CONNECT COBB CORRIDOR Environmental Assessment

U.S. Department of Transportation

Federal Transit Administration

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Connect Cobb

Northwest Transit Corridor
Environmental Assessment

CONNECT COBB CORRIDOR
ENVIRONMENTAL ASSESSMENT

Prepared by:
United States Department of Transportation (US DOT)
Federal Transit Administration (FTA)

And

Cobb County Department of Transportation, Georgia

In cooperation with
Federal Highway Administration (FHWA)
Georgia Department of Transportation (GDOT)

Pursuant to:

National Environmental Policy Act of 1969 (NEPA), as amended, 42 USC Section 4321 *et seq.;* Council of Environmental Quality (CEQ) regulations, 40 CFR Section 1500 *et seq.*, Implementing NEPA; Moving Ahead for Progress in the 21st Century (MAP-21), Pub. L. No. 112-141 (July 6, 2012); Federal Transit Laws, 49 USC Chapter 53; Environmental Impact and Related Procedures, 23 CFR Part 771, a joint regulation of the Federal Highway Administration and Federal Transit Administration implementing NEPA and CEQ regulations; Section 106 of the National Historic Preservation Act of 1966, 16 USC Section 470(f); Section 4(f) of the Department of Transportation Act of 1966, as amended, 49 USC Section 303; Section 6(f)(3) of the Land and Water Conservation Fund Act of 1965, 16 USC Section 4601 – 4 *et seq.*; Clean Air Act, as amended, 42 USC Section 7401 *et seq.*; Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 USC Section 4601 *et seq.*; Executive Order No. 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations); Executive Order No. 13166 (Improving Access to Services for Persons with Limited English Proficiency); Executive Order No. 11988 (Floodplain Management); other applicable Federal laws and procedures; and all relevant laws and procedures of the State of Georgia.

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Regional Administrator
Federal Transit Administration
Region 4

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Director
Cobb County Department of Transportation

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Glossary

Access or Accessibility: In transportation, "access" or accessibility refers to the ease with which people can reach multiple destinations. People in places that are highly accessible can reach many other activities or destinations quickly and easily.

Accident Potential Zone I: the area beyond a Clear Zone that has a significant potential for military aircraft accidents

Activity center is a destination where people gather. Activity centers include concentrated work locations, shopping areas, recreation areas, sports stadiums, educational institutions, government centers, museums, and so forth.

Alignment is the horizontal location of a transit system as described by curved and tangent track.

Archaeological site: Any place where evidence of past human life is found. Sites can range in size from small locations of artifacts to entire villages and cities.

Area of Potential Effect (APE): According to 36 CFR 800.16(d), this is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist.

Arterial Rapid Transit (ART): bus rapid transit that generally operates on arterial roads

Best management practices (BMPs) are the most efficient and effective means to achieve a desired goal, such as preventing pollution.

Biota: the plant and animal life of a specific region

Bus Rapid Transit (BRT): flexible system of transit using rubber tired vehicles operating on dedicated guideways, HOV lanes, or in mixed traffic. Systems use signal priority or queue jumper lanes to increase operational efficiency and reliability.

Capital cost is the one-time cost to build a project.

Capital investment is money invested in a business venture with an expectation of income.

Clear Zone: the area immediately beyond the end of the end of a military runway that has a high potential for aircraft accidents

Compensatory mitigation measures are actions required to offset the use of a Section 4(f) resource (see definition below) when impacts are unavoidable; such as photo-documentation of a historic building.

Connect Cobb Corridor (the corridor): proposed project alignment and station areas as defined in Sections 3.2.1 and 3.2.3, respectively, and including adjacent parcels

Contaminated site is a location where a substance has been released to the environment and its presence creates a risk to human health or natural ecosystems.

Cultural resource(s) are defined as the buildings, structures, districts, objects and sites that are listed on or eligible for listing on the National Register of Historic Places (NRHP or National Register).

Cumulative Impacts: The CEQ regulations (40 CFR 1508.7) define cumulative impacts as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

Dedicated guideway: a public transportation facility using and occupying a separate right-of-way for the exclusive use of public transportation, including the buildings and structures dedicated for the operation of transit vehicles

Earnings: income earned based on new spending

Economic activity: the sales of goods and services

Employment: job creation based on new spending

Express routes connect a number of areas with the central business district or other major destinations. These services typically operate during the morning and afternoon-evening peak travel hours. Express routes often use freeways or major arterials and make fewer stops along the way to make more predictable, faster trips.

Facilitate: Assist, make easier

Fixed guideway or guideway refers to transit service routes that are exclusive or controlled, either entirely or in part. Vehicles operating on fixed guideways may be portions of bus service operated on exclusive or controlled rights-of-way, or high occupancy vehicle (HOV) lanes.

General fund appropriations are the use of money placed into the State's general fund (the general fund consists of monies that are not restricted for specific uses).

Grade separation is a bridge or tunnel that separates transportation facilities such as a highway so that they will not disrupt each other's traffic flow when they cross.

Headway is the time between buses or trains arriving at stops along a given transit route.

Historic district is a group of related buildings, properties, or sites that have been designated as historically or architecturally significant.

Historic property(ies) means any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register of Historic Places maintained by the Department of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall.

Impervious surfaces are those that keep water from being absorbed into the ground. They include asphalt and concrete for roads, parking lots, sidewalks, etc.

Indirect Effects are those that are caused by the proposed project that occur later in time and/or proximity while being reasonably foreseeable, such as construction of a project making land more attractive, spurring new development and changes in land use over time.

Infrastructure is defined as the fundamental facilities and systems serving a country, state, or city. Transportation infrastructure includes things like roads, bridges, highways, bus systems, etc.

Intermodal: With respect to the FTA Standard Cost Category, "Intermodal" refers to a location where different modes of transportation connect, such as between bus rapid transit and rail.

Intersection operations define how well intersections function to move traffic and pedestrians.

Jurisdictional determination is the process of identifying and locating jurisdictional Waters of the United States (including wetlands) regulated by the US Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act.

Land use is the human modification of the natural environment or wilderness into built environment, such as fields, pastures, and settlements.

Level of service (LOS) is a quality measure used by traffic engineers to describe traffic, generally in terms of speed and travel time, maneuverability, comfort, and convenience. LOS ratings range from A (best) to F (worst). The Highway Capacity Manual provides LOS measures, thresholds, and estimation procedures for automobiles, transit, bicycles, and pedestrians.

Low Income person is one whose median household income is at or below the Department of Health and Human Services poverty guidelines.

Memorandum of Agreement (MOA) is a document written between parties to cooperatively work together on an agreed upon project or meet an agreed upon objective.

Minority Populations are any readily identifiable group or groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed or transient persons such as migrant workers or Native Americans who will be similarly affected by the project.

Mitigate: to reduce the impact of an action

Mixed traffic: traffic that contains both transit and non-transit vehicles in general purpose lanes

Mixed use development is the practice of allowing more than one type of use in a building or set of buildings.

Mobility, in transportation, is the ability of people and goods to move freely within the transportation system.

Multimodal refers to a variety of modes (forms or types) of transportation such as personal automobile, bus, transit, pedestrian, etc.

National Register of Historic Places (NRHP) is the official list of the nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

Noise is any disagreeable or undesired sound or other audible disturbance.

Operating conditions: time of day, number of trains in operation, weather, special events, etc.

Operation and maintenance costs are the cost of running the arterial rapid transit system, repairing any non-functioning parts of the system, and conducting routine maintenance of the arterial rapid transit system

Parcel is a tract or plot of land.

Passenger mile is one passenger transported one mile.

Passenger miles is a measure of service utilization which represents the cumulative sum of the distances ridden by each passenger. It is normally calculated by summation of the passenger load times the distance between individual transit vehicle stops. For example, ten passengers riding in a transit vehicle for two miles equals 20 passenger miles.

Peak periods are when arterial rapid transit would be most used, generally during rush hours (7:00-9:00 am and 4:00-6:00 pm).

Pedestrian facilities are sidewalks, recreational trails, etc.

Person trip is a trip by one or more persons in any mode of transportation. Each person is considered as making one person trip. For example, four persons traveling together in one auto make four person-trips.

Pollutant loads: The amount of pollution entering water resources.

Preventative maintenance is activity performed on a given schedule to prevent breakdowns of the arterial rapid transit system or its components.

Programmatic Agreement (PA) is a document that spells out the terms of a formal, legally binding agreement between a state Department of Transportation (DOT) and other state and/or federal agencies. A PA establishes a process for consultation, review, and compliance with one or more federal laws, most often with those federal laws concerning historic preservation.

Project area: the broader geographic area served by the proposed project

Proposed project (or Connect Cobb Corridor project): includes arterial rapid transit (ART) service and associated improvements on US 41/Cobb Parkway, as described in Section 3.2

Receptors (noise) are places or areas that may be affected by changes in noise and vibration. Generally they are residential areas, churches, schools, recreation areas, hospitals, etc.

Redevelopment is a tool created by state law to assist local governments in eliminating blight from a designated area, as well as to achieve the goals of development, reconstruction, and rehabilitation of residential, commercial, industrial and retail districts.

Regional long-range transportation plan for the Atlanta metro area is PLAN 2040. This fiscally-constrained plan contains policies and plans to guide development of the transportation system in the area through the year 2040.

Reverse commute: Reverse commuters live in cities and travel to the suburbs to work. This is the opposite of regular commuters who live in the suburbs and work in the city.

Ridership: The number of passengers using a particular form of public transportation**.**

Riparian areas are the banks of rivers, creeks, or lakes. Plants that grow in these areas are also referred to as riparian.

Scoping: NEPA scoping is a formal process to identify issues and alternatives for analysis in the NEPA document, which is either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS).

Section 106 Agreement means the document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties.

Section 4(f) resource is defined by the US Department of Transportation Act of 1996 (49 USC 303(c)) as:

- Parks and recreational areas of national, state, or local significance that are both publicly owned and open to the public
- Publicly-owned wildlife and waterfowl refuges of national, state, or local significance that are open to the public to the extent that public access does not interfere with the primary purpose of the refuge
- Historic sites of national, state, or local significance in public or private ownership regardless of whether they are open to the public

Sensitive noise receptors are places or areas that may be affected by changes in noise and vibration. Generally they are residential areas, churches, schools, recreation areas, hospitals, etc.

Side path: a separated path for non-motorized users that runs adjacent to roadways with little or no separation

Side platforms are passenger platforms located to the outside of the guideways, as distinguished from center platforms located between the guideways.

Socioeconomics: Income, education, race, ethnicity, health, age, etc.

Solicit: Request

Stakeholder is a person or entity that has some interest in a project. For example, stakeholders can be community residents, businesses, construction and design contributors, funding sources and/or government agencies.

Streetscape is the appearance or view of a street.

Study area: The geographic boundaries of the area being studied for the proposed Connect Cobb Corridor. The study area may differ based on the resource being evaluated.

System linkage is a transit system's ability to get riders to work, recreation, shopping, and other destinations using a combination of lines or methods.

Terminus: End of the line of a designated route or last stop on a route.

Transit-oriented development (TOD) is a development or neighborhood designed to provide easy access to public transportation. TODs are generally located within ¼ to ½ mile of a transit facility—walking distance—and are designed for a relatively high population. TODs typically include a mix of residential and commercial/office uses built around or adjacent to a bus raid transit station.

User benefits represent the changes in mobility for individual travelers that are induced by a project.

Travel demand forecasts are estimations of the number of people that would ride the arterial rapid transit system.

Travel demand model is a computer generated travel demand estimate, created using either actual or projected population and employment data, to help predict how roadway or transit changes might affect local traffic.

Travel demand, projected travel demand is an estimate of how many vehicles will use local roads and area highways in the future.

Unit costs are the dollars per item or measurement of various project components. For example, arterial rapid transit station costs may be given in dollars per station; parking ramps may be in dollars per parking space.

Vehicle miles traveled (VMT) is the number of miles traveled by vehicles over a defined period of time (e.g., daily or annually).

Visually sensitive receptors are people whose view of a project area may be changed by the project. These include trail users, residents of nearby homes, or users of adjacent open spaces.

Water resources are wetlands, floodplains, streams, rivers, etc.

Zoning is a device of land use planning used by local governments to separate one set of land use from another.

List of Acronyms

AA	Alternatives Analysis
AADT	average annual daily traffic
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
ADA	Americans with Disabilities Act
ALP	Airport Layout Plan
AOE	Assessment of Effects
APE	area of potential effect
APZ	Accident Potential Zone
ARB	Air Reserve Base
ARC	Atlanta Regional Commission
ART	arterial rapid transit
BMPs	best management practices
BRT	bus rapid transit
CCDOT	Cobb County Department of Transportation
CCT	Cobb Community Transit
CID	Community Improvement District
CTP	Comprehensive Transportation Plan
CZ	Clear Zone
DNR	Georgia Department of Natural Resources
DOT	Department of Transportation
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EIS	Environmental Impact Statement
EO	Executive Order
EPA	US Environmental Protection Agency
EPD	Georgia Department of Natural Resources Environmental Protection Division
ERA	environmental review area
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact

FTA	Federal Transit Administration
GASF	Georgia Archaeological Site File
GDOT	Georgia Department of Transportation
GEPA	Georgia Environmental Policy Act
GHBS	Georgia Historic Bridge Survey
GIS	Geographic Information System
GNAHRGIS	Georgia's Natural, Archaeological, and Historic Resources Geographic Information System
GRTA	Georgia Regional Transportation Authority
HOV	high occupancy vehicle
HPD	Georgia Department of Natural Resources Historic Preservation Division
I-75	Interstate 75
I-285	Interstate 285
IF	Isolated Find
IPAC	Information, Planning, and Conservation System
KSU	Kennesaw State University
LEP	limited English proficiency
LOS	level of service
LPA	Locally Preferred Alternative
LRT	light rail transit
LUST	leaking underground storage tank
MAP-21	Moving Ahead for Progress in the 21st Century
MARTA	Metropolitan Atlanta Regional Transit Authority
MPO	metropolitan planning organization
MS4	municipal separate storm sewer system
MSA	metropolitan statistical area
MSATs	mobile source air toxics
NCS	Georgia Department of Natural Resources Nongame Conservation Section
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
RPZ	runway protection zone

RTC	Regional Transit Committee of the Atlanta Regional Commission
SHPO	state historic preservation office
SIP	State Implementation Plan
SOV	single occupancy vehicle
SR	State Route
TIB	Atlanta Regional Transit Implementation Board
TOD	transit-oriented development
TPB	Transit Planning Board
US DOT	US Department of Transportation
USACE	US Army Corps of Engineers
USFWS	US Fish & Wildlife Service
UST	underground storage tank
VMF	vehicle maintenance facility

1.0 Introduction

1.1 Document Purpose

Cobb County Department of Transportation (CCDOT) will pursue federal funding from the Federal Transit Administration (FTA) for the Connect Cobb Corridor project (the proposed project). As a result, the FTA is required to conduct an environmental review in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 USC 4321-4347), the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR § 1500-1508), and the NEPA implementing procedures of the FTA (23 CFR Part 771).

The intent of the NEPA process is to ensure that potential environmental impacts are identified and considered in the decision-making process. The primary purpose of the Environmental Assessment (EA) is to assist decision-makers in the assessment of impacts associated with the proposed project. The EA documents the purpose and need for the project and the alternatives considered; addresses the anticipated transportation, social, and environmental impacts and benefits; and defines appropriate mitigation measures.

The EA serves as the primary document to facilitate review of the proposed project by federal, state, and local agencies and the general public. This EA will be circulated for review to interested parties, including private citizens, community groups, the business community, elected officials, and public agencies in accordance with federal and state requirements. A public hearing will be held to provide a forum for agency and citizen participation and comment. Comments received during the EA comment period will be responded to, and both the comments and responses will be documented in the Finding of No Significant Impact (FONSI).

NEPA also requires engaging the public in the environmental review process. In addition, Moving Ahead for Progress in the 21st Century (MAP-21) requires the development of a coordination plan to outline how the environmental process for the proposed project will engage the public, tribal governments, and local, state, and federal agencies with an interest in the project. Certain state, local, and tribal agencies were also invited to have a more formal role in the environmental review process as coordinating or participating agencies. Discussion of the public and agency engagement process can be found in Section 4.5.2 and Section 5 of this EA.

1.2 Project Sponsors

The FTA is the lead federal agency and CCDOT is the project sponsor and co-lead local agency.

1.3 Comment Period and Next Steps

Following the close of the comment period, FTA and CCDOT will consider all comments submitted. Based on the information in this EA and any comments submitted, FTA will determine whether environmental effects are sufficiently substantial to warrant the preparation of an Environmental Impact Statement (EIS). If the FTA determines that there are no adverse effects, FTA will prepare and sign a FONSI. The determination will be made available to the general public and all who commented on this EA.

