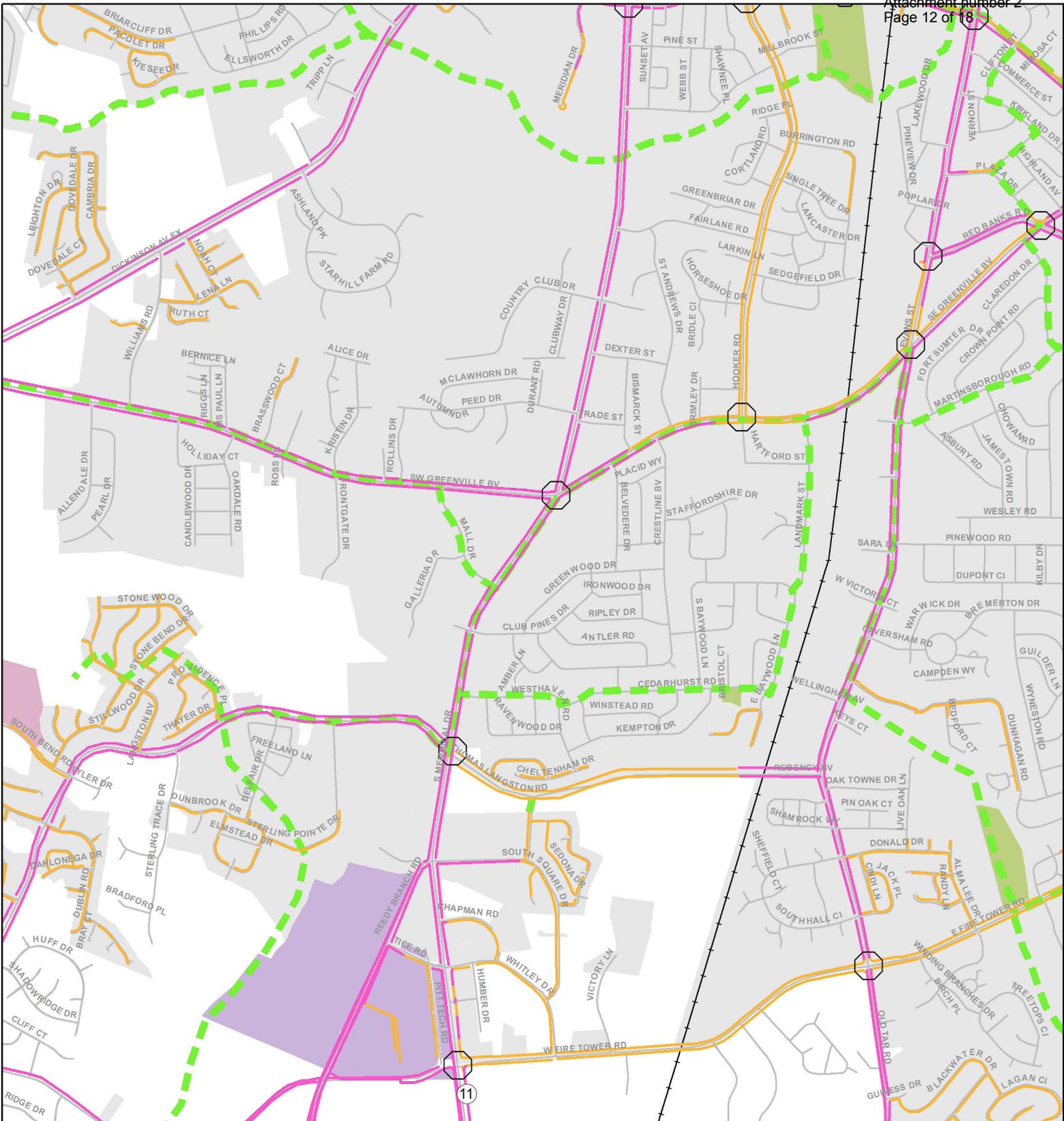


MAP 4.4 PEDESTRIAN
RECOMMENDATIONS:
GREENVILLE (NE)

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Existing Greenway
-  Proposed Greenway
-  Streets
-  River
-  Schools
-  Parks
-  ECU
-  Hospital
-  City Limits

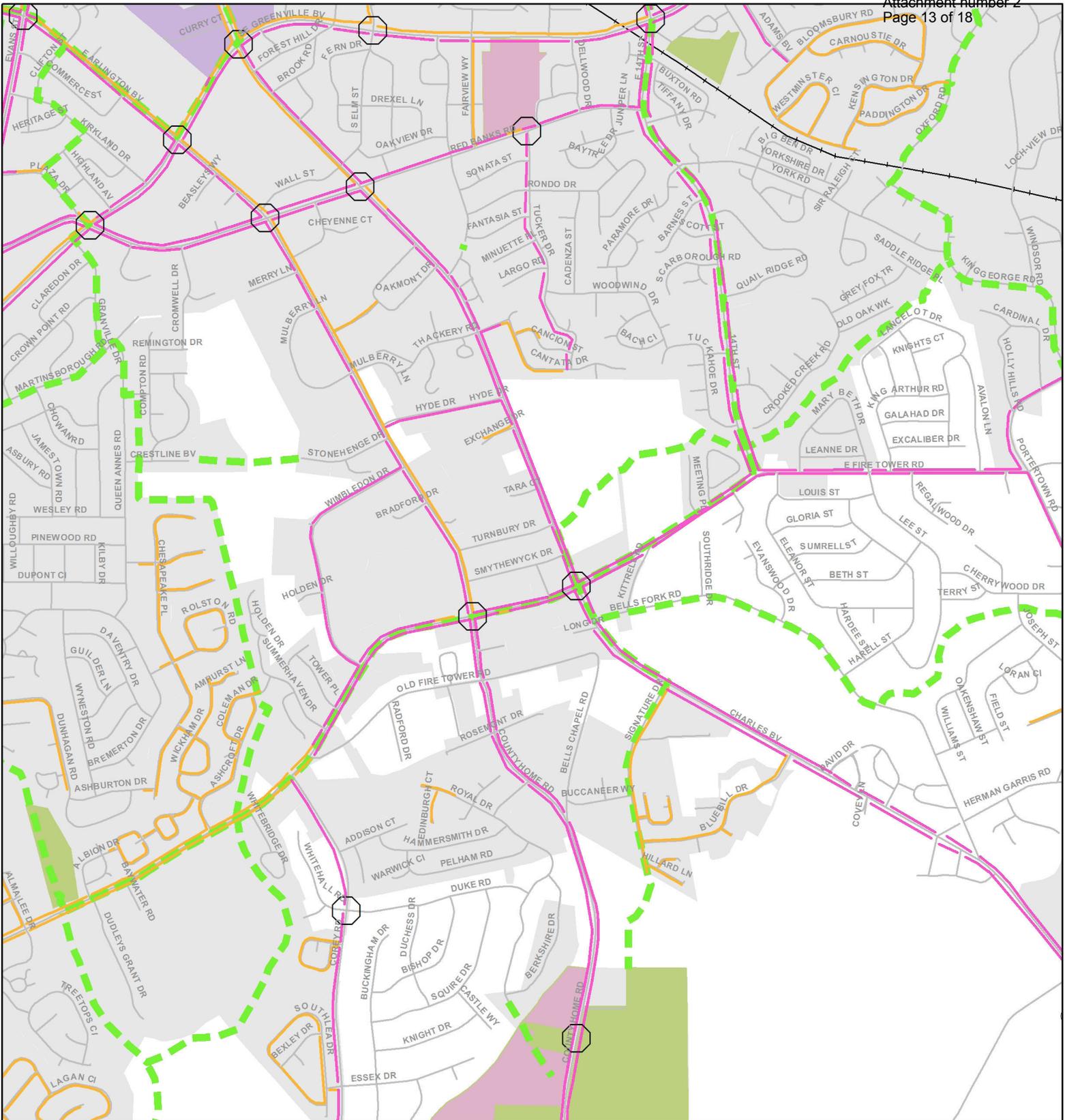


0 0.25 0.5 Miles



MAP 4.5 PEDESTRIAN RECOMMENDATIONS: GREENVILLE (SW)

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Existing Greenway
-  Proposed Greenway
-  Streets
-  River
-  Schools
-  Pitt C.C.
-  Parks
-  Hospital
-  City Limits



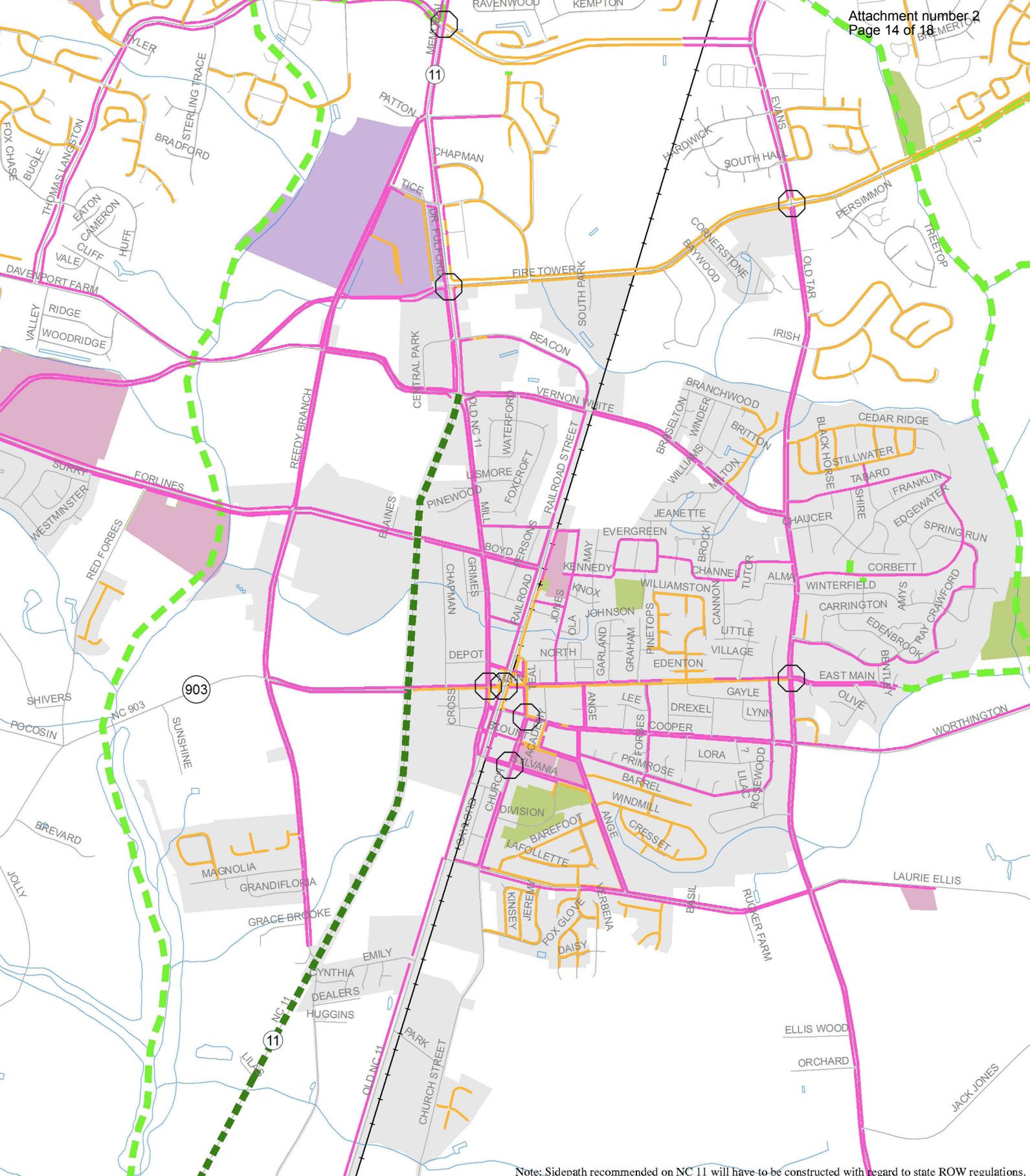
MAP 4.6 PEDESTRIAN RECOMMENDATIONS: GREENVILLE (SE)



0 0.25 0.5 Miles

- Crossing Improvements
- Recommended Sidewalk
- Existing Sidewalk
- Existing Greenway
- Proposed Greenway
- Streets
- River
- Schools
- Parks
- ECU
- Hospital
- City Limits

Item # 4



Note: Sidepath recommended on NC 11 will have to be constructed with regard to state ROW regulations.

