Task 2.1 Review of Existing Studies and Data

The Scope of Work section of the *Professional Services Contract* for this project calls for the consultant team to review numerous existing regional, County, and local plans, studies and ordinances to provide context for work associated with the development of the *Bicycle and Pedestrian Improvement Plan*. The following section includes summaries of those scope-identified studies, details their relevance to bicycle and pedestrian issues, and, and identifies ways in which portions of the current study will clarify issues raised or complement recommendations made by the existing studies. The documents reviewed include regional-scale planning and policy documents, County-wide planning and policy documents, specific corridor studies, and specific sections of the Official Code of Georgia and the Cobb County Code of Ordinances.

Regional Plans

ARC Bicycle Transportation and Pedestrian Walkways Plan (2007)

This regional plan focused on the improvement of bicycling and walking conditions along corridors of the Atlanta Regional Commission's (ARC) "Regionally Strategic Transportation System" (RSTS) and within ARC-defined activity centers. These priority corridors and centers were chosen as priorities due to their ability to affect change on regional issues including air quality, congestion, and safety, and due to their relevance to other ARC initiatives on healthy living and creating livable communities. The plan's goals and objectives focus on providing safe and convenient bicycling and walking access along the roadways of the RSTS, to the region's schools, and other high demand destinations. The plan's existing conditions report described bicycling conditions (using the Bicycle Level of Service Model) on a study network of selected RSTS roadways including the following Cobb County Roadways:

- Cobb Parkway
- Veterans Memorial Highway
- Bells Ferry Road
- Austell Road
- Roswell Road
- Lake Acworth Drive

- Powder Springs Road
- Atlanta Road
- C.H. James Parkway
- North Main Street (Acworth)
- Alabama Road/ Woodstock Road (SR 92)
- South Cobb Drive
- Powers Ferry Road
- Chastain Road/ McCollum Parkway
- Mableton Parkway
- Canton Road

The plan set an expectation for RSTS roadways to accommodate bicycling at Bicycle Level of Service "C" or better on RSTS routes, and Bicycle Level of Service "B" or better within the boundaries of activity centers (defined as those areas identified on the ARC Unified Growth Policy Map as either "regional places" or Livable Centers Initiatives (LCI) study site) ; in Cobb County, only Cobb Parkway between Cumberland parkway and Roswell Road scored a Bicycle Level of Service "C," but is within an activity area, and so is still determined to be in need of improvement.

The plan included a regional scale Latent Demand evaluation, which examined many of the same corridors as the Bicycle Level of Service evaluation. In Cobb County, portions of Atlanta Road and Cobb Parkway scored in the highest two classifications for bicycling potential, while portions of Atlanta Road, Powder Springs Road and Lake Acwoth Drive scored in the highest two classifications for walking potential. The plan also included evaluation of sample pedestrian conditions in high demand areas. Atlanta Road, Powder Springs Road, and nearby South Cobb Drive were selected for this evaluation; most segments performed at Pedestrian Level of Service "C," while a segment of Powder Springs Road with no sidewalk on one side and segment of Atlanta Road with sidewalk only four feet wide each scored as Pedestrian Level of Service "D." The plan used the results from the Bicycle Level of Service, Pedestrian Level of Service, and Latent Demand evaluations as the basis of a methodology by which ARC will give priority to

projects for funding assistance based on their contribution to meeting regional goals and objectives.

The plan also includes the following regional policy recommendations:

- Strategically target bicycle and pedestrian investments;
- Implement the practices of routine accommodation and "Complete Streets";
- Identify re-stripe candidates (for development of bike lanes and shoulders);
- Improve crossings at un-signalized intersections and mid-block locations;
- Increase availability of end-of trip facilities (e.g. bike parking, lockers and showers);
- Improve neighborhood connectivity for bicycles and pedestrians; and
- Promote bicycle and pedestrian planning and implement programs

ARC Regional Transportation Plan (2007)

This *Regional Transportation Plan* (*RTP*) seeks to provide a strategy for preserving mobility as the Atlanta region takes on an expected 2.3 million more residents over the next 25 years. Bicycle and pedestrian concerns figured into the plan in numerous ways, most notably as critical links to transit, as primary modes of circulation within the proposed "Livable Centers" and along the Beltline Corridor and as amenities popular with the public. Land use planning and bicycle and pedestrian system development are identified as strategies toward demand management, one of the priority investment areas that will help the region manage its continued growth. The plan also identifies the Bicycle and Pedestrian System as one of five major systems of the overall transportation network. The plan's funding focus for this system is toward facilities that serve regional needs by serving priority corridors and centers. The Bicycle Transportation and Pedestrian Walkways Plan (see above) is identified as the principal document for describing bicycle and pedestrian oriented policies and identifying projects; the policy recommendations of the *Bicycle Transportation and Pedestrian Walkways Plan* were incorporated directly into the *RTP*

ARC Regional Development Plan (2004)

The *Regional Development Plan* (*RDP*) serves as the comprehensive land use plan for the Atlanta Region. Among its goals is to create incentives for the use of transportation alternatives. The Section 7 of the *RDP*'s Technical report, the Transportation Element, highlights funding for bicycle and pedestrian facilities from the 2003-2005 Transportation Improvement Program and maps then-existing facilities. The RDP reports that in 2004 Cobb County had 22.3 miles of "Bike Lanes" and 1.2 miles of "Separated Greenway/Bike Path."

The *Bicycle and Pedestrian Improvement Plan* will provide a more current and complete inventory of Cobb County's bicycle facilities.