2.0 Purpose and Need

This section provides an overview of the Connect Cobb Corridor project (also referred to as the proposed project), including its location and setting within the local communities and the region. It also provides the context of previous planning studies and describes the needs driving the study of the Connect Cobb Corridor project, the purpose of the project, and the parameters used in evaluating the project.

2.1 Project Location

The proposed project would provide for transit improvements in a highly traveled area between communities to the northwest in Cobb County and Atlanta. The proposed project is located northwest of Atlanta and extends 25.3 miles from its northern terminus near the Kennesaw State University (KSU) campus to its southern terminus in Midtown Atlanta, primarily running along US 41/Cobb Parkway and Interstate 75 (I-75), traversing Cobb and Fulton Counties as well as the cities of Marietta, Smyrna, and Atlanta. There are also four community improvement districts[1] (CIDs) within the study area: Town Center Area, Gateway Marietta, and Cumberland Community Improvement Districts in Cobb County and the Midtown Improvement District (Midtown Alliance) in the city of Atlanta/Fulton County. **Figure 2.1-1** illustrates the general project area, defined as the broader geographic area served by the proposed project.

2.2 Project Setting

The Connect Cobb Corridor (the corridor) is defined as the proposed project alignment and station areas as defined in Sections 3.2.1 and 3.2.3, respectively, and includes adjacent parcels. The corridor not only connects Cobb County communities to the city of Atlanta, but it is nearby a diverse range of vibrant activity centers, including two state universities (one of which, KSU, is the third-largest university in Georgia with over 32,500 students),[2] two national parks, historic and recreational sites, residential enclaves, and major commercial centers, such as Cumberland and Town Center. There are also several large institutions including WellStar Kennestone Hospital, the Lockheed-Martin/Dobbins Air

Project Purpose

The purpose of the proposed project is to introduce high capacity transit service to Cobb County and the northwest area of metropolitan Atlanta that will satisfy the long-term regional mobility and accessibility needs for residents, businesses, and the traveling public.

[1] A community improvement district (CID) is a mechanism for funding certain governmental services including street and road construction and maintenance, parks and recreation, stormwater and sewage systems, water systems, public transportation systems, and other services and facilities (Georgia Cities Foundation, http://www.georgiacitiesfoundation.org/Resources.aspx?CNID=28756, accessed October 1, 2013).

[2] KSU and Southern Polytechnic State University will consolidate into a third, new institution. The new KSU will be a single integrated institution that has two main campuses with buildings, functions, and people located at two sites approximately 10 miles apart. The consolidation is scheduled for completion for the 2015 fall semester. (http://www.ksuspsuconsolidation.com/specific-guiding-principles-for-the-consolidation-of-ksu-and-spsu/)

Reserve complex, and Piedmont West Medical Office Park. The corridor connects to the portion of Atlanta known locally as Midtown Atlanta, which contains the Georgia Institute of Technology campus; numerous regionally significant arts, cultural, and recreational venues; and a dense mix of both jobs and residences. The corridor connects to I-75 which includes an important crossing over the Chattahoochee River, as there are minimal opportunities for crossing the river in the broader study area.

As a whole, the development pattern along the corridor can generally be described as three large "clusters" of land use diversity: Town Center/KSU at the convergence of I-75 and I-575 to the north, Cumberland/Marietta/Dobbins in the middle, and Midtown/Atlantic Station on the southern end. The corridor is largely comprised of commercial uses in Cobb County and a mix of residential and non-residential uses in Fulton County. The Cobb County portion of the corridor is also the home of SunTrust Park, a new stadium under construction for Major League Baseball's Atlanta Braves, and adjacent mixed use development. I-75 from Cumberland Boulevard to Northside Drive has a broad diversity of uses, including commercial, industrial, multi-family, and numerous single family neighborhoods throughout.

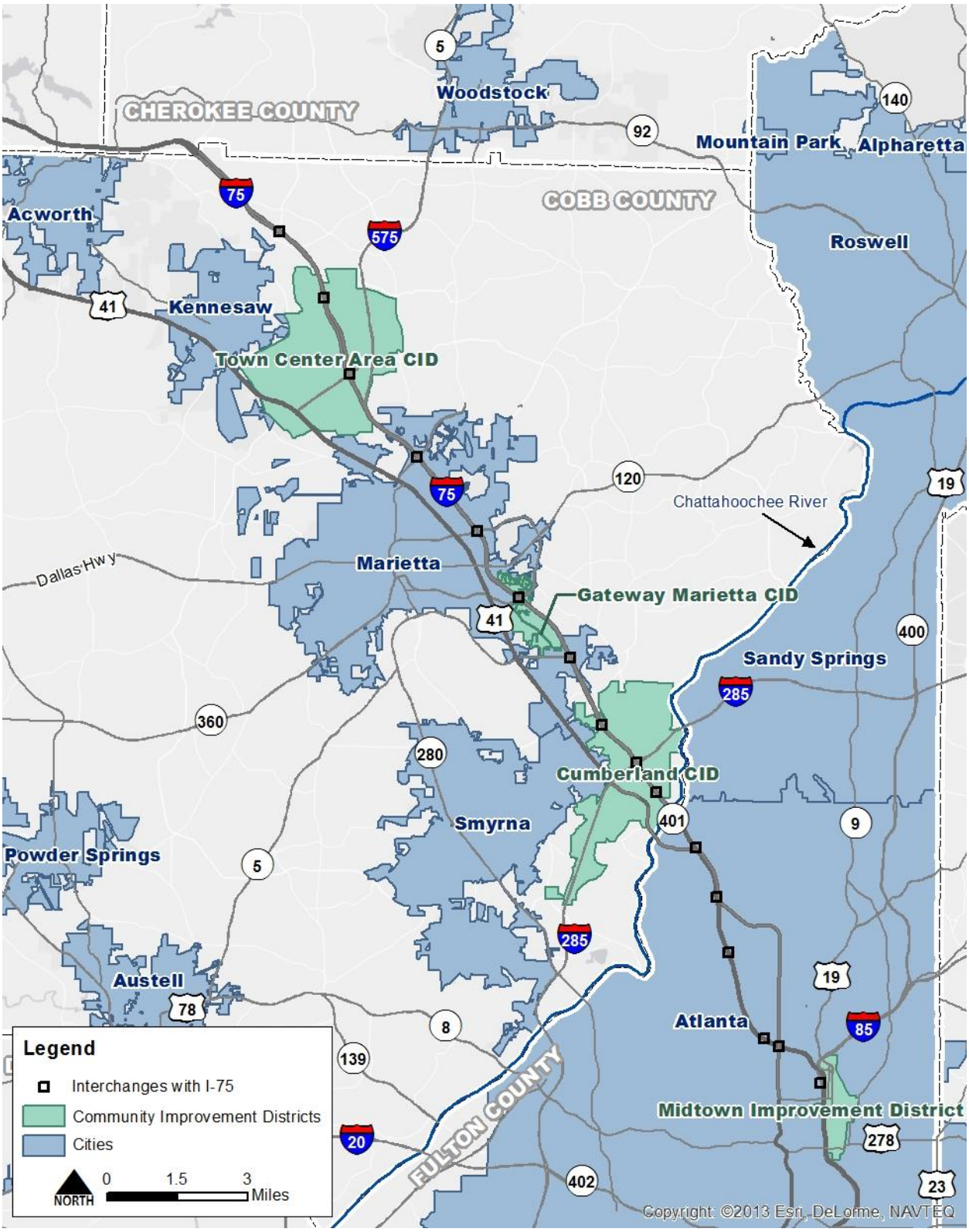
2.3 Existing Transportation Systems

The project area contains a network of roads that provide for local and through trips. This network includes two major facilities for radial movement within the Atlanta region: US 41/Cobb Parkway and I-75, as well as several cross-radial arterial and collector roads that provide east-west connectivity within the project area. The connecting roads with interchanges along I-75 and intersections at US 41/Cobb Parkway include:

- Wade Green Road
- Chastain Road
- Barrett Parkway
- Canton Road Connector/State Route (SR) 5 (Canton Road Connector)
- North Marietta Parkway/SR 120 Alternate (North Marietta Parkway)
- South Marietta Parkway/SR 120 (South Marietta Parkway)
- Delk Road/SR 280
- Windy Hill Road
- Akers Mill Road
- Cumberland Boulevard

US 41/Cobb Parkway is classified by the Georgia Department of Transportation (GDOT) as a principal arterial road from Spring Road to the Cobb County/Bartow County line. The number of through lanes varies from four to six. Daily traffic volumes in 2012 along the corridor varied from 29,000 to 40,000 vehicles per day, with most volumes being in the mid-30,000s per day. This is close to the capacity of a four-lane divided road. By 2040, these volumes are expected to grow to the mid-50,000s, which would exceed the capacity of a four-lane divided roadway, and cause traffic congestion and delays. I-75 is an Interstate Highway which carries over 280,000 vehicles per day at its busiest location in the project area, just north of Windy Hill Road. The limited number of Chattahoochee River crossings east of I-75 has increased the use of this corridor for north-to-south regional traffic movements. I-75 has nine exits north of I-285 in Cobb County.

Figure 2.1-1. Project Area



The project area is one of the most congested areas in the Atlanta metropolitan region, and has the highest travel demand in the region for people traveling between Cobb and Fulton Counties. That demand is driven by a diversity of travel markets throughout the project area, including commuters destined to employment opportunities in Atlanta, as well as a growing number of reverse commute trips from Atlanta to suburban employment centers. In addition, local trips are made by travelers of all ages from students to seniors for shopping, recreation, education, and medical and other services offered by the varied land uses in the corridor. With more than 688,000 residents according to the 2010 Census, Cobb County, including the corridor, experiences heavy traffic and delays on a daily basis. Increased congestion due to growing population and employment threatens to stifle the vibrancy, efficiency, and important regional contributions of the Connect Cobb Corridor. The existing transportation system will not keep up, and improvements, including consideration of other modes such as transit, are needed to address accessibility and trip time reliability.

Several transit agencies provide services within the project area that range from express bus service to local activity-center-based shuttle services.

Cobb Community Transit (CCT) offers bus service to the most urbanized portions of Atlanta (Arts Center/Civic Center). CCT currently operates the following routes within the project area: Routes 10, 40, 45, 100, 101, and 102. CCT Route 10 runs along US 41/Cobb Parkway, providing transit service between Cobb and Fulton Counties and connecting to the Metropolitan Atlanta Regional Transit Authority (MARTA) heavy rail system and connecting buses at Arts Center Station. While CCT service in the US 41/Cobb Parkway corridor is well used – Route 10 carries 3,800 riders daily – it operates in mixed traffic; thus, it is currently hampered by congestion and lacks supporting infrastructure such as adequate park-and-ride lots, shelters, bicycle parking, and sidewalk connectivity.

CCT Routes 10 (from Marietta) and 102 (from Acworth) connect with the MARTA heavy rail system and connecting buses at Arts Center Station. CCT Routes 100 (from Kennesaw) and 101 (from Marietta) connect with the MARTA heavy rail system and connecting buses at the Civic Center Station, just south of the project area in Downtown Atlanta.

The Georgia Regional Transportation Authority (GRTA) is responsible for planning and operating the Xpress regional bus program. GRTA operates two express routes through the project area: GRTA 480 (Acworth/Busbee Drive to Downtown Atlanta) and 481 (Town Center/Big Shanty to Midtown). GRTA Route 480 also connects with the MARTA heavy rail system at Civic Center Station. GRTA Route 481 connects with the MARTA heavy rail system at Civic Center Station, Arts Center Station, and Midtown Station. Although GRTA's express service is well used, it lacks dedicated on/off ramps and dedicated lanes to bypass roadway congestion.

MARTA provides bus and heavy rail service in Fulton and DeKalb Counties. Like the current CCT service in the corridor, the MARTA local bus routes also operate in mixed traffic and are hampered by roadway congestion and lack of supporting infrastructure. There are two MARTA heavy rail lines south of the project corridor: the Red Line (North Springs to Airport) and the Gold Line (Doraville to Airport). MARTA operates three rail stations within a mile of the southern end of the project corridor. All three stations are on both the Red and Gold Lines: Arts Center Station, Midtown Station, and North Avenue Station. MARTA operates two bus routes that connect to Arts Center Station (Routes 110 and 27), four bus routes that connect with Midtown Station (Routes 12, 99, 36, and 27), and three bus routes that connect with North Avenue Station (Routes 26, 2 and 99). MARTA also operates Bus Route 12 in the corridor, traveling from Cumberland Transfer Center in Cobb County to Midtown Station.

2.4 Analysis and Decision-Making Background

The history of the proposed project dates back to 2001. Multiple studies and sponsoring agencies have considered the need and demand for additional public transportation service in the Connect Cobb Corridor. Some of the recent studies, including two ongoing studies, are briefly described below. These previous studies provide a valuable base of information for this Environmental Assessment (EA) process.

***Northwest Corridor Transit Implementation Study*:** This study was sponsored by the Cumberland and Town Center Area Community Improvement Districts, and considered the use of a light rail transit (LRT) line to connect the Town Center area with the Cumberland area. The study included system alignment, vehicle technology, station concepts, system operations, construction schedule and a funding analysis, and was completed in 2001.

***The Northwest Connectivity Study*:** Prepared in 2004 by GRTA and GDOT, this study examined improving transportation connections between the activity centers in the I-75 corridor, including Midtown Atlanta, Cumberland, and Town Center. The Locally Preferred Alternative (LPA) from the study focused on bus rapid transit along I-75 operating in high occupancy vehicle (HOV) lanes.

***Cobb County Comprehensive Transportation Plan* (CTP):** The CTP was adopted by Cobb County and the Cities of Acworth, Austell, Kennesaw, Marietta, Powder Springs, and Smyrna in 2008 as the blueprint for countywide transportation investment. The CTP is the long-range, multimodal transportation plan, and includes transit recommendations, including high capacity transit along US 41/Cobb Parkway.

An update to the 2008 CTP began in 2013 and is scheduled for completion in 2015. A key objective of *Cobb in Motion: CTP 2040 Update* is to identify local transportation priorities, including transit, that will provide a well-planned transportation network that meets the needs of the community's vision for the future.

Atlanta Regional Commission Regional Transit Committee: The Regional Transit Committee (RTC) is a policy committee of the Atlanta Regional Commission (ARC) that focuses on issues of regional transit planning, funding and governance. The RTC is currently guiding the implementation of *Concept 3*, the long-range vision for the Atlanta region developed by the board's predecessors, the Transit Implementation Board (TIB) and the Transit Planning Board (TPB). *Concept 3* was adopted by the ARC Board in 2008. In Cobb County, *Concept 3* included:

- Arterial bus network from Kennesaw State to MARTA Arts Center Station in Atlanta
- LRT along I-285 North
- Commuter rail passing through Austell and Mableton
- A system of suburban bus, bus rapid transit, and express bus throughout the county

***Long Range Transportation Plan (PLAN 2040)*:** In July 2011, the ARC adopted PLAN 2040 as the long-term transportation plan for the 18-county Atlanta metropolitan planning area.[3] PLAN 2040 includes a fiscally unconstrained Aspirations Plan for the region which borrowed from the initial *Concept 3* for the transit element. The original Aspirations Plan included a high-speed/high capacity rail system from the I-75 Kennesaw State/Town Center area to Midtown or Downtown Atlanta via Marietta and Cumberland.

[3] 18 counties as defined by the Atlanta Regional Commission (http://www.atlantaregional.com/transportation/overview)

The previously adopted *Concept 3* was updated in November 2012 to reflect the findings of the Alternatives Analysis, described below. *Concept 3* includes "arterial bus network" from MARTA Arts Center to Kennesaw State.

PLAN 2040 was updated and local approval granted for the current proposed project by ARC on March 25, 2014 and by GRTA on April 9, 2014. The proposed project (Kennesaw to Cumberland with service to the Arts Center station) is included in the PLAN 2040 Update as Project AR-475.[4] Based on preliminary technical analyses conducted by the ARC, the project performs well compared to other transit projects at the regional level.

Northwest Transit Corridor Alternatives Analysis Study: The adoption of *Concept 3* into PLAN 2040 led to the initiation of an alternatives analysis (AA) to study transit needs and improvement alternatives in the Connect Cobb Corridor (referred to in the AA as the Northwest Transit Corridor), which was completed in 2012. The study evaluated a range of transit modes and alignments and began the process of readying a project for future federal funding. The evaluation of alternatives resulted in the recommendation of a LPA, which included a hybrid alternative consisting of bus rapid transit along US 41/Cobb Parkway and enhanced express bus service along I-75.

