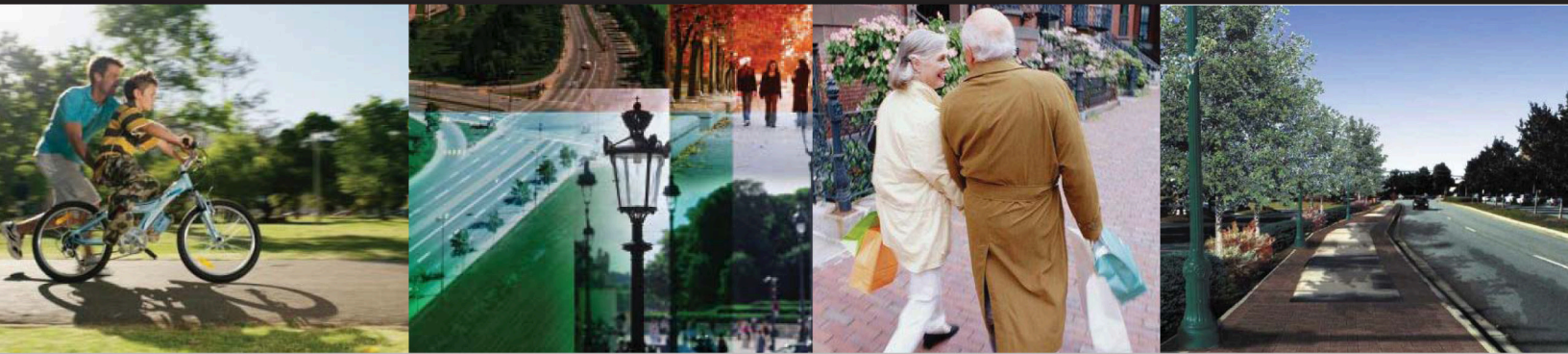


JUNE 2008

# Forsyth County Bicycle Transportation & Pedestrian Walkways 2025 Plan: 2008 Update





## TABLE OF CONTENTS:

|   |       |
|---|-------|
| 1. INTRODUCTION.....                              | 1     |
| 2. REVIEW OF GOALS AND OBJECTIVES.....            | 1- 4  |
| 3. NATIONAL, STATE AND REGIONAL TRENDS.....       | 4-13  |
| 4. OUTREACH.....                                  | 13    |
| 5. REPORT RECOMMENDATIONS.....                    | 13-14 |
| 6. PROJECT LISTS, MAPS AND SOURCE REFERENCES..... | 14    |
| • Project Lists                                   |       |
| • Maps:   |       |
| Bike and Pedestrian network map                   |       |
| GDOT Safe Routes to School Overlay map            |       |
| • Table 1.1: Source References                    |       |

## **7. Appendix:**

**Excerpts from the previous version of the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 plan dated May 2002.**

- Executive Summary
- Best Practices for Bicycle and Pedestrian Facility Design (section 5)
- Typical Facility Type Sections



## 1. INTRODUCTION

In May 2002, Forsyth County adopted a Bicycle Transportation and Pedestrian Walkways Plan. The plan was created in order to streamline development efforts towards alternate modes of transportation and provide connectivity between destinations within the county, as well as regionally. Bicycle and pedestrian facilities were programmed in concert with *The Forsyth County Comprehensive Transportation Plan (CTP)* and the Atlanta Regional Commission's (ARC) recommendation for increased non-motorized planning efforts. In 2006, Forsyth County released an update to the CTP, which represents a current evaluation of transportation needs directly related to population and employment growth. The CTP suggests that the county's population is projected to increase to 394,000 by 2030. Air quality, regional mobility and future land use plans are key factors in assessing transportation needs; thus having a direct impact on the county's bicycle and pedestrian facilities.

To ensure bicycle and pedestrian plans continue to be consistent with current trends and growth patterns, a five year assessment is warranted. The 2008 Update includes the following data:

- Issues and Opportunities
- Review and analysis of the 2025 goals and objectives
- Inventory of existing bike and pedestrian facilities and committed projects
- Update on regional, state and national trends
- Public outreach
- Evaluation and update on recommendations for bike and pedestrian facilities and policies
- Prioritized project lists. Updated route maps including destination points, regional connections and relevant traffic data.

## 2. REVIEW OF GOALS AND OBJECTIVES

A major component of the update process is to assess the previous goals and objectives developed in the 2025 Bicycle and Pedestrian plan and reevaluate strategies as needed to stay current with the county's growth patterns and trends. The assessment takes into account inventory and analysis of existing and committed projects, forecasted transportation efforts, review of implemented policies and tracking progress towards achieving goals. An outline and evaluation summary for all goals and objectives are provided below.

**Goal 1: Provide a system of safe, convenient, and accessible bike/pedestrian facilities working through governmental agencies, private sector, and the general public**

*Objectives as outlined in the 2025 plan:*

1. *Provide a connected system to destination points*



2. *Provide connections to other modes of transportation*
3. *Coordinate facilities with road improvements and right of way corridors to minimize public costs.*
4. *Ensure safety and needs for all user types by ways of educational programs, tracking bike / pedestrian accidents and developing a bicycle suitability analysis.*
5. *Implement a maintenance program*
6. *Provide ancillary facilities to enhance bike / pedestrian systems*
7. *Support bike and pedestrian training and safety programs*
8. *Develop and require bike and pedestrian systems to meet ADA and typical design standards adopted by Forsyth County.*

**Evaluation:** Since inception of the 2025 plan, Forsyth County has worked diligently towards achieving an interconnected system of bike and pedestrian facilities by ways of mapping, implementation of typical design standards including facilities with all new road projects. Many of the short term projects are underway, and a few facilities have been completed. The majority of the bike/ped facilities are associated with road improvement projects which in turn lower the overall impact costs for construction. Federal and State programs are available for both educational and funding assistance, specifically the Safe Routes to School Program which will be discussed further in the Current Trends section. The Atlanta region also provides for Livable Centers Initiative (LCI), study grants which the County received in 2006. This update provides an inventory of existing trails and denotes proposed road improvement projects with associated bike/ped projects. In addition, connections to adjacent communities are assessed and mapped.

**Goal 2: Amend the development process guidelines to encourage and promote the proliferation of bike/pedestrian facilities.**

*Objectives as outlined in the 2025 plan:*

1. *Require sidewalks along identified high priority pedestrian corridors adjacent to proposed developments.*
2. *Encourage developers to build sidewalks within subdivisions*
3. *Require proposed developments to provide connectivity to adjacent land uses within ¼ of a mile.*
4. *Encourage pedestrian connections between compatible land uses through short term transportation projects and the DRI review.*
5. *Establish and encourage the construction of typical design standards and include in the Forsyth Development Code.*
6. *Include bike / pedestrian planning considerations in all transportation improvements.*
7. *Coordinate bicycle and pedestrian planning efforts with countywide recreational and health planning considerations.*





**Evaluation:** A large effort on the bicycle and pedestrian plan is dependant on connectivity to and through private developments. To assist with facility implementation, Forsyth County has amended the Development Code to include mandatory sidewalk and bike facilities for several development types including activity centers and large commercial and office developments. Specific examples include requirements for sidewalks fronting public streets and connections to adjacent residential neighborhoods. In addition, there are requirements for providing bike parking facilities and implementing pedestrian and bike friendly crossings throughout developments. The development code should be evaluated on a periodic basis to determine the effectiveness of bicycle and pedestrian facility requirements posed on private developments.

**Goal 3: Provide adequate funding and staffing resources for planning, developing and maintaining high quality bicycle and pedestrian systems.**

*Objectives as outlined in the 2025 plan:*

1. *Actively pursue all eligible federal and state funds for bicycle and pedestrian planning.*
2. *Coordinate bike / pedestrian projects to maximize opportunities for joint developments.*
3. *Establish a bike / pedestrian fund for developer contributions in lieu of construction of such facilities, as approved on a case by case basis by Forsyth County staff.*
4. *Include bike / pedestrian projects in future local sales tax programs.*
5. *Establish a staff position to act as a technical resource for bike / pedestrian planning.*

**Evaluation:** Since inception, the majority of the bike and pedestrian projects have been funded either through federal or state assistant programs or through SPLOST dollars. Each year, Forsyth County will evaluate and prioritize all capital improvement projects based on eligibility of funds available through various government agencies in order to lower the impact of overall construction costs. Currently, the Forsyth County staff of planners, engineers and GIS personnel, act as a cohesive technical resource for bike and pedestrian planning efforts eliminating the need for a single staff position. Objective three, a pedestrian fund “bank” for developer contributions has not been implemented to date because it has been deemed inappropriate give requirements under Georgia law impact fees.

**Summary of Issues and Opportunities**

As the bike and pedestrian plan is progressing forward, issues and opportunities will continue to arise out of increased development, air quality concerns and mobility. Currently, the county is undergoing a major road widening and transportation improvement effort. With this change comes traffic congestion at construction sites and bottleneck areas, which is and always will be a major concern for residents. However, with this task lies an opportunity to implement bike and pedestrian facilities as roads are improved, added or reconstructed.

Additionally, funding will continue to be an issue for bike and pedestrian facilities. However, by prioritizing projects, immediate needs for such facilities can be assessed on

a short term basis and funding assistance can be sought based on the programs available at that time. Recently, the Georgia DOT adopted the **Safe Routes to School Program** which provides funding assistance for bike and pedestrian facilities within a 2 mile radius for K-8 schools. The trend appears to be that the nation as a whole is seeking improved air quality; therefore, a continued increase in funding opportunities should be available to solve this issue on a global level.

### 3. NATIONAL, STATE AND REGIONAL TRENDS

The information provided in the narrative below is a brief update related to current trends as referenced in the 2025 Bicycle and Pedestrian Plan. For a complete description of each program noted below, Table 1.1 at the back of the update provides references to website links and community contacts pertaining to applicable programs.

#### National Trends:

Forsyth County's 2025 bike and pedestrian plan references the *Transportation Act of the 21<sup>st</sup> Century (TEA-21)*, signed into law June 1998 which provided federal funding to integrate bicycle and pedestrian facilities into the overall transportation system. The *TEA-21* expired September 30, 2003. In lieu of this program, on August 10, 2005, *The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)* was enacted to provide "guaranteed funding for highway transportation totaling \$244.1 billion", as stated in the *Summary of Highway Provisions in SAFETEA-LU*. One highway provision specifically geared towards non-motorized transportation is *The Safe Routes to School Program*. The program's purpose is to "establish a task force, composed of leaders in health, transportation, and education, to study and develop a strategy for advancing safe routes to school programs nationwide".

#### State Trends:

In November 2007, the Georgia Department of Transportation adopted the Safe Routes to School Program (SRTS) aimed at creating a safe environment for bicycling and walking to school. Federal funding is available for improving Bike/Ped infrastructure, establishing educational programs and encouraging non motorized activities to and from school. The program is available for state, regional, local, county, city and school districts with grades K-8 and is divided into two components: Non-infrastructure (activities) and infrastructure (projects). Non-infrastructure activities include educational programs to encourage biking and walking to schools, assistance with safety and traffic enforcement and most importantly assists with the development of a SRTS plan. These services are administered through the SRTS Resource Center and are available to all (K-8) schools.

The infrastructure component is the project side of the program. To qualify, all projects must be actively engaged in non-infrastructure activities with priority given to schools enrolled in the Resource Center, shall be within a 2 mile radius of a k-8 school and must comply with federal and state funding requirements. Eligible project types include sidewalk improvements, traffic calming devices, bicycle and pedestrian facilities, and crossing and traffic diversion improvements. As stated in the *Safe Routes to School Program*, the *GDOT* will solicit applications biannually and will be advertised on the *GDOT's SRTS* website. The maximum allowed for each application is \$500,000 per funding cycle. All approved projects are 100% funded and will be designed, constructed



and managed by the GDOT through planning and engineering consultants and contractors. In addition, annual evaluation for all awarded projects is required in order to review the effectiveness of the program and use of funding.

Additional funding sources disseminated through the State and the Atlanta Regional Commission which include Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement Program (CMAQ), and Recreational Trails Program (RTP).

**Georgia Mountains Regional Development Center (GMRDC):**

Although Forsyth County is designated as part of the greater Atlanta Metropolitan Planning Organization (MPO) and is included in the Atlanta Regional Commission's (ARC) air quality non attainment area, for planning purposes the County belongs to the GMRDC collectively along with 12 other North Georgia counties. The GMRDC is responsible for reviewing major developments in Forsyth for transportation, land use and environmental guidance. In August 2005, the GMRDC adopted a Bicycle and Pedestrian Plan that integrates non motorized modes of transportation within the region's infrastructure.

Because Forsyth is included in the ARC's non attainment area, the GMRDC has not included Forsyth in their Bike and Ped plan. However, the GMRDC has identified a few potential projects suggested for Forsyth County which could serve as connections to neighboring communities and county schools. These projects include Post Road, State Route 9, Sharon Road, Old Atlanta Road, Pilgrim Mill Road, Browns Bridge Road and Keith Bridge Road. Relevant maps are on file with the GMRDC planning office. Most, if not all correlate with Forsyth County's plan for bicycle and pedestrian infrastructure improvements.

**Atlanta Regional Commission (ARC):**

In June 2007, The ARC released the update to the *Atlanta Region Bicycle Transportation & Pedestrian Walkways Plan*. The purpose of the update was twofold; it developed a series of tangible goals based on the analysis of existing bike-ped conditions and it focused planning efforts on the region's critical issues including air quality, mobility, safety and healthy living. In addition, the new *Plan* addressed policies and projects built around activity centers and destination points. The Strategic Bicycle Corridor Study was developed for recommending specific facility types to serve as links between regionally significant nodes including the ARC defined Livable Centers Initiative study sites, Town Centers and regional Activity Centers. Forsyth County has three roads identified in the network corridor defined in the ARC's Regional Strategic Transportation System (RSTS).

The three roads identified are State Route 9, McGinnis Ferry, and Buford Highway. The level of accommodation for bicycles and pedestrians on these three roads, in addition to the overall ARC network, is well below the standard average. The following performance measures were considered in the evaluation: "volume, mix, and speed of vehicular traffic; the width of the outside travel lane and the width of any paved shoulder or bike lane; the pavement conditions; and the presence and occupancy rate of on-street parking."



The suggested minimum strategy for improvement on the three identified Forsyth County corridors is to add paved shoulders along the roadways. Roads with high traffic volumes, speeds and truck traffic should be assessed for wider shoulder dimensions than the recommended AASHTO and GDOT standards. To assist with federal funding for improving major corridors in the RSTS, the ARC has recommended a process for prioritizing projects in the Transportation Improvement Program (TIP). Additional funding sources are available through the SAFETEA-LU, Livable Center Initiatives and SPLOST programs.

ARC also administers the Livable Centers Initiative under planning, design, and construction funds for alternative transportation options like biking and walking are available to eligible communities. Forsyth County became eligible for these funds in 2006, for the McFarland Stoney Point sub-area of the the County, when it won and LCI award.

**McFarland-Stoney Point Livable Communities Initiative (LCI):**

In 2006, Forsyth County undertook a Livable Centers Initiative (LCI) study for the McFarland/Ronald Reagan area, funded by a match grant from the Atlanta Regional Planning Commission. The plan recommends a series of transportation improvements including new sidewalk and shared use paths. In 2007 the County pre-qualified for construction funding for sidewalks. The project pursued involved 5-foot sidewalks, with a minimum 2-foot grass strip between the back of curb and sidewalk along McFarland Parkway, Shiloh and along Cabot Parkway, and a 10-foot multi-use path with a minimum 2-foot grass strip along McFarland Parkway. Curb and gutter was also needed. The projected cost of \$3,545,389 would have covered PE, ROW and Construction. While ARC did not grant construction funds under the 2007 completion, the county remains eligible if it demonstrates progress towards implementing the plan.

**Neighboring Community Bicycle and Pedestrian Plans:**

Since the *2025 Plan* was prepared in 2003, there have been several bicycle and pedestrian project updates for the surrounding communities. Those updates are provided in the summaries below.

Cherokee County:

Cherokee County serves as the western border to Forsyth County. Currently Cherokee County does not have a bicycle plan in place, but has prepared a bicycle suitability study as part of their *Comprehensive Transportation Plan* (CTP). In addition, there are long range plans for bike lanes to be implemented along SR 20 once the road is widened. Also found in the CTP, is a sidewalk inventory, of which focuses efforts toward the center of the county. Forsyth County has three proposed bike / ped facilities that will connect up with Cherokee County. Those roads are Drew Campground and Bentley, of which will both be signed shared roadway facilities. The proposed Etowah Greenway River Trail will also connect up to Cherokee and run along the Etowah River.

**Recommendation:**

Coordinate design standards and trail types with Cherokee County at path connections for Drew Campground Road, Bentley Road and Etowah Greenway.