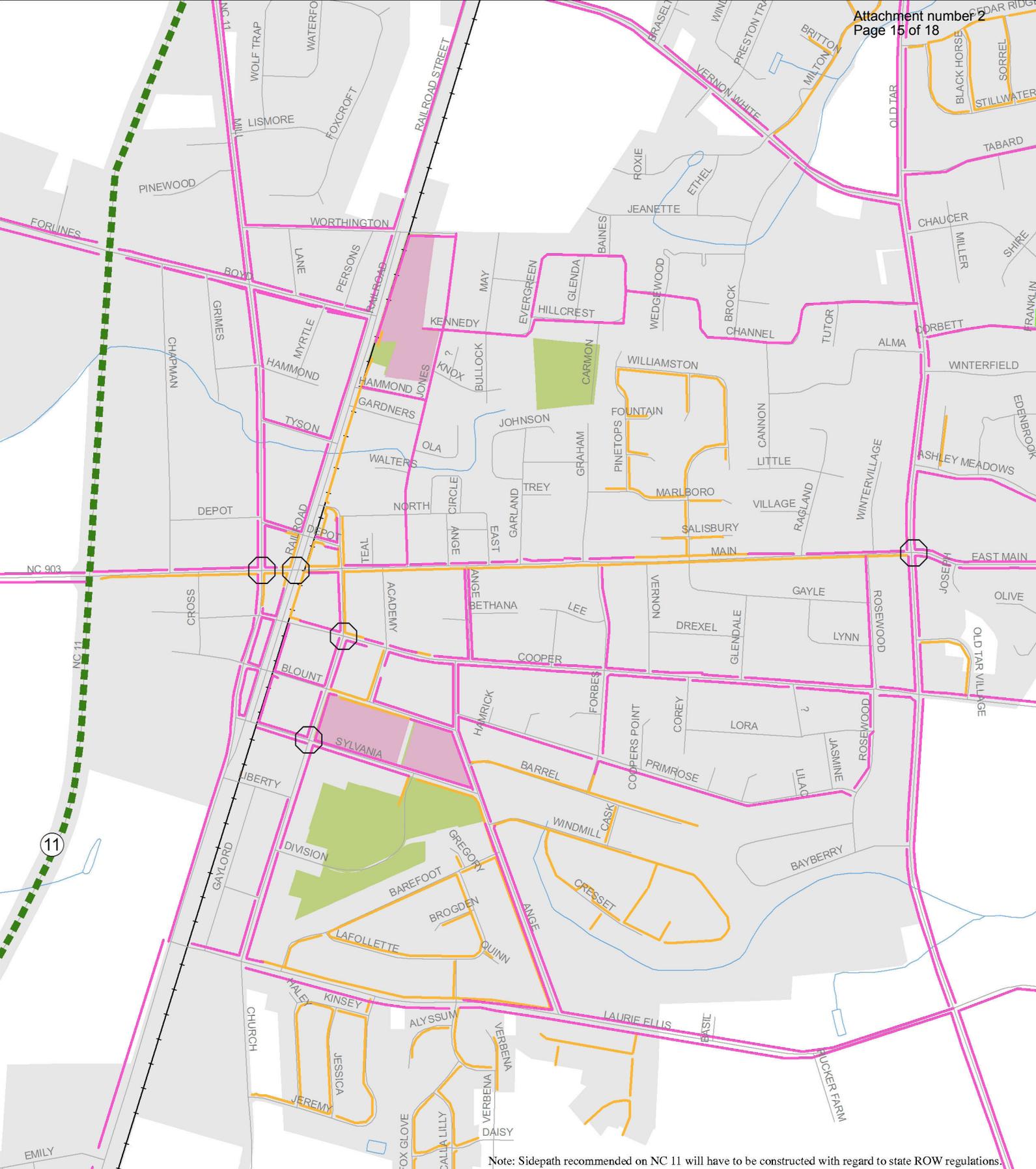
MAP 4.7 WINTERVILLE PEDESTRIAN RECOMMENDATIONS

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Sidepath, New Construction
-  Recommended Greenways
-  Streets
-  Hydrology
-  Schools
-  Parks
-  Pitt C.C.
-  Winterville

Item # 4

0 0.25 0.5
Miles

4-14



Note: Sidepath recommended on NC 11 will have to be constructed with regard to state ROW regulations.

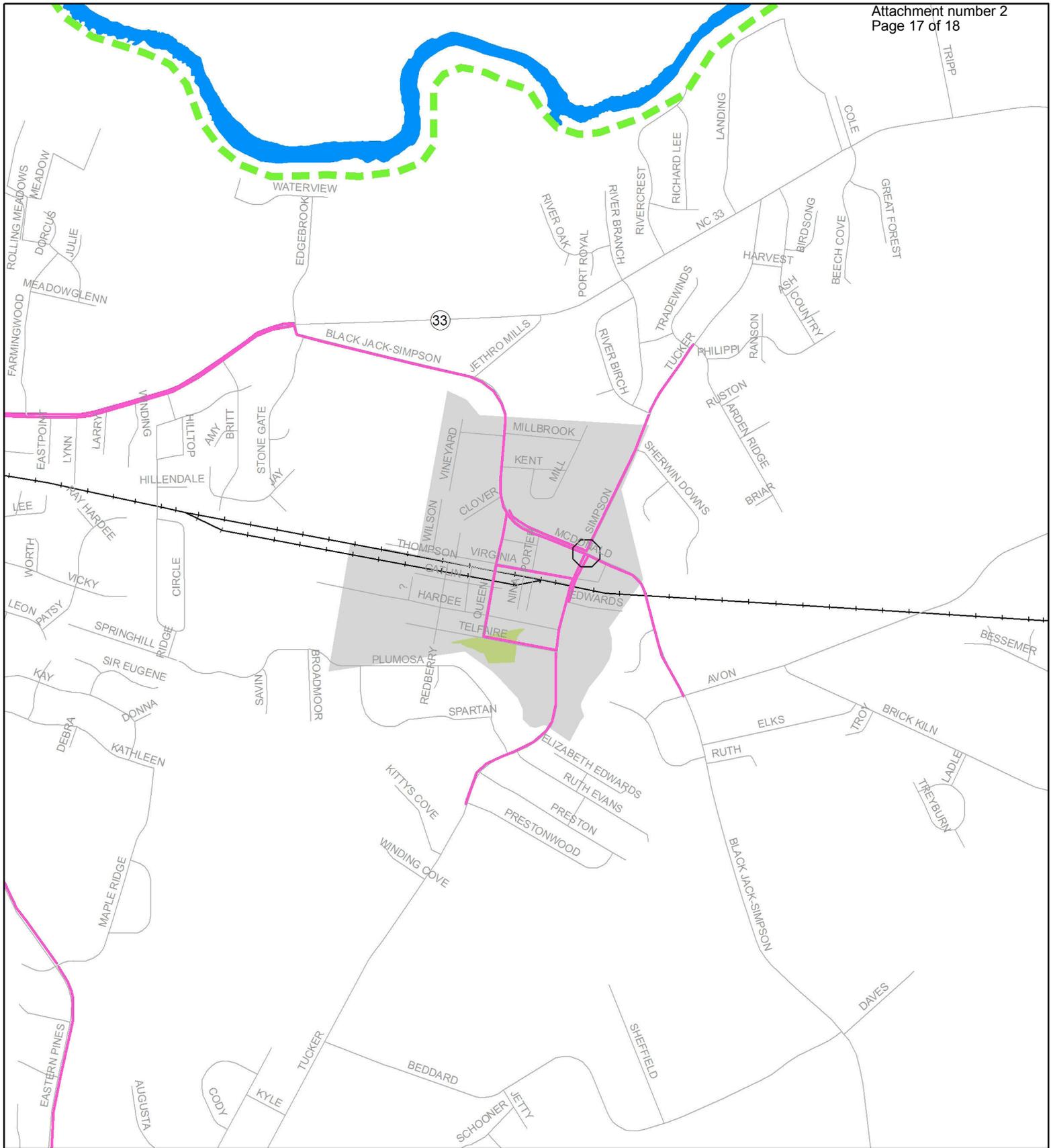
MAP 4.8 WINTERVILLE DOWNTOWN PEDESTRIAN RECOMMENDATIONS



0 0.125 0.25
Miles

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Sidepath, New Construction
-  Recommended Greenways
-  Streets
-  Hydrology
-  Schools
-  Parks
-  Winterville

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MAP 4.10 SIMPSON PEDESTRIAN RECOMMENDATIONS

-  Crossing Improvements
-  Recommended Sidewalk
-  Existing Sidewalk
-  Recommended Greenways
-  Streets
-  River
-  Parks
-  Simpson



0 0.25 0.5 Miles

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double-sided printing)*



BICYCLE NETWORK RECOMMENDATIONS

Chapter Contents

Overview

Methodology for Bike Network Design

Recommended Facility Types

Facility Types for Arterial/Collector Roads

Facility Types for Local and Neighborhood Streets

Off-road paths

Bike System Breakdown

Ancillary Improvements

Pilot Projects

Regional Connectivity

Bike Network Maps

Overview

The recommended Greenville Urban Area MPO bike network represents a comprehensive set of existing and proposed bicycle transportation and recreation facilities. The network includes on-road and off-road facilities such as bicycle lanes, signed routes, and greenways.

The following sections of this chapter include: 1) how the network was designed (methodology); 2) descriptions of the types of facilities and treatments that make up the system; 3) overall system breakdown, 4) ancillary facilities, 5) pilot projects, 6) regional connectivity, and 7) bike network maps.

Methodology for Bike Network Design

The bike facility system was designed by first assembling all existing bicycle-related recommendations and information from current plans and studies. Secondly, a thorough analysis with geographic information systems (GIS) and fieldwork was conducted to examine roadways for recommendations. The analysis inventoried the existing roadway network (MPO study area) based on existing suitability for bicycling as well as the potential for installing bicycle facilities through some type of roadway improvement. Bicycle network objectives included:

- Overcome barriers and lack of connectivity.
- Achieve thorough geographic coverage across populated areas.
- Provide facilities that connect important destinations and serve all populations, particularly lower-income communities whose populations depend more on bicycling for transportation.
- Provide the best possible safety in traffic.
- Ensure routes are continuous, direct, convenient, and linking to other routes.
- Where needed and feasible, provide parallel routes to busy arterial roadways that serve the needs of all cyclists.