ARC Regional Access to Jobs Plan

This study was done in conjunction with the Cobb County *Access to Jobs Plan* (see below). The plan examined the spatial relationships between recipients of Temporary Aid to Needy Families (as proxies for low-income families), transit stops, day-care facilities, and employment centers with need for low-skilled workers. The study used a grid of 1000' x 1000' cells across the region to analyze the proximity of residences, day-care centers, and jobs to transit stops; the intersection of a cell of this scale with a transit route indicates a walkable proximity for the purposes of this study.

The study makes recommendations for reaching unserved populations, but these are focused primarily on changing or supplementing Cobb Community Transit Service. The study methodology does not account for the quality of the pedestrian environment and assumes walkability to be consistent along the roadway network. The results of the existing conditions portion of the *Bicycle and Pedestrian Improvement Plan* will provide information about walking conditions along Cobb County's major thoroughfares, which could complement a future update of the *Access to Jobs Plan*. This study also focuses on walking-transit combination trips as the principal alternative to trips in personal automobiles. A future study could also look at access to transit and jobs from bikeable

distances; bicycling conditions will be evaluated as part of the *Bicycle and Pedestrian Improvement Plan* and could complement a future update of the *Access to Jobs Plan*.

Countywide Plans

Cobb County Bicycle Transportation Plan 1993

This purpose of the current *Bicycle and Pedestrian Improvement Plan* is to update this original 1993 plan. The plan was prepared in response to a request from the Atlanta Regional Commission (ARC) for member agencies to submit plans for inclusion in a regional plan, itself prepared to meet the requirements of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. Due to the accelerated timeline requested by ARC, the Cobb County plan was submitted as a "skeletal plan," intended to be refined and amended later. The plan's goals were to establish biking and walking as essential components of Cobb County's transportation system, plan a comprehensive system of bicycle and pedestrian facilities, develop an implementation process for bicycle and pedestrian oriented projects, and to promote and enforce bicycle and pedestrian safety. The "skeletal plan" identified primary corridors for the development of facilities, and key destinations that would be served by improved access. The plan outlined funding sources and proposed design criteria for both shared use paths and on-street bicycle facilities.

The current *Bicycle and Pedestrian Improvement Plan* will update the 1993 plan in several ways. It will examine bicycling and walking conditions on all of the county's major thoroughfares, prioritize improvement projects, and update the County's design criteria for facilities. In addition it will include a County-wide Safe Routes to School Plan and a recommended alignment of the Silver Comet Trail towards Fulton County.

Cobb County 2030 Comprehensive Plan (2007, revised 2008)

"Mapping Our Future," is the title of Cobb County's *2030 Comprehensive Plan*, a document that "points Cobb County towards its preferred future" in a variety of areas

such as growth management, neighborhood and economic development, and transportation. The plan's Community Vision section names several ways in which attention to bicycle and pedestrian issues will contribute to the Cobb County's future aspirations. The County desires to be a place with quality recreational opportunities, a multimodal transportation system that is supportive of a variety of land uses, including "significant greenspace, and live-work-play communities."[1] The plan describes different Character Areas within the county, and describes the desirable bicycle and pedestrian facilities for many of them, depending upon their development patterns and intensity. Desired improvements include increased connectivity in Suburban Residential and Redevelopment Residential areas, improved crossing treatments along Corridors, and streetscape amenities and bicycle parking in Redevelopment Commercial Areas. The plan's Transportation section identifies investment in bicycle and pedestrian facilities as important to the provision of transportation alternatives and overall operational alternatives. Policies recommended by the Comprehensive Plan which directly encourage investment in bicycle and pedestrian facilities include Policy 6.6, which encourages the development of multi-use greenways, and Policy 7.6 which calls for the promotion of transportation alternatives. The Implementation section calls for the review and update of the County Trail Plan and the continual upgrade of bicycle and pedestrian infrastructure.

The *Comprehensive Plan* clearly and explicitly endorses the continued improvement of bicycle and pedestrian infrastructure in the county in ways described above. Improved bicycling and walking conditions may contribute to other areas of concern outlined the Comprehensive Plan as well, including economic development and quality of life.

Cobb County 2030 Comprehensive Transportation Plan (2008)

The *2030 Comprehensive Transportation Plan* (*CTP*) serves as the "blueprint" for Cobb County's transportation investments until 2030. The plan outlines strategies for bicycling and walking, as well automobiles, transit, freight movement via truck and rail, and the County's airport at McCollum Field. Designated bike lanes, sidewalks and "bike paths"

[1] Cobb Community Development Agency, "Mapping our Future: 2030 Comprehensive Plan," 2008, p.4

were identified as desired areas for improvement by respondents to a telephone survey conducted in the course of the plan. Plan goals and objectives directly relevant to bicycling and walking include reducing the number of pedestrian and bicycle accidents, as well as increasing the supply of and upgrading pedestrian and bicycle facilities. The plan includes implementation strategies such as increasing safety by lighting the County's trail system, coordinating land use decisions with parking, bicycle, pedestrian and transit access, and establishing a fund for bicycle and pedestrian facility projects.

The plan analyzed the performance of bicycle and pedestrian facilities by reviewing safety, connectivity and "predicted level of service for bicycle facilities."[2] The plan described the distribution of pedestrian crashes in the County and found a higher frequency on certain major roadways with limited crossing opportunities. The plan also identified priority areas for sidewalk coverage, based on proximity to activity centers, schools, transit stops and hospitals.

The plan's analysis of bicycling conditions is based on a four point scale, with four being the best conditions for bicycling. All of Cobb County's roadways –including local streets—were given points based five characteristics—roadway volume, roadway speed, roadway functional class, combined width of outside lane and shoulder, and percentage of truck traffic. The total score was then divided by five to assign each segment a final score. The suitability analysis determined that 21 percent of the County's roadways have the best conditions for bicycling, 72.2 percent have medium conditions, 4.6 percent have difficult conditions, and 2.0 percent very difficult conditions.