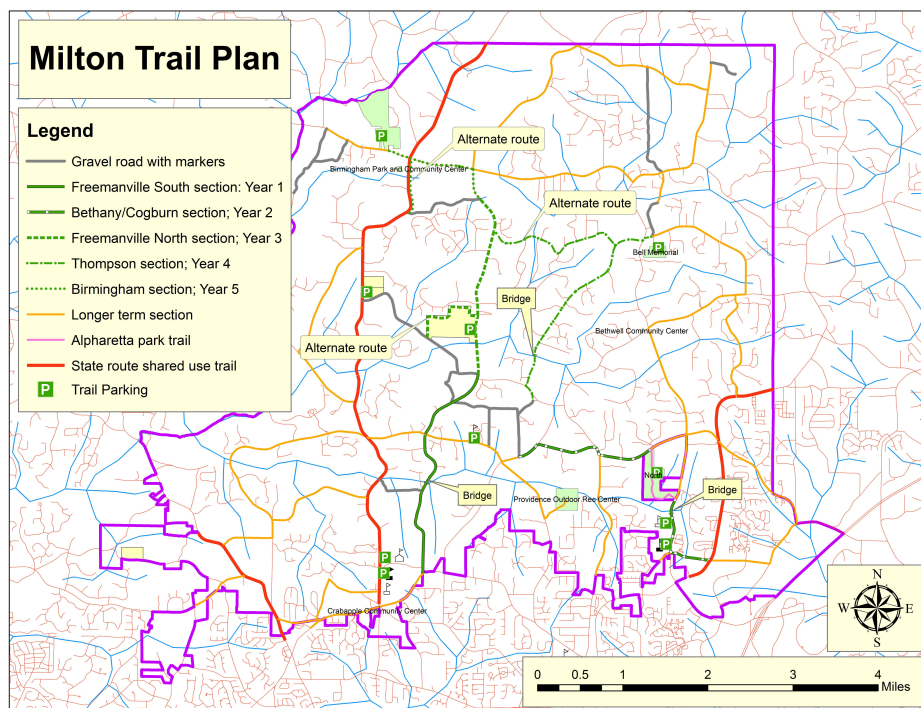
### City of Milton:

The City of Milton is located in North Fulton County. It serves as the western border to Forsyth County. In May 2007 the City of Milton adopted *The Milton Trail Plan* with a single goal, "...to preserve the rural quality of life in the City of Milton by creating an easily accessible shared use trail system connecting the City's schools, parks, neighborhoods, and other points of interest." A strong emphasis of this infrastructure system was placed on connectivity both internally and externally to surrounding areas. The City of Milton's shared use trail system will accommodate pedestrians, bicyclists, equestrians, and a variety of other forms of non-motorized transportation. The ARC has identified State Road 9 (SR 9) as a regional strategic bicycle corridor, making SR 9 a major segway into neighboring Forsyth County.

A Citizens Advisory Committee was established to identify short and long term plans for bicycle and pedestrian destinations throughout the city. Of those recommendations, **Bethany Bend** and **Morris Road** are included as long term trail connections to Forsyth County. Further potential for bicycle and pedestrian routes were suggested, but not included in the plan, along **Francis Road** and **Lively Road**. As these trails come online, it is recommended that The City of Milton and Forsyth County coordinate the facility type along the planned routes to provide for a seamless transition for users.

### **Recommendation:**

As the proposed routes come online for the City of Milton, it is recommended that Forsyth provide continuation and connectivity into the county. Both the City of Milton and Forsyth County should coordinate the facility types and design standards along planned routes in order to provide a seamless transition for users throughout the network.



Source: The Milton Trail Shared Use Trail Plan May 2007  
Available Online: <http://www.cityofmiltonga.us/services/docs/MTP-Map.pdf>



### City of Alpharetta:

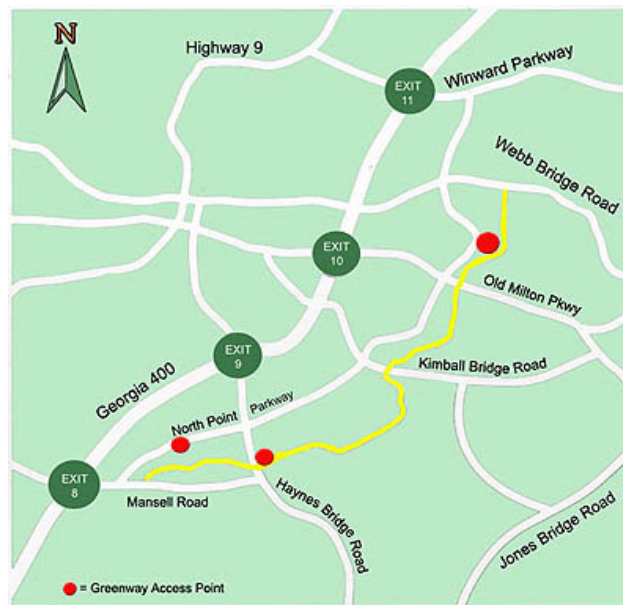
The City of Alpharetta is located in North Fulton County. It serves as the southwestern border to Forsyth County and lies between the City of Milton and the City of Johns Creek. According to the *Alpharetta Comprehensive Plan 2025*, the city puts great emphasis on pedestrian and bicycle facilities, calling such facilities, "...an important element of a high quality urban environment... and distinguishes it from the automobile-oriented environments of suburban and rural areas." The city currently has several corridors with paved shoulders wide enough to accommodate experienced bicyclists. In addition, the city's development code mandates that all new developments have sidewalks to accommodate pedestrians.

There are three roads connecting up to Forsyth County with proposed or existing bicycle and pedestrian facilities. Those roads are McGinnis Ferry Road, Union Hill and Windward Parkway. Both Union Hill and Windward Parkway have existing sidewalks in place. In addition, there are segments of McGinnis Ferry Road with sidewalks in place at major destination points such as retail centers or subdivision entrances. Forsyth County has planned for both multi-purpose trail and sidewalks along McGinnis Ferry Road in the short range goals of the Bike / Ped plan.

In regards to recreational trail systems, Big Creek Greenway runs north south through the City of Alpharetta and into Forsyth County. Currently, the two trails do not connect due to large areas of privately owned land bisecting the routes.

### **Recommendation:**

Work with the City of Alpharetta to find alternate routes to connect to Alpharetta's Big Creek Greenway Trail by ways of multi-use facilities along main road corridors or local roads leading to the Greenway. Coordinate potential Forsyth County connections with the City of Alpharetta.



Source: City of Alpharetta Comprehensive Plan 2025 Available Online:  
<http://www.alpharetta.ga.us/files/docs/pdfs/Publications/COMPLAN%202025/Maps/Community%20Facilities%20Map.pdf>

### City of Johns Creek:

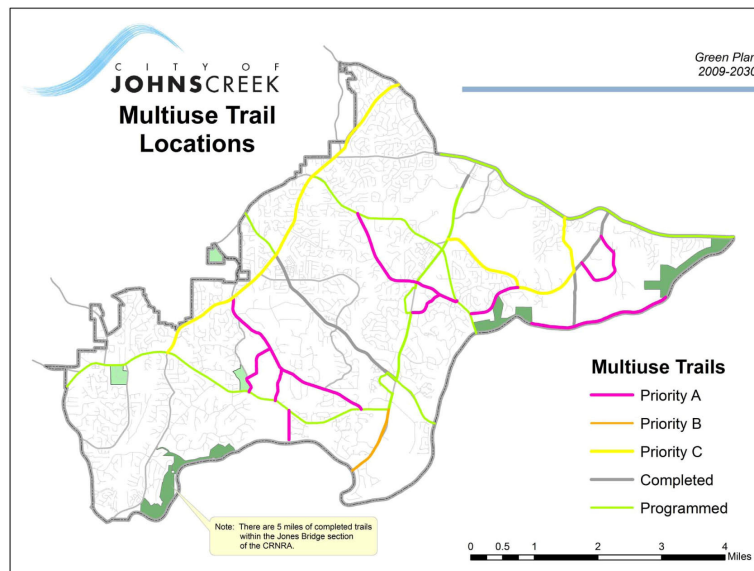
The City of Johns Creek is located in North Fulton County. It serves as the southern border to Forsyth County. The City of Johns Creek is currently working to finalize their 2025 Comprehensive Plan. Until then, the Interim Plan places a strong focus on livable communities, environmental stewardship, economic opportunity, and mobility. Of these, the plan states that it “is essential that transportation – automobile, public, pedestrian, and bicycle transportation be efficient, timely and kept in pace with growth and development. Transportation options should encourage the safety of pedestrian and bike travels while also accommodating roadways which connect places to live with places to work, shop, learns, and play.” Several opportunities exist for the City of Johns Creek to seamlessly incorporate their visions of mobility with that of neighboring Forsyth County.

McGinnis Ferry Road serves as the main border road between the City of Johns Creek and Forsyth County. A multi-use trail is proposed along this corridor in addition to the sidewalks already in place at several locations along the road.

Jones Bridge Road runs north-south along the western border of the City of John Creek. It is currently recognized as a Priority C Level pedestrian facility project, implementing pedestrian sidewalk facilities along both sides of the right-of-way. Continuation of this path into Forsyth County via Brookwood Road is planned to encourage interconnectivity between the two counties. Medlock Bridge Road currently has existing and programmed bicycle lanes planned for on one side and a proposed multi-use purpose trail on the other. An opportunity exists at Peachtree Parkway to continue both of these facilities into Forsyth County. Johns Creek has plans for a multi-use trail on Bell Road and Rogers Bridge Road which will connect up to both McGinnis Ferry Road with proposed facilities and an existing bicycle friendly paved shoulder along Old Atlanta Road once inside Forsyth County.

### **Recommendation:**

Coordinate design standards and trail types with the City of Johns Creek at path connections.



Source: Johns Creek Multi-Use Trail Available Online:  
[http://www.johnscreekga.gov/pdf/council/2007/2007-08-13\\_packet-D\\_R07-08-73to75.pdf](http://www.johnscreekga.gov/pdf/council/2007/2007-08-13_packet-D_R07-08-73to75.pdf)



Gwinnett County:

Gwinnett County serves as the southeastern border to Forsyth County, with the Chattahoochee River being the natural divider. Because of this, few opportunities lie for connectivity via sidewalks and/or bicycle lanes between the two counties. However, protected areas such as greenways and multi-use trails may lend possible connectivity.

Buford Highway (State Route 20) runs a general east-west direction through the northern portion of Gwinnett County before becoming Cumming Highway into Forsyth County. The ARC has included SR 20 as a corridor to the Strategic Bicycle Network for metro Atlanta. Similar to SR 20, the ARC has suggested paved shoulders to accommodate bicyclists. In addition, Forsyth has plans for proposed sidewalks along SR 20.

Settles Bridge Road is a minor collector street that dead ends into Settles Bridge Park and the Chattahoochee River. An abandoned steel truss bridge serves as a reminder to past connectivity. Possible resurrection of the bridge could lead to a multi-use trail connecting neighboring Forsyth County providing scenic views along the river.

Gwinnett County identifies the Chattahoochee stream corridor for acquisition for greenway development; the Chattahoochee River Corridor is actually part of a much **larger regional trail network**. Within this corridor, properties controlled by municipal, county, state and federal agencies will be involved in the acquisition of property and the development of various recreation, greenway and open space facilities.

The Chattahoochee River National Recreation Area (NRA) will partner with county and city governments as well as private groups to actualize an integrated trail system that will **extend 48 miles** along the Chattahoochee River. The trail system will provide recreation and alternative transportation opportunities to the region's growing population. Coordinated planning and budgeting for the project is on-going, with some sections already complete.

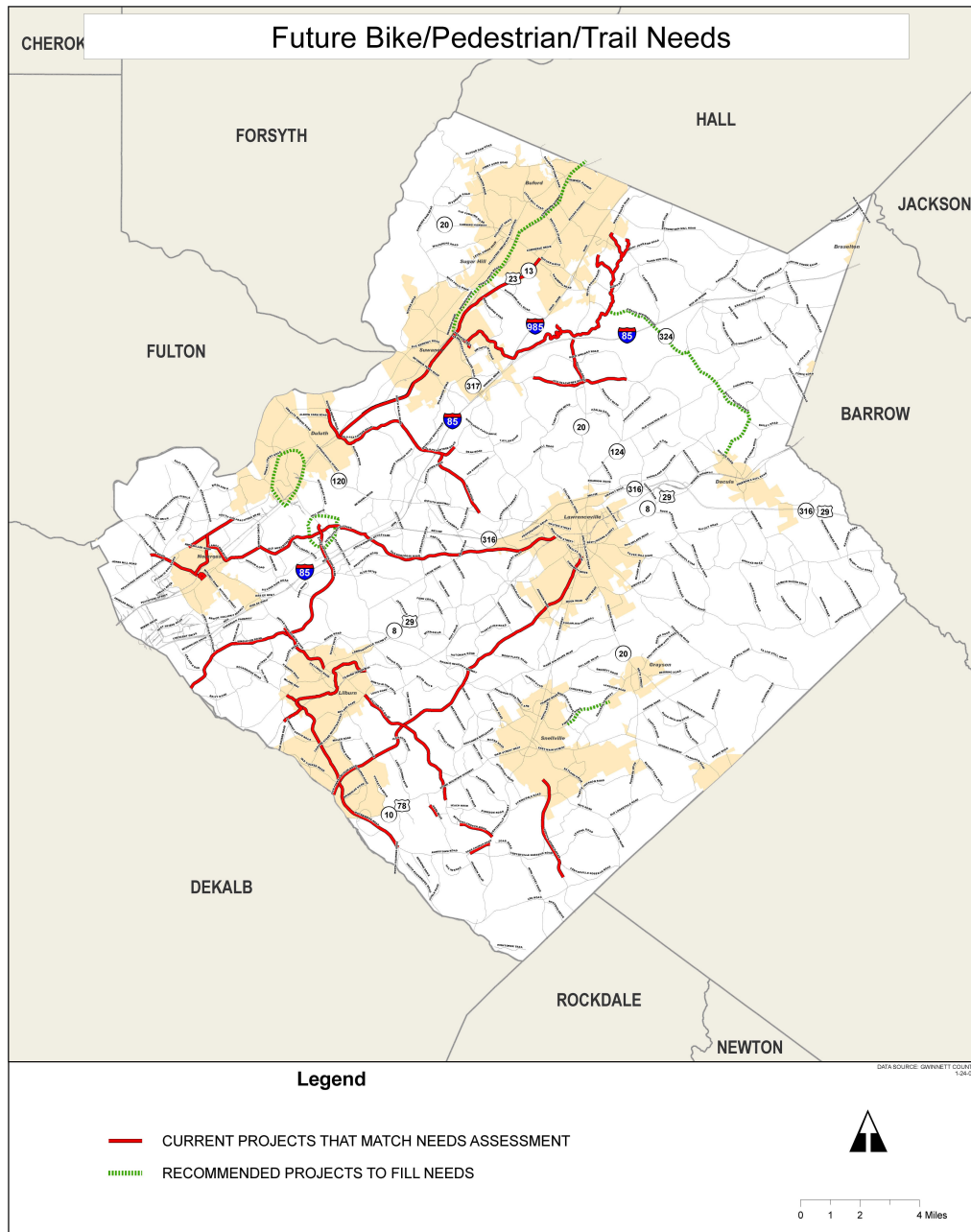
At the time of this report, Gwinnett County Parks planners confirmed a potential opportunity to coordinate connection with Forsyth County in order to allow for a continuous trail along the Chattahoochee, ideally connecting southward through the City of Johns Creek. The trail alignment would thus run on the eastern side in Gwinnett County, then, at a bridge connection to Forsyth County, would run along the western edge of the Chattahoochee. It could continue to run south to connect with the trails approved in the City of Johns Creek and/or Gwinnett County.

Forsyth County has long proposed a multi-use trail along the western side of the Chattahoochee in the County; however it has received low priority and sustained interest only as a long range aspiration. Given movement on the west side of the river in terms of acquisition and construction funding commitments, Forsyth County has a unique opportunity to provide its residents connection to the larger trail system in the near term.

**Recommendation:**

Establish agreement with Gwinnett County for access to proposed Chattahoochee multi-use trail. Construct a bicycle and pedestrian bridge at the Forsyth County "Kemp"

property, with access to McGinnis Ferry multi-use. Construct another bicycle and pedestrian bridge at the existing truss site of Settles Bridge and construct a 4.11 mile long multi-use trail to create a bike/pedestrian “loop.” Establish agreement with City of Johns Creek for connectivity to the path.