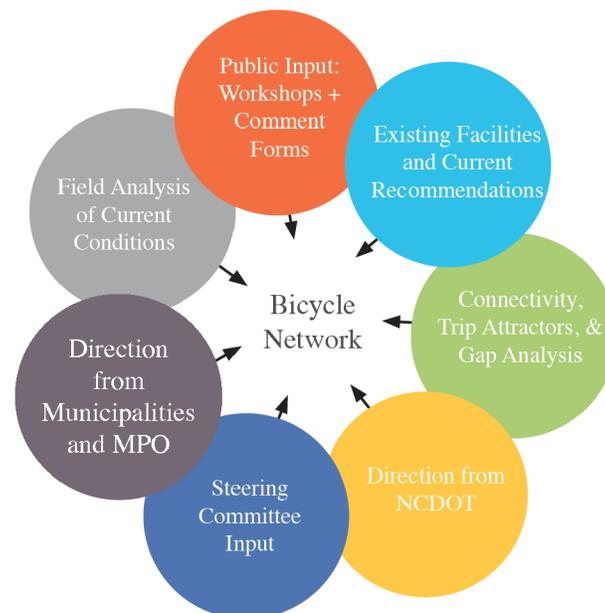
The network segments were chosen with the following questions in mind:

- Does this enhance access to important destinations such as ECU, schools, shopping, employment centers, parks, trails, Downtowns, etc?
- Is the existing street right-of-way width sufficient for making improvements?
- Is there relative ease of bicycle improvement implementation without roadway widening (striping, pavement marking, restriping, etc)?
- Is this an opportunity for improvement because of an already scheduled roadway improvement project (including projects from GUAMPO TIP list)?
- Are there relatively low traffic volumes and speeds (generally comfortable for bicycling without major improvements)?

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- Does the route provide connectivity within and between municipalities?
- Was the route recommended by the public and local government staff?
- Can the route circumvent barriers such as major highways, railroads, waterways, and bridges?
- Does the route complement and add to the existing and recommended greenway trails network?



The recommended bike network and assembled information was presented to the public, local government staff, the Steering Committee, and various project stakeholders. Together, the input from these groups helped to inform the overall system design; through writing and drawing on input maps, filling-out comment forms, direct dialogue, and e-mailed comments. These and other key inputs are shown in the diagram at right.

Recommended Facility Types

A variety of bicycle facilities are recommended due to 1) the range of skill and comfort levels involved in bicycling, and 2) the range of existing conditions for bicycling in different landscapes and on different roadway environments. One facility type will not fit all roadways because of variations in roadway configurations and land use; thus a toolbox of facility types is used. These recommendations are at a planning level only and will require further analysis before implementation.

Key Inputs - See chapter 2 for more information on these inputs.

The recommended bicycle system is made up of two major types of facilities (on-road and off-road). Within each type are multiple facility options that are tailor-recommended for specific segments of the overall system. Descriptions and standards for each type are described in Appendix B: Design Guidelines. The images and descriptions below are provided for a quick reference when viewing the Bicycle Network Maps at the end of this chapter.

Facility Types for Arterial/Collector Roads

These on-road bike facility types are used typically on arterial, collector, and subcollector roadways where motor vehicle traffic volumes or speeds are higher than residential roads. They include:

BICYCLE LANE

A bicycle lane is a portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists. Bicycle lanes are always located on both sides of the road (except one way streets), and carry bicyclists in the same direction as adjacent motor vehicle traffic. The minimum width for a bicycle lane is four feet; five- and six-foot bike lanes are typical for collector and arterial roads. Where bicycle lanes are recommended in this plan, speed limit reduction should be strongly considered. Various methods of bicycle lane construction are described below.



Bicycle lane (design guidelines on page B-6)

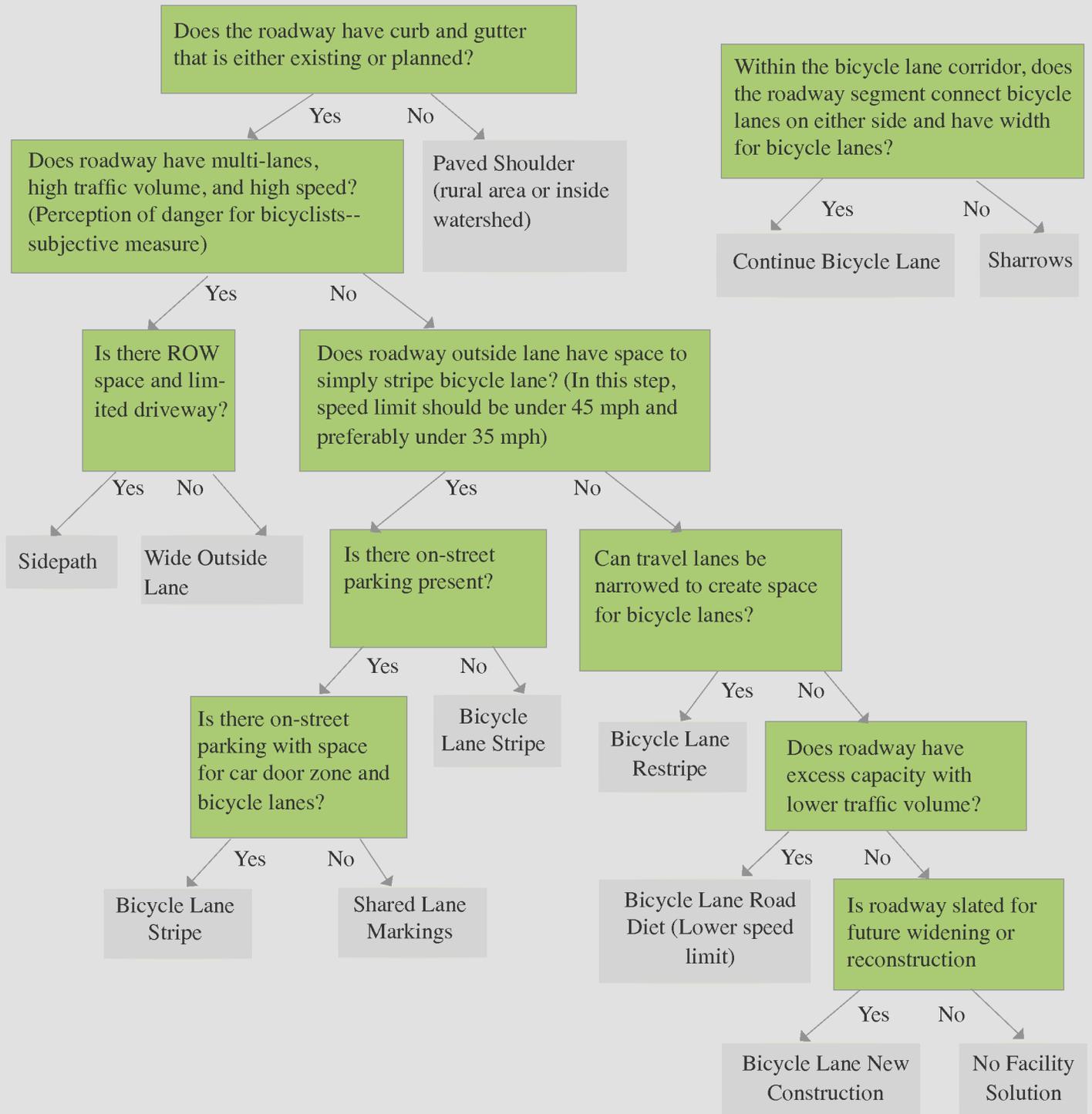
Bicycle Lane - Road Diet:

Road diets typically involve reducing the number of travel lanes (from a four-lane road to a two-lane road with center turn lane, for example) allowing adequate space for bicycle lanes. Road diets also have traffic calming benefits. These projects can occur during roadway resurfacing projects.

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DECISION TREE FOR RECOMMENDING BICYCLE FACILITIES

The following methodology was used in order to determine what type of facility to recommend for individual roadways. Utilizing such information as future roadway reconstruction schedules, existing roadway widths, existing roadway speed limits, and existing traffic volumes, the decisions were made through a decision-tree, as presented below.





Bicycle Lane - Stripe:

Refers to projects that require only the striping of a bicycle lane, with no other changes needed to the roadway or existing roadway striping.

Bicycle Lane - Restripe:

Refers to projects that require restriping travel lanes (often to a more narrow width) allowing adequate space for bicycle lanes. Narrowing the widths of travel lanes has been demonstrated to have no affect on overall roadway capacity (see page 8-10 for more on this topic). In this plan, a restripe is recommended where existing travel lanes can be reduced to a minimum of 11 feet. These projects can occur during roadway resurfacing projects.

Bicycle Lane - New Construction:

Refers to projects that require adding additional pavement width to the roadway to allow adequate space for bicycle lanes. It is likely that these bicycle facilities will be implemented to coincide with future roadway construction projects.

WIDE OUTSIDE LANE

A wide outside lane refers to the through lane closest to the curb and gutter of a roadway. The American Association of State Highway and Transportation Officials (AASHTO) standard lane width to accommodate both motorists and bicyclists is 14'. This facility type allows motorists to more safely pass slower moving bicyclists without changing lanes. Wide outside lanes are intended for bicyclists with traffic-handling skills and are typically recommended on multi-lane, higher volume roadways.



Wide outside lane (design guidelines on page B-9)

PAVED SHOULDERS

Paved shoulders are the part of a roadway which is contiguous and on the same level as the regularly traveled portion of the roadway. There is no minimum width for paved shoulders, however a width of at least four feet is preferred. Ideally, paved shoulders should be included in the construction of new roadways and/or the upgrade of existing roadways, especially where there is a need to more safely accommodate bicycles. Paved shoulders make up the majority of recommendations in this Plan because of the substantial mileage of rural roadways. When development occurs, roadways are reconstructed, and/or curb and gutter are added in the future, bicycle lanes should be considered for some of these roadways.



Paved shoulder (design guidelines on page B-9)

SHARED MARKINGS ("SHARROWS")

Shared lane markings are used on roadways where dedicated bicycle lanes are desirable but are not possible due to physical or other constraints (roadway width, on-street parking, etc). Placed in a linear pattern along a corridor (typically every 100-250 feet), shared lane markings make motorists more aware of the potential presence of cyclists; direct cyclists to ride in the proper direction; and remind cyclists to ride further from parked cars to avoid 'dooring' collisions.



Sharrows (design guidelines on page B-5)

Facility Types for Local and Neighborhood Streets

Because local and neighborhood streets feature lower traffic volume and lower speeds, they already provide a safe, legitimate option for bicycle travel. Bicycle travel on these roads is typically not separated from motor vehicle traffic.



Signed route (design guidelines on page B-51)

SIGNED BICYCLE ROUTE (ENHANCED SHARED ROADWAY)

These routes are recommended on roadways where bikeway signage and markings are used to increase driver awareness of bicycles on the roadway and traffic calming devices and/or intersection crossing treatments enhance bicycle travel. Typically, these routes are recommended in locations that serve as alternate routes for dangerous roadways. They were chosen as part of the network because of the importance of overall system connectivity and connectivity to destinations such as parks and schools. Sharrow markings may be considered in special circumstances such as higher traffic volumes.