Northwest Corridor Project: GDOT is currently implementing transportation improvements to I-75 and I-575 in the Atlanta region. The improvements are collectively referred to as the Northwest Corridor Project and include the addition of reversible managed lanes on both I-75 and I-575 within the project area from Akers Mill/I-285 north to north of Hickory Grove Road on I-75 and south of Sixes Road on I-575. A Reevaluation of the Final Environmental Impact Statement was completed in March 2013, and the Record of Decision for the project was issued in May 2013. GDOT received three Public-Private Partnership submittals in June 2013, and in July 2013 selected the best value proposer. Construction is currently scheduled for completion in spring 2018.

revive285 top end Project: GDOT has proposed improvements on I-285 from I-75 in Cobb County to I-85 in DeKalb County. Alternatives under consideration include provision for express bus service, including a stop in Cumberland in Cobb County, the addition of managed lanes with multiple access points, and right-of-way preservation for future fixed guideway transit for potential bus rapid transit (BRT) or LRT service on I-285.

2.5 Selection of a Locally Preferred Alternative

The Cobb County Board of Commissioners, in a work session on February 28, 2012, was presented the results of the AA and the associated LPA. The presentation was accepted, and staff was directed to prepare federal environmental documentation. The LPA included both BRT along US 41/Cobb Parkway and enhanced express bus service along I-75, but because no improvements would be needed on I-75 for continuation of express bus service, the proposed project being evaluated in the EA includes only the rapid bus component, defined as arterial rapid transit (ART) on US 41/Cobb Parkway from the Kennesaw area to Cumberland, with continued service to MARTA Arts Center Station in Atlanta.

[4] The project is listed officially as Connect Cobb/Northwest Atlanta Transit Corridor Bus Rapid Transit Phase I. The plan is available at http://www.atlantaregional.com/plan2040/documents--tools.

2.6 Project Purpose

The purpose of the proposed project is to introduce high capacity transit service to Cobb County and the northwest area of metropolitan Atlanta that will satisfy the long-term regional mobility and accessibility needs for residents, businesses, and the traveling public.

2.7 Project Need

The project area has two transportation needs which are explained in detail below. Both of these needs are related to transit service within Cobb County and between Cobb County and the City of Atlanta.

- Need for transit alternative options to provide access to population and employment growth in activity centers now and in the future
- Need for faster, more reliable, and more effective transportation

2.7.1 NEED FOR TRANSIT ALTERNATIVE OPTIONS TO PROVIDE ACCESS TO POPULATION AND EMPLOYMENT GROWTH IN ACTIVITY CENTERS NOW AND IN THE FUTURE

Increased travel demand in the project area is the result of growth in population and employment over the last several decades as well as strong travel patterns between major destinations. Between 2000 and 2010, the Atlanta metropolitan statistical area (MSA), comprised of 28 counties, increased by about 20 percent in population. Cobb County's population increased 13.2 percent during this period, while the city of Atlanta's population grew by less than one percent, demonstrating that significant population growth continues outside of central Atlanta. The continued increase in population resulted in increased demand for travel along the roadway networks in the project area. Similarly, while employment growth in the Atlanta MSA and Cobb County slowed between 2000 and 2010, a substantial amount of growth remained in the employment centers of Town Center/Kennesaw, Marietta, and Cumberland located in the project area.

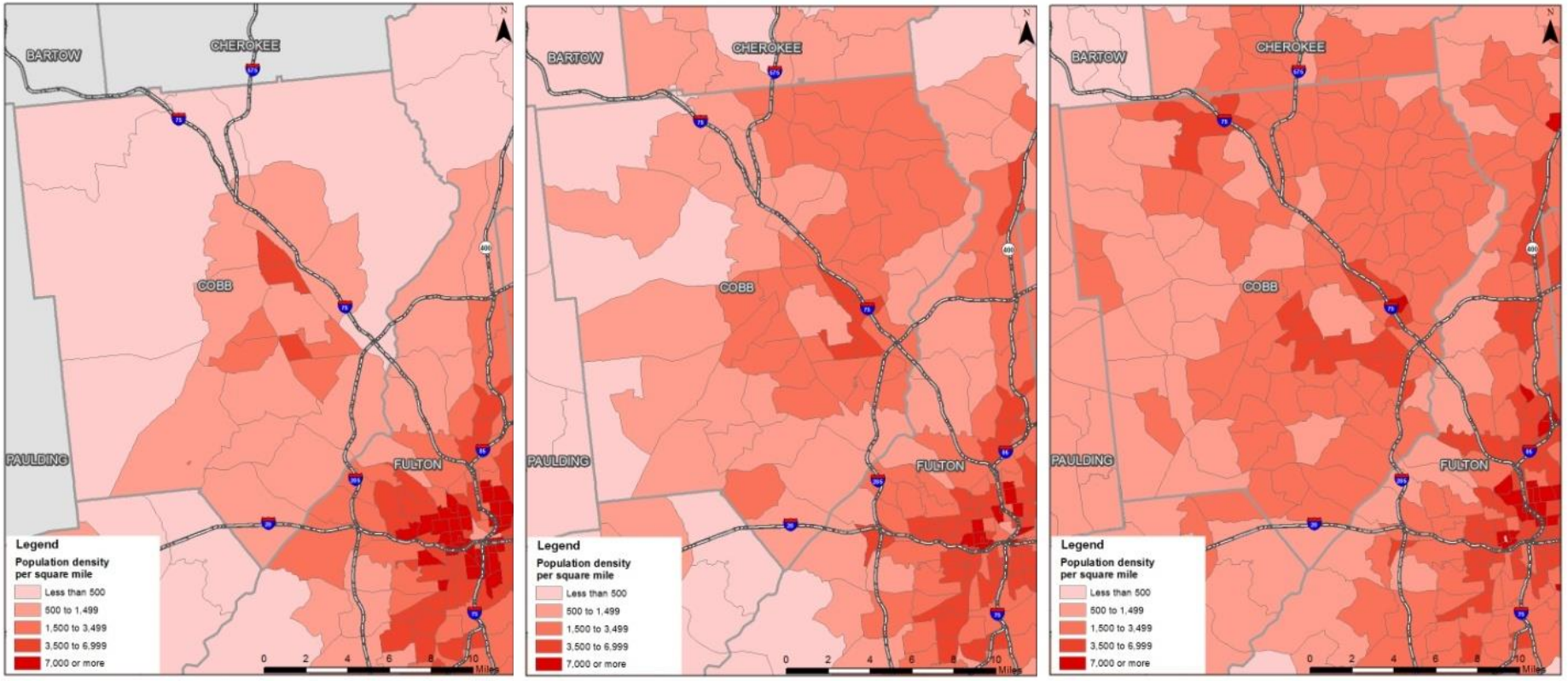
In 2010, Cobb County represented about 17 percent of the 10-county region's population,[5] with over 688,000 residents in 286,000 households. Population in Cobb County is mostly dispersed in low-density, single-family residential subdivisions within both the county's incorporated and unincorporated areas. In the northern part of the project area, Kennesaw saw its population grow at a more rapid pace over the past decade than Marietta and Smyrna. However, there was a shift towards an increasing share of renter occupied households, particularly in Kennesaw – a trend in part due to the student enrollment at KSU.

Population growth in Cobb County over the past 40 years suggests that much of the regional growth will take place within the project area. As population density in the central Atlanta area declined from 1970 to 1990, population density in Cobb County increased. **Figure 2.7-1** illustrates the dispersal of population density in Cobb County in 1970, 1990, and 2010.

[5] As defined under Metropolitan Area Planning and Development Commission (MAPDC)/Regional Commission (RC) authority (http://www.atlantaregional.com/info-center/arc-region/municipal-data)

Figure 2.7-1. Cobb County and Atlanta Population Density 1970-2010

1970 ***1990*** ***2010***



Sources: National Historical Geographic Information System; US Census Bureau; Cobb County.

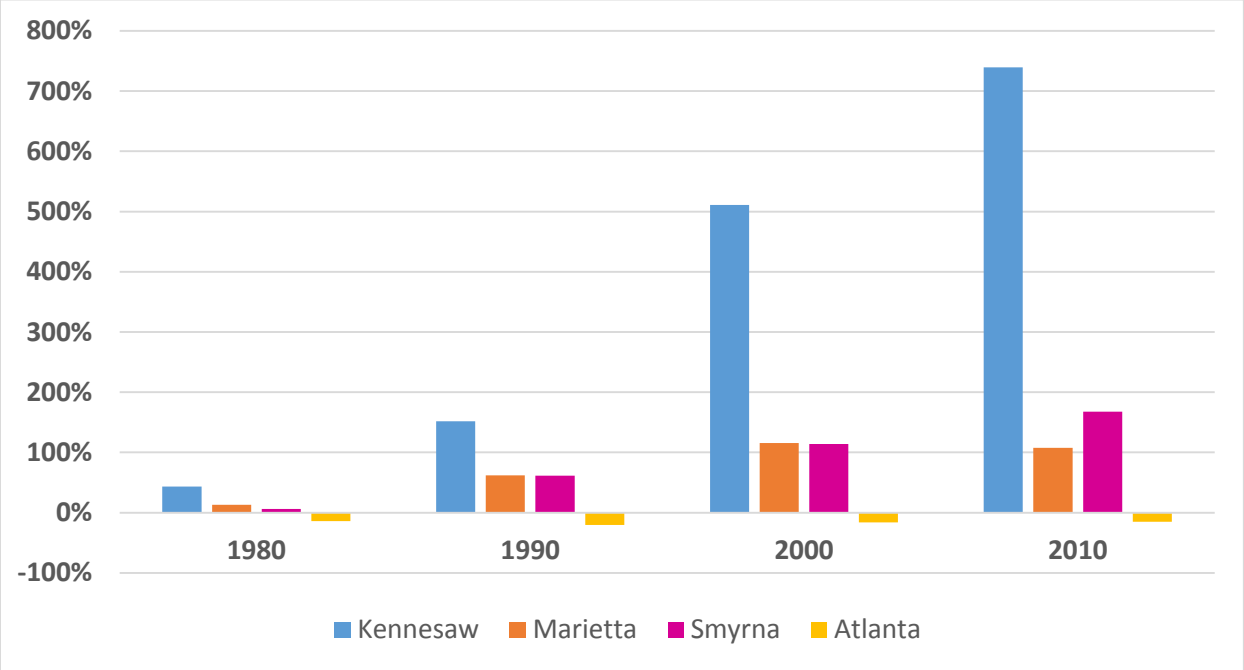
Table 2.7-1 shows that the Cobb County cities of Kennesaw, Marietta, and Smyrna have become more active residential areas over the past 40 years. The three cities grew 13 percent from 2000 to 2010 alone. **Figure 2.7-2** shows the percent population growth from 1970 for Kennesaw, Marietta, Smyrna, and Atlanta.

Table 2.7-1. City of Atlanta and Cobb County Municipal Population Growth 1970 to 2010

City	1970	1980	1990	2000	2010
Kennesaw	3,548	5,095	8,936	21,675	29,783
Marietta	27,216	30,821	44,129	58,748	56,579
Smyrna	19,157	20,312	30,981	40,999	51,271
Atlanta	495,039	425,022	394,017	416,474	420,003

Source: Years 1970-1990 from US Census Bureau; 1990 Census of Population and Housing, Population and Housing Counts, Table 45, pp. 417-592; Year 2000 and 2010 from US Census Bureau, 2010 Census American FactFinder

Figure 2.7-2. Percent Population Growth from 1970



According to ARC, the metropolitan planning organization (MPO) which prepares the regional socioeconomic forecasts, strong growth is expected to continue along the corridor in the future. Over the next 10 years the population of Cobb County is expected to grow by 9.1 percent, adding 60,000 new residents. Employment is expected to grow at an even faster rate at 20 percent, adding 60,000 new jobs in Cobb County.[6] Both population and employment growth in the corridor are expected and supported by locally adopted growth policy plans in corridor communities. This demographic growth trend is expected to continue in the county through year 2040, resulting in a total population growth of 21.4 percent and employment growth of 50.4 percent compared to today's conditions. These growth increases and resulting

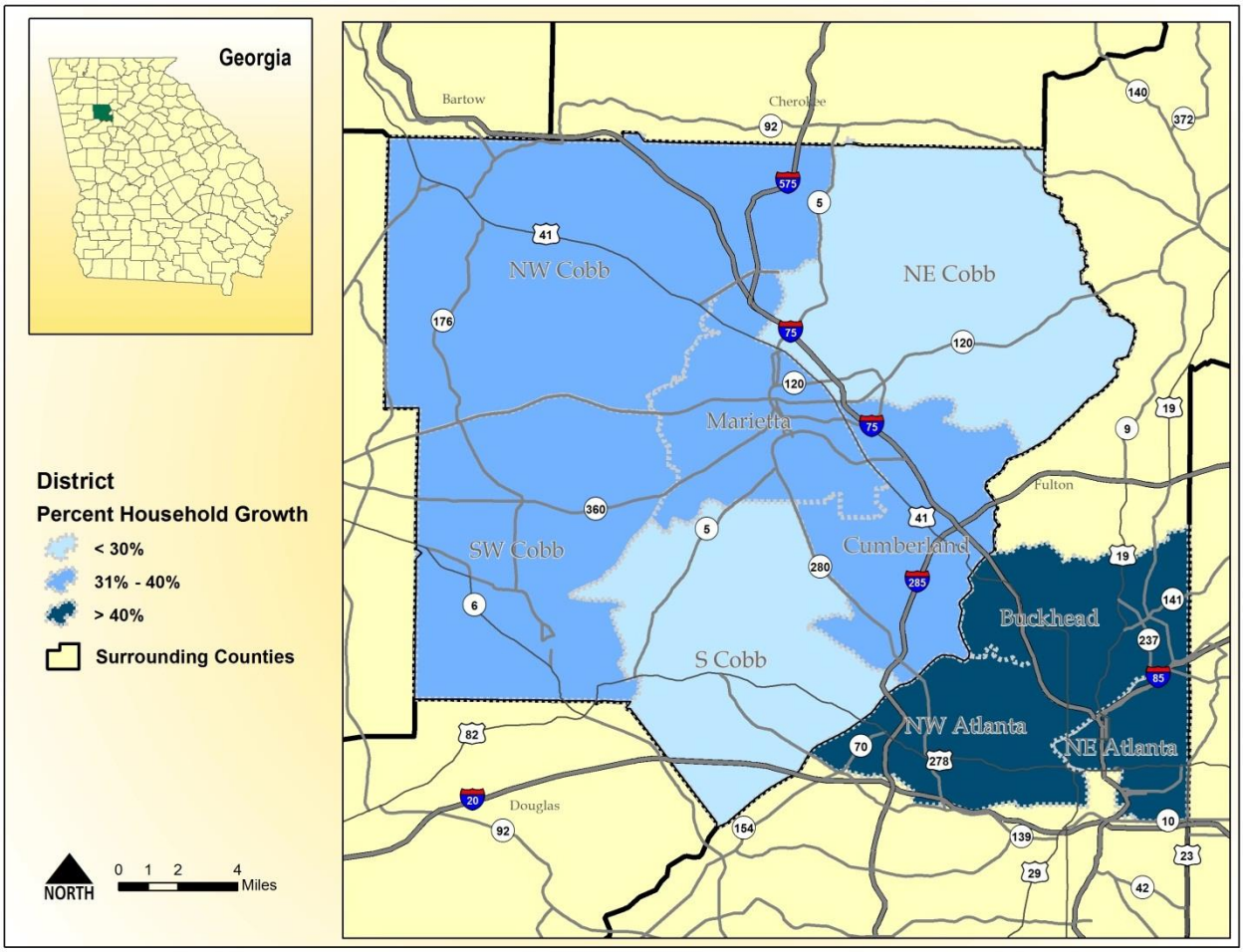
[6] ARC Employment Forecasts, available at http://www.atlantaregional.com/info-center/forecasts/data

travel demands far exceed the planned roadway capacity expansions and the realities of financial constraint.

ARC also projects that the population of the 20-county Atlanta region[7] will reach 8.3 million people by the year 2040, an increase of nearly 3 million people from 2012. The region's place as a transportation and logistics hub of the southeast positions the region well to remain one of the fastest-growing metropolitan areas in the country, according to ARC. In the last eight years alone, the region added 1.1 million people, making it the second fastest-growing metro region in the country.

Following the historical trends, ARC projects that Cobb County and the city of Atlanta will continue to grow in both population and households. This household growth is expected to be strongest in the northern portion of Cobb County (see **Figure 2.7-3**), although the projections consider opportunities closer to the region's core where land has been made available for redevelopment in Cobb County and the city of Atlanta.