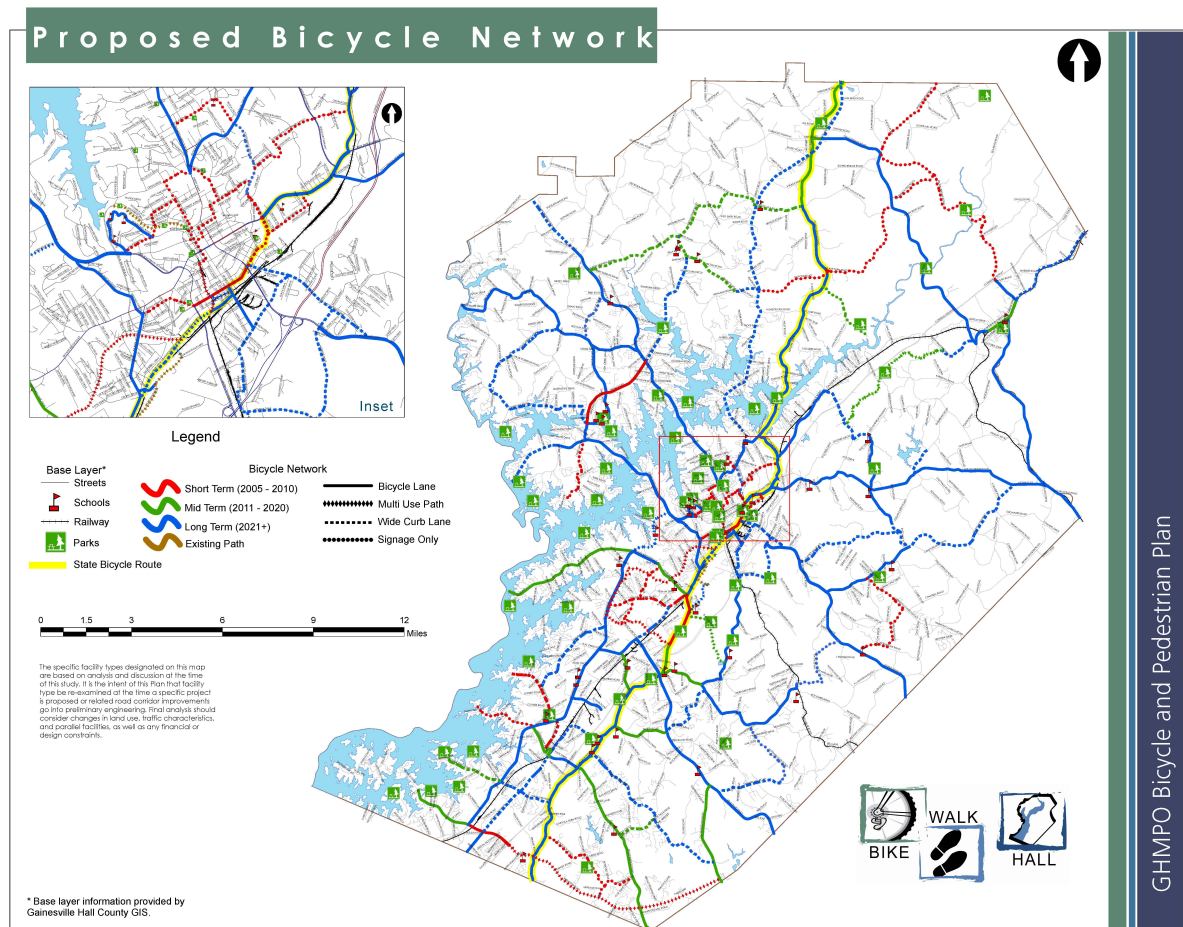
(Gainesville) Hall County:

Hall County serves as the eastern border to Forsyth County. Similar to Gwinnett County, Hall and Forsyth County share a natural border in that of Lake Sidney Lanier. While this may prohibit some connectivity it also opens up other opportunities adjacent counties may not possess.

Browns Bridge Road, (SR 369), one of only a few roads that connect to Forsyth County, is currently undergoing a road widening project that when completed will include a bicycle lane from McEver Road (SR 53) in Gainesville, all the way to the Forsyth County Line. This bicycle facility project is proposed for completion by 2020. Forsyth County's plan for connectivity includes a multi-use trail along Browns Bridge Road. Dawsonville Highway also connects Hall and Forsyth County. Long range planning includes bicycle facilities along Dawsonville Highway.

**Recommendation:**

Coordinate design standards and trail types with (Gainesville) Hall County at path connections for Browns Bridge Road and Dawsonville Highway.



Source: GHMPO Bicycle and Pedestrian Plan

Available Online: [http://www.ghmpo.org/files/pdfs/GHMPO/031606\\_ProposedBicycleNetworkMap.pdf](http://www.ghmpo.org/files/pdfs/GHMPO/031606_ProposedBicycleNetworkMap.pdf)





Dawson County:

Dawson County serves as the northern to Forsyth County.

Dawson County does not currently have a bicycle or pedestrian plan in place. Through communications with the Dawson County Planning Department, bicyclists currently use SR 9 for accessing destination points throughout the county. To accommodate the current use paved shoulders for bike lanes are suggested along this route.

**Recommendation:**

A potential scenic route connection for Forsyth County to Dawson County's SR 9 is to provide bike access from the existing signed shared roadway along Bannister Road going north towards SR 9.

## 4. OUTREACH

In an effort to obtain citizen input and viable feedback on the bicycle and sidewalk plan, a public information meeting was held at the City Hall during the update process and comment cards were distributed for additional feedback. The data collected from both the meeting and cards has been assessed and included in the overall plan recommendations.

## 5. REPORT RECOMMENDATIONS

1. Coordinate with surrounding jurisdictions as they proceed to implement their own Bicycle and Pedestrian, Greenway and/or Trail Plans.

- Attend City of Milton and City of Johns Creek trail planning meetings to coordinate potential linkages as identified on the map
- As the proposed routes come online for the City of Milton, it is recommended that Forsyth provide continuation and connectivity into the county. Both the City of Milton and Forsyth County should coordinate the facility types and design standards along planned routes in order to provide a seamless transition for users throughout the network.
- Work with The City of Alpharetta to find alternate routes to connect to Alpharetta's Big Creek Greenway Trail by ways of multi-use trails which could potentially along main road corridors or local roads leading to the Greenway. Coordinate potential Forsyth County connections with the City of Alpharetta.
- Establish agreement with Gwinnett County for access to proposed Chattahoochee multi-use trail. Construct a bicycle and pedestrian bridge at the Forsyth County "Kemp" property, with access to McGinnis Ferry multi-use. Construct another bicycle and pedestrian bridge at the existing truss site of Settles Bridge and construct a 4.11 mile long multi-use trail to create a bike/pedestrian "loop." Establish agreement with City of Johns Creek for connectivity to the path.



- Consider provide bike access from the existing signed shared roadway along Bannister Road going north towards SR 9 into Dawson County due to the current use by bicyclists along SR 9 in Dawson.
  - Coordinate routes, design standards and trail types for all neighboring communities at all potential connections including but not limited to Browns Bridge Road, Dawsonville Highway, Drew Campground Road, Bentley Road and Etowah Greenway and any other proposed programmed facility connections noted on the map.
2. Work with Board of Education to determine funding potentials based on GDOT's Safe Routes to School Program. Eligibility criteria for infrastructure projects:
- Projects must serve schools with students in kindergarten through eighth grade.
  - Both public and private schools are eligible.
  - Projects must be located within a 2 mile radius of the school.
  - A school must be actively engaged in non-infrastructure activities (e.g. SRTS Plan, Education, Encouragement and / or Enforcement activities) and enrolled in the Georgia SRTS Resource Center.
  - Projects must be within the public right of way. This may include projects on private land that have permanent public access easements. Public property includes lands that are owned by a public entity, including those lands owned by public school districts.
3. Amend the Comprehensive Plan as needed to incorporate the Bicycle and Pedestrian Master Plan Update. Add tasks to the Short Term Work Program.
4. Continue to update future Bicycle and Pedestrian Projects in order to track progress, keep current with funding opportunities and to keep the public informed. Consider Greenway Plan and maximize connections between recreational trails and bike/ped facilities.

## 6. PROJECT LISTS, MAPS AND SOURCE REFERENCES

This section of the document specifies the bicycle and pedestrian facilities proposed for Forsyth County. Projects are prioritized by short term, mid term and long term facilities based on a 5 year range. Following the Project List is the bicycle and pedestrian facility map showing both proposed and existing projects and potential connections between adjacent communities in order to provide for a continuous network throughout the region. In addition, a K-8 school 2 mile zone map is provided for reference to the Georgia Safe Routes to School Program. At the end of the document are reference sources and website links of programs or plans mentioned throughout the plan update

# Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan: 2008 Update

## Short Term Projects (2008-2013)

| Title/Location   | Forsyth Bike Ped Plan Reference | Forsyth Transportation Plan Reference  | RTP Reference   | Type of Improvement                        | Approx. Linear feet | Construction Cost * | "Local" Funding Source(s): SPLOST or TBD   | Tip Identified Source(s)                         |
|--|---------------------------------|--|---|--|---------------------|---------------------|--|--|
| <b>SIGNED SHARED ROADWAY</b>   |                                 |  |   |  |                     |                     |  |  |
| <b>Kelly Mill Road / Drew Campground Road</b> from Cherokee County Border to City limits   | √                               | prj ID-42-Roadway Intersection Operation RTP   | FT-037: SR 371-Bethelview Road) road widening from 2-2 lanes with a two way left turn lane. no reference to bike-ped. improvements. | Bicycle Traffic Signage                    | 35,200              | \$2,500             | SPLOST VI 'A1': (A-05) Bethelview Road to SR 371 (widen for center turn lane); (A-23) City limits to Bethelview Road (pavement widening & reclamation) | Federal / Local / Other                          |
| <b>BICYCLE FRIENDLY SHOULDER</b>   |                                 |  |   |  |                     |                     |  |  |
| <b>Sharon Road</b> from SR 141 to Old Atlanta  | √                               | prj. ID 21- roadway capacity project: SR 141- Old Atlanta Road   |   | Additional Bicycle Friendly Shoulder Width | 6,300               | \$252,000           | SPLOST VI 'B2': (n/a) Hwy 141- Old Atlanta Road (right of way & construction for major road widening)  |  |
| <b>SIDEWALK</b>  |                                 |  |   |  |                     |                     |  |  |
| <b>SR 369 (Browns Bridge Road)</b> from Hendrix to (SR 306) Keith Bridge                   | √                               | prj. ID 6-short range roadway capacity TIP   | FT-062A: SR 9-SR 306) road widening with no reference to bike-ped improvements.   | 5' Concrete Sidewalk                       | 18,300              | \$2,013,000         |  | State: Construction / Local: PE Funding Underway |
| <b>SR 20 (Buford Highway)</b> from Trammel Rd./Samples Rd. to James Burgess                | √                               | prj. ID N18-mid range roadway capacity-new projects : State Rt. 9-Samples Road prj. ID 24-short range roadway capacity TIP | FT-061D: Samples-James Burgess, AR- 920-no reference bike-ped improvements.   | 5' Concrete Sidewalk                       | 16,000              | \$1,760,000         |  | State: Construction / Local: PE Funding Underway |
| <b>Bethelview Road</b> from SR 20 to Atlanta Hwy   | √                               | prj. ID 3-short range roadway capacity TIP project: SR 9-SR 20   | FT-008 (from SR9 to SR 20) (road widening from 2- 4 lanes)  | 5' Concrete Sidewalk                       | 32,000              | \$3,520,000         | SPLOST 'A' : (A-02) SR 9-SR 20 (engineering & right of way acquisition for major road widening) PE underway, ROW by 2008                               | Federal/ State/ Local                            |
| <b>Brookwood Rd</b> from McGinnis Ferry Road to 141  | √                               | prj. ID 10-short range roadway capacity TIP  | FT-067A: McGinnis Ferry Road- State Route 141 (road widening from 2- 4 lanes and adding a 20' raised median.)                       | 5' Concrete Sidewalk                       | 5,600               | \$616,000           |  | Local / Other                                    |
| <b>Dahlonega Hwy</b> from City Limits to SR 306  | √                               | prj. ID 1- short range roadway capacity TIP project: SR 20-SR 306  |   | 5' Concrete Sidewalk                       | 7,000               | \$770,000           |  |  |
| <b>Gilbert Road</b> from Old Atlanta to Trammel (no reference to sidewalks in SPLOST data) | √                               |  |   | 5' Concrete Sidewalk                       | 6,000               | \$660,000           | SPLOST VI 'A1': (A-30) pavement widening & reclamation   | Local / Other                                    |
| <b>Majors Road</b> from Post Road to Greenway  |                                 |  |   | 5' Concrete Sidewalk                       | 6,000               | \$660,000           |  |  |

# Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan: 2008 Update

## Short Term Projects (2008-2013)

| Title/Location  | Forsyth Bike Ped Plan Reference | Forsyth Transportation Plan Reference   | RTP Reference  | Type of Improvement                        | Approx. Linear feet | Construction Cost * | "Local" Funding Source(s): SPLOST or TBD                                     | Tip Identified Source(s) |
|---|---------------------------------|---|--|--|---------------------|---------------------|--|--------------------------|
| <b>Majors Road</b> from Peachtree Parkway to Ronald Reagan Boulevard                |                                 |   |  | 5' Concrete Sidewalk                       | 450                 | \$49,500            |  |                          |
| <b>Majors Road</b> from Ronald Reagan Boulevard to existing sidewalk on Majors Road |                                 |   |  | 5' Concrete Sidewalk                       | 1,150               | \$126,500           |  |                          |
| <b>McFarland Parkway</b> from SR 9 to McGinnis Ferry                                | √                               | prj ID 34-short range roadways capacity project: SR 400-SR 9 prj ID 9-short range roadway capacity TIP project: McGinnis Ferry - SR 400 | FT-065A: SR 400-McGinnis Ferry) road widening from 4-6 lanes and add 20' median. no ref to bike/ ped. improvements.            | 5' Concrete Sidewalk                       | 19,000              | \$1,210,000         | no SPLOST VI funding (cost referenced from splost recommendation list).      | Local / Other            |
| <b>Melody Mizer Lane</b> Daves Creek Park to Old Atlanta Road                       |                                 |   |  | 5' Concrete Sidewalk                       | 3,000               | \$220,000           | SPLOST VI 'B1': (B1-13) 5' sidewalk  | Local / Other            |
| <b>Old Atlanta Road</b> from McGinnis Ferry to Ronald Reagan Blvd.                  | √                               | prj ID N35-roadway capacity-new projects  | FT-028 from McGinnis to Sharon Sidewalk & Multi Use Trail Road Widening from 2-4 lanes with 20' raised median                  | 5' Concrete Sidewalk<br>10' Multiuse Trail | 37,100              | \$4,081,000         |  | Local / Other            |
| <b>Hwy 141 (Peachtree Parkway)</b> from SR 9 to McGinnis Ferry                      | √                               | prj. ID 2-short range roadway capacity TIP project: .6 mile north of Fulton County Line-SR 9  |  | 5' Concrete Sidewalk                       | 35,000              | \$3,850,000         |  |                          |
| <b>Union Hill / Mullinax Road</b> from McFarland Road to SR 9 :                     |                                 |   | FT-063A: Road widening from 2-4 lanes with a 20' raised median. Sidewalks and multi-use trail.                                 | 5' Concrete Sidewalk<br>10' Multiuse Trail | 12,500              | \$1,375,000         |  | Local / Other            |
| <b>MULTI-USE PATH</b>   |                                 |   |  |  |                     |                     |  |                          |
| <b>Hwy 371 (Post Road)</b> from Kelly Mill to Atlanta Hwy SR9                       | √                               | prj. ID 23-short range roadway capacity TIP   | FT-030: SR 9-Kelly Mill Road) (Polo-Majors completed June 07: 5' sidewalk) road widening with no ref. to bike-ped improvements | 5' Concrete Sidewalk<br>10' Multiuse Trail | 21,000              | \$4,200,000         | SPLOST VI 'A' : (A-01) SR 9-Kelly Mill (engineering for major road widening) | Federal / State / Local  |
| <b>SR 369 (Browns Bridge Road)</b> from (SR 306) Keith Bridge to Waldrip            | √                               | prj. ID 7 short range roadway capacity TIP project: SR 306-Hall County Line   |  | 8'-10' Walk / Bikeway                      | 32,000              | \$6,400,000         |  |                          |

# Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan: 2008 Update

## Short Term Projects (2008-2013)

| Title/Location   | Forsyth Bike Ped Plan Reference | Forsyth Transportation Plan Reference  | RTP Reference   | Type of Improvement | Approx. Linear feet | Construction Cost * | "Local" Funding Source(s): SPLOST or TBD  | Tip Identified Source(s) |
|--|---------------------------------|--|---|---------------------|---------------------|---------------------|---|--------------------------|
| <b>Keith Bridge Road (SR 306)</b><br>from Freedom Parkway to Browns Bridge Road (SR 369) |                                 |  |   | 10' Walk / Bikeway  | 4,600               | \$920,000           |   |                          |
| <b>McGinnis Ferry Road</b> from Chattahoochee River to Old Alpharetta                    | √                               | prj. ID 18 & 19- short range roadway capacity TIP: Union Hill- Chattahoochee River |   | 10' Walk / Bikeway  | 43,000              | \$8,600,000         |   | Local / State            |
| <b>Old Atlanta Road</b> from McGinnis Ferry to Sharon Road                               | √                               | prj ID N35- roadway capacity- new projects   | FT-028 from McGinnis to Sharon Sidewalk & Multi Use Trail Road Widening from 2-4 lanes with 20' raised median | 10' Walk / Bikeway  | 24,000              | \$4,800,000         |   | Local / Other            |
| <b>Ronald Reagan Boulevard</b> from Union Hill-McFarland                                 | √                               | prj. ID 12 short range roadway capacity TIP: Union Hill-McFarland                  |   | 10' Walk / Bikeway  | 6,000               | \$1,200,000         | SPLOST VI 'A' : (A-00) McFarland- Union Hill (new road)   | Local / Other            |
| <b>Ronald Reagan Boulevard</b> from McFarland to Shiloh                                  | √                               | prj. ID 13 short range roadway capacity TIP  | FT-077B : McFarland-Shiloh: new construction from 0-2 lanes with sidewalks)                                   | 10' Walk / Bikeway  | 8,000               | \$1,600,000         | SPLOST VI 'B2' : (n/a) McFarland- Majors (engineering for new road)                                   | Local / Other            |
| <b>Ronald Reagan Boulevard</b> from Shiloh to Peachtree Pkwy                             | √                               | prj. ID 14 short range roadway capacity TIP: Shiloh to Peachtree Pkwy              |   | 10' Walk / Bikeway  | 15,000              | \$3,000,000         | SPLOST VI 'B2' : (n/a) McFarland- Majors (engineering for new road)                                   | Local / Other            |
| <b>Ronald Reagan Boulevard</b> from Peachtree Pkwy to Buford Highway                     |                                 |  |   | 10' Walk / Bikeway  | 20,000              | \$4,000,000         |   |                          |
| <b>Sharon Road</b> from Hwy 141 to Old Atlanta   | √                               | prj. ID 21- roadway capacity project: SR 141- Old Atlanta Road                     |   | 10' Walk / Bikeway  | 6,300               | \$1,260,000         | SPLOST VI 'B2': (n/a) Hwy 141- Old Atlanta Road (right of way & construction for major road widening) |                          |
| <b>Union Hill / Mullinax Road</b> from McFarland Road to SR 9 :                          |                                 |  | FT-063A: Road widening from 2- 4 lanes with a 20' raised median. Sidewalks and multi-use trail.               | 10' Walk / Bikeway  | 12,500              | \$2,500,000         |   | Local / Other            |

**Approx. Linear Feet:** 433,000  
**Short Term Priority Preliminary Estimate:** \$59,645,500

\* Construction Costs: Signed Shared Roadways are assigned \$1 / LF, Bicycle Friendly Shoulders are assigned \$40/ LF, 5' Sidewalks vary. Where available, SPLOST V and VI project cost data is utilized.  
If no sidewalk information is provided, then \$110/ LF is given based on recently built projects in the surrounding area.  
Greenways and Multi-Use Trails are assigned \$200 / LF.  
Pedestrian signal and crosswalk projects are included in Intersection Improvement projects.



# Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan: 2008 Update

## Mid Term Projects (2014-2019)

| Title/Location  | Forsyth Bike Ped Plan Reference | Forsyth Transportation Plan Reference  | RTP Reference                              | Type of Improvement                        | Approx. Linear feet | Construction Cost * | "Local" Funding Source(s): SPLOST or TBD   | Tip Identified Source(s) |
|---|---------------------------------|--|--|--|---------------------|---------------------|--|--------------------------|
| <b>SIGNED SHARED ROADWAY</b>                                      |                                 |  |  |  |                     |                     |  |                          |
| <b>Bentley Rd</b> from Post Rd to Campground Rd.                  | √                               |  |  | Bicycle Traffic Signage                    | 11,200              | \$11,200            |  |                          |
| <b>Spot Rd.</b> from Bettis Tribble Gap to Dahlonge Hwy           | √                               |  |  | Bicycle Traffic Signage                    | 12,500              | \$12,500            | SPLOST VI 'B1': (B1-11) SR 9 to Dr. Bramblett Road (pavement widening and reclamation) |                          |
| <b>BICYCLE FRIENDLY SHOULDER</b>                                  |                                 |  |  |  |                     |                     |  |                          |
| <b>SR 9 (Atlanta Highway)</b> from Hwy 371 to Bethelview          | √                               | prj. ID 30- Roadway Capacity project: SR 371- SR 141                                       |  | Additional Bicycle Friendly Shoulder Width | 20,100              | \$804,000           |  |                          |
| <b>Jones Road</b> from Bluegrass Lakes Pkwy to Dalesford Drive    | √                               |  |  | Additional Bicycle Friendly Shoulder Width | 4,500               | \$180,000           |  |                          |
| <b>Pilgrim Mill</b> from City Limits to Tidwell Park              | √                               | prj. ID 46- short range project roadway capacity- new project: City Limits to Tidwell Park |  | Additional Bicycle Friendly Shoulder Width | 25,900              | \$1,036,000         |  |                          |
| <b>SIDEWALKS</b>  |                                 |  |  |  |                     |                     |  |                          |
| <b>Buford Dam Road</b> from Sanders Rd to Chattahoochee River     | √                               | prj. ID N17-mid range roadway capacity new project: SR 9-Gwinnett Co. line                 |  | 5' Concrete Sidewalk                       | 20,500              | \$2,255,000         | SPLOST VI 'A': (A-28) Sanders Road to Samples Road (pavement widening & reclamation)   |                          |
| <b>Freedom Parkway</b> from Pilgrim Mill to (SR 306) Keith Bridge | √                               |  |  | 5' Concrete Sidewalk                       | 8,600               | \$330,000           | no SPLOST VI funding   |                          |
| <b>Echols Rd</b> from Buford Hwy to Hudgins Rd                    | √                               |  |  | 5' Concrete Sidewalk                       | 9,400               | \$1,034,000         |  |                          |
| <b>SR 20 (Canton Road)</b> from Post Rd to City Limits            | √                               | prj. ID 27-mid range roadway capacity: SR 371-SR 400                                       | AR-920: Post Rd (371) - SR 400 (2-4 lanes) | 5' Concrete Sidewalk                       | 25,000              | \$2,750,000         |  | Federal / State          |
| <b>Haw Creek Rd.</b> from Haw Creek Circle to Haw Creek Dr.       | √                               |  |  | 5' Concrete Sidewalk                       | 2,500               | \$275,000           |  |                          |

# Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan: 2008 Update

## Mid Term Projects (2014-2019)

| Title/Location  | Forsyth Bike Ped Plan Reference | Forsyth Transportation Plan Reference  | RTP Reference  | Type of Improvement  | Approx. Linear feet | Construction Cost *  | "Local" Funding Source(s): SPLOST or TBD  | Tip Identified Source(s) |
|---|---------------------------------|--|--|----------------------|---------------------|--|---|--------------------------|
| James Burgess from Old Atlanta to River Mist  | √                               | prj. ID N29-mid-range roadway capacity new project: Old Atlanta Road-Nichols Drive         | FT-AR-BP002 Pedestrian Facility  | 5' Concrete Sidewalk | 14,000              | \$1,210,000  | SPLOST VI 'A': (A-57) Bike & Ped. Project   | Federal Local            |
| Shiloh Road / Shiloh Road East from McFarland to Shiloh   | √                               |  |  | 5' Concrete Sidewalk | 19,000              | \$770,000<br>(cost referenced from splost recommendation list)   | no SPLOST VI funding  |                          |
| Pilgrim Mill from City Limits to Tidwell Park   | √                               | prj. ID 46- short range project roadway capacity- new project: City Limits to Tidwell Park |  | 5' Concrete Sidewalk | 25,900              | \$1,870,000<br>(cost referenced from splost recommendation list) | SPLOST VI 'B1': (B1-00) City limits to Freedom Parkway (engineering for major road widening) no SPLOST VI funding for 5' sidewalk project |                          |
| Union Hill / Mullinax Road from McFarland Road to SR 9 :  |                                 | prj. ID 25-mid range roadway capacity project  | FT-063B: Road widening from 2-4 lanes with a 20' raised median. Sidewalks and multi-use trail. | 5' Concrete Sidewalk | 12,500              | \$1,375,000  |   | Local / Other            |
| Trammel Rd from Buford Hwy to Castleton Manor (existing sidewalk from Windemere Pkwy to Castleton Manor | √                               |  |  | 5' Concrete Sidewalk | 6,000               | \$660,000  |   |                          |
| <b>MULTI USE PATHS</b>  |                                 |  |  |                      |                     |  |   |                          |
| (SR 306) Keith Bridge Road from Waldrip to Browns Bridge  | √                               | prj. ID 39-mid range roadway capacity project: SR 369-SR 53                                |  | 10' Walk / Bikeway   | 34,000              | \$6,800,000  |   | Federal / State          |
| Union Hill / Mullinax Road from McFarland Road to SR 9  |                                 | prj. ID 25-mid range roadway capacity project  | FT-063B: Road widening from 2-4 lanes with a 20' raised median. Sidewalks and multi-use trail. | 10' Walk / Bikeway   | 12,500              | \$2,500,000  |   | Local / Other            |
| <b>GREENWAY</b>   |                                 |  |  |                      |                     |  |   |                          |
| Big Creek Extension Phase IV from Bethelview Rd to Kelly Mill Rd  | √                               |  |  | 12' Shared Use Path  | 16,200              | \$2,800,000  | Funded under parks & recreation bonds SPLOST VI   |                          |
| Big Creek Extension Phase V from Kelly Mill Road to Sawnee Mt. Preserve                                 | √                               |  |  | 12' Shared Use Path  | 30,000              | \$4,200,000  | Funded under parks & recreation bonds SPLOST VI   |                          |
| Chattahoochee River Phase I from Settles Bridge to McGinnis Ferry                                       |                                 |  |  | 12' Shared Use Path  | 21,800              | \$4,360,000  |   |                          |

Approx. Linear Feet: 332,100

Mid Term Priority Preliminary Estimate: \$32,592,700

\* Construction Costs: Signed Shared Roadways are assigned \$1 / LF, Bicycle Friendly Shoulders are assigned \$40/ LF, 5' Sidewalks vary.

Where available, SPLOST V and VI project cost data is utilized.

If no sidewalk information is provided, then \$110/ LF is given based on recently built projects in the surrounding area.

Greenways and Multi-Use Trails are assigned \$200 / LF.

Pedestrian signal and crosswalk projects are included in Intersection Improvement projects.

# Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan: 2008 Update

## Long Term Projects (2020-2025)

| Title/Location   | Forsyth Bike Ped Plan Reference | Forsyth Transportation Plan Reference                                       | RTP Reference  | Type of Improvement                        | Approx. Linear feet | Construction Cost * | "Local" Funding Source(s): SPLOST or TBD          | Tip Identified Source(s) |
|--|---------------------------------|---|--|--|---------------------|---------------------|---|--------------------------|
| <b>SIGNED SHARED ROADWAY</b>   |                                 |   |  |  |                     |                     |   |                          |
| <b>Tribble Rd.</b> from Watson Rd. to Kelly Mill Rd.   | √                               |   |  | Bicycle Traffic Signage                    | 17,000              | \$17,000            |   |                          |
| <b>BICYCLE FRIENDLY SHOULDER</b>   |                                 |   |  |  |                     |                     |   |                          |
| <b>Waldrip</b> from (SR306) Keith Bridge to (SR 369) Browns Bridge   | √                               |   |  | Additional Bicycle Friendly Shoulder Width | 20,000              | \$800,000           |   |                          |
| <b>SIDEWALKS</b>   |                                 |   |  |  |                     |                     |   |                          |
| <b>Bald Ridge Marina exit Bridge</b>   | √                               | prj. ID N16-long range roadway capacity-new projects : Lake Lanier - SR 400 |  | 5' Concrete Sidewalk                       | 700                 | \$77,000            |   |                          |
| <b>SR 20 (Canton Hwy)</b> from Post Rd to Cherokee County line   | √                               | prj ID 32-long range roadway capacity project                               | FT-061A: From 369 (Hightower Rd) in Cherokee Co. to SR 371 (Post Rd). Road widening from 2-4 lanes | 5' Concrete Sidewalk                       | 9,500               | \$1,045,000         |   | Federal / State          |
| <b>MULTI-USE PATH</b>  |                                 |   |  |  |                     |                     |   |                          |
| <b>Pooles Mill Link</b> from Poole Mill Park to Etowah Greenway  | √                               |   |  | 12' Walk / Bikeway                         | 6,800               | \$1,700,000         | (cost referenced from splost recommendation list) |                          |
| <b>GREENWAY</b>  |                                 |   |  |  |                     |                     |   |                          |
| <b>Chattahoochee River Phase II</b> from Buford Dam Road to Settles Bridge   |                                 |   |  | 12' Shared Use Path                        | 28,200              | \$5,640,000         |   |                          |
| <b>Etowah Greenway Extension</b> from Cherokee County Border to Dawson County Border (Etowah Blueway included in Envision Green Forsyth project list)                  |                                 |   |  | 12' Shared Use Path                        | 31,000              | \$6,200,000         | (cost referenced from splost recommendation list) |                          |
| <b>Sawnee Mountain Greenway</b> from Pooles Mill Park to Sawnee Mountain Preserve (phase III Sawnee Mountain Preserve included in Envision Green Forsyth project list) |                                 |   |  | 12' Shared Use Path                        | 42,000              | \$9,000,000         | (cost referenced from splost recommendation list) |                          |

**Approx. Linear Feet:** 155,200

**Long Term Priority Preliminary Estimate:** \$24,479,000

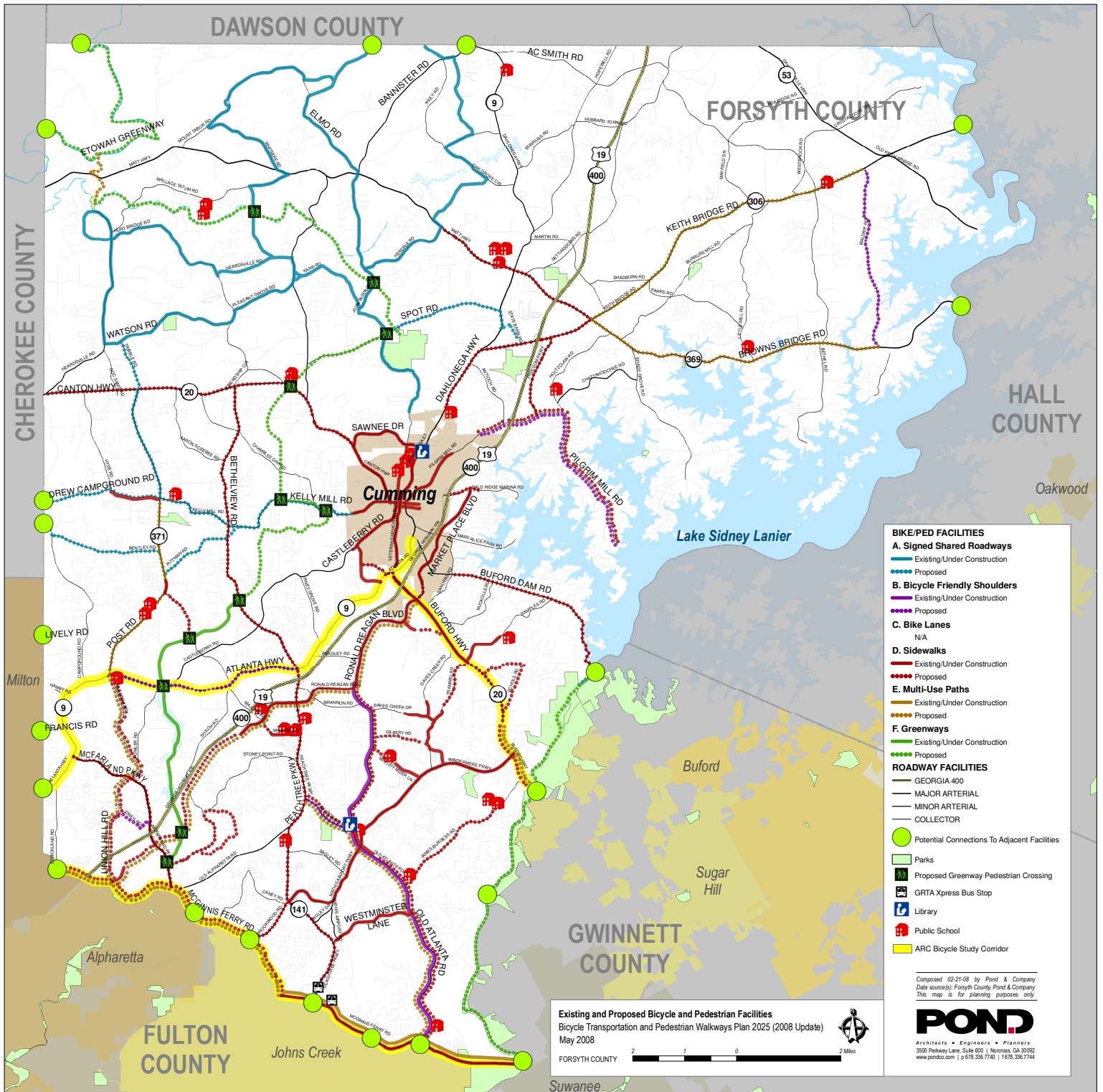
\* Construction Costs: Signed Shared Roadways are assigned \$1 / LF, Bicycle Friendly Shoulders are assigned \$40/ LF, 5' Sidewalks vary.