Bicycle boulevard (design guidelines on page B-10)

BICYCLE BOULEVARD

These special facilities are recommended on streets with low motorized traffic volumes and speeds where bicycle travel is given priority and where signs, markings, traffic calming and other improvements are used to discourage through trips by motor vehicles. Bicycle boulevards also include safe, convenient bicycle crossings of busy arterial streets. Bicycle boulevards are not just signed bicycle routes, but are streets on which bicycles have preference over cars and designed in a way to effectively divert motorized traffic. Design elements that may be included are diverters, reconfiguration of stop signs to favor the bike boulevard, traffic calming and shared lane markings, as well as crossing improvements at high traffic crossings. Automotive traffic still has access to residences or businesses, but traffic control devices are used to control automobile traffic speeds and access while supporting through bicycle traffic.

Bicycle boulevards are best developed in areas with especially high potential for bicycle use so that the presence of bicyclists themselves on the street becomes a significant design element. Bicycle boulevards are also best developed in areas where through motor vehicle traffic can reasonably be directed to other streets.

Off-road paths

Off-road bikeways are intended to create completely separated spaces for bicyclists and pedestrians. These are the preferred facility for novice and average bicyclists. Special consideration must be given to environmental conditions and for all roadway crossings. Greenways recommended in this plan were largely derived from the 2004 Greenville Greenway Master Plan and the Pitt County Greenway Plan. Some minor modifications and additions were made based on Committee input and public input.



Sidepath (design guidelines on page B-35)

SIDEPATHS

Multi-use paths located within the roadway corridor right-of-way, or adjacent to roads, are called 'Sidepaths.' Sidepaths are most appropriate in corridors with few driveways and intersections. Bicycle routes where side paths are recommended should also have adequate on-road bicycle facilities (such as paved shoulders or bicycle lanes) wherever possible.



Multi-use path/greenway (design guidelines on page B-33)

MULTI-USE PATHS OR GREENWAYS

Multi-use paths are completely separated from motorized vehicular traffic and are constructed in their own corridor, often within an open-space area. Multi-use paths include greenway trails, rail-trails and other facilities built exclusively for bicycle and pedestrian traffic. The most significant greenway recommendation is the continued development of greenways recommended in the 2004 Greenville Greenways Master Plan.



Bike System Breakdown

MILEAGE TABLE (BREAKOUT OF FACILITY RECOMMENDATIONS)

| <i>Recommended Facility</i> | <i>Method</i> | <i>Mileage</i> |
|--------------------------------|------------------|----------------|
| In-roadway Bikeways | | |
| Bike Lane | Stripe | 11.1 |
| Bike Lane | Restripe | 15.3 |
| Bike Lane | New Construction | 39 |
| Paved Shoulder | New Construction | 143 |
| Wide Outside Lane | Restripe | 21.1 |
| Shared roadway Bikeways | | |
| Sharrow | Stripe | 13.4 |
| Bike Boulevard | New Construction | 2.2 |
| Signed Route | Signage | 24.2 |
| Off-road Paths | | |
| Sidepath | New Construction | 17.2 |
| | | |
| | Total | 286.5 |

Ancillary Improvements

In order to create safe, bikeable communities, it is critical to take a comprehensive approach, looking beyond the construction of linear facility types described above. This includes, but is not limited to, roadway crossings, automobile speed reduction, and end-of-trip facilities such as bicycle parking.

INTERSECTIONS/CROSSINGS

Roadway crossings present a particular challenge for bicyclists. The Greenville Urban Area has a number of complex intersections and uncontrolled roadway crossings that are barriers to popular routes. This is because 1) they cannot be avoided, or 2) creation of a detour would require a major inconvenience for bicyclists, who would be unlikely to use it. In many cases, the roadways to be crossed are 5-lane arterials such as E 10th Street and Greenville Blvd.

Design guidelines for bicycle-friendly intersections and crossings are on pages B-11, B-32 and B-45.

Many of these intersections and unsignalized crossings will require further study to determine appropriate treatment and placement of crossings. These locations will require special design considerations. Their unique nature suggests that a wide variety of solutions may be employed, such as the following:

- Bicycle signal heads
- Advance bicycle boxes
- Bicycle detection technology to actuate traffic signals
- HAWK signals
- Adjustment of signal phases and timing
- Special striping patterns
- New curb ramps and crosswalk striping
- Curb extensions
- Allowing bicyclists to use sidewalks in discrete locations
- Signs communicating safety precautions, operational directives and wayfinding
- Minimizing right turn on red lights

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In addition to all of the on-street facilities and treatments described above, there are other accommodations that are being used in U.S. cities, that are still in the experimental phase. Some of these facilities may be useful in Greenville; however, it is expected that this will not be the case until later phases of plan implementation.

Seventy-one intersections were inventoried, including the top 25 identified by the public as needing improvement, with recommendations for pedestrian accommodations in Chapter 4. These improvements will improve the bicycle safety at these locations as well.

SPEED LIMIT REDUCTION

Speed limit reduction should be strongly considered along some of the Greenville Urban Area roadways, especially as bike lanes are added. Traffic speed was considered a major deterrent to bicycling and walking by the public. It was the second highest ranked factor that discouraged biking (the highest ranking factor was lack of facilities). Specific roadways in which high-speed traffic are a concern are:

- County Home Road (near farmers market, community gardens, recreation center, and Wintergreen Primary/Intermediate Schools)
- Arlington Blvd.
- Evans St
- Old Tar Rd.
- Thomas Langston Rd.
- Charles Blvd.
- 10th Street
- 14th Street

It is recommended that further study be conducted to determine appropriate speed limit reduction and that enforcement also be a part of a comprehensive solution.

END-OF-TRIP FACILITIES/BICYCLE PARKING

Citizen input during this planning process identified bike parking, storage, and/or shower facilities as critical to making transportation by bicycle possible.

Design guidelines for bicycle parking are on pages B-20.

Bike parking is an essential component of the bike system as an end-of-trip facility by providing increased convenience, accessibility, and functionality. It is often a forgotten component of a complete system. Properly designed and placed bike parking at multiple land uses in addition to corridor bikeways makes cycling a more feasible option for trips to work, the grocery, parks, etc. Parking should be ubiquitous, convenient and secure, and complement the surrounding streetscape. It should be as convenient as motor vehicle parking. Covered parking should also be considered especially at government buildings, employment centers, commercial locations, schools, and universities. The Greenville Urban Area MPO and its municipalities have an opportunity to proactively respond to the parking needs of residents today as well as anticipate parking desires in the future.

Bicycle parking can be introduced in a number of ways:

- Building code improvements (requirements for bicycle parking spaces with new development).
- Public right-of-way bike rack additions (for short-term parking).
- Bicycle parking innovation/aesthetics.
- Bicycle stations (enhanced bike parking areas with lockers and other features).
- End-of-trip facilities to also include showers/changing stations especially at places of work.

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The Greenville Urban Area MPO should do the following to ensure bike parking becomes a priority:

- Seek changes to regulations to ensure all land uses provide ample bike parking and end-of-trip facilities such as showers/change facilities and lockers.
- Ensure high quality, placement, and function of bike parking to ensure practical, safe, and functional use.
- Encourage owners of buildings to add or upgrade bicycle parking.
- Establish a funding stream to fulfill future parking demand, improvements, and maintenance.

It is recommended that a separate bicycle parking study be conducted to identify and prioritize specific locations needing bike parking facilities. During this planning process, the following locations were identified:

- Harris Teeter (14th and Charles)
- Harris Teeter (Fire Tower and Charles)
- Town Commons Park
- Green Springs Park
- 10th and Evans (Starbucks)
- Locations along 3rd Street, 4th Street, 5th Street, and Evans
- Downtown Greenville
- Schools
- Bus stops
- Downtown Ayden
- Downtown Winterville
- Downtown Simpson

Further information about bicycle parking and stations can be found in Appendix B: Design Guidelines.

Pilot Projects (see Chapter 5 for examples)

In addition to the recommended bicycle network, a number of new treatments are recommended here as pilot projects. A pilot project provides the opportunity to test a new facility type where an improvement is needed. Three types of bike pilot projects have been identified for the Greenville MPO. If proven successful, the Greenville MPO should apply these treatments in additional locations. See Appendix B: Design Guidelines for more information on these recommended treatments.

BIKE BOULEVARDS

- 3rd Street from N. Memorial Drive to Meade Street (with sharrow in Downtown core from 2nd Street to Reade Street) (1,500-1,800 ADT in 2005/2006 on West 3rd Street)
- Overlook Dr. from S. Elm Street to Beaumont Dr. (less than 1,000 ADT)

BIKE DETECTION LOOPS

- College Hill Drive/10th Street (Greenville)
- Elm Street/14th Street (Greenville)
- Founders Drive/5th Street (Greenville)



Design guidelines for detector loops are on pages B-14.

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Design guidelines for pega-tracking are on pages B-12.



Design guidelines for HAWK signals are on pages B-32.

BIKE LANE THROUGH INTERSECTION (PEGA-TRACKING)

- 5th Street and Elm Street (Greenville)
- After pilot project, consider for other major intersections as needed.

HAWK SIGNAL (BICYCLE AND PEDESTRIAN FACILITY)

- Forest Hill/Greenway and 10th Street (Greenville). The City of Greenville is adding a median refuge island for this crossing of the five-lane 10th Street. Without a signal currently present and the heavily used greenway crossing 10th Street, a HAWK signal would provide a safe opportunity to stop traffic and allow for crossing of bicyclists and pedestrians.
- 3rd Street crossing near Ayden Middle School Road (Ayden). This crossing would connect Ayden Elementary and Ayden Middle Schools. Without a signal currently present, a HAWK signal would provide a safe opportunity to stop traffic and allow crossing.
- County Home Road midblock crossing (Pitt County). This crossing would connect the Pitt County Recreation Complex, the Wintergreen schools, a community garden, and a senior center. It would also connect two trails on each side of the road that currently dead-end at the road with no crossing facility.