Figure 2.7-3. Projected Household Growth, 2010 to 2040



As part of the regional economy, Cobb County residents and employers have access to a large base of highly skilled jobs and workers from throughout the metropolitan area due to the

[7] Based on US Environmental Protection Agency air quality non-attainment areas

connectivity of the transportation network. Over two-thirds of Cobb County's workforce is employed either in Cobb County (41 percent) or Fulton County (29 percent). About 40 percent of Cobb County's jobs are held by Cobb County residents, with a large percentage beginning or ending their trips along the Connect Cobb Corridor. The remaining 60 percent of jobs within Cobb County are held by workers who live around the region. About 60 percent of Cobb County residents commute outside of Cobb County to work, with most traveling to Midtown/Downtown Atlanta.

Cobb County's share of employment is about 15 percent of the regional overall employment. The majority of Cobb County's employment is located along I-75, with the highest densities located in the Cumberland and Town Center activity centers. The county's employment base is a diverse mix of industries typically found in metropolitan areas: a high proportion of professional and technical jobs and wholesaling. Employment focused in management or headquartered operations is more concentrated in Cobb County than the rest of the state, emphasizing the need to provide transportation infrastructure which will address existing and future travel demand in this region.

As shown in **Figure 2.7-4**, employment density is found in the corridor activity centers or the primary urbanized "clusters," including the Town Center/KSU area, the Cumberland/Marietta/Dobbins area, and Midtown/Atlantic Station. In 2010, the Town Center/KSU employment area held approximately 2,000 to 5,000 employees per square mile, while the Cumberland/Marietta/Dobbins area included 5,000 to 20,000 employees per square mile. The Midtown employment area included over 20,000 employees per square mile.

The corridor holds an important segment of the region's office space. In Cobb County, the Northwest market area along I-75 includes approximately 35 million square feet of office space, with 27 million square feet located in Cumberland where I-75 and I-285 intersect and eight million square feet located in the cities of Kennesaw and Marietta.[8] Atlanta's Midtown office market, located at the southern end of the project area, includes approximately 23 million square feet of office space.[9]

Employment in Cobb County and along I-75 has grown over the past 15 years, as seen in **Figure 2.7-5**. While this period includes the economic downturn, the number of jobs still increased in the existing employment centers of the Connect Cobb Corridor including Kennesaw, Marietta, Cumberland, and Midtown

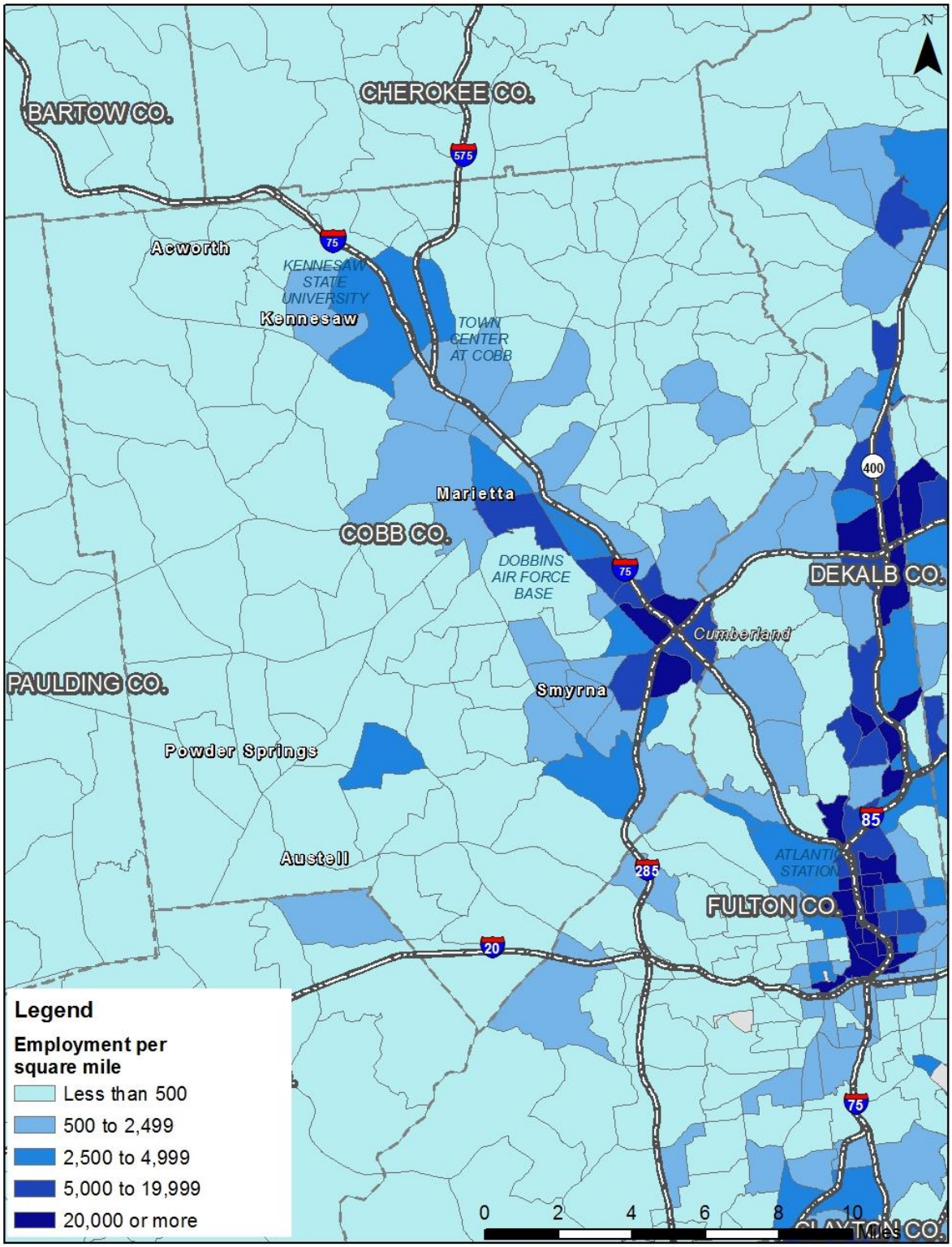
ARC has forecasted employment in the region to reach approximately three million jobs in 2040, representing growth of 1.1 million jobs over the 2009 estimates. The rate of employment growth in the region is anticipated to surpass household growth, particularly in the Connect Cobb Corridor. Between 2010 and 2040, ARC forecasts that Cobb County will add over 154,000 jobs and increase its job base by 50 percent.[10] Although employment is expected to continue to be concentrated in the existing job-rich areas, ARC projects employment growth to be more dispersed than the current patterns, and greater connectivity is needed. In addition, employment growth in Fulton County and the Midtown area also are expected to increase 53.7 percent and 60.9 percent, respectively, between 2010 and 2040 (see **Figure 2.7-6**). Transit service is needed to connect these areas of increase and facilitate the movement between workers and jobs.

[8] Cobb County Department of Transportation. *Northwest Transit Corridor Alternatives Analysis Study*, December 2012.

[9] Midtown Alliance, 2013 (http://www.midtownatl.com/business/midtown-offices)

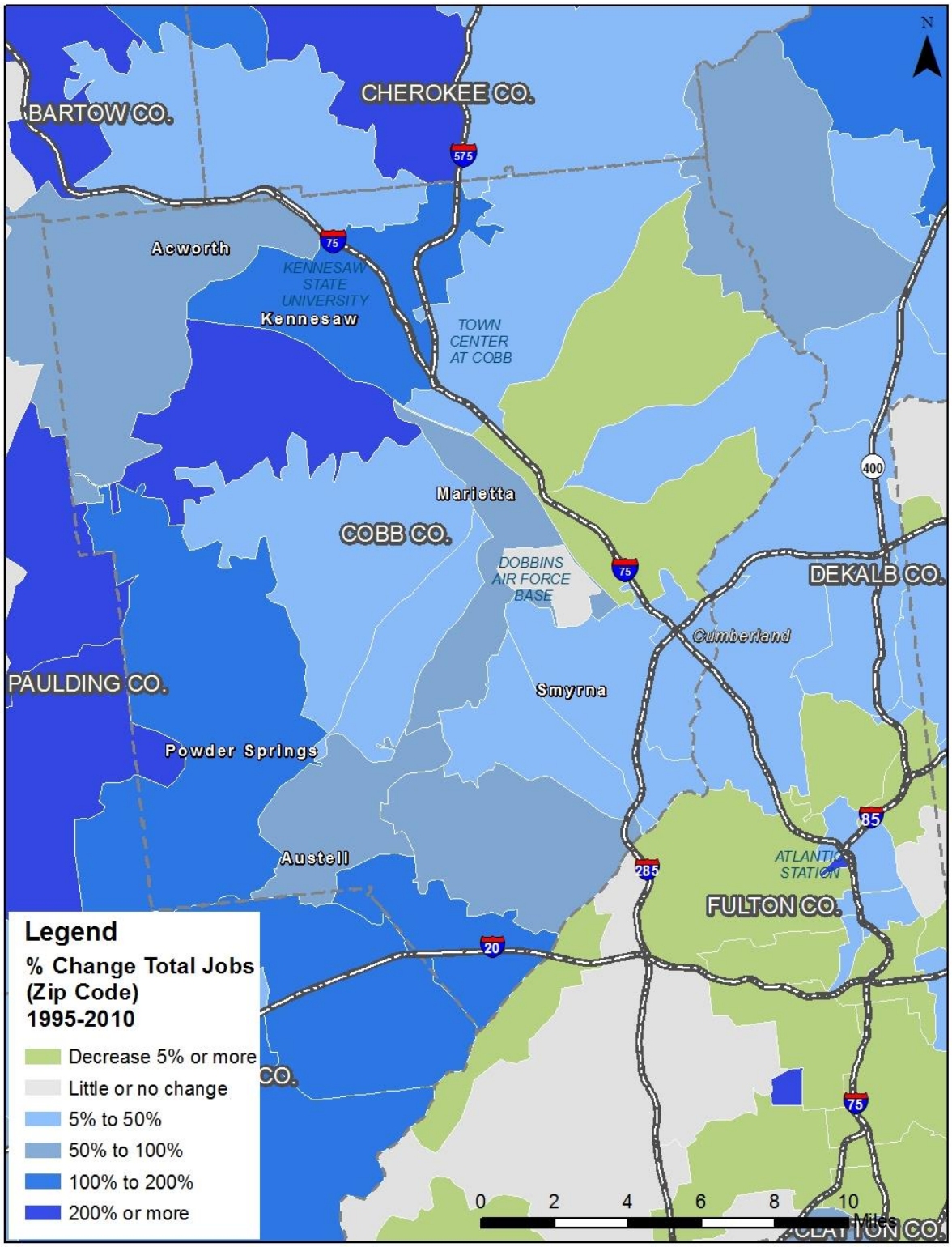
[10] ARC Employment Forecasts, available at http://www.atlantaregional.com/info-center/forecasts/data

Figure 2.7-4. Cobb County and Atlanta 2010 Employment Density



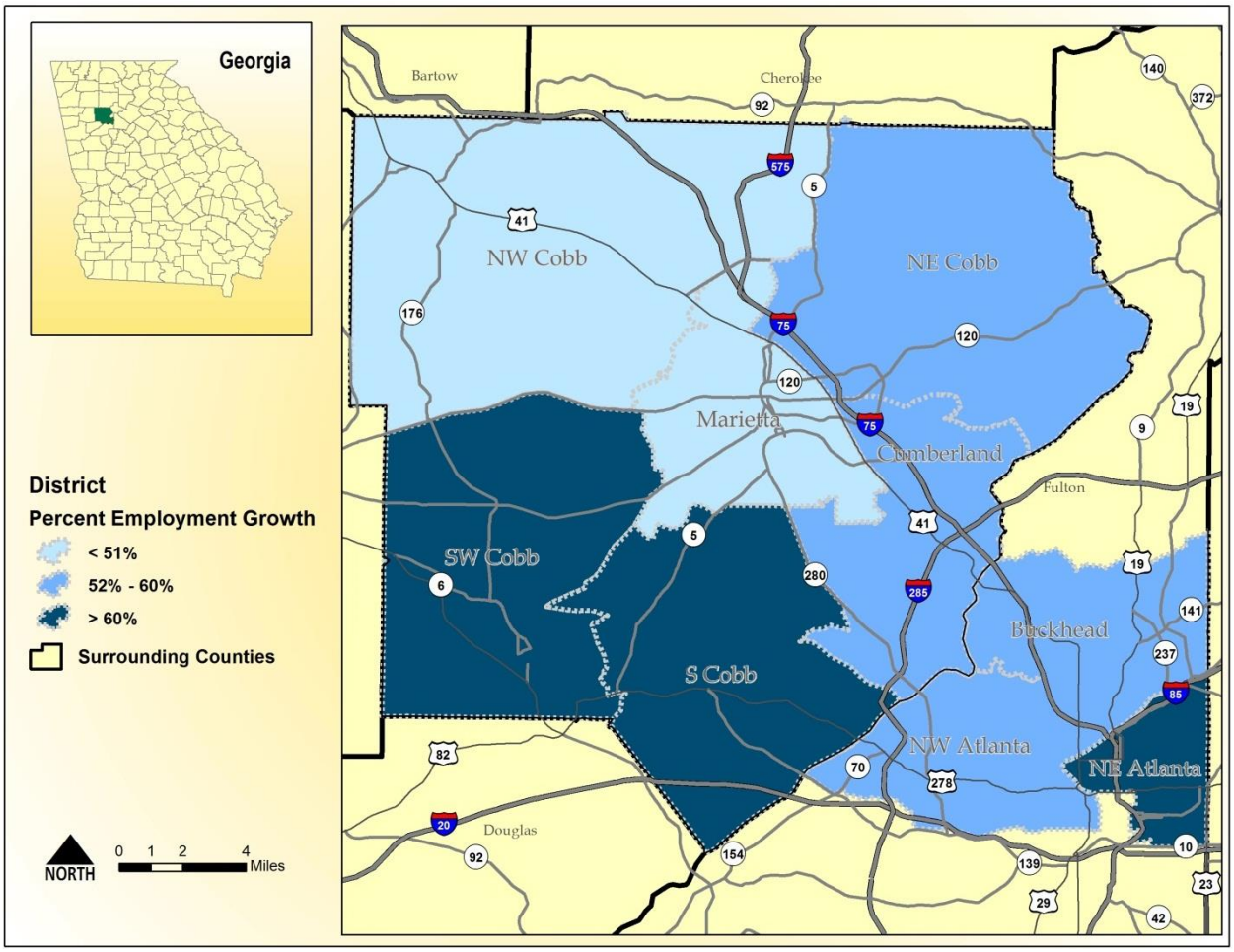
Sources: US Census Bureau Longitudinal Employer-Household Dynamics; Cobb County

Figure 2.7-5. Cobb County and Atlanta 1995-2010 Change in Total Jobs



Source: US Census Bureau County Business Patterns; Cobb County

Figure 2.7-6. Projected Employment Growth, 2010 to 2040



2.7.2 NEED FOR FASTER, MORE RELIABLE, AND MORE EFFECTIVE TRANSPORTATION

2.7.2.1 Vehicle Traffic

The corridor is an important component to the economic system of the Atlanta region. The growth of the Cobb County employment centers, Town Center and Cumberland, has been supported by excellent access to jobs and a large pool of skilled labor within a 45-minute travel time radius. Decreasing trip time reliability caused by congestion must be addressed before it compromises this growth and access that is so critical to the success of the region.

The Connect Cobb Corridor is one of the region's most congested travel corridors. Existing estimates of average annual daily traffic (AADT) exceed 250,000 on I-75 north of I-285 and 30,000 along US 41/Cobb Parkway northward from I-285 to Kennesaw.[11] These volumes make I-75 north of I-285 ranked in the top 10 percent of most congested freeways in the region and US 41/Cobb Parkway in Cobb County ranked in the top 25 percent of most congested arterials

[11] Georgia Department of Transportation Traffic Count Database System

in the region, according to ARC's 2010 Congestion Management Process.[12] **Table 2.7-2** shows the projected increases in travel times from 2010 to 2040.

Table 2.7-2. Increase in Peak Travel Times between 2010 and 2040 (minutes)

	I-75[1]			US 41/Cobb Pkwy[2]		
	2010	2040	Change	2010	2040	Change
AM Peak (Southbound)	48	69	+21	40	52	+12
PM Peak (Northbound)	55	99	+44	45	71	+36
Reverse AM Peak (Northbound)	36	44	+8	33	36	+3
Reverse PM Peak (Southbound)	39	57	+18	34	42	+8

[1] From Arts Center Station to KSU
[2] Along US 41/Cobb Parkway within Cobb County

Figure 2.7-7 and **Figure 2.7-8** illustrate the geographic area included within a 15-minute commute and a 45-minute commute during peak hours for both Town Center Area CID and Cumberland CID, in the years 2010 and 2040. By the year 2040, the area accommodating a 15- or 45-minute commute is anticipated to shrink, particularly in the afternoon rush hours. Travelers will not be able to travel as far in those timeframes, making the total commute time even longer while also reducing trip time reliability and access to the area.