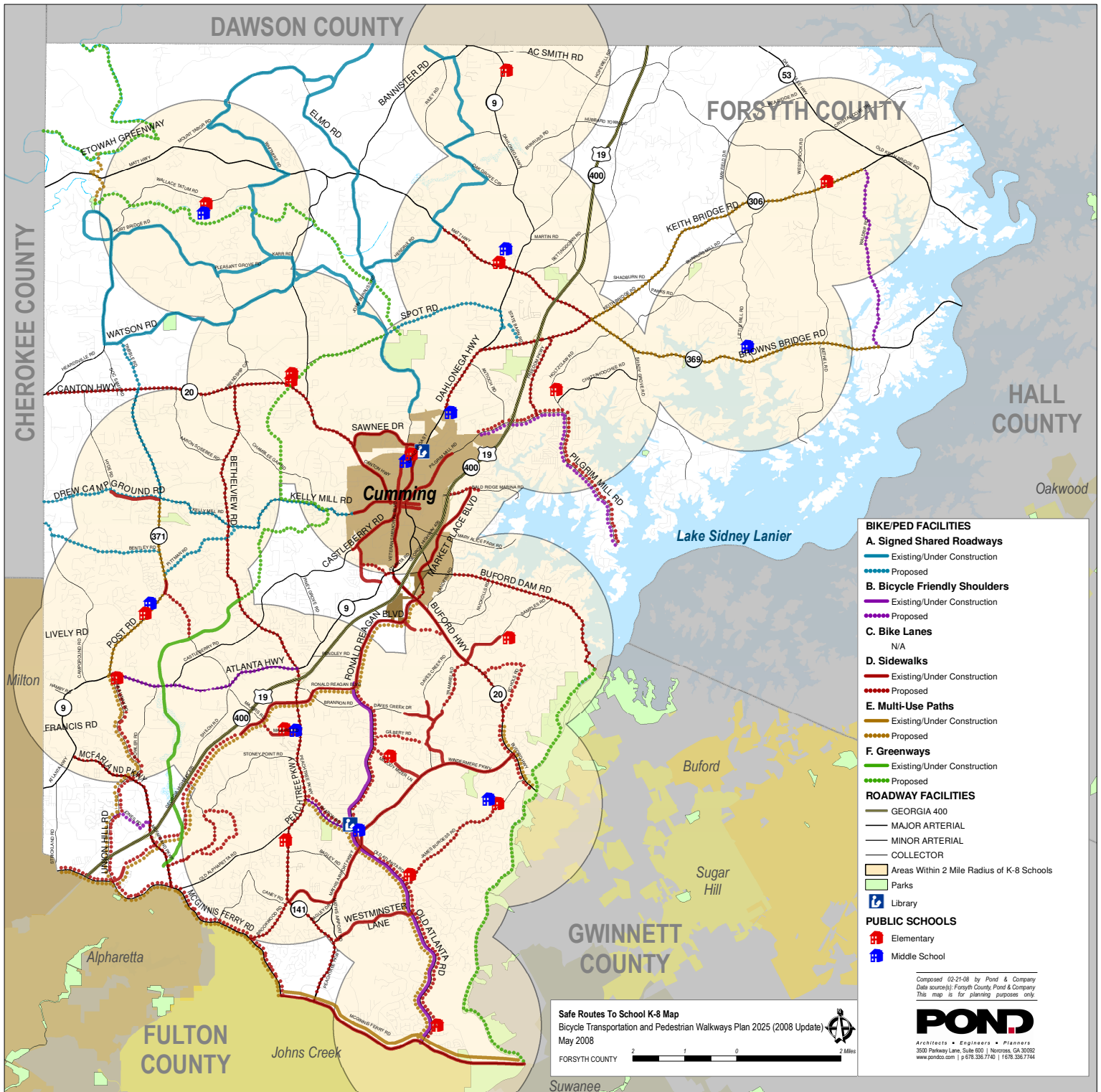
Where available, SPLOST V and VI project cost data is utilized.

If no sidewalk information is provided, then \$110/ LF is given based on recently built projects in the surrounding area.

Greenways and Multi-Use Trails are assigned \$200 / LF.

Pedestrian signal and crosswalk projects are included in Intersection Improvement projects.









## 7. Appendix:

Excerpts from the previous version of the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan.

- **Executive Summary**
- **Best Practices for Bicycle and Pedestrian Facility Design (section 5)**
- **Typical Facility Type Sections**
  - Facility Type A: Signed Shared Roadway
  - Facility Type B: Bicycle Friendly Shoulder
  - Facility Type C: Bike Lane
  - Facility Type D: Local Sidewalk
  - Facility Type E: Multi-Use Path / Arterial Sidewalk

**Table 1.1**

| <b>NATIONAL BICYCLE / PEDESTRIAN SOURCES</b>   |   |
|--|---|
| <b>Federal Programs</b>  |   |
| Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) | <a href="http://www.fhwa.dot.gov/safetealu/index.htm">http://www.fhwa.dot.gov/safetealu/index.htm</a>   |
| <b>STATEWIDE BICYCLE / PEDESTRIAN SOURCES</b>  |   |
| <b>Georgia Department of Transportation (GDOT)</b>   |   |
| <i>Georgia State Bicycle and Pedestrian Plan</i>   | <a href="http://www.dot.state.ga.us/dot/plan-prog/planning/projects/bicycle/index.shtml">http://www.dot.state.ga.us/dot/plan-prog/planning/projects/bicycle/index.shtml</a>   |
| Georgia Safe Routes to School Program (SRTS)   | <a href="http://www.dot.state.ga.us/srts/index.shtml">http://www.dot.state.ga.us/srts/index.shtml</a>   |
| Recreational Trails Program (RTP)  | <a href="http://www.gastateparks.org/net/content/item.aspx?s=18195.0.1.5">http://www.gastateparks.org/net/content/item.aspx?s=18195.0.1.5</a>   |
| Congestion Mitigation and Air Quality (CMAQ) Improvement Program                               | <a href="http://www.fhwa.dot.gov/environment/cmaqpgs/">http://www.fhwa.dot.gov/environment/cmaqpgs/</a>   |
| Transportation Enhancement (TE) Program  | <a href="http://www.dot.state.ga.us/DOT/plan-prog/planning/projects/te/index.shtml">http://www.dot.state.ga.us/DOT/plan-prog/planning/projects/te/index.shtml</a>   |
| Transportation Improvement Program (TIP)   | <a href="http://www.dot.state.ga.us/DOT/plan-prog/planning/programs/index.shtml">http://www.dot.state.ga.us/DOT/plan-prog/planning/programs/index.shtml</a>   |
| <b>REGIONAL BICYCLE / PEDESTRIAN SOURCES</b>   |   |
| <b>Georgia Mountain Regional Development Commission (GMRDC)</b>                                |   |
| <i>Georgia Mountain Regional Bicycle Transportation and Pedestrian Walkways Plan</i>           | <a href="http://www.gmrdc.org/files/Bike_Ped%20Plan%20Final.pdf">http://www.gmrdc.org/files/Bike_Ped%20Plan%20Final.pdf</a>   |
| <b>Atlanta Regional Commission (ARC)</b>   |   |
| <i>Atlanta Regional Bicycle Transportation and Pedestrian Walkways Plan</i>                    | <a href="http://www.atlantaregional.com/cps/rde/xchg/arc/hs.xsl/1769_ENU_HTML.htm">http://www.atlantaregional.com/cps/rde/xchg/arc/hs.xsl/1769_ENU_HTML.htm</a>   |
| EnVision6 Report   | <a href="http://www.atlantaregional.com/cps/rde/xbcr/arc/e6_bikeped_fact_sheet.pdf">http://www.atlantaregional.com/cps/rde/xbcr/arc/e6_bikeped_fact_sheet.pdf</a>   |
| Bike Suitability Maps  | <a href="http://www.atlantaregional.com/cps/rde/xchg/arc/hs.xsl/611_ENU_Html.htm">http://www.atlantaregional.com/cps/rde/xchg/arc/hs.xsl/611_ENU_Html.htm</a>   |
| <b>Georgia Regional Transportation Authority (GRTA)</b>  |   |
| Northern Sub-Area Study/GA-400 Corridor Analysis   | <a href="http://207.101.65.114/info_center/final_report/H%20-%20Bicycle%20and%20Pedestrian%20Issues.pdf">http://207.101.65.114/info_center/final_report/H%20-%20Bicycle%20and%20Pedestrian%20Issues.pdf</a>   |
| <b>ADJACENT COMMUNITIES BICYCLE / PEDESTRIAN SOURCES</b>                                       |   |
| City of Milton   | <a href="http://www.cggrd.gatech.edu/PDFs/CityofMiltonBPPlan2007.pdf">http://www.cggrd.gatech.edu/PDFs/CityofMiltonBPPlan2007.pdf</a>   |
| City of Alpharetta   | <a href="http://alpharetta.ga.us/index.php?m=publications&amp;id=30">http://alpharetta.ga.us/index.php?m=publications&amp;id=30</a>   |
| City of Johns Creek  | <a href="http://www.johnscreekga.gov/pdf/council/2007/2007-08-06_packet-A.pdf">http://www.johnscreekga.gov/pdf/council/2007/2007-08-06_packet-A.pdf</a>   |
| Gwinnett County  | <a href="http://www.gwinnettcounty.com/cgi-bin/gwincty/eqov/ep/gcbrowse.do?channelId=-27180&amp;channelPage=%2Fep%2Fchannel%2Fdefault.jsp&amp;pageTypeId=536880236">http://www.gwinnettcounty.com/cgi-bin/gwincty/eqov/ep/gcbrowse.do?channelId=-27180&amp;channelPage=%2Fep%2Fchannel%2Fdefault.jsp&amp;pageTypeId=536880236</a> |
| Cherokee County  | <a href="http://www.cherokeega.com">http://www.cherokeega.com</a>   |
| Gainesville Hall County  | <a href="http://www.ghmpo.org/files/pdfs/GHMP0/031606_ProposedBicycleNetworkMap.pdf">http://www.ghmpo.org/files/pdfs/GHMP0/031606_ProposedBicycleNetworkMap.pdf</a>   |
| <b>LIVABLE COMMUNITIES INITIATIVE</b>  |   |
| McFarland-Stoney Point Livable Communities Initiative  | <a href="http://www.forsythco.com/DeptPage.asp?DeptID=14&amp;PageID=664">http://www.forsythco.com/DeptPage.asp?DeptID=14&amp;PageID=664</a>   |
| <b>BICYCLE / PEDESTRIAN ORGANIZATIONS</b>  |   |
| Path Foundation  | <a href="http://www.pathfoundation.com">www.pathfoundation.com</a>  |
| PEDS   | <a href="http://www.peds.org">www.peds.org</a>  |
| Southern Bicycle League, Inc.  | <a href="http://www.bikesbl.org">www.bikesbl.org</a>  |

## Executive Summary

Currently, Forsyth County is in the final stages of updating their Comprehensive Transportation Plan (CTP) to guide their current and future efforts regarding roadway enhancements throughout the County. In a similar effort, the County desired to develop a Bicycle Transportation and Pedestrian Walkways Plan (Bicycle and Pedestrian Plan) to guide their efforts regarding the proliferation of these facilities in the County. The Plan development effort was coordinated with information contained in the CTP. The Plan development process specifically consisted of the following:

- Establishment of a Bicycle and Pedestrian Task Force;
- Development of a Countywide vision statement regarding the Plan;
- Reviewing the Federal guidance with respect to developing Bicycle and Pedestrian plans;
- Incorporating task force comments and federal guidance into the development of goals, objectives and strategies;
- Development of a public involvement plan;
- Summarizing existing conditions and current trends as the baseline for future planning;
- Developing performance measures to analyze future progress towards goal attainment;
- Identifying issues and opportunities for plan implementation and developing key strategies;
- Identifying potential projects consistent with the County CTP and a congestion analysis; and
- Selecting alternative projects
- Prioritizing and costing potential projects.

The process was completed in eight months due to the consistent work effort of County staff and the Bicycle and Pedestrian Task Force members.

## Task Force Compilation

The Task Force personnel were appointed by the County and represented an array of different perspectives. Inclusion of personnel from the Departments of Engineering, Parks and Planning assured project coordination with other County efforts. Moreover, both private and homeowner interests were also represented. Below are the Task Force member representatives who met on a monthly basis to review all work products and whose input was invaluable to the final product:

*National Parks:* Wallace Britian

*Corps of Engineers:* Russ Lundstrom, Ranger

*Keep Forsyth County Clean and Beautiful:* Diana Dean

*Forsyth County Department of Engineering:* Tim Allen

*Forsyth County Dept. of Planning and Development:* Jeff Watkins

*Forsyth County Parks and Recreation Board:* Catherine Ferrugia

*Georgia Department of Transportation:* Brent Cook

*Forsyth County Board of Commissioners:* Marcie Kreager

*Chamber of Commerce:* Kenneth Flanagan

*Hedgewood Properties:* Pam Sessions

*Forsyth County Department of Parks and Recreation:* Jim Brennan

*Forsyth County Federation of Homeowners:* Richard Spreen

## Existing Conditions

The Task Force was presented with extensive information regarding existing conditions in an effort to establish a baseline for future planning. A current trends report was produced, which highlighted the history of bicycle and pedestrian planning in the region. The majority of these planning efforts have been concentrated in the Atlanta Regional Commission (ARC) jurisdiction. Performance measurement criteria used in past ARC efforts was documented for use and consideration by the Task Force. The

current trends report also detailed State, local and Georgia Mountains Regional Development Center efforts in bicycle and pedestrian planning. Lastly, federal guidance available to local jurisdictions for bicycle and pedestrian planning efforts were documented and presented to the Task Force as a guide for the Forsyth County planning effort.

Based on the Task Force's understanding of these issues, a public involvement plan tailored to Forsyth County was developed. The public involvement plan included the development of a project web page linked directly to the County's home page. The web page provided a public input survey to assist the Task Force in identifying important issues to address during the planning process. The web page was also key to receiving public input regarding the process and alternative projects recommended.

#### Strategic Planning

Once a baseline condition of available resources was established to the County, the Task Force finalized goals, objectives and strategies to meet the County's vision. The vision statement reads as follows:

*"To foster the development of an interconnected network of bicycle and pedestrian facilities that meets Forsyth County's future transportation mobility, serves recreation needs, promotes alternative means of transportation, and enhances the County's overall quality of life"*

The goals, objectives and strategies identified were based on an analysis of various issues. One was the relation of bicycle and pedestrian planning in the larger land use, transportation and environmental framework existing in the region, as well as locally. The other was the relation of bicycle and pedestrian planning to the existing political and technical environments

both in the region and locally. It was recognized that, although Forsyth County is not in the ARC jurisdiction, some of the same land use, technical and political issues affecting ARC will impact the County in the future. Therefore, the Task Force agreed to proactively address these issues in their plan development. Specific challenges and opportunities were identified within Forsyth County's environmental, land use and political context with respect to bicycle and pedestrian planning. The strategies developed for the Forsyth Plan were intended to take advantage of existing opportunities and to overcome the obstacles and challenges identified.

#### Alternatives Analysis

As indicated in the information compiled for the Plan development, there are few existing and proposed bicycle and pedestrian facilities in Forsyth County. Similarly, very few local jurisdictions adjacent to Forsyth County have existing and proposed bicycle and pedestrian facilities. Therefore, the process for selecting alternatives was a true beginning for Forsyth County and the surrounding area. Information regarding employment density, population density, destinations, and the location of public facilities was used as a base for selecting alternatives. Moreover, prior to selecting alternatives, the Task Force was presented with various available typical sections that represented best practices for bicycle and pedestrian facility design. In reviewing these typical sections, the Task Force agreed that only certain facilities would be applicable to Forsyth County. A specific type of facility was recommended as the alternatives were selected. Considerations included in the process of selecting the alternatives are listed below.