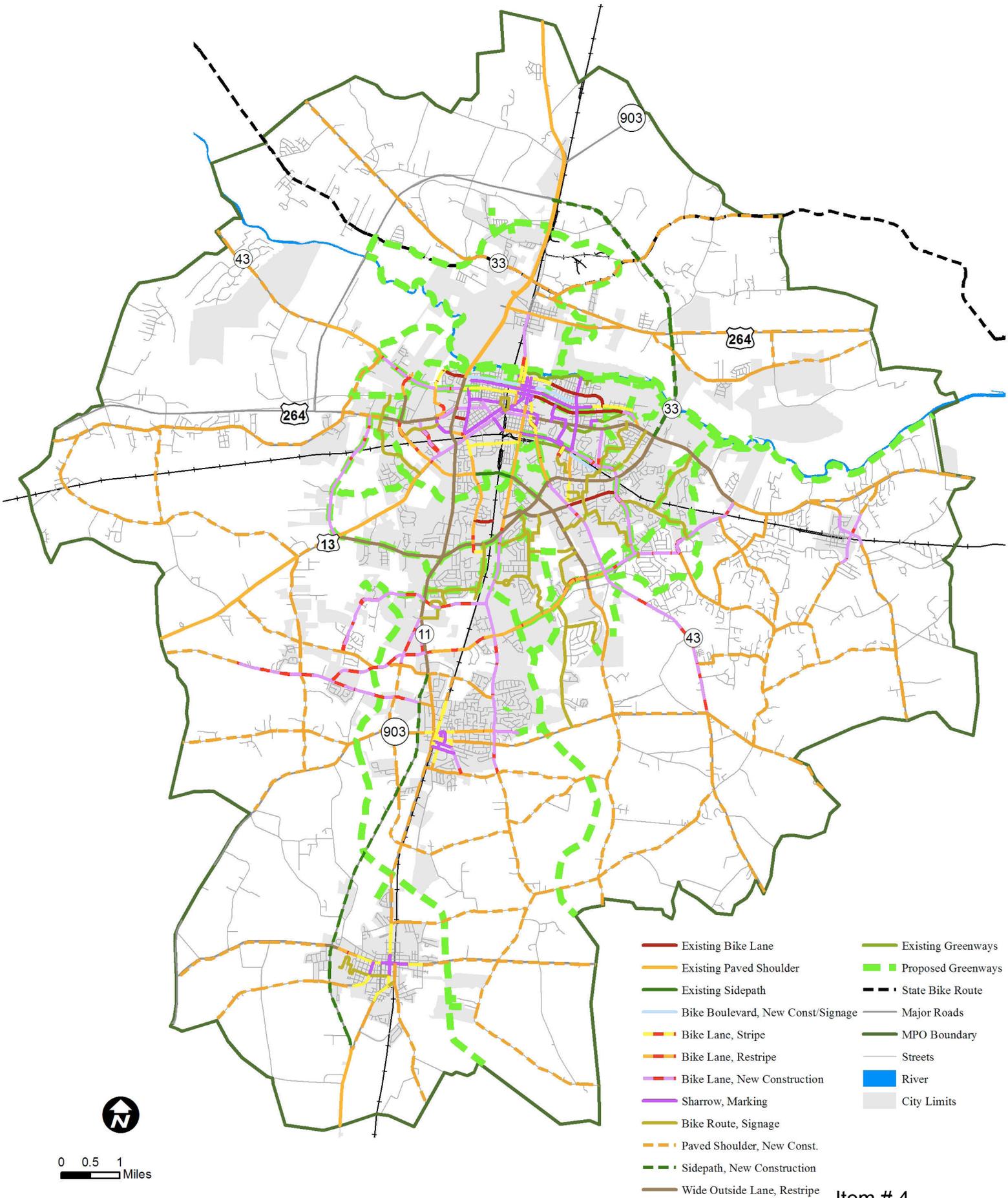
Regional Connectivity

The Greenville Urban Area should look beyond its boundaries and link bicycle and pedestrian facilities to neighboring and regional destinations. It is recommended that all member jurisdictions, Pitt County, and the Greenville Urban Area MPO coordinate efforts with surrounding communities and counties to create long distance connections for alternative transportation and recreation. It will be critical to ensure compatibility and connectivity with ongoing planning efforts and actual bicycle facilities that meet at municipality borders.

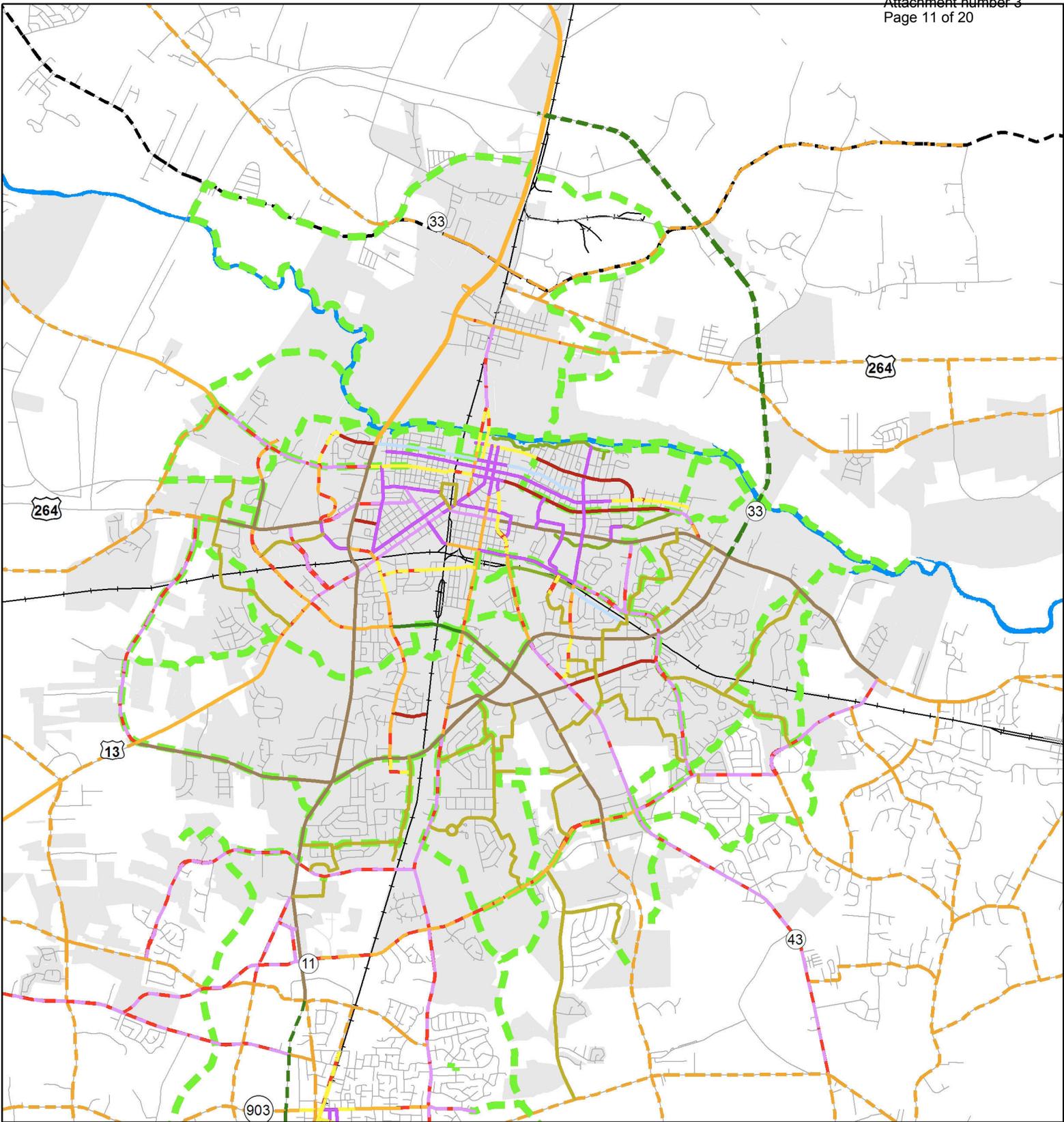
A key regional greenway corridor is the East Coast Greenway. At the time of this plan development, two conceptual greenway spines have been suggested through eastern North Carolina. One spine would traverse from the Raleigh-Durham area to Wilmington. The other spine would traverse through coastal regions, including Edenton, Wiliamston, Greenville, Jacksonville, and Wilmington. It will be important to collaborate with local and state officials, stakeholders, and the East Coast Greenway Alliance. By promoting and advancing the goals of the East Coast Greenway, the City of Greenville and surrounding jurisdictions can help ensure the passage of the national trail through the area. The Greenville Urban Area MPO should continue to work with local ECGA advocates to develop a plan for the East Coast Greenway through the metro rea and consider designating existing trails as segments of the East Coast Greenway.

Bike Network Maps

The following maps display the bike recommendations for the Greenville Urban Area MPO and each member jurisdiction. For priority pilot project descriptions and maps, see Chapter 5.



Item # 4



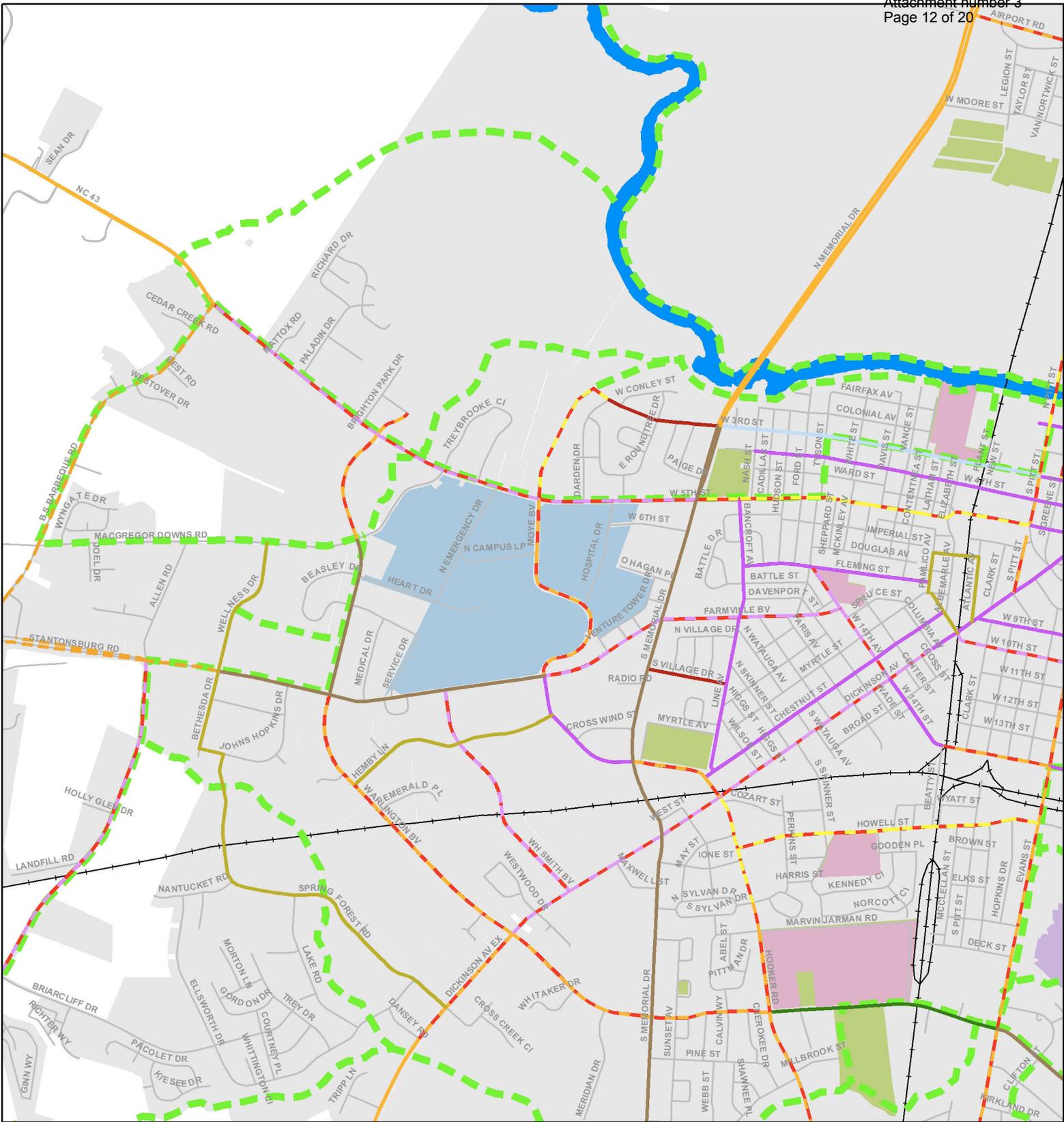
MAP 3.2 BICYCLE RECOMMENDATIONS: GREENVILLE