2.7.2.2 Transit

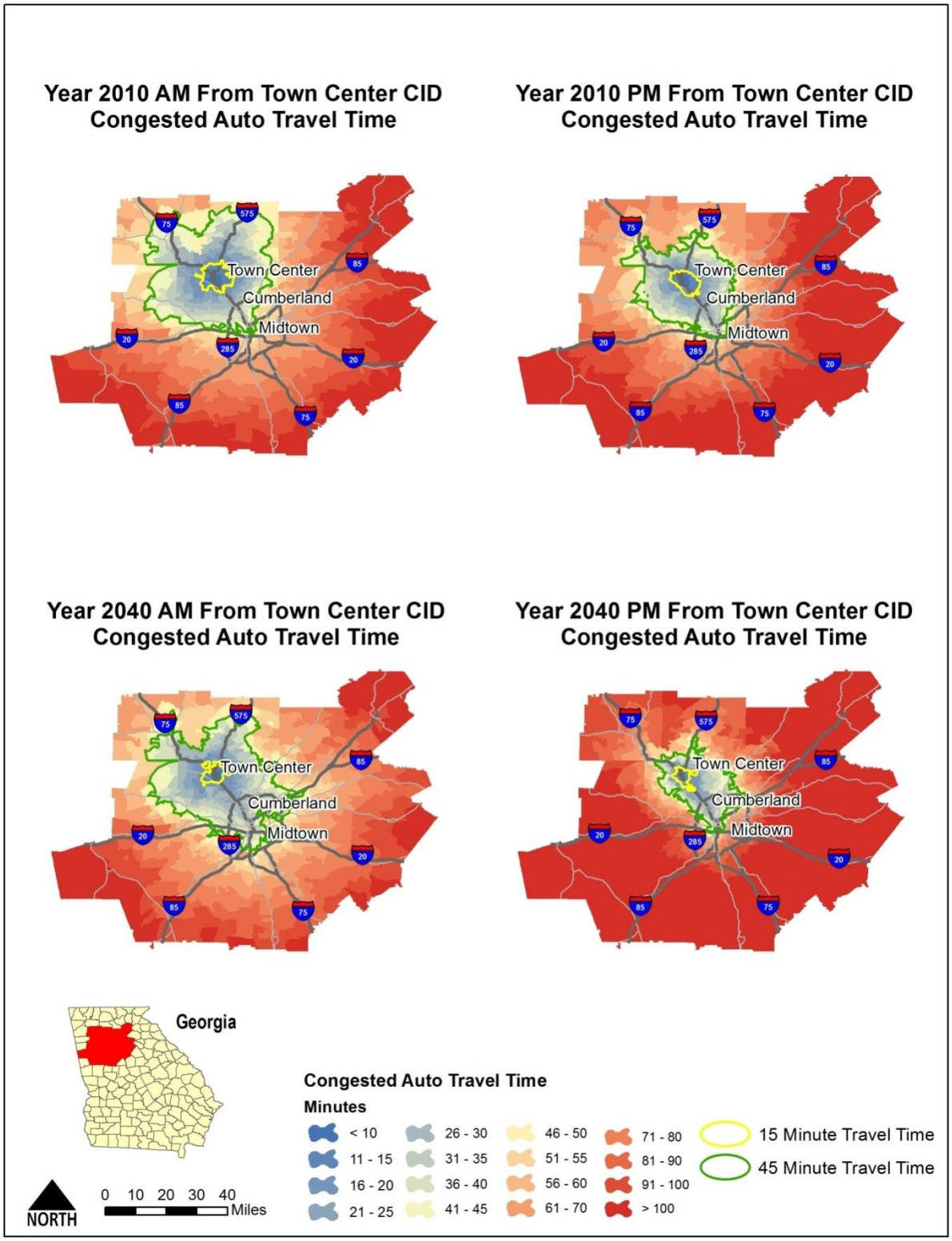
While CCT service in the US 41/Cobb Parkway corridor is well used, it is currently hampered by increasing congestion. The busiest of the CCT routes, Route 10, runs along US 41/Cobb Parkway between Cobb and Fulton Counties, connecting to the MARTA heavy rail system at the Arts Center Station in Midtown Atlanta. CCT Route 10 currently experiences the highest fare box recovery ratio (47 percent) in the entire CCT system and carries the highest ridership of all CCT system routes at over 3,800 riders on weekdays. This is despite the fact that today a trip made on transit from the Dobbins Air Reserve Base (ARB) to the MARTA Arts Center Station takes 45 to 60 minutes in congested traffic, while the same trip made by automobile may take only 30-45 minutes. The CCT schedule presumes the trip for Route 10 will take only approximately 45 minutes. In the future, the transit travel time for this route is projected to increase by up to 15 percent, assuming no significant transit improvements in the corridor occur.

Travel patterns in the corridor suggest a very strong market for trips between Cobb County and neighboring Fulton County and the city of Atlanta. In 2010 and as forecasted by the ARC for 2040, Fulton County is the most common destination for trips leaving Cobb County. Furthermore, the inter-district transit flows between the two counties are the strongest in the 10-county ARC region.[13] Although the transit share is currently small, with less than four percent of work trips made on transit in this market, the transit and auto travel patterns indicate the potential for substantially more transit use if more frequent, reliable, and higher quality transit alternatives were available.

Figure 2.7-9 shows the bi-directional transit trip flows from a 2010 ARC Onboard Survey. When boardings and alightings are quantified by districts, it is possible to see the existing transit demand between and within each district. When one considers the forecasted 2040 bi-directional trip flows for both transit and auto from the ARC model (**Figure 2.7-10**), the travel demand is very strong between Cobb County and Fulton County, especially within the I-75 and US 41/Cobb Parkway corridors.

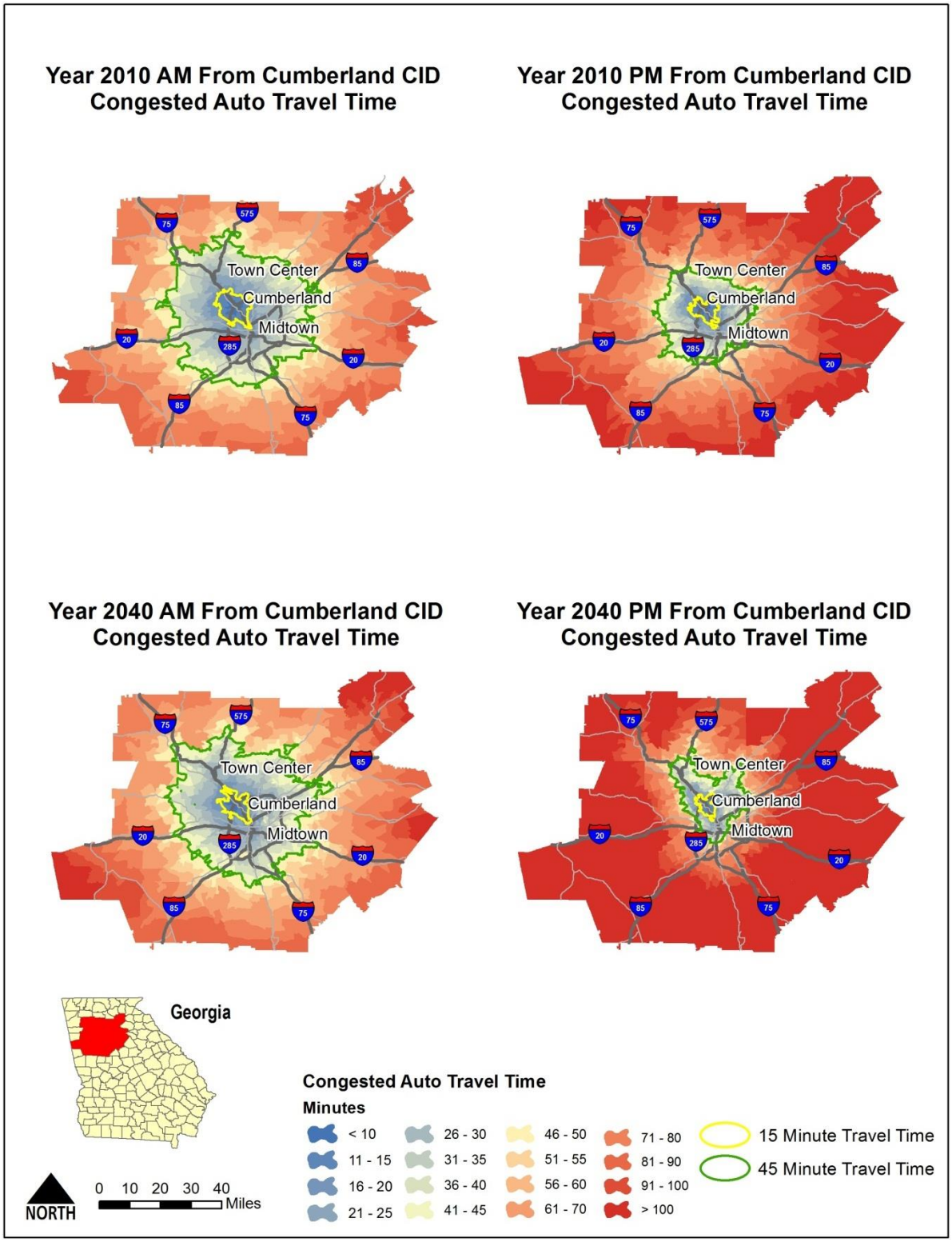
[12] http://documents.atlantaregional.com/plan2040/quickguides/tp_PLAN_2040_FS_CMP.pdf
[13] As defined under Metropolitan Area Planning and Development Commission (MAPDC)/Regional Commission (RC) authority.

Figure 2.7-7. Town Center CID Congested Auto Travel Time



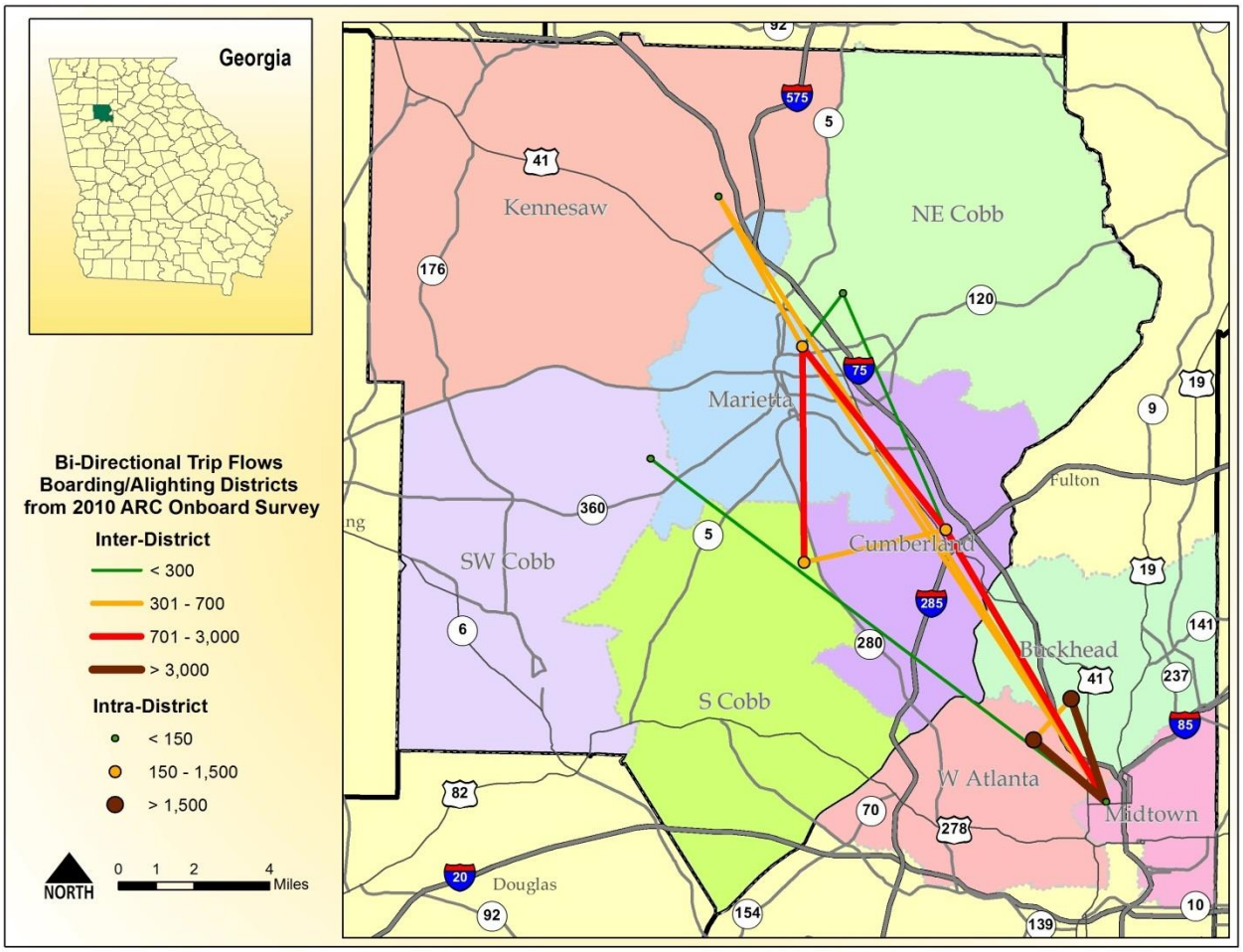
Source: ARC Regional Model

Figure 2.7-8. Cumberland CID Congested Auto Travel Time



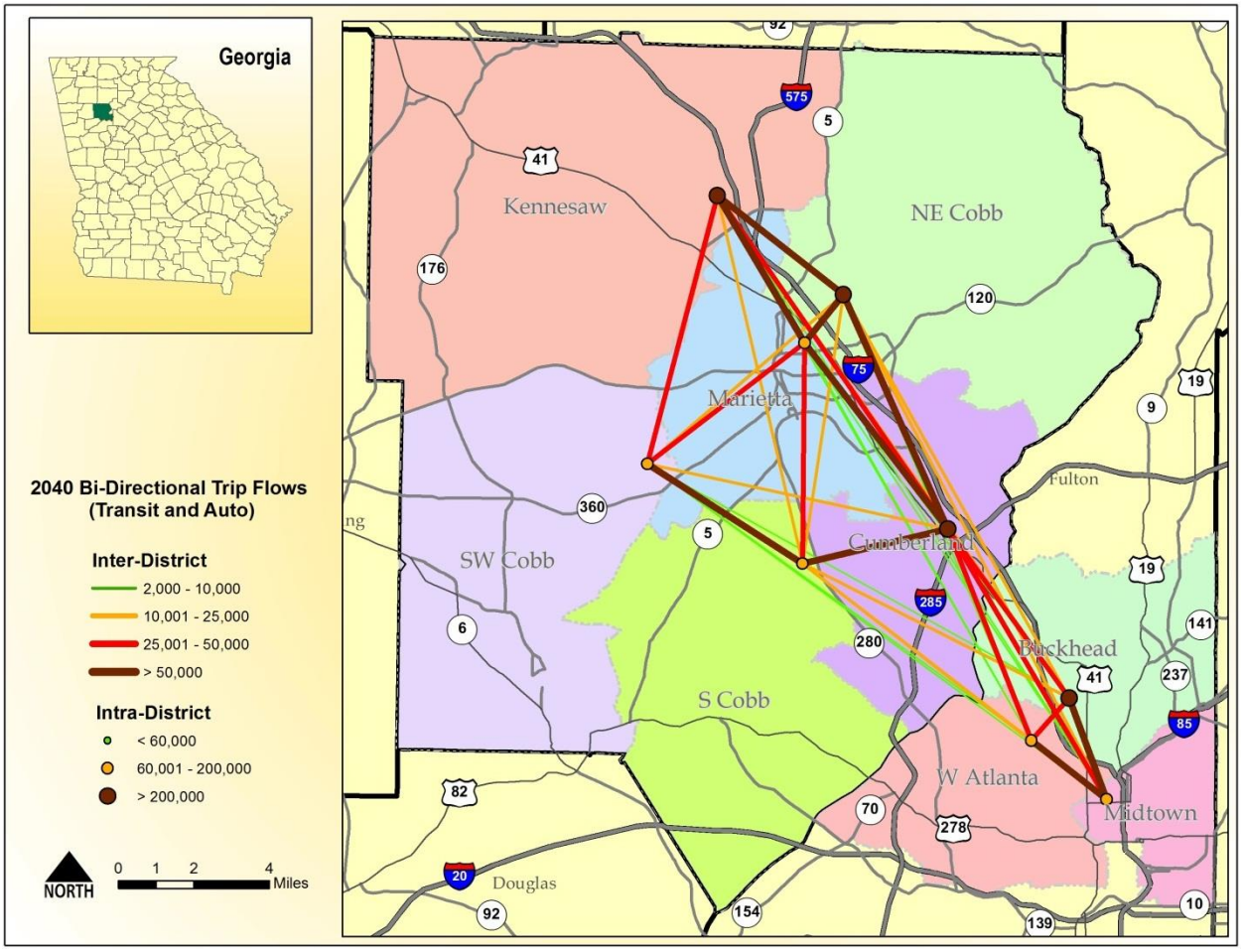
Source: ARC Regional Model

Figure 2.7-9. Bi-Directional Transit Trip Flows (2010)



Source: ARC Regional Model

Figure 2.7-10. Bi-Directional Transit Trip Flows (2040)



Source: ARC Regional Model

2.8 Goals and Objectives

The establishment of goals and objectives articulates the desired benefits of the proposed Connect Cobb Corridor and establishes a foundation for the definition of evaluation measures including quantitative and qualitative criteria used in comparing the alternatives analysis process.