- Adjacent local plans, including the GDOT Statewide Plan, were secured to assure connectivity was maximized to areas outside of Forsyth County;

- Park's Department future plans were identified;
- Greenspace program plans were identified;
- Known utility and water/sewer easements were considered;
- Mapping was produced depicting employment density by Census Tract;
- Mapping was produced depicting population density by Census Tract;
- Mapping was produced depicting the location of all schools, parks, public facilities and points of interest;
- Proposed developments were reviewed and considered;
- Proposed roadway improvement plans were considered for potential bicycle and pedestrian opportunities;
- Potential connections to enhance the development of a network were considered; and
- Input was received from local bike groups regarding preferred travel routes and/or bicycle touring routes.

In addition, a Congestion Analysis report was produced to assist in selecting alternatives. The report included an analysis of congested roadway facilities in the County, a determination of whether the CTP addressed improvements on these roadways, and a recommendation that bicycle and pedestrian facilities be implemented, as a congestion mitigation solution, in conjunction with these road improvements. In this manner, the improvement would not only address vehicle congestion but would also address bicycle and pedestrian needs. Alternative routes to the congested facilities

were also considered for potential parallel bicycle and pedestrian facility construction.

Ultimately a Draft 2025 Bicycle Transportation and Pedestrian Walkways Plan was produced from the alternatives analysis. Input was received from the public regarding the draft. Opportunities for input included the web site and a public meeting. Several changes and additions were made to the draft plan in response to public input and the result is the 2025 Bicycle Transportation and Pedestrian Walkways Plan depicted on Figure 1.

#### Plan Recommendations

Based on public input and additional analysis, a list of recommended projects was finalized. The Task Force prioritized the list in terms of implementation schedules. Short-term improvements were identified as those that could be completed in 1-5 years, Mid-term improvements in 5-10 years and Long-term improvements in 11 years or more. The prioritization of projects included considerations regarding the type of project, the coordination of the project with roadway improvement schedules, constructability and funding issues. For instance a low cost signing and marking project could be implemented in the short term, whereas, a new multi-use facility requiring right-of-way acquisition and funding identification in order to build would be long term. Cost estimates for the plan recommendations were developed and used in the prioritization process.

## Section 5. Alternatives Analysis

Armed with established goals, objectives and strategies and with a compilation of the best available information regarding bicycle and pedestrian planning at all levels of government, the Task Force was able to identify a list of recommended facilities. The facility recommendations were based on a 25-year planning period. The alternative facilities recommended constitute Forsyth County's 2025 Bicycle Transportation and Pedestrian Walkways Plan and are represented on Figure 1. The facility descriptions on the map correspond to the typical sections described below. Each typical section is best suited for different types of cyclists and pedestrians, as is indicated in the graphic presentations for the typical sections in Appendix A. Recommendations on designing these facilities are included as "best practices" for Forsyth County and should be incorporated into the County's Land Development Code.

Once the facilities were identified, an additional analysis to help refine and prioritize the proposals was conducted. The analysis consisted of analyzing traffic congestion along the County roadways and integrating any solutions with the proposed Bicycle and Pedestrian Plan. Consistent with the goals and objectives, the Bicycle and Pedestrian Plan, if implemented, can play a crucial role in the mitigation of transportation congestion. A successful plan works to create an environment that promotes safe walking and bicycling within a community. By providing this type of environment, a community has an effective transportation alternative that improves the interaction between motorists, bicyclists and pedestrians. Additionally, the improved interaction works to relieve traffic congestion and improve air quality. The analysis conducted helped to identify where bicycle and pedestrian improvements could be coordinated with roadway improvements along congested areas. It also identified

potential less congested routes for bicycle and pedestrian use.

### 5.1 Best practices for bicycle and pedestrian facility design

A successful network of bicycle and pedestrian facilities must include facilities for all types of users if it is to be successful as a viable transportation network. It should also be noted that every roadway, unless prohibited by law, is a viable transportation option for cyclists. Many streets and transportation corridors that have no improvements or facilities specifically for



bicycles are commonly used as transportation corridors for non-motorized transportation. The facilities described herein are proposed improvements to a standard road and range from

minimal improvements, to facilitate the ease of use, to completely separate non-motorized facilities. The following guidelines should be established for the implementation of the proposed bicycle and pedestrian facilities in Forsyth County.

#### 5.1.1 Cyclists and Pedestrians

In order to produce a viable transportation network, the potential users must be considered when developing a plan. AASHTO's *Guide for the Development of Bicycle Facilities* defines three types of cyclists. Facilities that accommodate a very confident adult cyclist who regularly commutes to work may not be very appropriate for a child on his/her way to school, and vice versa.

AASHTO has not defined types of pedestrians. For the purposes of this study,



pedestrians will be defined into four groups: Adult Pedestrians, Child Pedestrians, Environmental Justice Community Pedestrians, and Pedestrians with Disabilities. A definition of each type of cyclist and pedestrian is provided below.

**Type A Cyclists:** Advanced adult cyclists best describe the Type A Cyclist. These cyclists are aware of the rules of the road and are skilled at maneuvering a bicycle through vehicular traffic. Typically, these cyclists are commuters or cyclists who are confident with their skills and more interested in reaching a destination in the shortest time possible than they are in scenery or the added safety of less-traveled routes. These cyclists will use any road legally open to bicycle traffic.

**Type B Cyclists:** A typical adult qualifies as a Type B Cyclist. These cyclists know the rules of the road and know how to ride a bicycle. The main distinction is that they prefer less traveled routes to and from their destinations and are less confident in high volumes of vehicular traffic and are less likely to be found competing with motorists for space on a busy road. These cyclists may use facilities for transportation purposes, but will forego the most direct and fastest route in favor of less traveled, safer, or more scenic routes. Type B Cyclists need facilities that are safer and less intimidating than those required by Type A Cyclists.

**Type C Cyclists:** Children are the prototypical Type C Cyclists. These cyclists may be very skilled cyclists. However, they are unaware of the rules of the road because they have never legally driven a motorized vehicle in traffic. These cyclists ride for both recreation and transportation; the most obvious destination is an academic institution, such as an elementary school, middle school, high school, or library. Type C Cyclists should not travel with motorized vehicles.

**Adult Pedestrians:** Adult Pedestrians use pedestrian facilities for commuting, recreation, and exercise. Adult Pedestrians are aware of the rules of vehicular traffic. Adult Pedestrians can have difficulty crossing high speed, multi-lane streets that lack median refuge islands or pedestrian signals, or where reckless drivers threaten their safety.

**Child Pedestrians:** Child Pedestrians see and hear the world differently than adults. Children often have trouble judging traffic speed, gaps in traffic, or whether a car is coming, going or standing still. Children are shorter than adults, and have limited peripheral vision. Facilities that reduce traffic speed, calm traffic, and provide separation from the travel lane are types of facilities needed by Child Pedestrians. Neighborhood streets with sidewalks and shared-use facilities can accommodate Child Pedestrians.

**Environmental Justice (EJ) Community Pedestrians:** Many counties within the North Georgia area house numerous citizens from a host of international countries. Many parts of the Forsyth County and Metropolitan Atlanta area are home to concentrations of new residents of the United States. Several areas have a concentration of people who do not necessarily read the English language well and may not be able to read warning signs that are written in English. Therefore, in these known EJ areas, safety and directional signage should be shown in symbols rather than written words. The Manual on Uniform Traffic Control Devices (MUTCD) offers several options for regulating the flow of vehicular and pedestrian traffic.

Many Environmental Justice Community Pedestrians are unable to drive, and rely on walking as a primary mode of transportation. These Pedestrians rely on safe sidewalks and safe, easy to use pedestrian crossings. Facilities in



neighborhoods which have a high population of Environmental Justice Community Pedestrians should be numerous and provide connections from residential neighborhoods to destinations such as employment centers, shopping areas, and public and semi-private institutions.

**Pedestrians with Disabilities:** The ADA prohibits discrimination to pedestrians with disabilities. Pedestrians who are blind, deaf, or who rely on wheelchairs have needs that are very specific to those types of disabilities. For instance, people who are deaf need visible warnings about crossing vehicular traffic. People with vision impairments need tactile indications that they are approaching an intersection or other hazard. Since they cannot see safety signs, they need audible indicators to inform them of proper times to cross the street. Pedestrians in wheelchairs are unable to mount curbs or maneuver through rough, narrow, or steep surfaces; therefore, provision must be accounted for in the design process.

It is expected that all design solutions for recommendations in this plan will be consistent with ADA standards. The FHWA publication, *Designing Sidewalks and Trails for Access: Best Practices Design Guide* offers many details that cater to Pedestrians with Disabilities. Guidelines in this publication will prove helpful and should be considered on every facility proposed in this plan.

### 5.1.2 Facility Descriptions

The facilities described below are ideal designs, based on best practices. AASHTO's *Guide for the Development of Bicycle Facilities*, 1999, encourages many of the elements in the bicycle facilities. These guidelines have been tailored to meet conditions within the Forsyth County area. It should be noted that guidelines and best

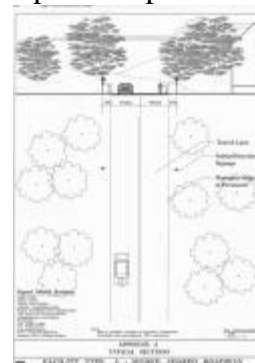
practices might need to be altered to fit individual sites and conditions.

Pedestrian facilities tend to be more diverse and are not well defined by AASHTO. The FHWA and GDOT have no detailed best practices for sidewalks. The FHWA is publishing the second part of a two part series entitled *Designing Sidewalks and Trail for Access, Best Practices Design Guide*. This guide discusses many alternatives for designing for persons with disabilities. The pedestrian facilities outlined below are based on the best existing facilities currently used in metropolitan areas. Design features in the typical sections will better facilitate pedestrian safety and comfort.

See Appendix A for typical sections of the types of facilities listed below.

#### Facility Type A – Signed Shared

**Roadways:** Type A Cyclists will use all legally open streets for transportation purposes. Many of the streets and roads will have hazards to cyclists that are not considered to be hazardous to motorists, these include streets that have drainage grates, bridge expansion joints, railroad crossings, rough pavement, and signal timing designed with only motorists in mind. An opportunity to provide preferred routes for cyclists, with relatively little financial infusion is the Signed Shared Roadway. The physical improvements to an existing road or street may include bicycle-safe drainage grates and bridge expansion joints, improved railroad crossings, smooth pavements, and signal timing and detector systems that respond to bicycles.



Once these types of improvements are made, the route should be signed, both to alert

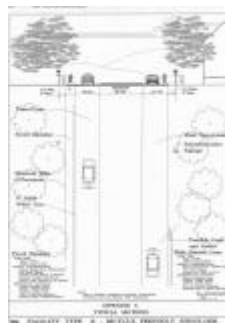
motorists that bicycles are likely to be sharing a travel lane and to direct cyclists that the signed route has advantages over other routes. Directional signage is also encouraged. Destination arrows can be added to sign poles to help cyclists maneuver through the safest routes to and from major destinations.

In a Signed Shared Roadway facility, the cyclist shares a lane with motorized vehicles. As lane widths will vary, wider existing lane widths will be one consideration when choosing a route. Slower speeds are preferred over faster moving traffic routes. A relatively low traffic volume is also desired to minimize the potential for conflicts between cyclists and motorists. Long sight distances will also be desirable as cyclists and motorists will be sharing a lane.

Many examples of this type of facility can be found in the Metro Atlanta area. For example, the Stone Mountain to Atlanta path has several sections of Signed Shared Roadways, which, due to the high traffic volume and speed, are more appropriate for a Type A Cyclist. In downtown Powder Springs, Dillard Street is currently being signed to provide part of an important connection between the Silver Comet Trail and the historic downtown. In this particular case, specimen trees close to the road and limited right-of-way precluded a more intensive improvement, but because traffic volume and speed are relatively low and because sight distance is unlimited, a Signed Shared Roadway with both safety and directional signage will serve Type A Cyclists, Type B Cyclists, and Type C Cyclists with the guidance of adults.

**Facility Type B – Bicycle Friendly Shoulders:** Bicycle friendly shoulders may be incorporated into the roadway by either the addition of wide outside lanes or by striping a paved shoulder to increase safety for bicycle users and motorists.

**1. Wide Outside Lane:** A way to provide more maneuvering room is to provide increased lane width. Lanes wider than twelve feet can better accommodate both bicycles and motor vehicles in the same lane. Providing a wider curb lane may allow motorists to pass a cyclist without changing lanes. This option still requires safety and directional signage and the removal of hazards. Wide Outside Lanes can provide a cost-effective option for areas where there is inadequate width for bike lanes, but where there is the opportunity to gain additional width or simply to re-stripe the road. Fourteen feet of useable width is optimal along straight, relatively flat stretches of road. Fifteen feet may be desirable in some cases, such as where site distance is limited or on steep inclines or where on-street parking effectively reduces useable width.

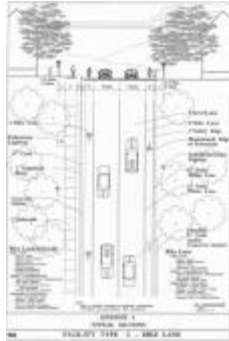


As important as it is to provide continuity within the bicycle system, long, uninterrupted stretches of wide curb lane may be improperly used as two lanes in congested urban or suburban areas. This possibility should be considered when designing the facility. In more urban situations where a continuous lane width of fifteen feet may be available, it may be more effective to re-stripe the lane to provide a designated bike lane.

**2. Paved Shoulder:** Adding or improving Paved Shoulders can often be the most effective way to provide better bicycling facilities, especially in rural areas. Paved Shoulders provide areas where cyclists can pull off the travel lane if needed, or can ride more slowly on steep inclines or sharp curves. Paved Shoulders also add safety for motorists by increasing the durability of the travel lane and providing an emergency pull-off area. The additional width can be

Paved Shoulders should be at least four feet wide and should not be painted as a bike lane. If guardrails or other roadside hazards exist, then five feet of useable width is recommended. The edge of the pavement should be well maintained to avoid hazards that would minimize the available useable width. Care should be taken to keep debris off Paved Shoulders, as gravel and leaves often accumulate on these types of facilities.

**1. Bike Lane/Sidewalk:** The combination of bike lanes and sidewalks is often desirable for corridors where non-motorized transportation options are specifically encouraged. Often, through an urban setting, bike lanes and sidewalks will be parallel. It is important to provide both vertical and horizontal separation between motorists and pedestrians. The bike lane helps to provide horizontal separation, and a two-foot vegetated strip and six-inch curb help to separate pedestrians from cyclists. Since a more limited vegetated strip is required, streetlights, signage, and amenities can appear directly behind the walk, as space allows.



provide delineated road space for preferential use by bicyclists and therefore makes their movements more predictable. Cyclists are more confident that motorists will not swerve into their travel space. Motorists are less likely to swerve out of their lane while passing a cyclist traveling in a designated bike lane.

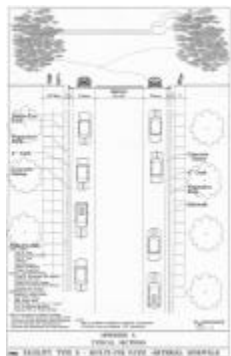
Bike Lanes are most successful if they are continuous. Their presence encourages bicycle traffic. Many Type B Cyclists who would otherwise be intimidated to attempt a ride on a heavily traveled street or road will be much more likely to use a facility that includes Bike Lanes. In many instances throughout the Metro Atlanta area, bike lanes stop when the road narrows, has steep inclines, or approaches an intersection. When cyclists need the most protection and direction, and when predictability is the most vulnerable, they are all too often left to their own resources on an unimproved vehicular travel lane. Bicycle Lanes that are not continuous may be more dangerous than providing no bicycle facilities at all.

Intersection designs should always accommodate bike lanes. AASHTO's Guide for the Development of Bicycle Facilities (1999) provides adequate design guidelines to accommodate individual intersection designs.





facilities along high speed or heavily traveled roadways having inadequate space for bicyclists. In limited locations, which are uninterrupted by driveways and intersections for long distances, it may be acceptable to provide a wide sidewalk that can be used for both bicycles and pedestrians. Since this facility is off-road, bicycle traffic can occur in both directions. Pedestrians and cyclists can use the same facility similar to the way a shared use path is used.



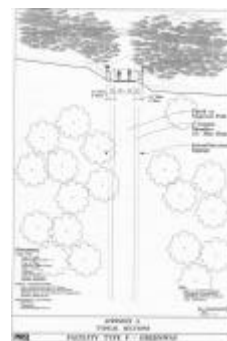
One side of the travel corridor should be a wide sidewalk, which allows bicycle use. The other side of the corridor should contain a five-foot sidewalk and be used for pedestrians only. Safety signage should be posted to limit conflicts between pedestrians and cyclists using this type of facility. This type of facility has many opportunities for conflicts between vehicles and bicycles and bicycles and pedestrians. Therefore, all other options, including alternate routes, should be considered before planning a wide sidewalk used for bicycles and pedestrians. Consult AASHTO's Guide for Development of Bicycle Facilities for more information and other design considerations.