- | | | | | | |
|--|-----------------------------------|--|-----------------------------|--|------------------|
| | Existing Bike Lane | | Bike Lane, New Construction | | State Bike Route |
| | Existing Paved Shoulder | | Sharrows, Marking | | Streets |
| | Bike Boulevard, New Const/Signage | | Bike Route, Signage | | River |
| | Existing Sidepath | | Paved Shoulder, New Const. | | City Limits |
| | Bike Lane, Stripe | | Sidepath, New Construction | | |
| | Bike Lane, Restripe | | Wide Outside Lane, Restripe | | |
| | | | Existing Greenway | | |
| | | | Proposed Greenway | | |



0 0.5 1 Miles

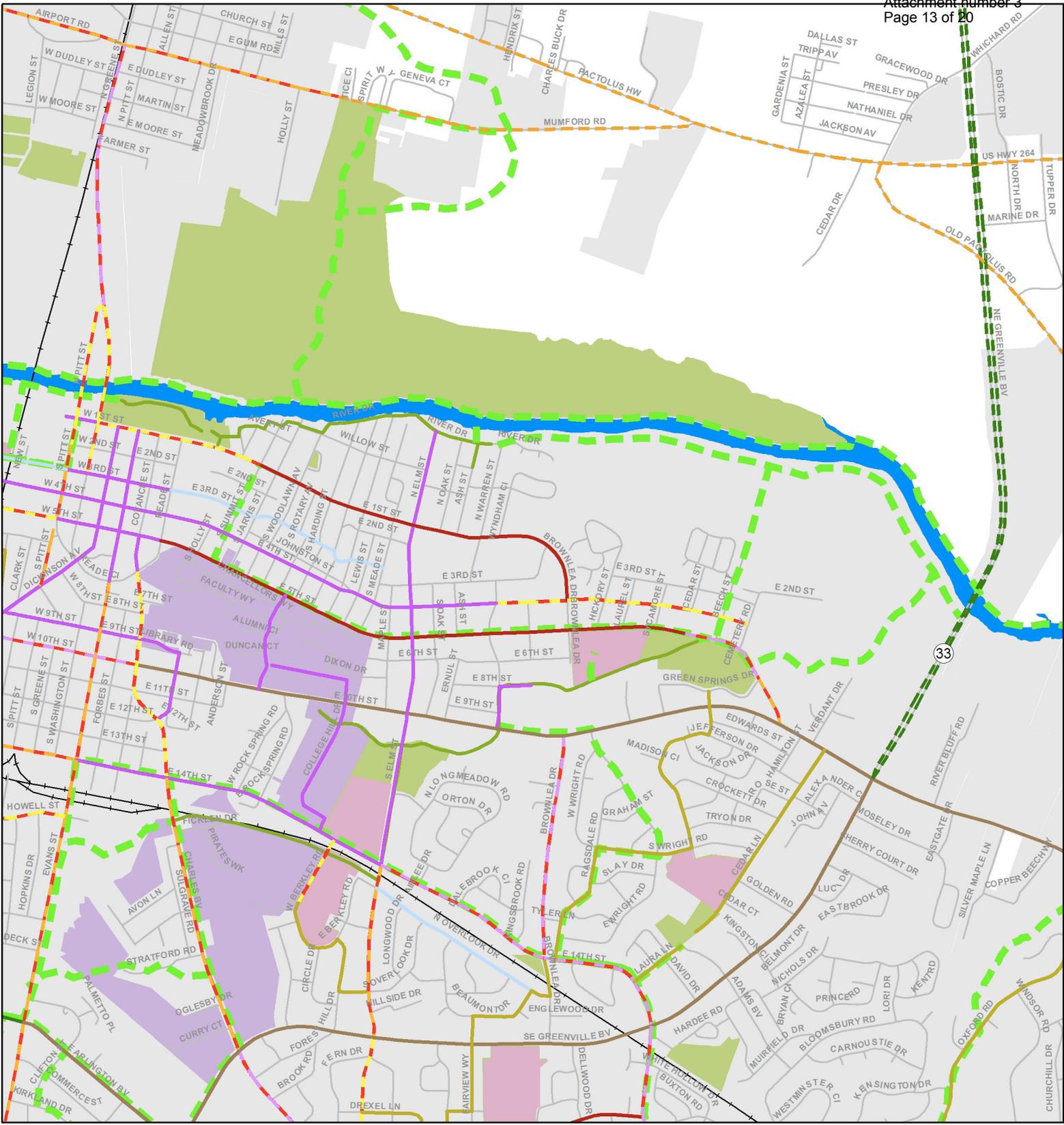
Item # 4



MAP 3.3 BICYCLE RECOMMENDATIONS: GREENVILLE (NW)

- | | | | | | |
|--|-----------------------------------|--|-----------------------------|--|------------------|
| | Existing Bike Lane | | Bike Lane, New Construction | | State Bike Route |
| | Existing Paved Shoulder | | Sharrows, Marking | | Streets |
| | Existing Sidepath | | Bike Route, Signage | | River |
| | Bike Boulevard, New Const/Signage | | Paved Shoulder, New Const. | | Schools |
| | Bike Lane, Stripe | | Sidepath, New Construction | | Parks |
| | Bike Lane, Restripe | | Wide Outside Lane, Restripe | | ECU |
| | | | Existing Greenway | | Hospital |
| | | | Proposed Greenway | | City Limits |

0 0.25 0.5 Miles



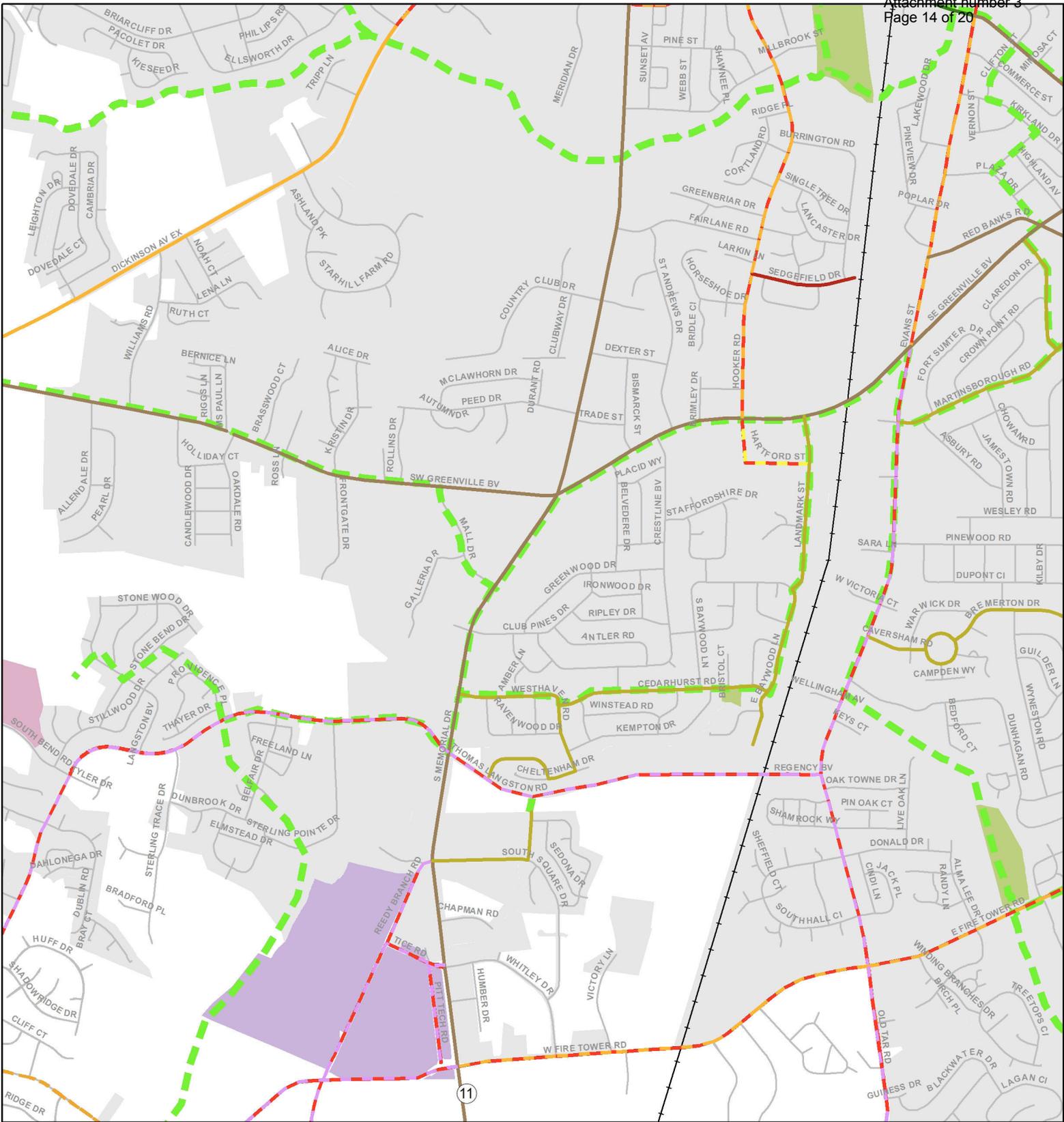
MAP 3.4 BICYCLE RECOMMENDATIONS: GREENVILLE (NE)

- Existing Bike Lane
- Bike Lane, New Construction
- State Bike Route
- Existing Paved Shoulder
- Sharrow, Marking
- Streets
- Existing Sidepath
- Bike Route, Signage
- River
- Bike Boulevard, New Const/Signage
- Paved Shoulder, New Const.
- Schools
- Bike Lane, Stripe
- Sidepath, New Construction
- Parks
- Bike Lane, Restripe
- Wide Outside Lane, Restripe
- ECU
- Existing Greenway
- Hospital
- Proposed Greenway
- City Limits