The Bicycle Level of Service model, the method of analysis to be used in the Bicycle and Pedestrian Improvement Plan, uses some of the same data points—volume, speed, and mix of traffic, total width of outside lane and shoulder—as the method used in the *Comprehensive Transportation Plan (CTP),* but also uses two additional data points: the width of a differentiated shoulder (if present) and pavement conditions. The model

[2] Cobb County Department of Transportation, "Cobb County 2030 Comprehensive Transportation Plan: Final Report," 2008, p. 5-23

processes these data to assign a score based on the responses of actual cyclists judging actual roadways for how well those roadways accommodate their needs. The model has been used on tens of thousands of miles of roadway across the United States, and has been accepted as the basis of a methodology to measure bicycling conditions for the upcoming revision of the highway capacity model. Its use will provide Cobb County with an assessment of cycling conditions that is more easily compared to peer communities and will allow "pre-testing" to measure the benefit to cycling conditions occasioned by any proposed facility investments.

The *CTP*'s main report is supplemented by technical reports which provided more detailed analysis and recommendations relative to each mode; Technical Report C3 deals with Bicycles and Pedestrians. The report describes the existing (at the time of the *CTP*) policy environment relative to bicycles and pedestrians, identifies needs relative to each mode, and recommends new polices to assist in developing the transportation network to meet those needs. The existing policy environment cited the ARC *Bicycle Transportation and Pedestrian Walkways Plan* and the Livable Centers Initiatives (LCI) program, including studies conducted by Cobb County, local municipalities and the Towne Centre and Cumberland Community Improvement districts. Public input to the *CTP* identified increased mileage of bike lanes, sidewalks, and shared use paths, as well as end-of-trip facilities (such as bicycle parking) as needs for Cobb County. Trail and bike lane projects were identified from existing plans and studies, and then prioritized according to several factors. Trail prioritization included proximity to existing and proposed facilities, connection to LCI study areas, and, adjacency to proposed roadway widening projects. Bike lane prioritization included proximity to existing and proposed facilities, proximity to attractors, and results form the Latent Demand analysis from the ARC *Bicycle Transportation and Pedestrian Walkways Plan*. Pedestrian needs were identified by analysis of crash locations and sidewalk coverage maps. Public input described needs for pedestrian accommodation in new roadway and residential development projects as well as improved crossing conditions on multi-lane roadways. The technical report describes several challenging walking conditions on Cobb County's roadways including lack of sidewalks on many major arterials, intersection and mid-block crossing locations that are

uncomfortable for pedestrians, and discontinuity in the sidewalk system. Sidewalk projects were identified from existing plans and studies and supplemented by opportunities associated with roadway reconstruction projects, along existing arterial roadways, and near certain attractors and activity centers. These projects were prioritized according to perceived safety needs, their having been identified in previous studies, or their proximity to certain activity centers and attractors. Crossing and signalization projects were identified from existing studies and from pedestrian crash data. Bicycle and pedestrian policies were borrowed directly from the ARC *Bicycle Transportation and Pedestrian Walkways Plan* (see above), and supplemented by a recommendation to require bicycle and pedestrian facilities in all future projects funded via the County's Special Local Option Sales Tax (SPLOST).

Cobb County Senior Adult Transportation Study (2007)

This study focuses primarily on the needs of seniors who are transitioning away from driving and toward use of "provided" rides, whether from fixed route transit or subsidized door-to door service. It makes no mention of bicycling or walking as primary modes. It does, however, acknowledge that lack of pedestrian access to transit can make transit an infeasible choice for those seniors who are willing or able to walk short distances. The lack of sidewalks was a point made by several participants at the plan workshops and in submitted comments. The plan's gap analysis indicates that the distance to Cobb Community Transit Stops is an impediment to residents with limited mobility. Upgrading bus stops to ADA standards and improving the "path of travel" to transit stops are listed as strategies in the plan of action.

The *Bicycle and Pedestrian Improvement Plan* will include an assessment of pedestrian accommodations on Cobb County's major thoroughfares, and proximity to transit is a factor in the Latent Demand Method, which is proposed to be used in determining project priority. Both of these elements will help Cobb County form a better assessment of transit related pedestrian needs.

Cobb County Transit Development Plan (2003)

This plan focuses almost exclusively on transit routing, operations, and fleet maintenance. It makes no mention of pedestrian or bicycle access needs or issues. It does mention that Livable Centers Initiatives (LCI) Studies should benefit transit operations, by creating densely populated, walkable districts that will complement transit service.

The *Bicycle and Pedestrian Improvement Plan* will include an assessment of pedestrian accommodations on Cobb County's major thoroughfares, and proximity to transit is a factor in the Latent Demand Method, which is proposed to be used in determining project priority. Both of these elements will help Cobb County form a better assessment of transit related pedestrian needs.

Cobb County Transit Planning Study (2006)

The Transit Planning Study included a Bus Stop Inventory and Improvement Plan, which examined issues of user experience, accessibility and provision of amenities at Cobb Community Transit Stops. As part of this inventory, sidewalk conditions around bus stops were evaluated and rated as "good," "fair", or "none." Other characteristics of the bus stop environment were also recorded including:

- width of sidewalk;
- if sidewalk connects to an intersection, a crosswalk, and/or adjacent land use;
- presence of a concrete pad at stop location;
- presence and description of any nearby obstructions to access;
- presence of a crosswalk;
- presence of a curb ramp; and
- presence of a bike rack.