Goal 1: Develop the Connect Cobb Corridor as an integral component of a cost-effective and financially feasible transit system

Objectives:

- Provide cost-effective transportation solutions
- Develop financially feasible and sustainable mobility solutions
- Maximize potential to leverage public and private investments

Goal 2: Promote sustainable development patterns for the long-term viability of the Connect Cobb Corridor communities and greater Cobb County

Objectives:

- Complement and encourage the efficient use of land
- Provide efficient jobs-to-housing connections
- Complement active, healthy lifestyles
- Encourage walking and biking connections to transit
- Encourage transit-ready development and transit-oriented development in the Connect Cobb Corridor, especially around future station areas
- Complement development, redevelopment, and job growth

Goal 3: Support healthy communities and sound environmental practices along the Connect Cobb Corridor

Objectives:

- Minimize adverse impacts to the natural and built environment
- Promote equitable access and benefits
- Improve air quality by reducing existing and future vehicular emissions
- Provide a cost-effective alternative to use of the SOV along congested roadways

3.0 Alternatives

This section describes the alternatives evaluated in this Environmental Assessment (EA), including the No Build Alternative and the proposed project, and discusses other alternatives that were considered and dismissed during the National Environmental Policy Act (NEPA) process.

3.1 No Build Alternative

With the No Build Alternative, existing Cobb Community Transit (CCT) service on US 41/Cobb Parkway would continue, as well as CCT and Georgia Regional Transportation Authority (GRTA) express bus service in the I-75 corridor. Arterial rapid transit along US 41/Cobb Parkway would not be implemented.

There are a number of programmed transportation projects in the vicinity that would be constructed whether or not the Connect Cobb Corridor project moves forward. These projects include:

- Skip Spann Connector (Busbee Parkway to Frey Road), with completion scheduled in 2016 (P.I. No. 0010157)[14]
- Northwest Corridor managed lanes (along I-75 from Akers Mill Road to Hickory Grove Road (on I-75) and I-75 to Sixes Road (on I-575)), with completion expected in 2018 (P.I. No. 0008256) and existing express bus service to operate within the managed lanes
- Improvements at the intersection of US 41/Cobb Parkway and North Marietta Parkway, completion programmed in 2016 (P.I. No. 0012607)
- Intersection improvements at US 41/Cobb Parkway at Roswell Street, with completion expected in 2016 (P.I. No. 0012608)
- South Barrett Reliever Phase 2,[15,16] Barrett Lakes Boulevard to just west of I-75 including realignment of the intersections of Barrett Lakes Boulevard with Shiloh Valley Drive and a shopping center entrance to form a single point of intersection (roundabout), with completion expected in 2017[14]
- South Barrett Reliever Phase 3[17] (extends South Barrett Reliever over I-75 and improves Roberts Court between the Reliever and Barrett Parkway), with completion expected in 2019[1]
- US 41/Cobb Parkway capacity improvements from Windy Ridge Parkway to North Marietta Parkway (long-range; no specific timeframe identified) (P.I. No. 0010510)
- Grade separation of US 41/Cobb Parkway and Windy Hill Road (long-range; no specific timeframe identified) (P.I. No. 0006047)

[14] Refer to concept plans in **Appendix K** for locations of construction limits of these projects.
[15] South Barrett Reliever Phase I included widening of Greers Chapel Road and realignment of Barrett Lakes Boulevard at the intersection of Greers Chapel Road, was completed in 2007, and is open to traffic.
[16] No NEPA document is required for Phase 2 of South Barrett Reliever. A Section 404 Nationwide Permit was issued on March 20, 2015.
[17] Technical studies are underway for Phase 3 of South Barrett Reliever. It is anticipated that FHWA will issue a Categorical Exclusion for the project in 2016. A Categorical Exclusion is an action which does not individually or cumulatively have an environmental effect.

All of the projects listed above are either currently in construction or are identified in the fiscally-constrained plan for the Atlanta region showing the region's highest transportation priorities (PLAN 2040).

3.2 Proposed Project

3.2.1 PROPOSED PROJECT

The proposed project includes arterial rapid transit (ART) service and associated improvements on US 41/Cobb Parkway, as described below (**Figure 3.2-1**).

The term ART is descriptive of a system that would operate on arterial roads and is now a common term for similar transit systems. The majority of the ART system would operate on dedicated guideway from the Kennesaw area to Cumberland, would have continuing service to the existing Metropolitan Atlanta Regional Transit Authority (MARTA) Arts Center Station, and would begin at the terminus station at Kennesaw State University (KSU) near the intersection of Chastain Road and Frey Road.

The alignment is routed as follows from Kennesaw State Station:

- Continues north on Frey Road in mixed traffic where it crosses I-75 on Skip Spann Connector to Busbee Drive (construction of Skip Spann Connector is underway and scheduled to be complete in 2016)
- Continues south on Busbee Drive to George Busbee Parkway, where it travels past Town Center and Barrett Parkway
- Continues on the proposed South Barrett Reliever (expected completion in 2019), which includes dedicated guideway (one lane in each direction) for ART vehicles and general purpose lanes (one lane in each direction). The alignment then continues on dedicated guideway on Barrett Lakes Boulevard until US 41/Cobb Parkway
- Transitions to center-running dedicated guideway (one lane in each direction) on US 41/Cobb Parkway between Greers Chapel Road and Cumberland Boulevard
- Continues on Cumberland Boulevard in center-running dedicated guideway, one lane in each direction, between US 41/Cobb Parkway and Akers Mill Road

A **dedicated guideway** is a public transportation facility using and occupying a separate right-of-way for the exclusive use of public transportation, including the buildings and structures dedicated for the operation of transit vehicles.

Mixed traffic is traffic that contains both transit and non-transit vehicles in general purpose lanes.

- Transitions to side-running dedicated guideway on either side of Akers Mill Road from Cumberland Boulevard to I-75
- Accesses I-75 southbound and operates in existing high occupancy vehicle (HOV) lanes, exiting at US 41/Northside Drive. No improvements will be implemented on I-75 as part of the proposed project.
- Operates in mixed traffic on US 41/Northside Drive. No improvements will be made to Northside Drive as part of the proposed project.
- Turns east onto 17th Street and uses the existing side-running dedicated guideway, crossing I-75/I-85 and turning onto Spring Street in mixed traffic. No improvements will be made to 17th Street or Spring Street as part of the proposed project.
- Continues south on Spring Street and turns east onto 14th Street, then north onto West Peachtree Street to the existing MARTA Arts Center Station, all in mixed traffic. No improvements will be made to Spring Street, 14th Street, or West Peachtree Street as part of the proposed project.

In total, the length of the proposed project is 25.3 miles from the Kennesaw area to the existing MARTA Arts Center Station. Of this length, 13.2 miles (52.2 percent) is in dedicated guideway and 12.1 miles (47.8 percent) is in mixed traffic. No new bridges or bridge modifications are currently proposed as part of this project. The proposed project anticipates only extensions of existing culverts.

In addition to the 14 stations to be added for ART, it is anticipated that the existing MARTA Arts Center Station would be modified with the addition of four platforms to accommodate parking of ART vehicles.

Specific physical and operational elements of the proposed project are discussed in the following sections.

3.2.2 TYPICAL SECTIONS

The proposed project would accommodate ART through a variety of roadway configurations, including center-running (both with and without barrier separation) dedicated guideway, side-running dedicated guideway, and mixed traffic. The segments are described in Section 3.2.1 and shown in **Figure 3.2-2**. The dedicated guideway for ART vehicles is labeled “bus lane” in **Figures 3.2-3 through 3.2-12**.

For roadway sections where a center-running dedicated guideway is proposed along US 41/Cobb Parkway, the typical section includes a 16-foot raised, landscaped median with curb and gutter; a single 12-foot, buffered dedicated guideway in each direction (pavement material has not been established); one-foot offsets between dedicated guideways and general purpose lanes; and two, 12-foot general purpose asphalt lanes in each direction. The majority of US 41/Cobb Parkway would consist of 12-foot urban shoulders,[18] though areas with rural paved shoulders[19] are also anticipated. Refer to **Figure 3.2-4**. Center-running dedicated guideway is also proposed on Cumberland Boulevard, as shown in **Figure 3.2-6**.

[18] A standard GDOT urban shoulder consists of a 2.5-foot curb and gutter, a two-foot grass strip, and a five-foot sidewalk.

[19] The rural shoulder section recommended by GDOT for a four-lane, 55 mph arterial is a 10-foot shoulder consisting of a 6.5-foot paved shoulder and 3.5-foot grass shoulder.

Side-running dedicated guideway is appropriate for other areas of the corridor, with one general purpose lane in each direction and a 20-foot raised, landscaped median. The outside lanes would be dedicated guideways for ART vehicles in each direction (pavement material has not been established), separated from regular traffic by a one-foot buffer, with a bike lane on the outside. Urban shoulders are proposed in each direction. This roadway configuration is found on existing 17th Street NW (with two general purpose lanes in each direction instead of one) and is proposed on South Barrett Reliever and Barrett Lakes Boulevard/Greers Chapel Road (see **Figure 3.2-8**) and Akers Mill Road (see **Figure 3.2-10**). In the case of 17th Street, no roadway corridor improvements are anticipated. Refer to **Figure 3.2-11**.

Akers Mill Road currently exists as a five-lane urban arterial with a center-running, two-way left turn lane/dedicated left turn lane(s); three westbound general purpose lanes; two eastbound general purpose lanes; and urban shoulders. The outside general purpose lane in each direction is proposed to be converted to a dedicated, side-running guideway.

In areas of narrower right-of-way or where topographic conditions and adjacent property features prohibit widening, ART vehicles must operate in mixed traffic, within the existing roadway configuration. Existing roadway typical sections vary throughout the corridor. **Figure 3.2-12** represents the typical existing section on US 41/Northside Drive which includes a two-way center left-turn lane with two travel lanes in each direction. ART vehicles would share the outside lanes in this configuration. Generally, urban shoulders are located in each direction, although sidewalk/pedestrian accommodations are not always present throughout the existing roadways.

Crossings from center-running to side-running operation will occur at the two signalized, at-grade intersections of US 41/Cobb Parkway at Greers Chapel Road and Cumberland Boulevard at Akers Mill Road. Traffic signals will incorporate ART vehicle priority or pre-emption, which will allow the vehicles to make the turning movement from the dedicated guideway, across general purpose lanes, and into the receiving dedicated guideway ahead of other traffic. There will be no physical barrier separating the dedicated guideway from the general purpose lanes.

In the case of northbound US 41/Cobb Parkway to eastbound Greers Chapel Road, there are two options under consideration for the ART vehicle to make this transition. The first option is for the ART vehicle to continue in a center-running guideway to the intersection of Greers Chapel Road where it would make the turning movement at the signal with transit priority. The second option is for the ART vehicle to exit the center-running guideway south of the intersection and merge through general purpose lanes to make the right turn in mixed traffic to the side-running guideway on Greers Chapel Road. The first option is preferred from an operational and travel time reliability standpoint, and further traffic modeling will be conducted during final design to refine the operations of the transit-only signal phases. Both options are located within the right-of-way. Southbound ART vehicles would make the turn at the signal during a transit-only phase to allow it to enter the center-running guideway.

A similar transition would occur from the center-running guideway to the side-running guideway for southbound ART vehicles at the intersection of Cumberland Boulevard and Akers Mill Road. ART vehicles would make the left turn at the signal under a transit priority phase. There are two options under consideration for northbound ART vehicles to make the right turn at this intersection. The first option is for ART vehicles to make the right turn into the center-running guideway under a transit-only signal phase. The second option would allow the ART vehicles to make the turn utilizing the general purpose right turn lane and merge through mixed traffic before entering the center-running guideway north of the intersection. The first option is preferred, and further traffic modeling will be conducted during final design to refine the transit priority signal phases. Both options are located within the right-of-way.