0 0.25 0.5 Miles

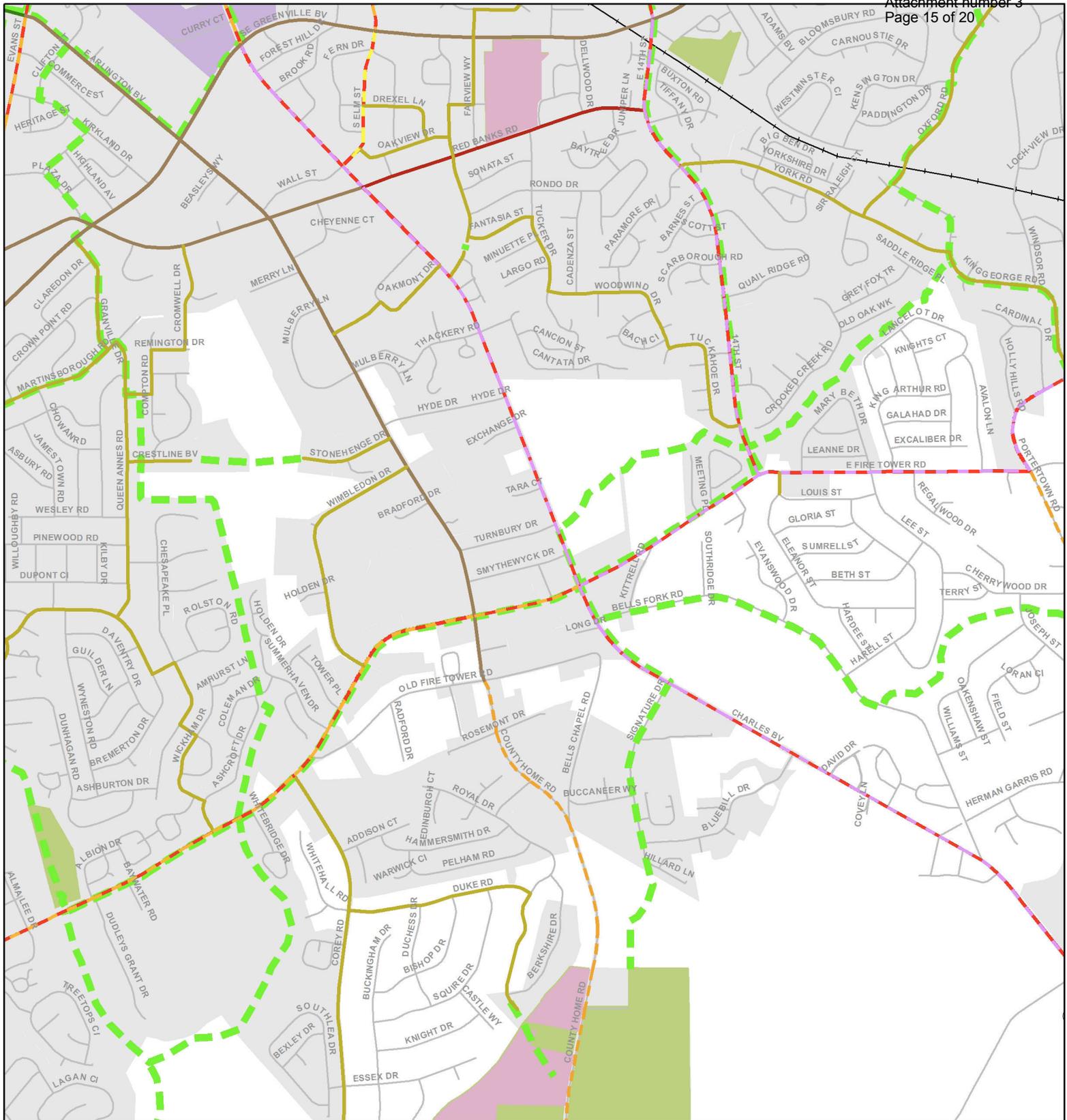
Item #14



MAP 3.5 BICYCLE RECOMMENDATIONS: GREENVILLE (SW)

- | | | | | | |
|--|-----------------------------------|--|-----------------------------|--|-------------------|
| | Existing Bike Lane | | Bike Lane, New Construction | | State Bike Route |
| | Existing Paved Shoulder | | Sharrow, Marking | | Streets |
| | Existing Sidepath | | Bike Route, Signage | | River |
| | Bike Boulevard, New Const/Signage | | Paved Shoulder, New Const. | | Schools |
| | Bike Lane, Stripe | | Sidepath, New Construction | | Pitt C.C. |
| | Bike Lane, Restripe | | Wide Outside Lane, Restripe | | Parks |
| | | | Existing Greenway | | Item #14 Hospital |
| | | | Proposed Greenway | | City Limits |

0 0.25 0.5 Miles



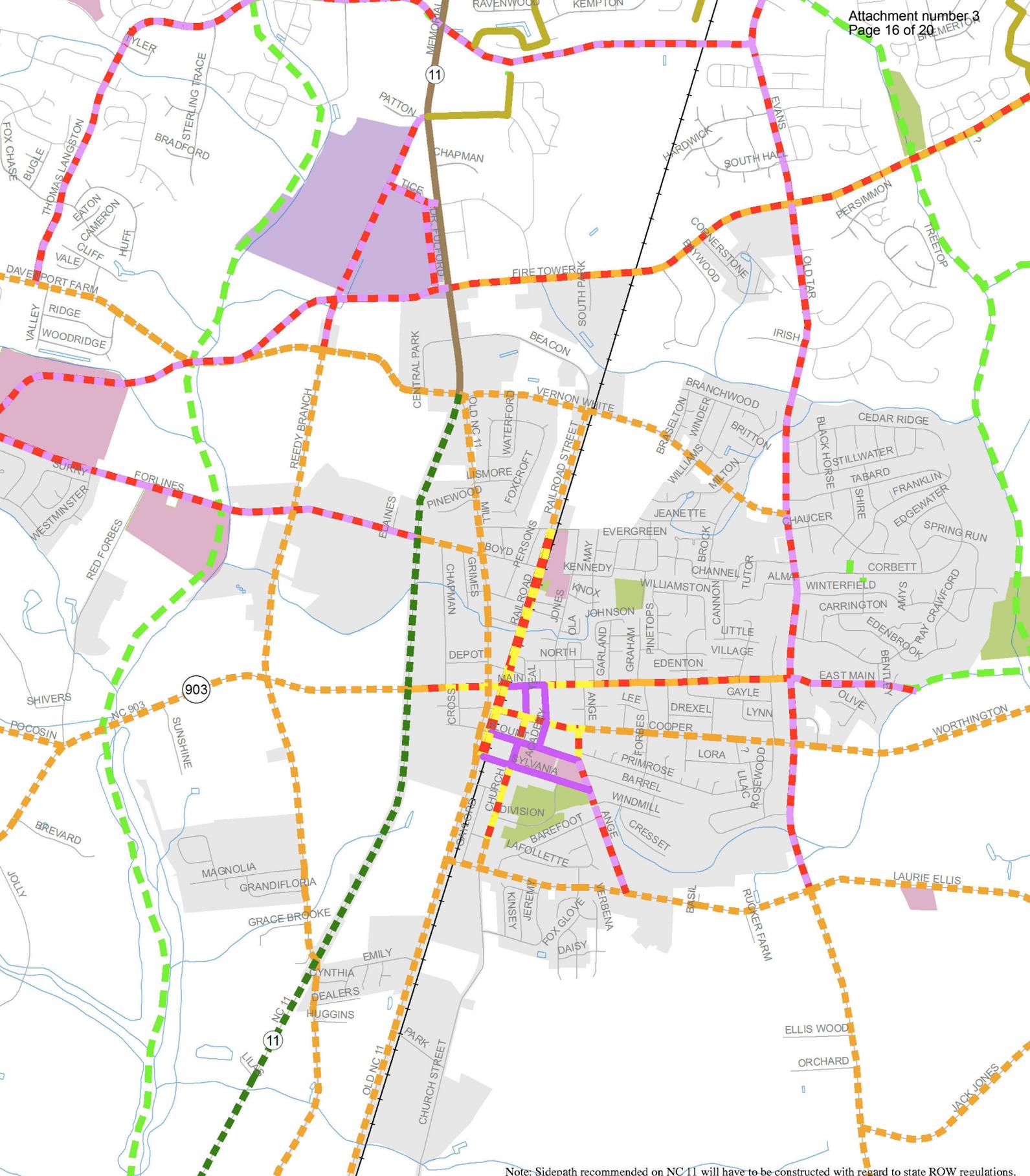
MAP 3.6 BICYCLE RECOMMENDATIONS: GREENVILLE (SE)



0 0.25 0.5 Miles

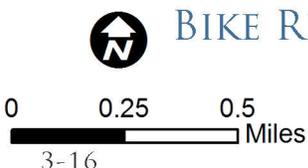
- Existing Bike Lane
- Existing Paved Shoulder
- Existing Sidepath
- - - Bike Boulevard, New Const/Signage
- - - Bike Lane, Stripe
- - - Bike Lane, Restripe
- · - · - Bike Lane, New Construction
- - - Sharrow, Marking
- - - Bike Route, Signage
- · - · - Paved Shoulder, New Const.
- - - Sidepath, New Construction
- - - Wide Outside Lane, Restripe
- - - Existing Greenway
- - - Proposed Greenway
- - - State Bike Route
- Streets
- River
- Schools
- Parks
- ECU
- Hospital
- City Limits

Item #14



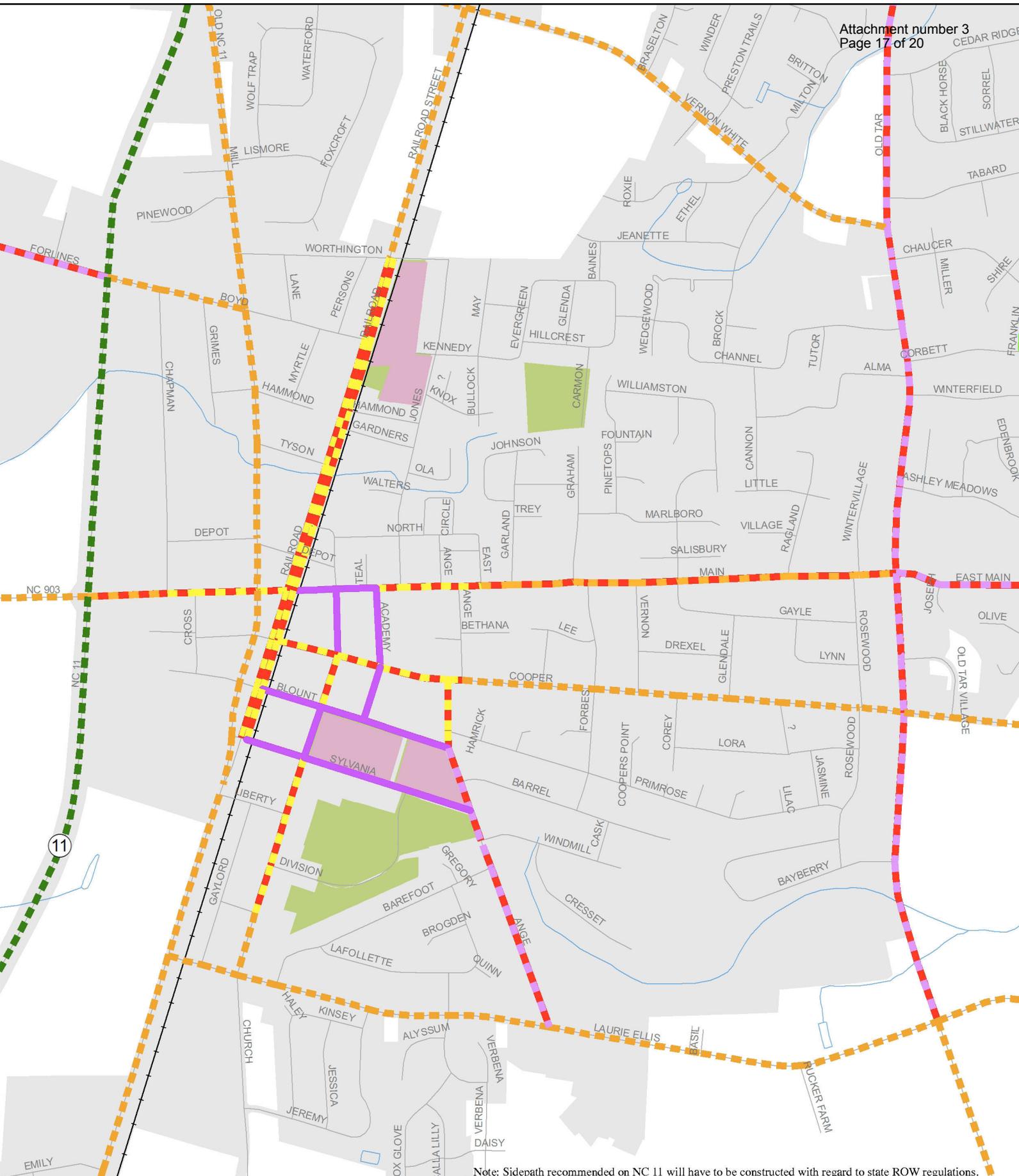
Note: Sidpath recommended on NC 11 will have to be constructed with regard to state ROW regulations.