The plan recommended that Cobb Community Transit coordinate with local jurisdictions to repair or install sidewalks where necessary, with priority assigned according to the

number of boardings at subject stops. The plan also recommends crosswalk marking improvements for three intersections near bus stops.

The existing conditions phase of the *Bicycle and Pedestrian Improvement Plan* will supplement the *Transit Planning Study's* findings about the immediate vicinity of transit stops with broader findings about the level of accommodation for both pedestrians and bicyclists along the major thoroughfares leading to those transit stops.

Cobb County Access to Jobs Plan (2001)

This study focuses primarily on the ability of Cobb County residents receiving Temporary Aid to Needy Families (TANF) to travel from their homes to employment centers in the County via public transit. The plan's methodology determined that families who live outside of a walkable distance—which this study set as within the boundaries of a 1000' x 1000' square—of a Cobb Community Transit stop that can get them to an employment center in a timely manner to be unserved by the transit system. The study found that 58% of the County's TANF recipients had job access as defined by the study. This percentage indicates that a "suitable" number of families are being served, but that basic access is still a major barrier.

The recommendations are focused on things that Cobb Community Transit, employers, and social service agencies can do to better coordinate meeting the transportation needs of TANF recipients and other candidates for low-skill jobs. The study's methodology does not account for walking conditions as it assumed the 1000 foot squares to be uniformly walkable terrain; there are likely squares that have few or poor sidewalks, for example. The existing conditions portion of the *Bicycle and Pedestrian Improvement Plan* will provide the County with information about walking conditions along the County's major thoroughfares, which may be useful if the *Access to Jobs Plan* is updated. The *Access to Jobs Plan* is also focused on transit service as the principle alternative to private automobiles. The study focuses on trips that consist of walking from home to transit and then from transit to work, a similar study could be done considering bikeable

distances to transit and employment centers. The *Bicycle and Pedestrian Improvement Plan* will provide information about bicycling accommodation on the County's major thoroughfares, which could be used in a revision to the *Access to Jobs Plan.*

Cobb County Major Thoroughfares Plan (2006)

This plan is the document by which County classifies roadways as Arterials, Major Collectors, or Minor Collectors. The document defines the functions of the various classifications with regard to their service of carrying longer-distance through traffic versus more local traffic and serving land access.

The roadways identified in this plan are will be the roadways evaluated for bicycle and pedestrian accommodation in the existing conditions portion of the *Bicycle and Pedestrian Improvement Plan.*

Corridor/Local Studies

Austell Road Corridor LCI Study (2007)

The Austell Road Corridor Study examines an area centered upon a four mile stretch of Austell Road, from just south of Clay Road to just north of Milford Church Road. The roadway is a four-lane divided highway that carries close to 40,000 vehicles per day over most of its length. Austell Road's intersection with the East-West Connector, which is about in the middle of the study area, has one of the highest accident rates in the State of Georgia, according to the study.[3] The study area is home to a major community institution and employer, WellStar Hospital, and intersects the Silver Comet Trail. The commercial properties along the corridor in a general state of decline, but the study notes that residential neighborhoods nearby are stable and well maintained. Sidewalks are present on both sides of Austell Road north of East-West Connector, although at the far north end of the corridor there are stretches that are narrow or in disrepair. South of East

[3] Cobb County, "Austell Road LCI Study," 2007, p.2

–West Connector, sidewalks are only present on one or the other side of the road, depending on the exact location. (Cobb County has initiated design on new sidewalks to be constructed along an eastern segment of Austell Road from Seayes Road to Anderson Mill Road, south of the East-West Connector.) Sidewalk coverage is inconsistent on intersecting roadways. The study makes no mention of on-street bicycle facilities; the Silver Comet Trail is the only existing shared use path in the area, and it runs perpendicular to the corridor. Austell Road crosses the trail on a bridge; so there is no direct access from the corridor to the trail; the nearest access point is about one-half mile west on Anderson Mill Road.

The study recommends a number of roadway widening and intersection improvements, including new turn lanes. The study also proposes access management and traffic calming strategies, which should lessen conflicts between motorists and pedestrians. The study proposes filling sidewalk gaps as well as pedestrian crossing and signalization upgrades at several intersections to improve pedestrian accommodation. The study's recommendations for bicycle improvements focus on providing more access points to the Silver Comet Trail from the corridor. A proposed streetscape redesign for Austell Road includes sidewalks widened to 12 feet—including planting areas—and maintaining four 12-foot travel lanes on the roadway with no on-street bicycle facility.

The filling of sidewalk gaps and careful intersection upgrades should be beneficial to pedestrian mobility. Improved access to the trail will improve recreational opportunities and bicycle commutes to destinations outside the study area. There is little mention of on-street bicycling conditions in the study area. The existing conditions report of the *Bicycle and Pedestrian Improvement Plan* should identify any possible improvements to on-street bicycling conditions in this study area.

Six Flags Drive Corridor Study (2007)

This 2007 study was performed by the Planning Department of the Cobb County Community Development Agency. The study area was a 1.1 mile section of Six Flags

Drive, between Factory Shoals Road and Interstate 20. There are no signalized intersections other than at the terminal points of the study area. This 40 mph roadway is configured with four travel lanes and a two-way left turn lane. There are sidewalks on the north side of the road only. The corridor is served by Cobb Community Transit's Route 30 Bus; there are eight transit stops on the corridor, three of which are not situated on sidewalks. The study cites both demographic and land use reasons why demand for transit access and bicycle and pedestrian accommodation may be high in the study area.

The study recommends a number of projects to improve bicycle and pedestrian accommodation. Short term objectives include the following:

- installation of five foot sidewalks along the south side of the road; and
- development of six crosswalks with refuge islands and intersection safety improvements.