Figure 3.2-1. Proposed Project

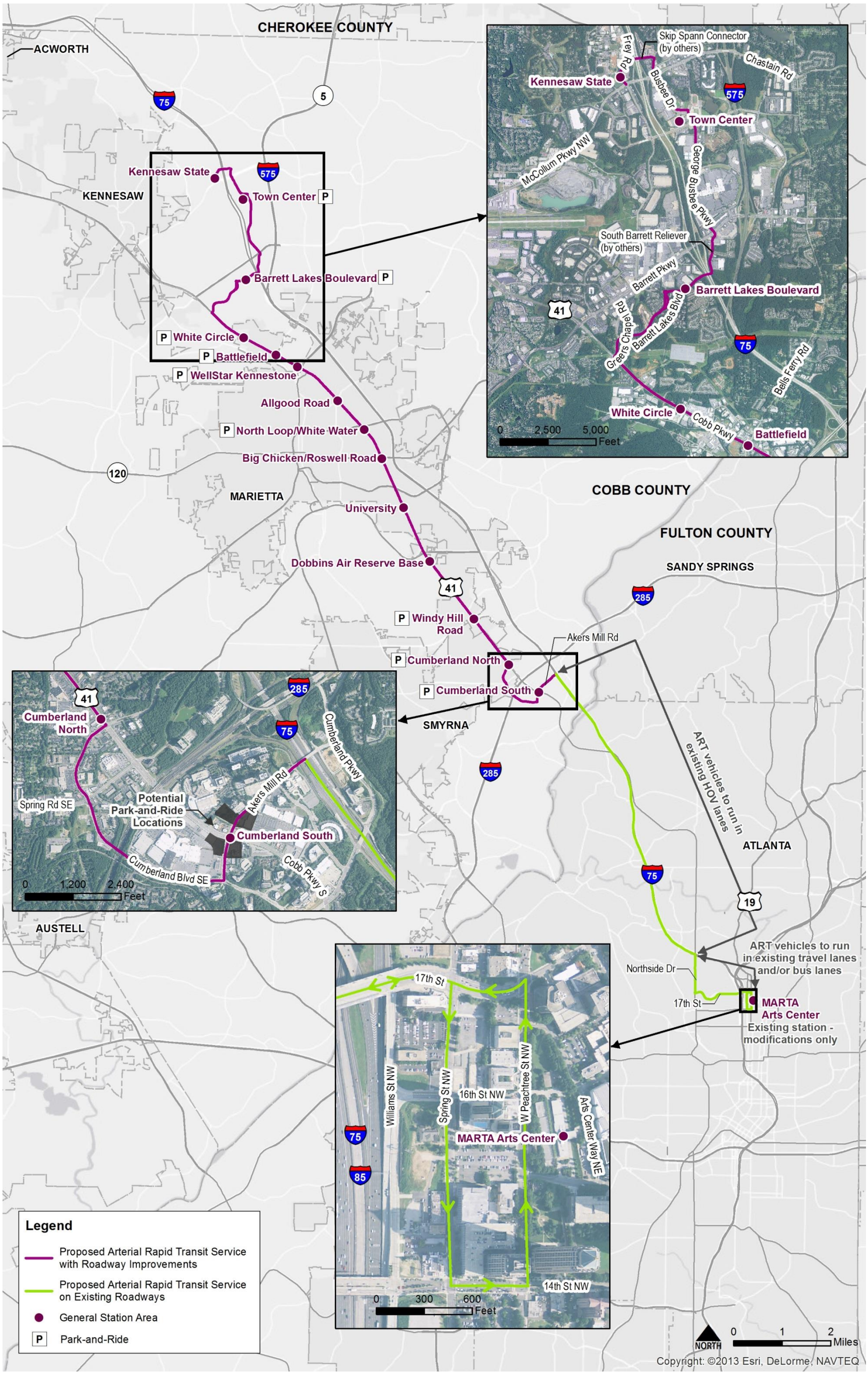


Figure 3.2-2. Proposed ART Configuration

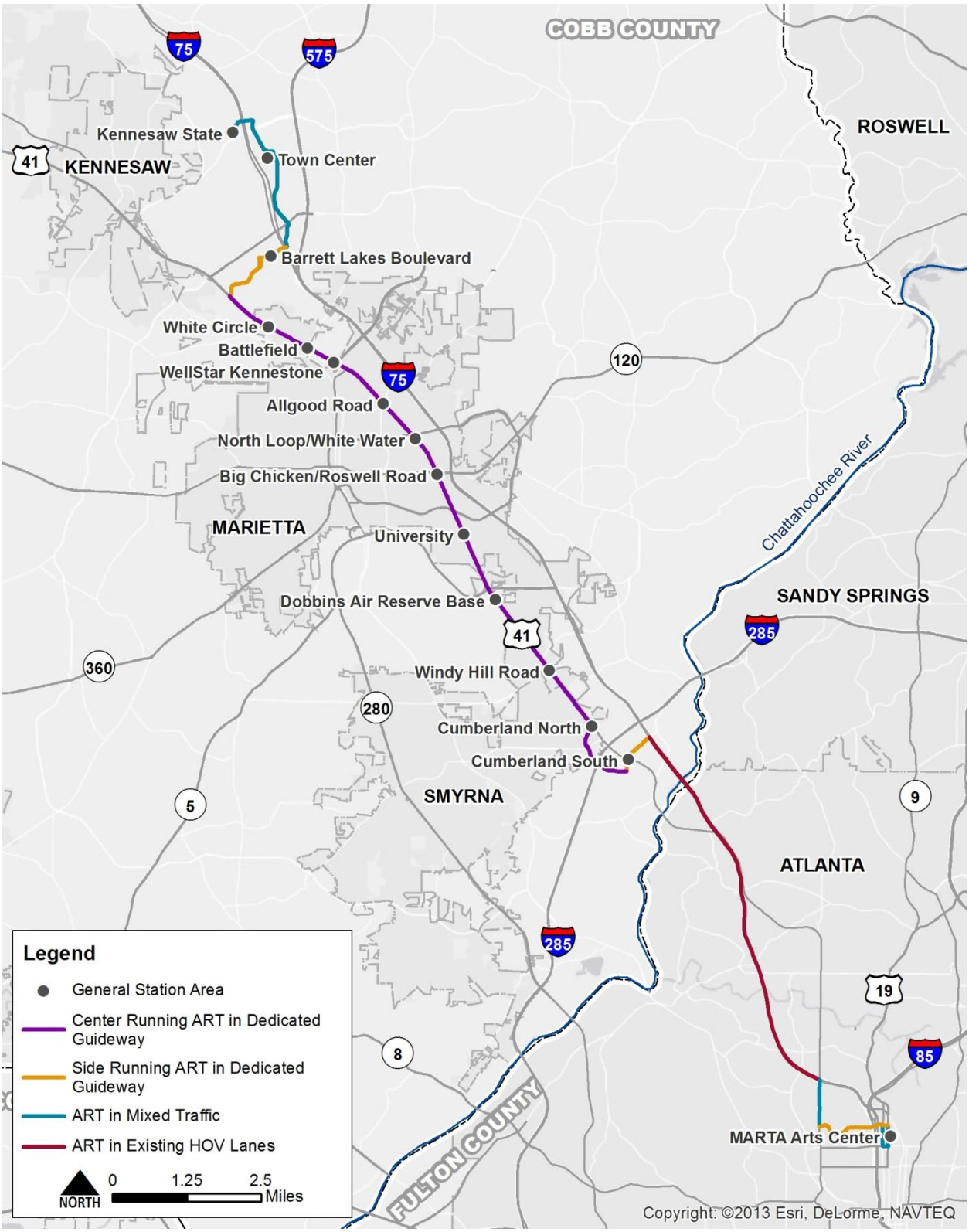
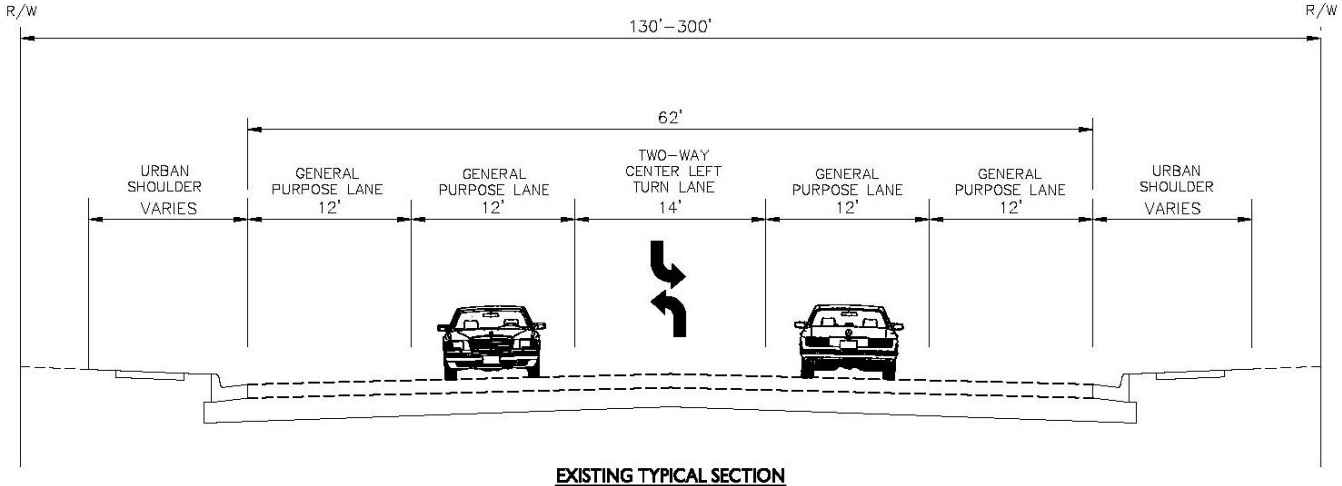
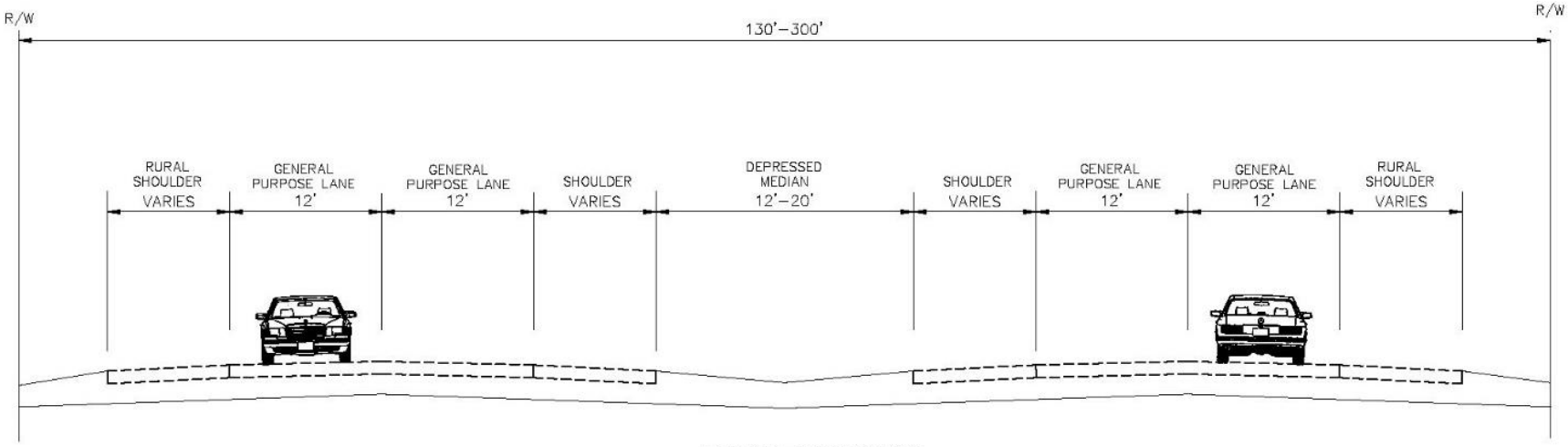


Figure 3.2-3. Existing Typical Sections on US 41/Cobb Parkway



EXISTING TYPICAL SECTION
CENTER LEFT TURN LANE



EXISTING TYPICAL SECTION
SPLIT HIGHWAY WITH DEPRESSED MEDIAN

Figure 3.2-4. Proposed Typical Section on US 41/Cobb Parkway – Center-Running Dedicated Guideway

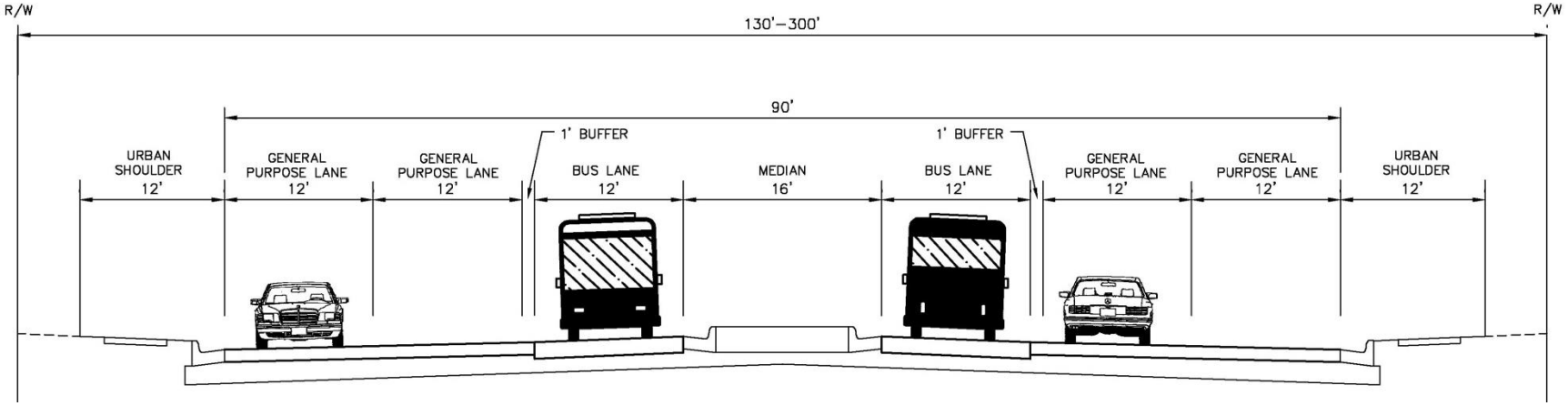


Figure 3.2-5. Existing Typical Section on Cumberland Boulevard

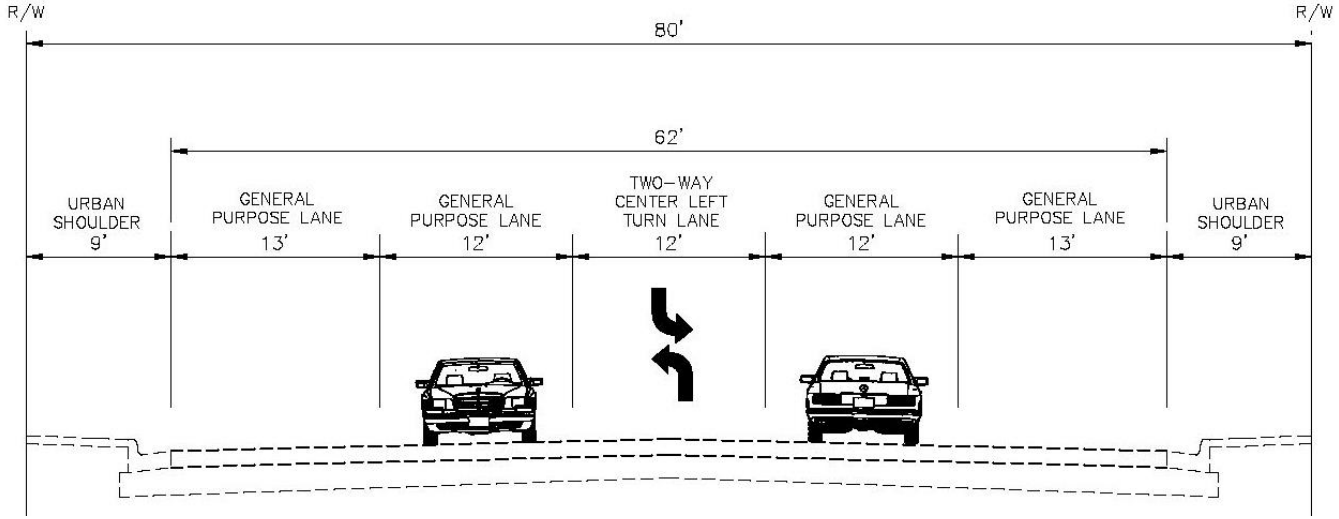


Figure 3.2-6. Proposed Typical Section on Cumberland Boulevard – Center-Running Dedicated Guideway

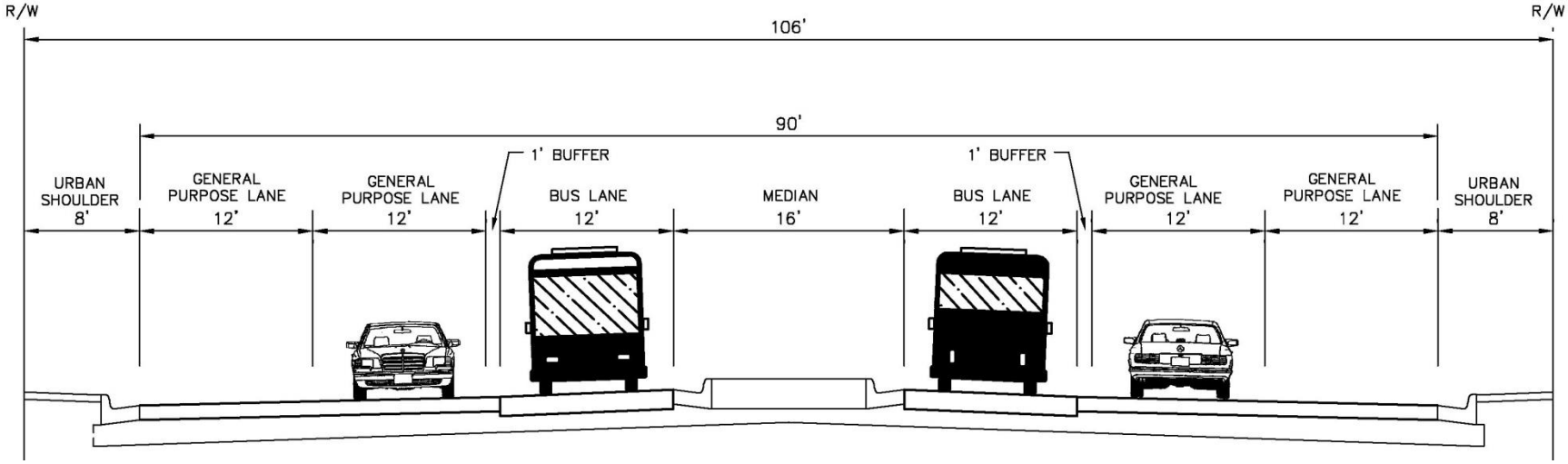


Figure 3.2-7. Existing Typical Section on Barrett Lakes Boulevard/Greers Chapel Road[20]