MAP 3.7 WINTERVILLE BIKE RECOMMENDATIONS



- Existing Bike Lane
- Existing Paved Shoulder
- Bike Lane, Stripe
- Bike Lane, Restripe
- Bike Lane, New Construction
- Sharrow, Marking
- Bike Route, Signage
- Paved Shoulder, New Const.
- Sidpath, New Construction
- Wide Outside Lane, Restripe
- Recommended Greenways
- State Bike Route
- Streets
- Hydrology
- Schools
- Parks
- Pitt Community College
- Winterville

Item # 4



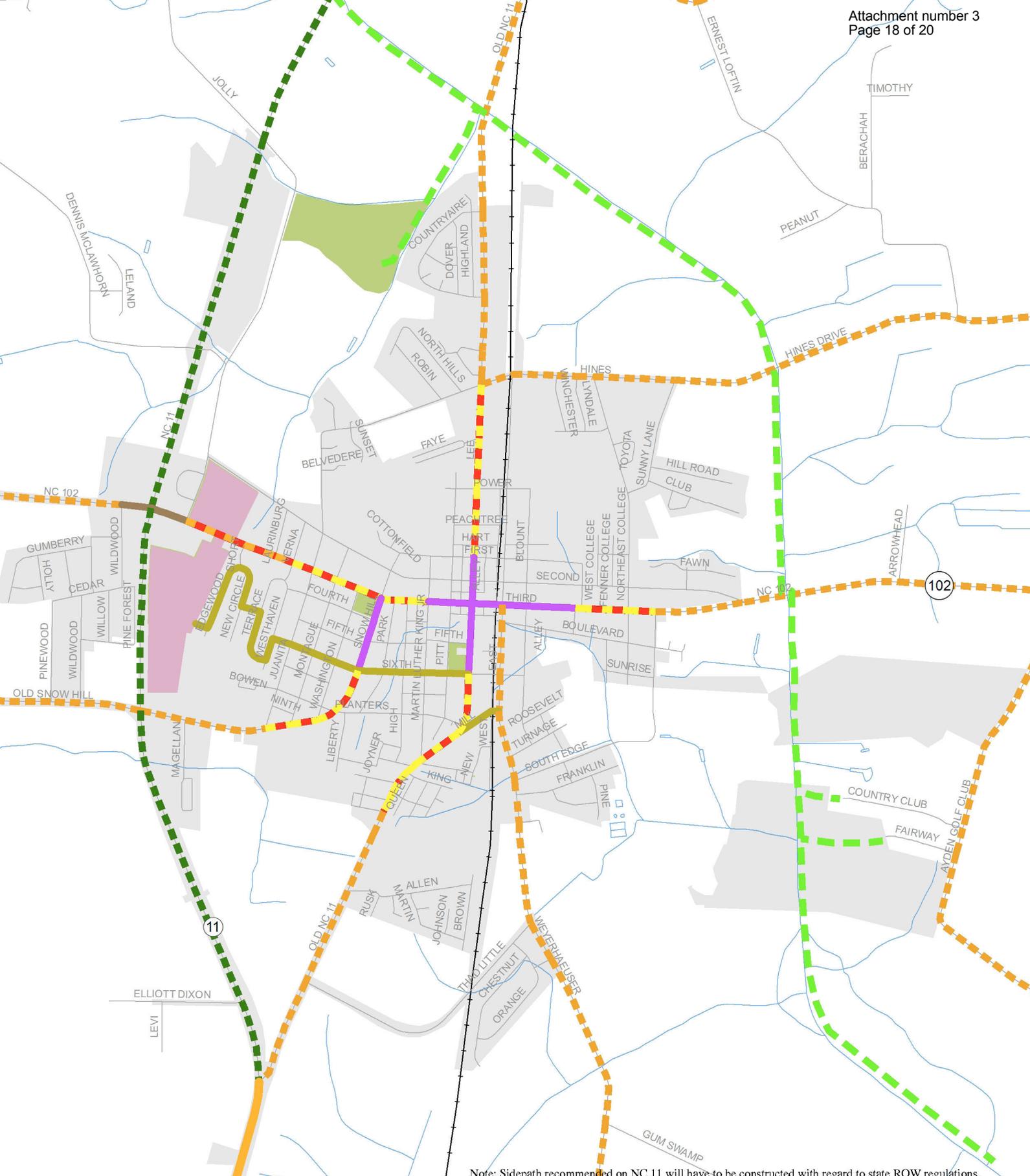
Note: Sidepath recommended on NC 11 will have to be constructed with regard to state ROW regulations.

MAP 3.8 WINTERVILLE DOWNTOWN BIKE RECOMMENDATIONS



- | | | |
|-----------------------------|-----------------------------|------------------|
| Existing Bike Lane | Sharrow, Marking | State Bike Route |
| Existing Paved Shoulder | Bike Route, Signage | Streets |
| Bike Lane, Stripe | Paved Shoulder, New Const. | Hydrology |
| Bike Lane, Restripe | Sidepath, New Construction | Schools |
| Bike Lane, New Construction | Wide Outside Lane, Restripe | Parks 3-17 |
| | Recommended Greenways | Winterville |

Item # 4



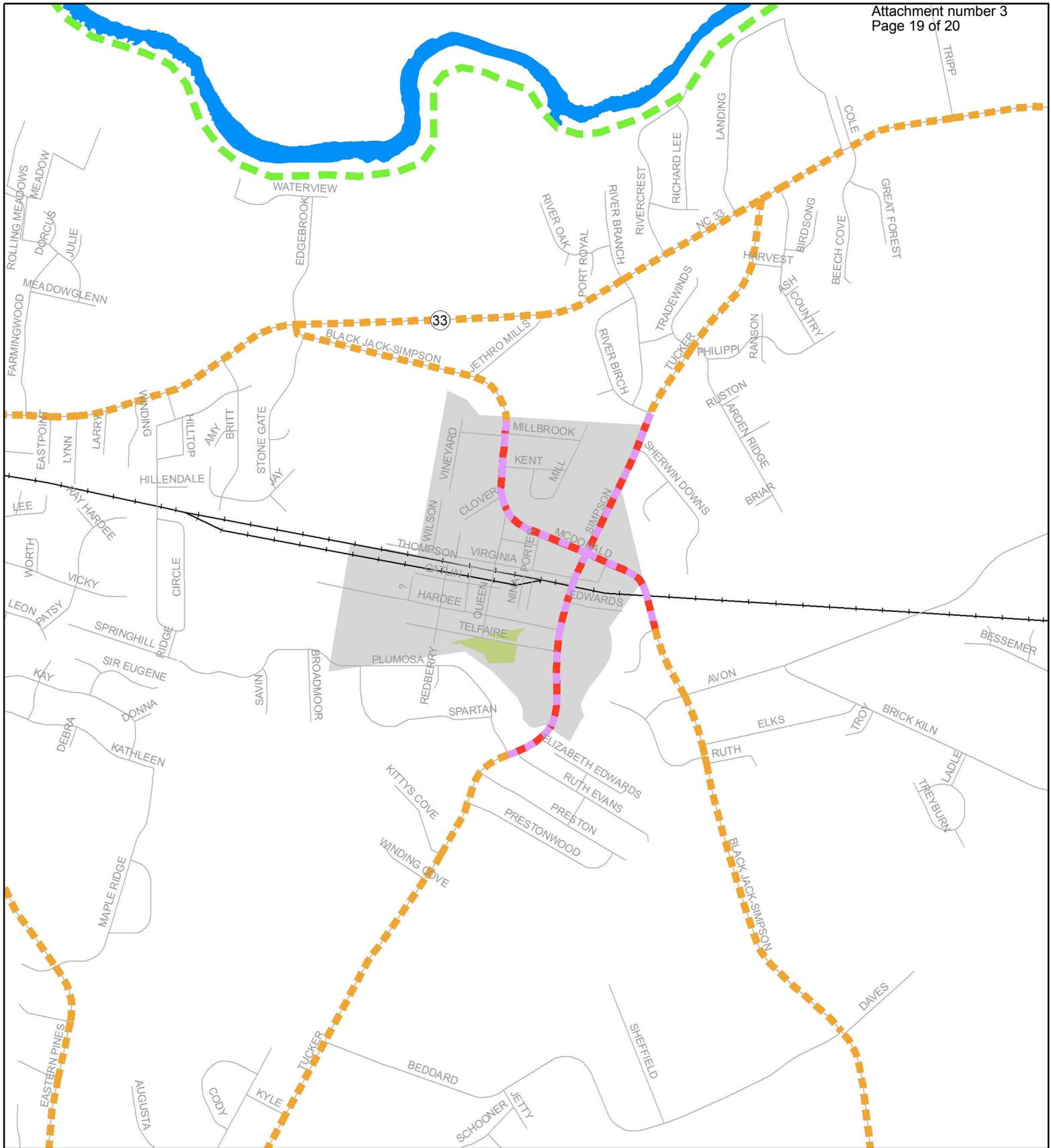
Note: Sidepath recommended on NC 11 will have to be constructed with regard to state ROW regulations.

MAP 3.9 AYDEN BIKE RECOMMENDATIONS



- | | | |
|-----------------------------|-----------------------------|------------------|
| Recommended Greenways | Sharrow, Marking | State Bike Route |
| Existing Bike Lane | Bike Route, Signage | Streets |
| Existing Paved Shoulder | Paved Shoulder, New Const. | Hydrology |
| Bike Lane, Stripe | Sidepath, New Construction | Schools |
| Bike Lane, Restripe | Wide Outside Lane, Restripe | Parks |
| Bike Lane, New Construction | | Ayden |

Item # 4



MAP 3.10 SIMPSON
BIKE RECOMMENDATIONS

- - - Bike Lane, New Construction
- - - Paved Shoulder, New Const.
- - - Recommended Greenways
- Streets
- River
- Park Item # 4
- Simpson



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double-sided printing)*



City of Greenville, North Carolina

Meeting Date: 6/21/2011
Time: 6:30 PM

Title of Item: Update on Review of Vegetation Requirements

Explanation: One of the action items under *Goal 6 : Plan for High Quality, Sustainable Growth* of City Council's adopted Goals for the current year is as follows:

"Analyze the comments received from landscape professionals on the vegetation requirements as part of the review process and recommend changes to the landscape regulations as appropriate."

In an effort to meet this City Council directive, Staff contacted twelve landscape professionals and requested that they review the City's Vegetation Requirements located within Article P of the Zoning Ordinance and provide comments related to potential modifications. While this request resulted in few comments, it did lead to additional landscape professionals that agreed to provide detailed comments; particularly related to the types and varieties of trees and shrubs that are permitted to be used to meet the City's vegetation requirements.

Fiscal Note: There are no anticipated fiscal impacts to the City.

Recommendation: This is a Staff Update only. No action is requested.

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Attachments / [click to download](#)