Longer term objectives include:

- development of a shared use path along the north side of the roadway;
- development of a connecting path from this path northeast towards where Mableton Parkway crosses the Chattahoochee River;
- construction of a landscaped median to replace the two-way left turn lane;
- "decorative" street light upgrades; and
- intersection "improvements" including an "optional right turn lane at the Factory Shoals Road at Six Flags Drive intersection, going eastbound."

The study also recommends land-use changes, including increasing housing density, promoting mixed-use development and the development of a library in the area.

The study recommendations can all be conducive to the improvement of conditions for bicycling and walking. The desire lines—trails worn by pedestrians walking where no sidewalk currently exists—found on the south side of the road are evidence of the demand for new sidewalks there. The shared use path proposed by the corridor study is of the type commonly known as a "sidepath," which is to say it is located immediately

adjacent parallel to a roadway. The AASHTO *Guide for the Development of Bicycle Facilities* cautions against the construction of such facilities, due to numerous operational problems associated with them. There are design practices that can mitigate some of these operational concerns, however, and a well-designed sidepath on the north side can greatly increase bicycle and pedestrian mobility in corridors like Six Flags Drive. (The design guidelines prepared in later sections of the *Bicycle and Pedestrian Improvement Plan* will address these issues, as well as other guidance from the AASHTO *Guide* as well research and best practices developed since its last revision.) Appropriate crossing treatments, would also be beneficial, especially to bicycle mobility if the sidepath is on the north side only. The plan did not make any mention of on-street bicycling conditions; the existing conditions analysis of the *Bicycle and Pedestrian Improvement Plan* may reveal potential for improving on-street bicycling conditions in this corridor. Plans to alter intersections should carefully consider the needs of crossing pedestrians, as additional lanes and large radii can greatly increase crossing distances, thereby increasing pedestrians' exposure to conflict with motor vehicles. The land uses changes recommended for the study area, if implemented, could greatly increase the amount of pedestrian and bicycle activity in the area; facility improvements will have to be carefully designed to ensure that that increased activity is safely accommodated.

Macland Road Corridor Study (2007)

This 2007 Study was performed by the Planning Department of the Cobb County Community Development Agency. The study area was the entire seven mile length of Macland Road from the Paulding County line to Powder Springs Road. Macland Road is classified as an arterial roadway by Cobb County; from the Paulding County line to State Route 76 (approximately three miles) it is a two-lane undivided roadway with very limited shoulders, while from SR 76 to Powder Springs Road (four miles) it is a four-lane divided highway. Sidewalks are limited to two short stretches near intersections with SR 76 and Old Lost Mountain Road. Traffic volumes range from 16,000 to 24,500 vehicles per day, depending on the count location. The study notes that the County's accident reports do not distinguish bike or pedestrian crashes, but that on Macland Road

there were 33 crashes classified as "other" between 2004 and 2007. Due to a pending Georgia Department of Transportation project to widen the two-lane portion Macland Road to four lanes, the Corridor Plan does not make specific recommendation regarding Macland Road, but instead focused on changes at intersections and adjacent roadways.

The study recommends "creating opportunities for walking and/or bicycling to destinations within the corridor.[4]" These recommendations include sidewalks and shared use paths along Macland Road, which are to connect with sidewalks within adjacent developments. The study also recommends standard inclusion of sidewalks in future residential developments in the study area, and the prohibition of "unfinished" backs of structures from facing Macland Road, which, the study maintains, "does not welcome pedestrian access."[5] The study cites strong public feedback for improved walkability in the study area, and recommends three new shared use paths for the study area.

Due to the pending widening of Macland Road, the study recommendations are very general in nature. Additional sidewalks and well-designed paths would undoubtedly improve pedestrian and bicycle mobility in this area where such facilities are very limited. Again, no mention is made of on-street bicycle accommodation; the existing conditions portion of the *Bicycle and Pedestrian Improvement Plan* may reveal opportunities for improving on street accommodations. Routine accommodation policies, which may ultimately be included in this plan, would help Cobb County coordinate with GDOT to provide appropriate bicycle accommodation in GDOT widening projects.

Canton Road Corridor Study (2005)

This study examines the potion of Canton Road from the Sandy Plains Connector to the Cherokee County Line (approximately five miles). The roadway is a major thoroughfare connecting Interstate 75 to southern Cherokee County; it is four lanes wide with a two-way left turn lane. The study deals with many land use and aesthetic issues, but

[4] Cobb County Community Development Agency, "Macland Road Corridor Study," 2007, p. 42.
[5] Ibid.

transportation issues are integral as well. Participants in public involvement sessions complained of high vehicle speeds and misuse of the two-way left turn lane as a passing or through lane during peak times. Access management was also a major concern due to numerous driveway cuts for commercial properties along the entire corridor. Business opposition at the outset of the project took any median proposals off the table, so alternative access management strategies had to be developed. The perception of "pedestrian friendliness," or lack thereof, was considered a problem for the corridor. Challenges to pedestrian friendliness included discontinuous sidewalks, inadequate crosswalk treatments—including some with no marking whatsoever—at intersections, un-authorized midblock crossings (using the two-way left turn lane as a refuge), as well as the general high-speed, high volume character of the roadway.

Traffic calming and access management are the primary foci of this study. Because of public opposition to constructing a median, planners instead proposed a strategy of driveway consolidation, inter-parcel circulation, and the construction of parallel access roads, possibly to be implemented in redevelopment projects. Traffic calming was addressed by a proposal to apply textured and/or colored paving to sections of the two-way left turn lane, with the hope that the rumble-strip like effect of the textured surface would discourage continuous travel in the lane[6]. Traffic calming was also identified as a benefit of a proposed narrowing of the vehicular travel lanes to 11 feet, which could "provide a less comfortable driving experience at higher rates of speed,[7]" with the remaining pavement given over to a "bicycle friendly shoulder." Recommendations also include a 12-foot wide shared use path through the corridor, intersection improvements such as crosswalk markings, turn lane channelization islands, signal improvements and ramp improvements.