#### **Facility Type F – Shared Use Path:**

Opportunities to provide transportation options that can serve all non-motorized populations exist in the form of Shared Use Paths. This type of facility is typically located on an exclusive right-of-way such as an abandoned rail corridor, utility easements, or along rivers, streams, and lakes. Shared Use Paths have many commonly used names, such as mixed-use path, trail, and off-road facility. All types of cyclists and all types of pedestrians use Shared Use Paths. They can provide short cuts through residential neighborhoods by connecting cul-de-sac streets, act as

connections between major destinations, such as schools and neighborhoods, and can serve as a regional off-road corridor linking pedestrian and bicycle networks in towns and cities, forming a safer and more comprehensive regional network.

Because Shared Use Paths do not share the right-of-way with vehicular traffic and often cross streets at grade separations, they are ideal for all types of users. Children and adults alike can use Shared Use Paths for transportation with little fear of vehicular conflicts. Type A Cyclists often prefer to avoid Shared Use Paths in favor of more direct, on-street routes, which are currently available. Shared Use Paths generally serve the bulk of the general population who require safer, less congested routes for cycling and walking. In most instances Shared Use Paths should be paved. The minimum width that will accommodate both cyclists and pedestrians traveling in two directions is eight feet. By providing better separation between users and making passing easier, ten feet is the recommended minimum width for Shared Use Paths. These paths can also be wider, if a high amount of use is anticipated. While it is recommended that Shared Use Paths be paved with either concrete or asphalt, it is possible to construct a successful path that is not paved. The National Park Service no longer allows any kind of hard pavement in their facilities. Often, National Parks provide land for important, off-road connections.



For instance, the Chattahoochee River National Recreation Area at Powers Ferry is a gravel facility up to thirty-foot wide in some locations. The path follows the Chattahoochee River and is very well used by the public. Although this particular path is primarily used for recreation, it links neighborhoods that are remote by the road

system and can be used to facilitate non-motorized transportation. Also, the wide, unpaved path easily accommodates numerous representatives of every type of user.

### **5.1.3 Motorist/Pedestrian Conflicts**

Pedestrians and motorists conflict most often when pedestrians attempt to cross a street. Unsignalized intersections on high speed, multi-lane streets are common throughout Metro Atlanta and pose serious risk for pedestrians. Marked crosswalks need to be supplemented by medians, refuge islands, overhead signs and/or lights, bulb-outs, and/or pedestrian activated signals. Pedestrian signage can help motorists know that there are pedestrians needing to cross streets. School zones should always be signed as such. Since there is likely to be an increase in pedestrian activity at and near schools, crossings near these locations should be as visible and safely designed as possible.

Several road design practices can help increase pedestrian safety. While travel lane design is out of the scope of the bicycle and pedestrian plan, several key points should be noted. Traffic calming can be an important addition to pedestrian safety, especially for Child Pedestrians. Lane widths of eleven-feet should be implemented where possible on local and neighborhood streets, to reduce the speed of motorized travel and reduce the length of the pedestrian crossing. Access points to businesses should utilize shared curb-cuts to minimize potential conflict points between motorists and pedestrians. The sidewalk's paving pattern should cross curb cuts and driveway aprons to give a more continuous surface for pedestrians and to provide a visual reminder to motorists that they are crossing a pedestrian route.

There is no single facility or facility type that will work for every user and every existing site condition. The best practices

outlined above and illustrated in Appendix A serve as ideal designs in ideal situations. Every travel corridor will have its own constraints and opportunities. It is important to use judgment and creativity in increasing safety and ease of mobility for all types of cyclists and pedestrians.

### **5.1.4 Congestion Analysis**

Federal legislation requires that MPOs prepare Congestion Management Systems (CMS). The adjacent MPO, ARC, has an adopted CMS. Because the GMRDC is not an MPO they are not required to prepare a CMS. However, the basic purpose of a congestion management system is to identify congested corridors, identify the causes of congestion, and recommend potential solutions or mitigation strategies to relieve the congestion based on the causes. In many established congestion management systems, bicycle and pedestrian facilities are considered potential mitigation strategies. Although Forsyth County nor the GMRDC are required to prepare a CMS, the County expressed an interest in analyzing the current congestion levels on their roadway in relation to the proposed Bicycle and Pedestrian Plan. Recommendations were prepared that coordinated proposed bicycle and pedestrian facilities with identified congested roadways. Moreover, the congestion analysis helped to refine and prioritize the alternative facilities identified in the plan.

Traffic congestion results from a need for additional capacity on a roadway, which can be influenced by many factors. The identification of these factors is important for the purpose of providing congestion mitigation measures. Congestion mitigation comes in many different forms, with bicycle and pedestrian facilities being an identified congestion mitigation strategy. Including bicycle and pedestrian projects as a congestion relief strategy along with proposed improvements along congested



corridors will help to improve the effectiveness of Forsyth's improvement strategies.

### **Causes of Congestion in Forsyth County**

Several specific causes of congestion are pertinent to bicycle and pedestrian issues:

- Heavy vehicle volumes;
- Heavy peak period volumes;
- Heavy intersection volumes;
- Heavy pedestrian volumes;
- Too many driveways;
- Poor signal timing coordination; and
- Poor intersection geometrics.

Heavy vehicle volumes, peak volumes and intersection volumes are found in the southern and eastern portion of Forsyth County where residential and commercial development continues to expand. The roadways serving these areas were designed to service mainly rural needs and their improvement has not kept pace with the fast growing County. Typically, experienced cyclists use roads with heavy vehicle volumes as they provide the most direct routes from origins and destinations. Therefore, facilities such as bicycle friendly shoulders and bike lanes should be accommodated along these roadways. At intersections with heavy vehicle volumes, pedestrian improvements should be considered.

Heavy pedestrian volumes are typically found within the vicinity of major activity centers, such as the City of Cumming, schools and parks. The identification of these areas was used to prioritize sidewalk facilities and pedestrian crossings.

Roads with multiple driveways not only contribute to traffic congestion but also present an unfriendly pedestrian environment. A possible solution to this type of congestion can have a positive impact both vehicular and pedestrian traffic. For instance, sidewalk construction projects can be implemented along major arterial

roadways that are targeted for driveway curb-cut closures.

Signal timing coordination is another source of congestion that relates to bicycle and pedestrian issues. Signal timing improvements should include pedestrian signal/crossing improvements and possibly signal detection devices for bicycle crossings at intersections.

Another frequent cause of congestion involves poor intersection geometrics. An intersection with poor geometrics is not only a safety hazard for vehicles, but also for pedestrians. Future intersection improvements should address ADA standards, pedestrian signals and crossings.

### **Possible Congestion Mitigation Strategies**

Congestion mitigation strategies can be grouped into four categories. These are trip elimination strategies, trip reduction strategies, existing system optimization and capacity addition strategies. With guidance from the ARC's CMS, these strategies were evaluated regarding the strategy's potential impact on mobility. In this analysis, required data was identified to measure the strategy's impact in the future.

#### *Trip Elimination Strategies*

Trip elimination strategies include modifications to the land use mix and site design. Under site design, provision of inter-connecting sidewalks between offices and commercial areas can be identified as a strategy. In combination with a strategy to provide inter-parcel access, this approach has the potential to impact or reduce trips by 3%. Data required to measure this impact includes accident rates and intersection volumes. For shorter trips, bicycle and pedestrian facilities should be included as a potential trip elimination strategy.

### *Trip Reduction Strategies*

Trip reduction strategies include preferential treatment strategies, administrative measures and economic measures. Under preferential treatment, provision of bicycle and pedestrian facilities and the provision of bicycle access to transit were included as potential trip reduction strategies. Provision of bicycle/pedestrian facilities has a 0.2% potential reduction in trips and bicycle access to transit had no impact as a stand-alone strategy. Required data to measure this impact includes bicycle/pedestrian counts.

### *Existing System Optimization Strategies*

These strategies include ATMS technology application, freeway management, access management, traffic signalization and intersection geometric improvements. From the analysis with respect to causes of congestion and their relationship to bicycle and pedestrian issues, sidewalk construction should be added as a strategy under access management in conjunction with closing driveways. Pedestrian signals/crossing and ADA improvements should be added as a strategy under intersection geometric improvements and bicycle and pedestrian signal improvements should also be added under traffic signalization strategies.

### *Capacity Addition Strategies*

This strategy includes building new roadways, roadway widening and provision of more bus and rail service. Bicycle and pedestrian provisions should be included in roadway and transit capacity projects.

In terms of strategic planning for the Bicycle and Pedestrian Plan, it is also important to identify non-congested parallel facilities that are direct links between origins and destinations. These facilities are important to identify since they can be considered attractive direct alternate routes for the bicyclist. For example, greenway corridors

can be considered as an alternative to congested facilities if they are somewhat direct and connect origins and destinations.

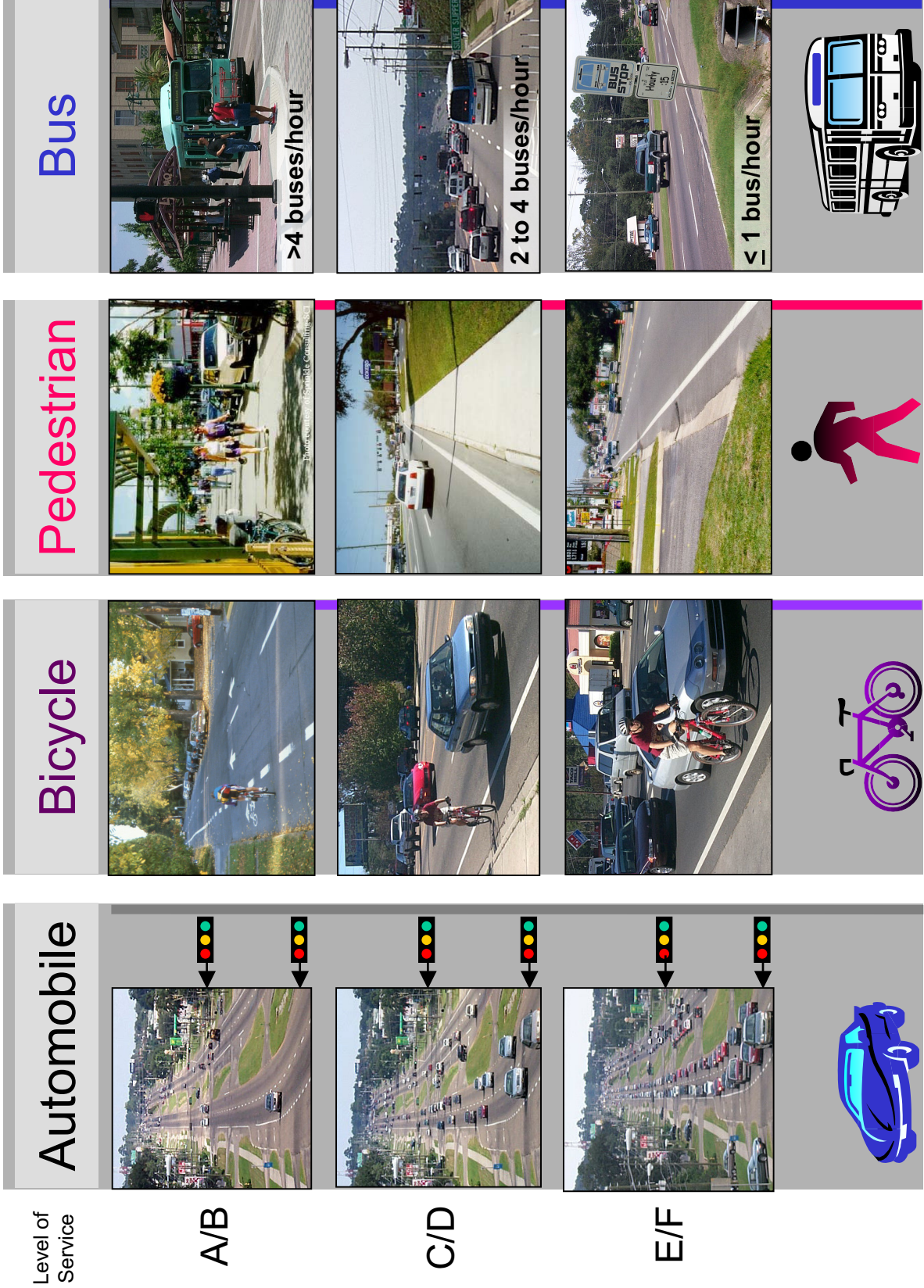
**Definition of Congestion in Forsyth County** - As previously stated, Forsyth County does not currently have a CMS. Such a system would allow the county to identify roadway facilities that are deficient. In order to generally define congestion in Forsyth County, capacity thresholds for each facility type in a roadway network must be identified. The general facility types analyzed for this study are presented in Figure 2. These facility types include a freeway, major arterials, minor arterials and collectors.

For the purposes of this study, congestion will be identified based on the current level of service (LOS) associated with the major transportation network in Forsyth County. The LOS of a roadway is a qualitative measure of the road user's perception of traffic flow. The letters A through E represent the LOS of a transportation facility. The letter "A" represents the most favorable driving conditions, while the letter "E" represents a congested facility. A generalized LOS table, presented as Table 1, helps to explain the definitions of LOS in terms of capacity. The LOS of a facility in this analysis was based on the facility type and its associated average daily traffic (ADT). There was no attempt to forecast congestion levels in the future. The County's CTP performed an analysis of future travel demand on County roadways. The current congestion analysis provides a snapshot of current congestion levels to assist in the development of the Bicycle and Pedestrian Plan.

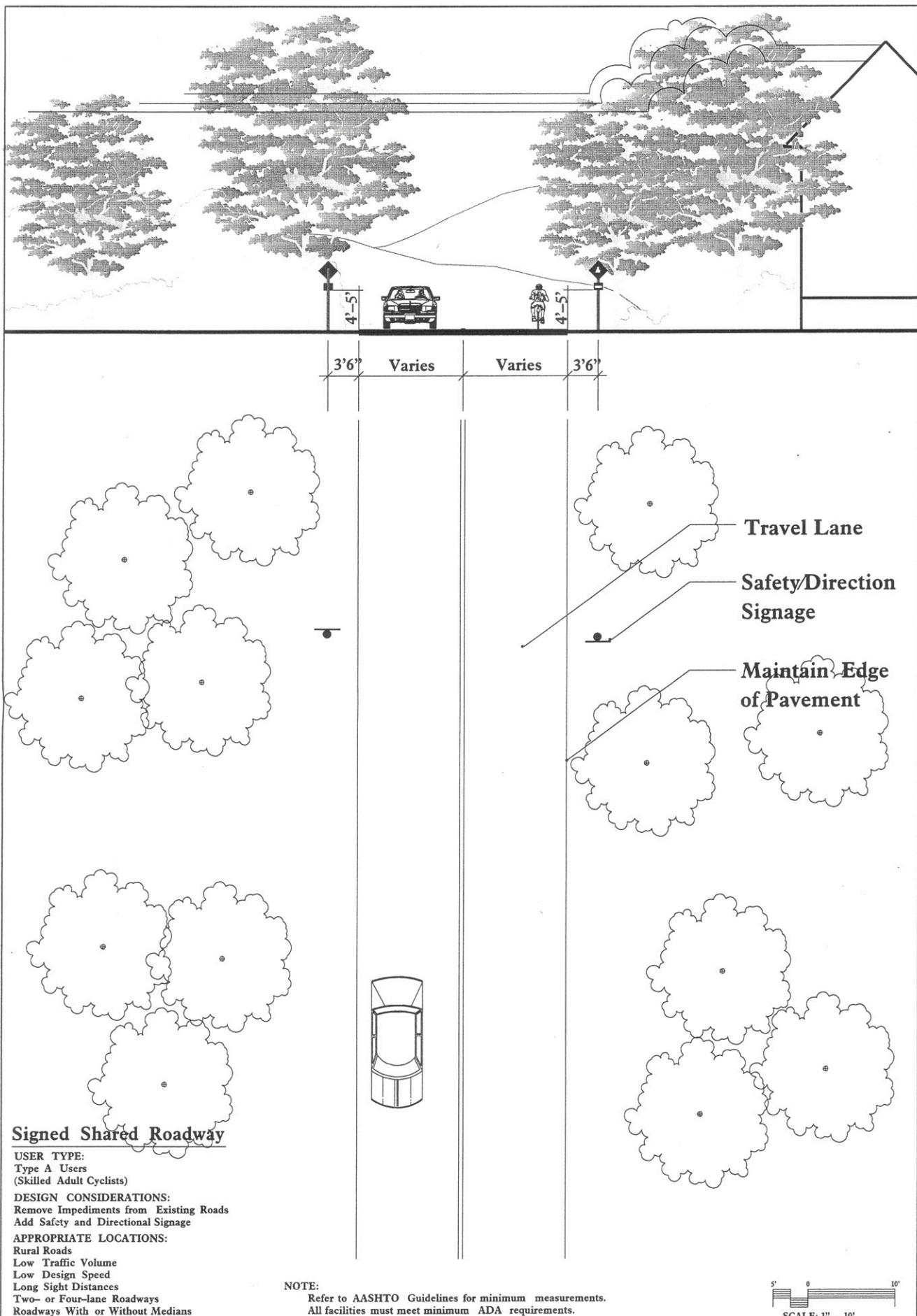
The current snapshot of congestion was validated with information provided in the County's CTP existing conditions analysis.