Many of the recommended projects should improve pedestrian and bicycle mobility. Access management not only benefits motorists, but reduces the number of conflict points where turning motorists cross the paths of bicyclists and pedestrians. Enhanced

[6] Cobb County Community Development Agency, "Canton Road Corridor 'Main Street' Design Principles Plan and Recommendations," 2005, p. 31
[7] Ibid., p.10.

crossing treatments at intersections and channelization islands can be especially helpful for pedestrians attempting to cross such a fast and busy corridor. Well-designed shared use paths can also enhance mobility for bicyclists and pedestrians. It is a wise strategy to coordinate the median treatment and lane narrowing with the Local Area Road Program (LARP) Resurfacing schedule, as this greatly minimizes the cost of these changes, compared to implementing them independently. It would be good to study the effectiveness of the median treatments at reducing the undesirable behaviors, as we are unaware of any studies on the subject; it would be important then to gather some data on the occurrence of the offending behaviors before the changes, so that the expected reduction can be measured. It is also important to note that narrowing lane widths to 11 feet, independent of other traffic calming measures, has not been shown to reduce motorist speeds, according to recent studies. Additionally, while it is true that shoulders narrower than the AASHTO-recommended four-foot bike lanes are useful to certain types of bicyclists, we would recommend that those narrower shoulders not be narrower than three feet, and should present a smooth, rideable surface that is free from incursions by drain inlets. Also, concrete gutter pans are not considered part of the usable width of the shoulder in cases where there is less than five feet between the curb face and the edge stripe. The report made mention of difficulties related to mid-block crossings, but no improvements of this type were recommended. The report's transportation analysis mentions that a raised median could improve pedestrian accessibility by providing safer opportunities for crossing, whether at intersections or mid-block locations. Medians and access management strategies can also improve safety for motorists. Whatever the resolution of the median issue, the county may wish to study the corridor in more detail to identify appropriate opportunities for mid-block crossing treatments that will improve the safety of crossings many people are already making.

Delk Road Transit Oriented Development Study (2004)

This study examined the potential for redevelopment associated with a proposed Bus Rapid Transit (BRT) Station near the Delk Road interchange with I-75. The study area is roughly bounded by Marietta Parkway on the north, Powers Ferry Road on the east,

Terrell Mill road on the south and Cobb Parkway and Wylie Road on the west. The study area is bisected along a north-south axis by Interstate 75, and there are only three crossings of the I-75 corridor in the 2.5 mile length of the study area. The presence of the interstate limits pedestrian connectivity, especially from residential areas east of the highway to the area of the proposed BRT station on the west side of the highway. The study was conducted under the auspices of the Atlanta Regional Commission's Livable Centers Initiative (LCI) program, which seeks to direct development towards areas with land use and infrastructure conducive to slowing sprawl and reducing vehicle miles traveled. Mobility for bicycles and pedestrians is key concern of many LCI studies, and is especially important in this one which is centered on a major new transit facility.

The vision for the study area includes a "series of walkable, mixed-use Town and Neighborhood Centers"[8] Among the goals serving this vision is an interconnected street pattern in the area west of I-75, with wide sidewalks for east-west connectivity. Goals also included general encouragement of pedestrian and bicycle mobility. It was noted in the study that while many of the existing roadways in the area are functioning fairly well for motor vehicles, they are not accommodating non-motorized modes in any significant way. Sidewalks in the area are limited and discontinuous, crosswalks are seldom marked or served by pedestrian signals, and intersections crossings are often very wide. Un-met pedestrian demand in the area is made obvious by the presence of desire lines along some roadways. The study notes neither on-street bicycle facilities nor shared use paths were found in the area at the time of the study. The study notes that with the existing density of development in the area, there is a strong potential for pedestrian activity, which would likely increase with the introduction of the BRT facility.

The study recommends programs, policies and projects to move the area toward the vision. Program recommendations include lighting, pedestrian signal and streetscape improvements. Policy recommendations include balanced investment in all transportation modes, provision of new sidewalks to be timed with the BRT development, adherence to

[8] Basil Baumann Prost & Associates, "The City of Marietta Delk TOD LCI Study Final Report" Final Report, p. 14.

GDOT pedestrian facility design guidelines, and developer requirements to improve sidewalks. Project recommendations include sidewalk construction where facilities are lacking, including design guidance on the different requirements for locating of street trees and other amenities on state roads versus local roads. The study also recommends improving bicycle accommodation in a number of ways. First, it states that the development of new, interconnected, low-speed, low volume roads in the area will benefit bicycle mobility. The plan also calls for new shared use paths through the study area, as well as a designated bike route along a low volume roadway to link several of the proposed paths. Typical sections (based on GDOT standards) shown in the study for recommended improvements to Franklin Road and for the proposed BRT station access road, both include four-foot bike lanes on each side of the roadway.

The Delk Road TOD study is very comprehensive and makes recommendations that will likely improve bicycle accommodation. Well designed sidewalks and pathways, greater interconnectivity and intersection improvements can be very beneficial to bicyclists and pedestrians. If the development of the areas proceeds according to the vision described in this study, utilization of both modes may well increase. The report does not deal with on-street bicycling conditions on the higher volume roads in the area, however; the existing conditions portion of the *Bicycle and Pedestrian Improvement Plan* may reveal opportunities for improving conditions on these roadways.

Historic Downtown Mableton Study (2001)

This study examined the possibilities for redevelopment of the historic community of Mableton in South Cobb County. The study area is centered on the area if the original nine-block plat for Mableton, just northwest of the intersection of Clay Road and Veterans Memorial Highway. The study focuses on redevelopment opportunities associated with Mableton's historic character and proximity to a proposed commuter rail station, which would connect it to downtown Atlanta. The core study area is very compact and could become a pedestrian oriented, walkable-scale activity center with the proposed redevelopment.

The study notes that several of the original platted streets are in disrepair or undeveloped, and many are lacking sidewalks on both sides. The study recommendations include the following:

- repairing streets in disrepair and connecting any discontinuous sections;
- installing sidewalks where necessary, and making ADA-required upgrades for curb ramps where needed;
- development of a "bicycle-corridor" through the center of the historic district, along the rights-of-way of two very narrow and undeveloped platted streets; and
- traffic calming and crossing improvements for some of the higher speed roadways at the edges of the district, as well as the provision of bike lanes on these busier roadways, to allow access between the district and surrounding areas and destinations, including the Silver Comet Trail, which is approximately two miles to the north along Floyd Road.

The study recommendations are fairly comprehensive should all improve bicycle and pedestrian mobility in the area. The possibility of developing bike lanes on the nearby arterials will be evaluated during the existing conditions portion of the *Bicycle and Pedestrian Improvement Plan.*

ARC Connect Six (State Route 6) Corridor Study (2008)

State Route 6 is a major regional roadway that cuts through the southwest corner of Cobb County, passing close to the communities of Powder Springs and Austell. Known locally as C.H. James Parkway, SR 6 in Cobb County is a four-lane divided highway that extends seven miles through Cobb County. The overall length of the study corridor is 32.5 miles, through Paulding, Cobb, Douglas and Fulton Counties. This study predicts the State Route 6 Corridor will continue to be an area of significant growth through 2030, including a 52 percent increase in population and a 45 percent increase in employment. Most of Cobb County's section of State Route 6 is in the study's "Segment 1," which runs from the Paulding County Line to Westside Road, at the south end of the Norfolk

Southern Intermodal Terminal. Segment 1 is characterized in the study as "exurban in nature," presently at the beginning of the cycle of intense residential and retail development. Nevertheless the study identifies the Cobb County portion of Segment 1 as both a major origin and a major destination for trips on the total corridor. The study notes that the corridor is currently lacking in bicycle and pedestrian accommodation. Sidewalks are very limited, but desire lines show that pedestrians are present. Crossing improvements are rare and crosswalks are frequently unmarked. Transit stops generally do not have sidewalk access. These are no designated bicycle facilities on the corridor roadways. The Silver Comet Trail does intersect the corridor just northwest of Powder Springs, but there are limited points of connection.

The study recommends the development of a parkway along Hiram-Lithia Springs Road to serve as an alternate route parallel to State Route 6; the proposed cross section includes "eight- to ten-foot wide multiuse side paths" on both sides of the road.[9] This facility is seen as a possible link to connect the Silver Comet Trail with Sweetwater Creek State Park in Douglas County. Recommendations for State Route 6 itself include an access management plan, with special attention to access by developing parcels on the north side of Powder Springs, near Florence Road. The study also recommends the general improvement of pedestrian access to transit stops. The study recommends against developing new pedestrian and bicycle infrastructure directly on State Route 6, and instead focuses on providing facilities on "connecting and parallel roadway network and between developments." Specifically, the study recommends developing a connection between the Silver Comet Trail and Sweetwater Creek State Park, either via a greenway alignment or via sidepaths along Hiram-Lithia Springs Road, providing sidewalks and bicycle lanes along frontage or backage roads associated with new development, and developing facilities to allow access between the Silver Comet Trail and the State Route 6 Corridor.

[9] Atlanta Regional Commission, *"Connect Six: State Route 6 Corridor Study, Final Report,"* March 2008, p. 3-13.

The study deals with providing accommodation for bicycles and pedestrians in an environment that is often understood to be inhospitable to their needs, and consequently where little demand is assumed. In such an environment, it is prudent to concentrate on providing facilities in coordination with development, and the provision of facilities on access roads and streets that intersect State Route 6 will improve mobility for bicyclists and pedestrians. It should be noted, however that certain cyclists will use the main corridor for longer trips and for access between destinations. It appears from aerials that State Route 6 in Cobb County provides a shoulder that may be suitable for bicycling; the existing conditions portion of the *Bicycle and Pedestrian Improvement Plan* will determine the level at which that shoulder accommodates bicycling. The proposed trail connections should benefit both bicycle and pedestrian mobility. The proposed parkway sidepath for Hiram-Lithia Springs Road should, if properly designed, also benefit non-motorized mobility and draw on the qualities of two regional attractors for outdoor recreation. It should be noted, however that many bicyclists prefer riding in the roadway over using sidepaths, so shoulders or bike lanes may be useful on such roadways as well.

Cobb County Rail to Trail Master Plan (1997)

This document outlined the steps necessary to develop the Silver Comet Trail, including the use of design criteria from the AASHTO *Guide for the Development of Bicycle Facilities*, which it identifies as the "legally defensible design manual for bicycle facilities.[10]" The extent of the trail proposed in the Master Plan is from Florence Road to Mavell Road. This portion was built including a connection further westward from Florence road into Paulding County.