Figure 1 - 2

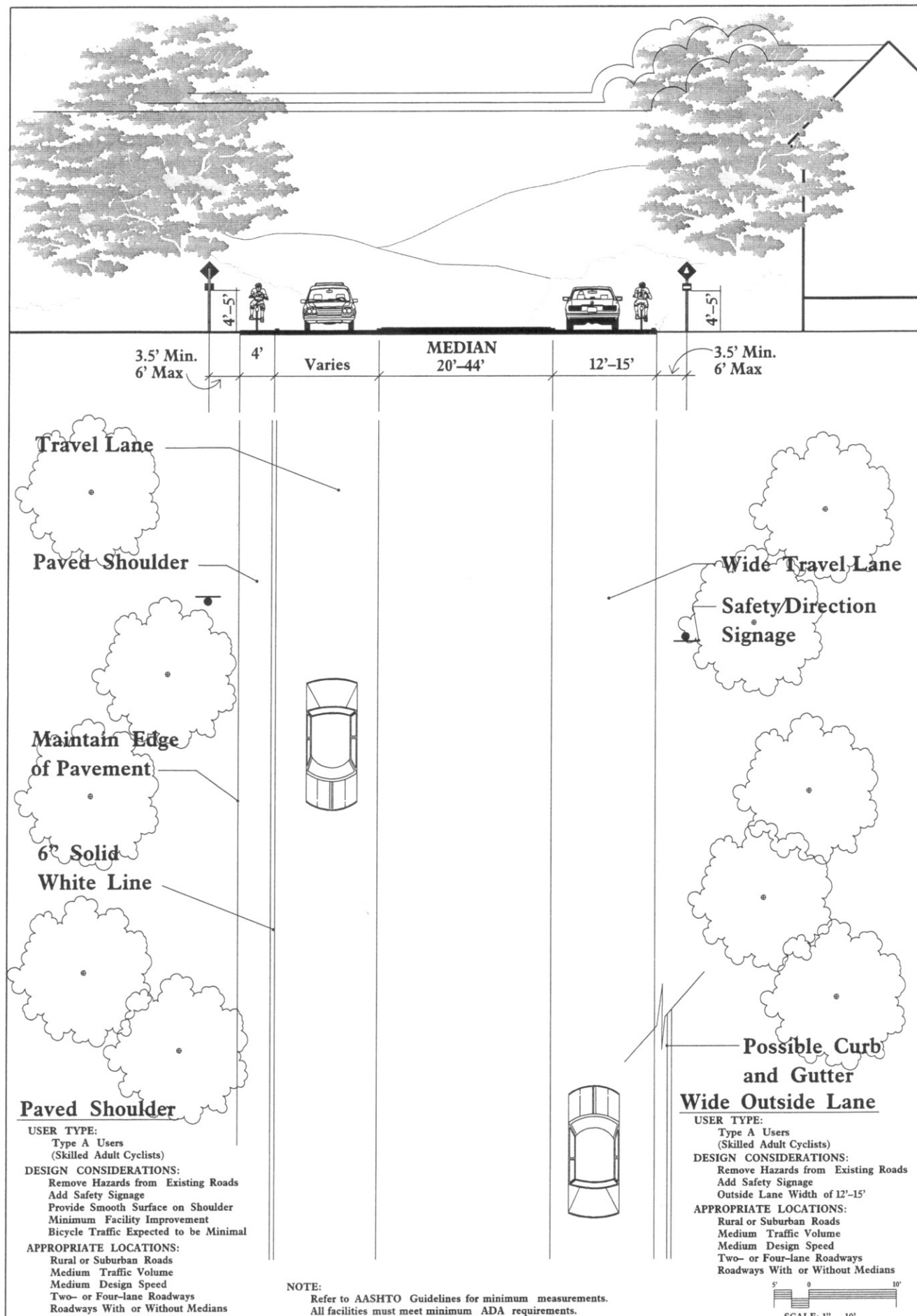
EXAMPLES OF LEVEL OF SERVICE BY MODE FOR URBAN ROADWAYS







## APPENDIX A TYPICAL SECTIONS

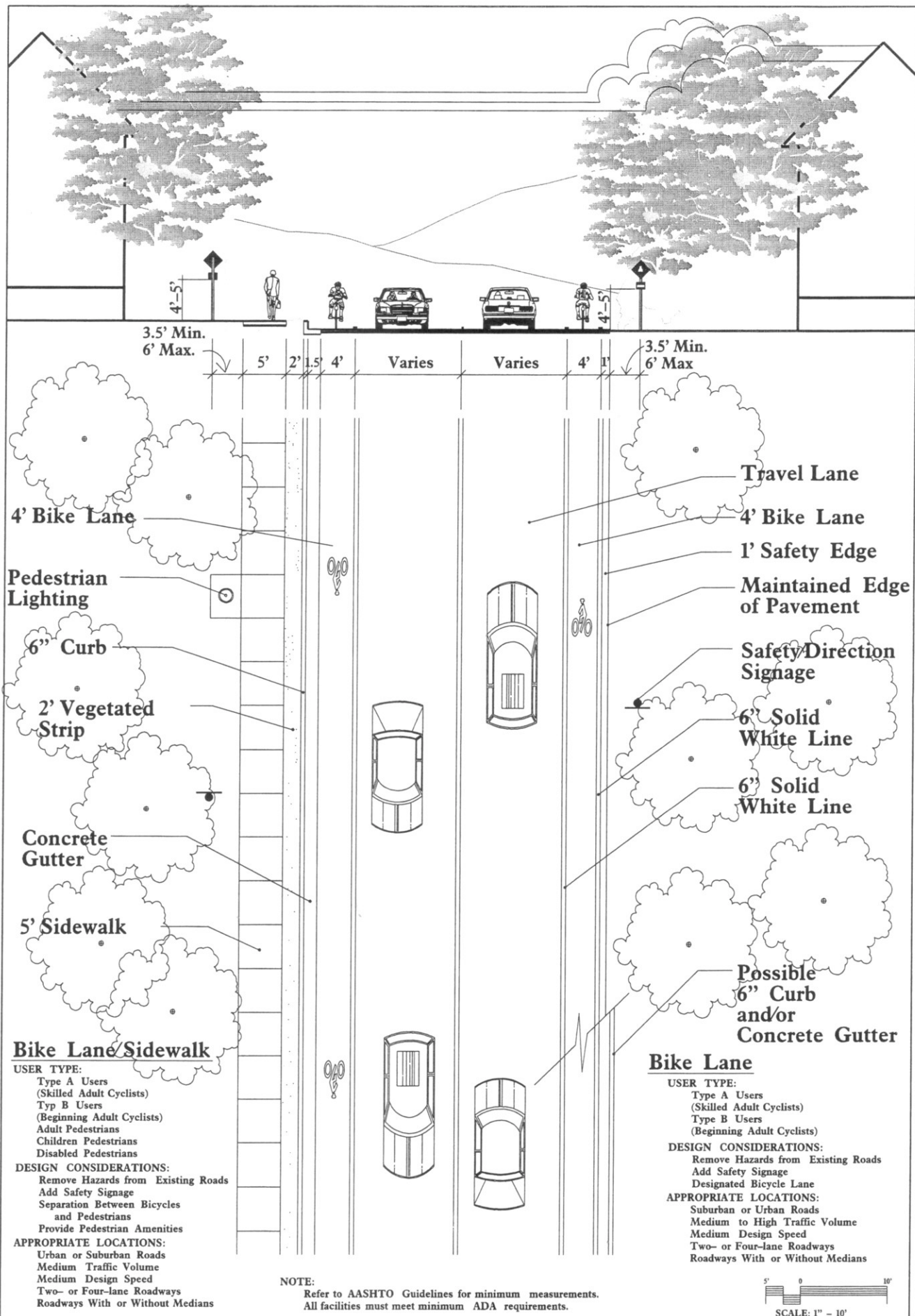


## APPENDIX A TYPICAL SECTIONS



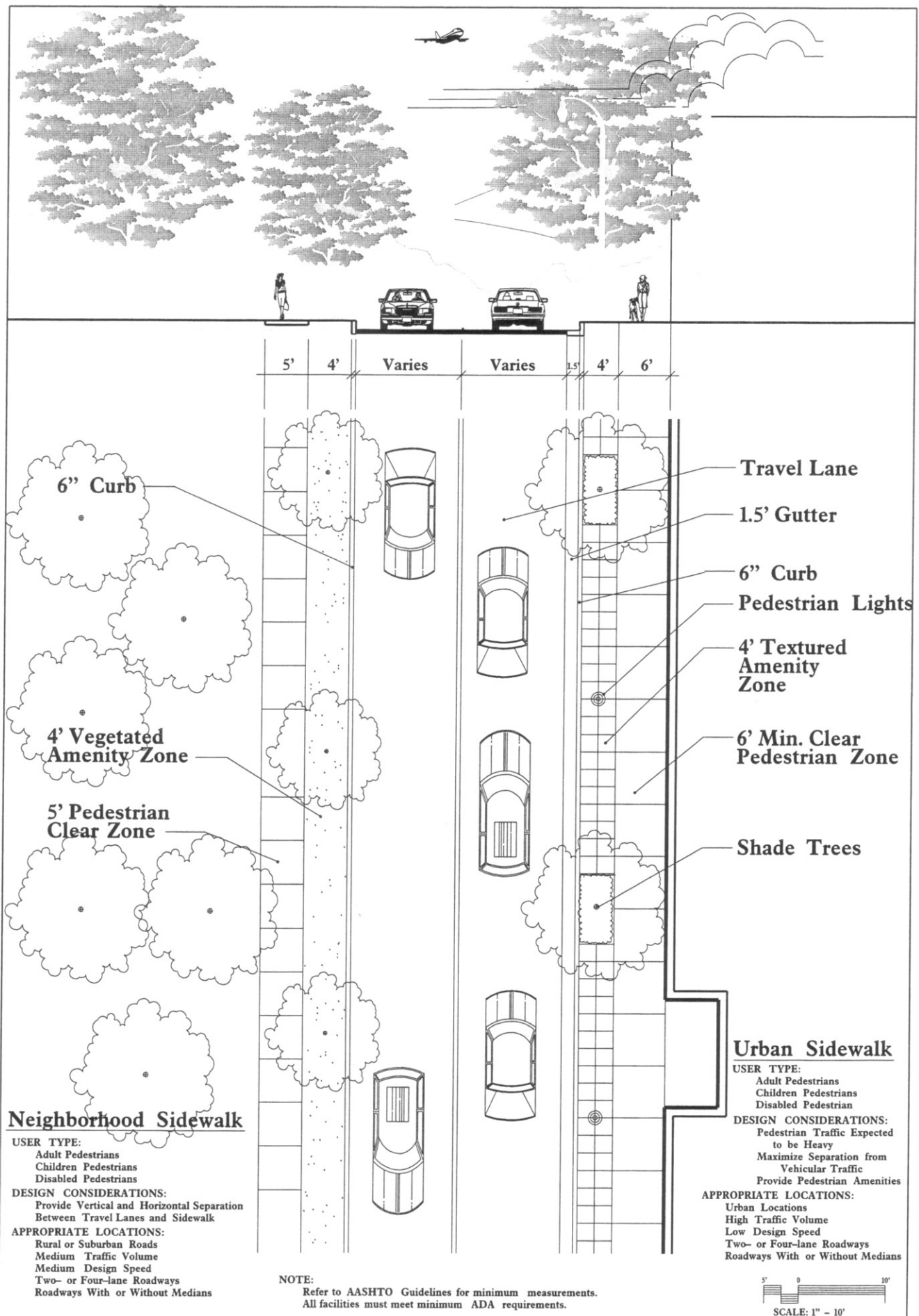
**FACILITY TYPE B - BICYCLE FRIENDLY SHOULDER**





## APPENDIX A TYPICAL SECTIONS

### FACILITY TYPE C - BIKE LANE

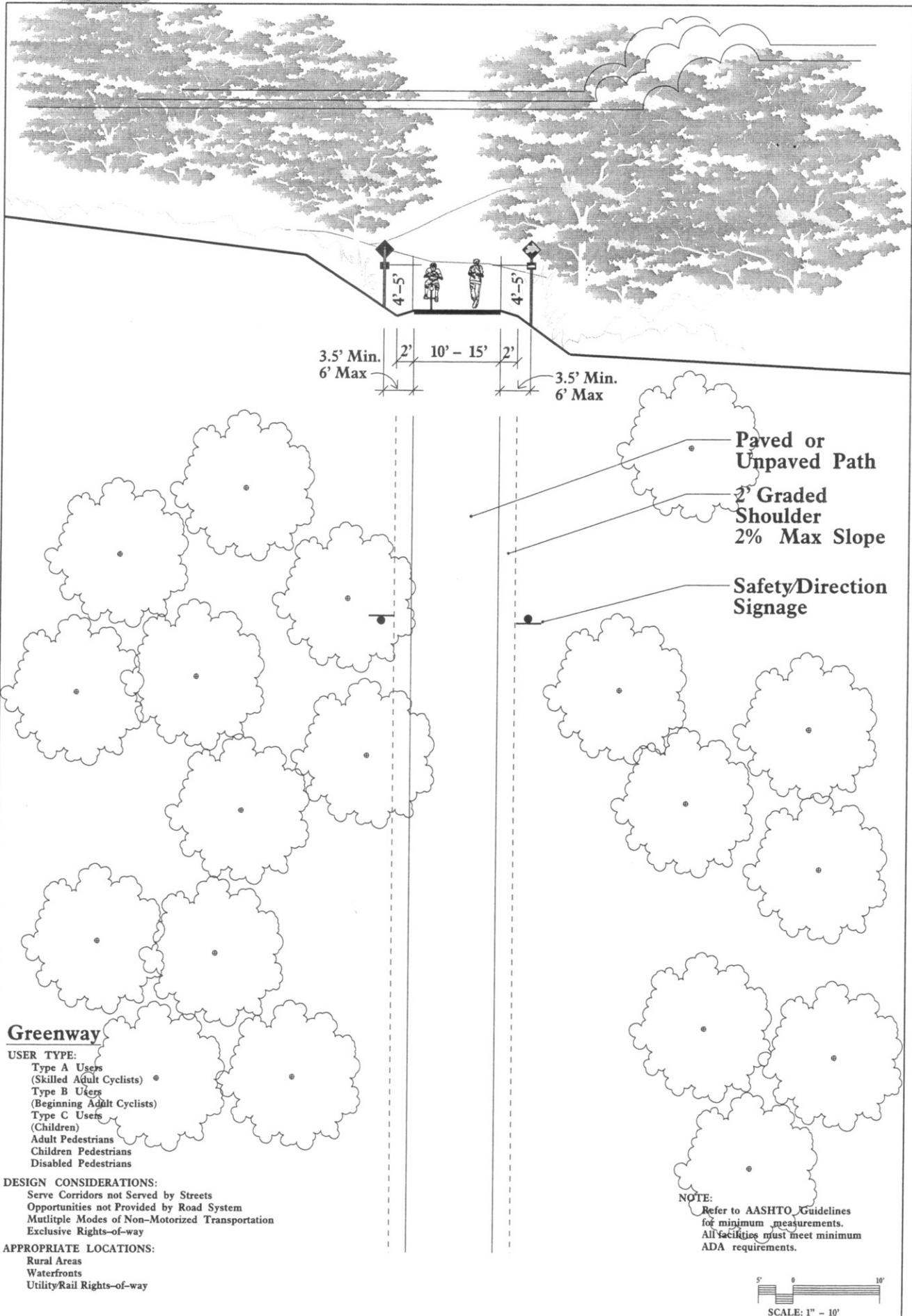


## APPENDIX A

### TYPICAL SECTIONS







# APPENDIX A TYPICAL SECTIONS

## FACILITY TYPE F – GREENWAY

REPORT PREPARED FOR FORSYTH COUNTY BY:

**Pond & Company**

3500 Parkway Lane  
Suite 600  
Norcross, Georgia 30092  
P 678.336.7740  
F 678.336.7744

[www.pondco.com](http://www.pondco.com)