The extension of the trail eastward into Fulton County form Mavell Road will be the subject of Task 3 of this Bicycle and Pedestrian Improvement Plan. Any development of new facilities should likewise be subject to the AASHTO *Guide*, which was updated in 1999. The *Guide* is presently under revision again, and will likely incorporate research

[10] Cobb Land Trust Inc., "Cobb County Rail Trail Master Plan," 1997, p.

findings and other refinements to the best practices of bicycle facility design that have emerged in the intervening years.

Other Documents

Cobb County Multi-Use Systems Trail Plan (2008)

This map depicts the depicts the network of existing Cobb County Trails and National Park Service Trails in the Chattahoochee River National Recreation Area and Kennesaw Mountain National Battlefield Park. The map also depicts selected programmed and proposed trails. The map also indentifies Cobb Community Transit Lines that provide access to existing trails.

CCT Shelter and Bus Stop Inventory

See Transit Planning Study (above).

Cobb County Code of Ordinances

The Cobb County Code of Ordinances addresses bicycle and pedestrian concerns in a number of specific ordinances. In numeric sequence these include the following:

- Section 30-1, a local amendment to the Georgia Constitution, which authorizes the County to provide for the construction and maintenance of sidewalks and to assess the costs to owners of abutting property;

- Section 6-22, which allows for the creation of community improvement districts for the provision of governmental services and facilities, including, sidewalks and bicycle and pedestrian facilities;

- Sections 106-91 through 106- 98, which require the construction of sidewalks along certain roads in new developments;

- Sections 106-112 and 106-113, which allow for the creation of sidewalk districts and describe the funding thereof;

- Sections 106-155 through 105-168, which allow for the creation of pedestrian lighting districts by local property owners and describes the funding and operation standards thereof;

- Section 118-33, which authorizes officers of the police department "or such officers as are assigned by the director of public safety, including school crossing guards," to direct traffic in certain situations, including the safeguarding of pedestrians;

- Section 118-49, which authorizes the County's traffic engineer to designate and maintain crosswalks at intersections where there is "particular danger to pedestrians crossing the roadway and at other such places as he may deem necessary," and also directs the traffic engineer to study existing crosswalks not at intersections and to "abolish those which he deems unnecessary;"

- Section 118-50, which authorizes the County traffic engineer to establish, designate, and maintain safety zones for the protection of pedestrians;

- Section 118-54, which directs the traffic engineer to place pedestrian control signals at places designated by the code or "any other law or ordinance," and declares drivers of vehicles subject to rules prescribed in the Official Code of Georgia Annotated (O.C.G.A) when signals are placed;

- Sections 118-87, which prohibits human powered and animal powered vehicles, including bicycles and tricycles from operating on the limited access highways of the County;

- Section 118-89, which regulates the operation of bicycles on a specific roadway known as Columns Drive, and allows for violators of these regulations to be banned from Columns Drive until the following day.

Section 110-1, which defines terms relevant to subdivision development regulations, includes a definition of crosswalk, which reads as follows:

> *Crosswalk* means a right-of-way within a block dedicated to public use, ten feet or more in width, intended primarily for pedestrians and from which motor-propelled vehicles are excluded. It is designed to improve or provide access to adjacent roads and lots.

This definition is a variance with the definition in O.C.G.A., which is as follows:

> (10) "Crosswalk" means:
>
> (A) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or in the absence of curbs, from the edges of the traversable roadway; or
>
> (B) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.

In the summer of 2008, the Cobb County Commission adopted a revision to the Official Code of Cobb County, which defines a type of zoning district known as a Continuing Care Retirement Community. Included in the regulations for such districts is section 134-202.1 (6) which regulates the design of sidewalks in such districts. The regulation stipulates that in addition to being ADA compliant, sidewalks should “generally be wide enough to accommodate passing wheelchairs,” run along any public road frontage, and connect to nearby networks. The regulation also stipulates that any “joint use path (i.e.- golf cart and pedestrian) must be at least 10 feet wide.”

Official Code of Georgia

The Official Code of Georgia contains numerous regulations pertaining to bicycle and pedestrian facilities.

Georgia code appears to prohibit the operation of bicycles on sidewalks, though not directly: all vehicles are prohibited from sidewalks (except when crossing them in a driveway), vehicles are defined as any devices which people and property are transported, and bicycles are defined as devices. Bicycles are defined in Section 40-1-1 (6) as "every device propelled by human power upon which any person may ride, having only two wheels which are in tandem and either of which is more than 13 inches in diameter." Section 40-6-144 requires every vehicle

> emerging from an alley, building, private road, or driveway within a business or residential district shall stop such vehicle immediately prior to driving onto a sidewalk or onto the sidewalk area extending across such alley, building entrance, road, or driveway or, in the event there is no sidewalk area, shall stop at the point nearest the street to be entered where the driver has a view of approaching traffic thereon. The driver of a vehicle shall yield the right of way to any pedestrian on a sidewalk. No person shall drive any vehicle upon a sidewalk or sidewalk area except upon a permanent or duly authorized driveway.

The definition of a vehicle is in Section 40-6-144 (75), and includes "every device in, upon, or by which any person or property is or may be transported or drawn upon a highway, excepting devices used exclusively upon stationary rails or tracks."

Georgia Code defines a sidewalk in Section 40-6-144 (57), as "that portion of a street between the curb lines, or the lateral lines of a railway, and the adjacent property lines, intended for use by pedestrians."

Georgia law does not define a shared use path. Georgia law does, however, in Section 40-6-294 (d) give local governments the option to require bicyclists to use a path adjacent to a roadway and not use the roadway. If the local authorities choose to make such a requirement, the designated path must meet the guidelines for such facilities "as set forth by the American Association of State Highway and Transportation Officials"

(AASHTO), which publishes such guidance in its *Guide for the Development of Bicycle Facilities.*