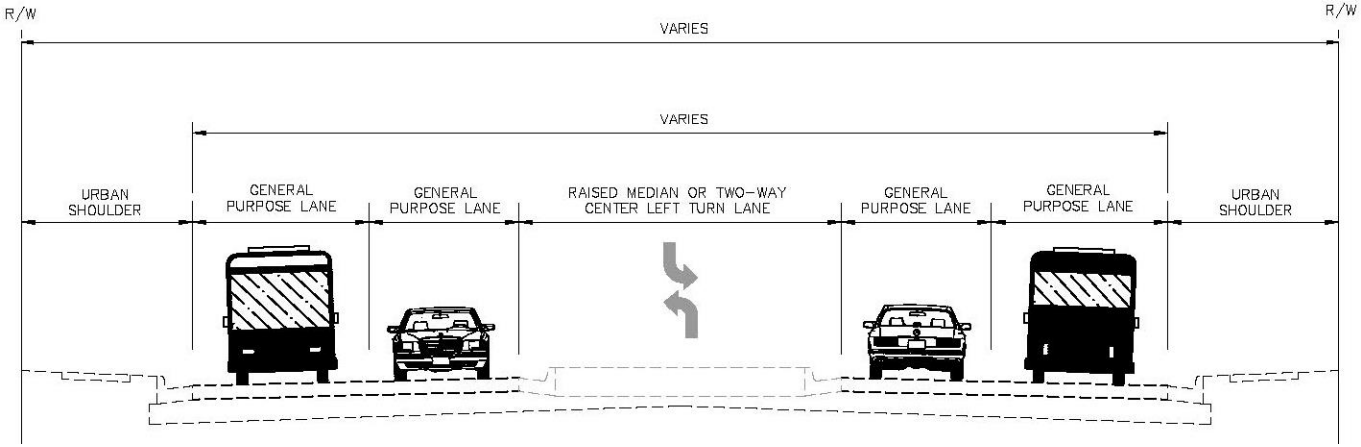
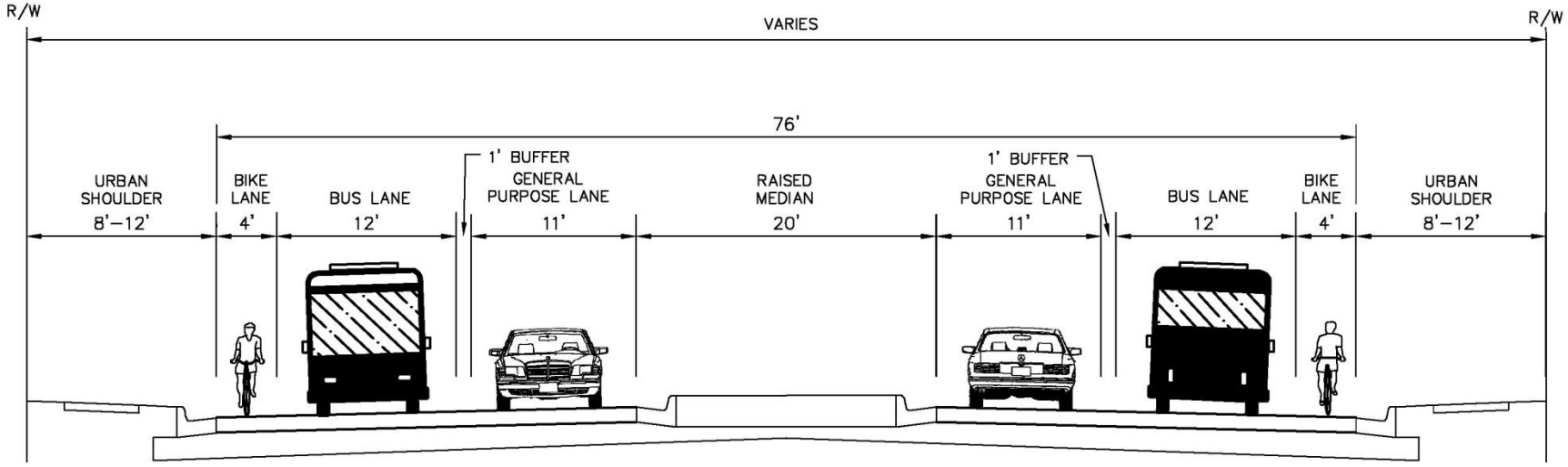


Figure 3.2-8. Proposed Typical Section on South Barrett Reliever & Barrett Lakes Boulevard/Greers Chapel Road – Side-Running Dedicated Guideway



[20] South Barrett Reliever is a new alignment that has not yet been constructed; therefore, there is no existing typical section for that roadway.

Figure 3.2-9. Existing Typical Section on Akers Mill Road

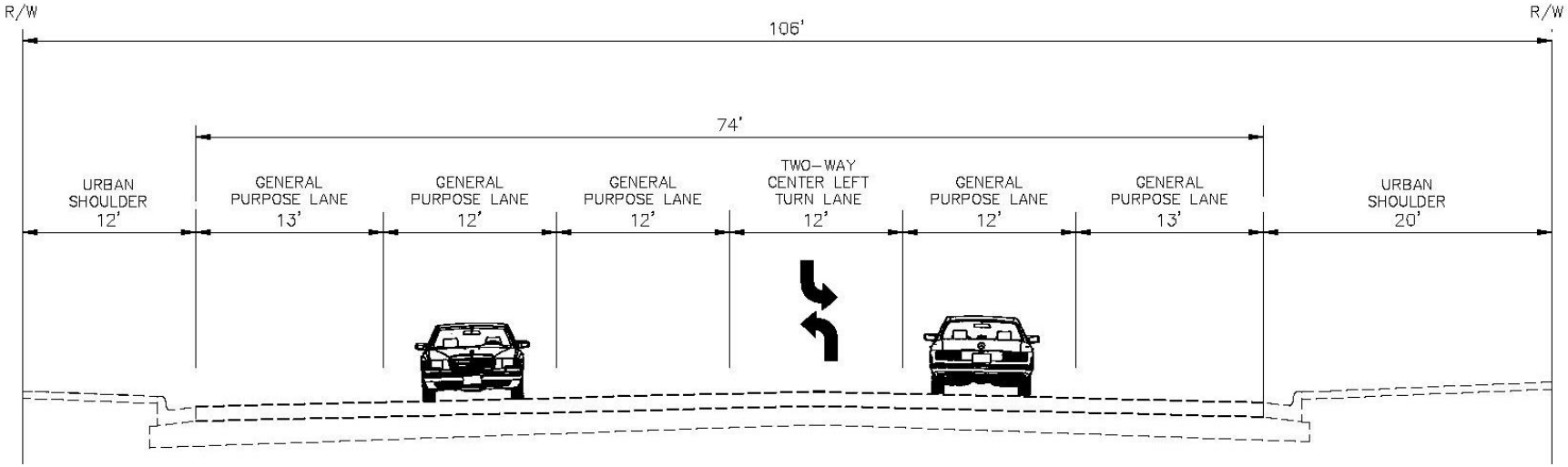


Figure 3.2-10. Proposed Typical Section on Akers Mill Road – Side-Running Dedicated Guideway

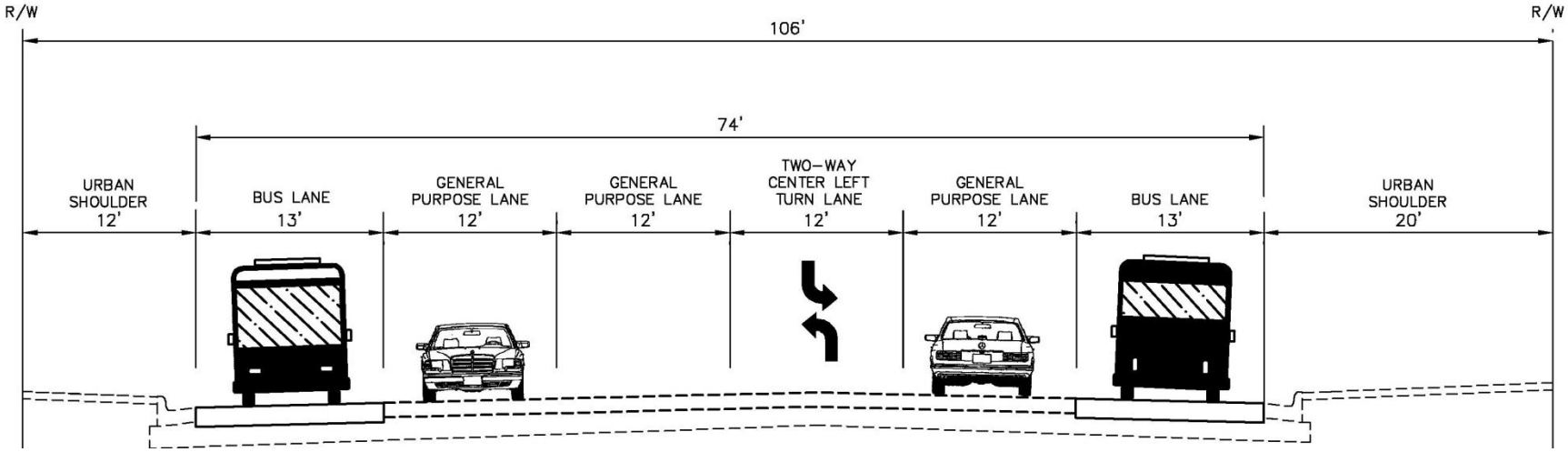


Figure 3.2-11. Existing Typical Section on 17th Street – Side-Running Dedicated Guideway

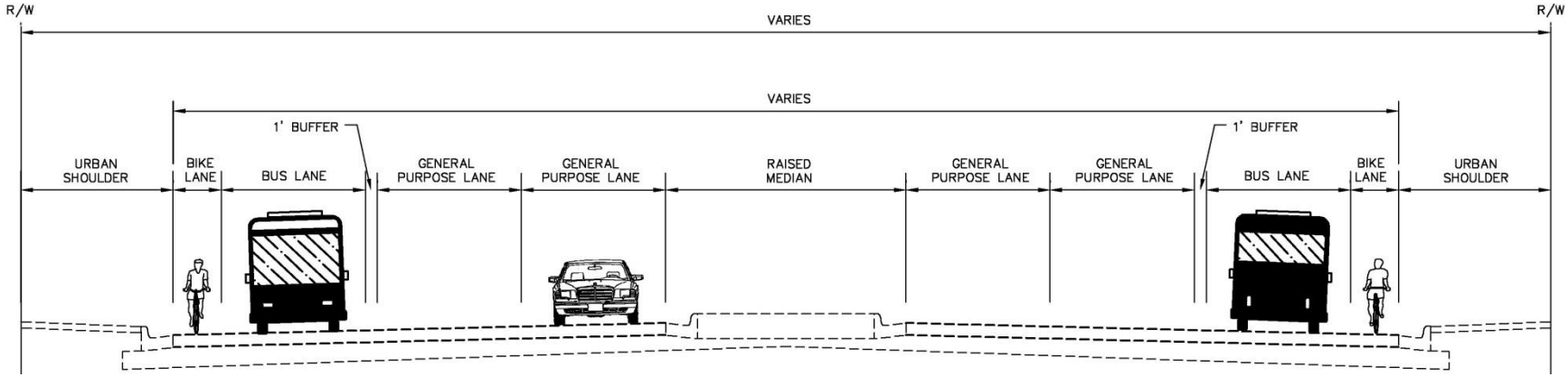
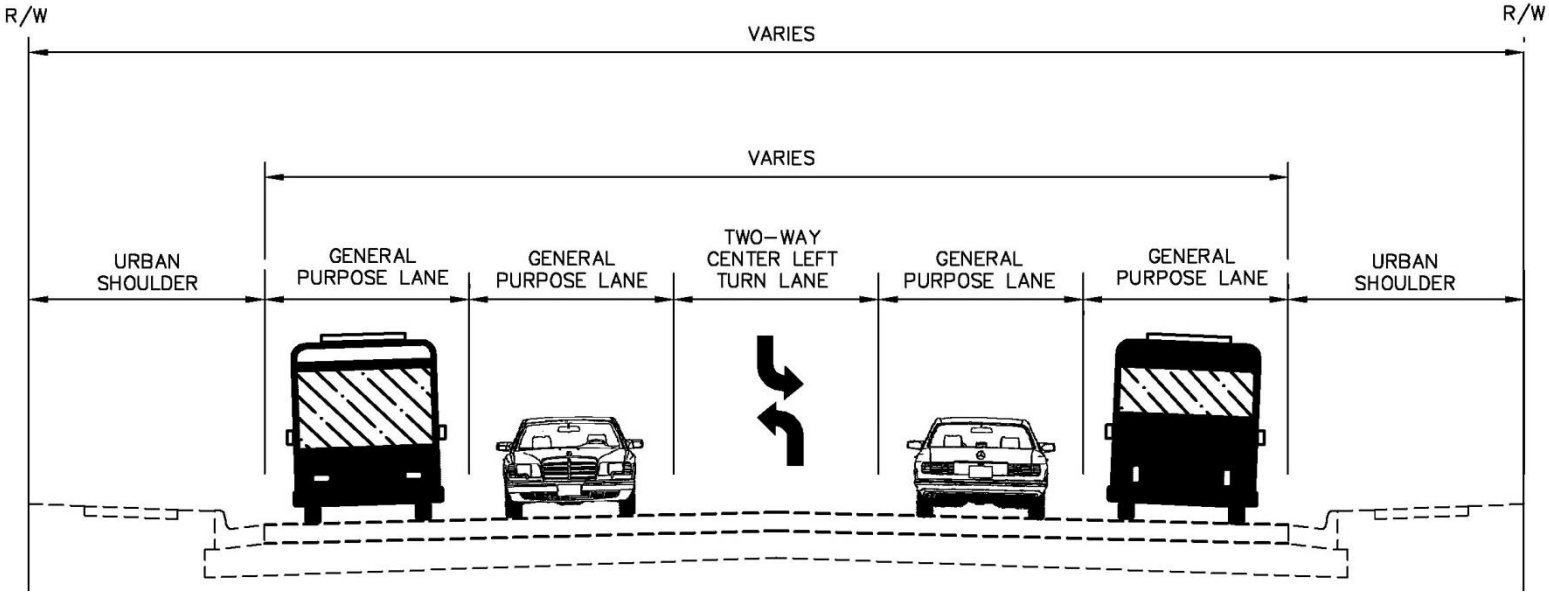


Figure 3.2-12. Existing Typical Section on US 41/Northside Drive – Mixed Traffic



3.2.3 PROPOSED STATIONS

A station is a designated location where passengers board or alight (off-board) from an ART vehicle. Primary elements of stations include the platform(s), shelter, wheelchair ramps, fare collection, and station amenities such as lighting, benches, security systems, and information displays to inform passengers of the arrival time for the next vehicle. These components are essential for traveler safety and security, as well as amenities for passenger comfort and convenience.

Station design also reflects compliance with Americans with Disabilities Act (ADA) requirements. ADA compliant pedestrian ramps would be constructed at proposed station locations if they do not currently exist. Pedestrian connections from park-and-ride locations to station platforms would also be provided. Any pedestrian facilities disrupted by construction of the proposed project would be replaced.

Station locations are summarized in **Table 3.2-1** below and illustrated in **Figure 3.2-1**. Stations are categorized by type, including neighborhood, village, commuter, and transit-oriented development (TOD).

Four types of stations were identified based on whether the station would focus on pedestrian versus automobile access and whether the station would have a local versus regional focus.

- **Neighborhood stations** would have a local focus and would serve low-density areas, providing a location for residents to enter the transit system. These stations would provide small-scale parking.
- **Village stations** would have a local focus but would also serve nearby residential and commercial areas, including mixed-use developments. These stations would focus on pedestrian access with small, walkable activity nodes.
- **Regional commuter stations** would have a regional focus and serve a broad group of daily commuters who would be dropped off at the station or use park-and-ride facilities. These large stations would focus on automobile access and provide substantial parking.
- **Transit-oriented development stations** would have a regional focus designed to serve high-density destinations. Pedestrian access is essential to these stations, and a mix of land uses would be expected in the station vicinity.

Since the December 2012 identification of the Locally Preferred Alternative (LPA), the following minor modifications have been made to station names, locations, and types.

- Canton Road Station was renamed the WellStar Kennestone Station because of its proximity to the local hospital
- As a result of coordination with stakeholders including the City of Marietta, the location of the University Station (known as the Life University Station in the Alternatives Analysis (AA)) has moved for compatibility with the Marietta University Enhancement District Livable Community Initiative (LCI) study and is now a village type station
- Dobbins Air Reserve Base Station has also changed to a village type station in response to a City of Marietta request

Two alternative improvements related to access to and boarding and alighting at the existing MARTA Arts Center Station are under consideration. Cobb County Department of

Transportation (CCDOT), MARTA, the City of Atlanta, and the Midtown Alliance have engaged in development of these alternatives (see correspondence in **Appendix A**). Circulation of the ART vehicles is shown on **Figure 3.2-13** for each. The areas of proposed improvements are shown on **Figure 3.2-14**. This includes adding four platforms to accommodate the parking of ART vehicles for the internal circulation alternative and restriping Arts Center Way for vehicle pull-offs and adding platforms/shelters for the external/Arts Center Way alternative. There are also two existing 62-foot bus parking spaces at the MARTA Arts Center Station that could accommodate the proposed ART vehicles.

Table 3.2-1. Proposed Project Station Summary[1]

Station Name	Station Type	Park-and-Ride	Lot Type	Existing/ Proposed Additional Spaces	Total Number of Spaces	Right-of-Way Required (acres)
Kennesaw State	Village	No	N/A	N/A	N/A	N/A
Town Center (Existing)	Commuter	Yes	Existing Surface	646/154	800	N/A[2]
Barrett Lakes Boulevard	Village	Yes	Surface	0/50	50	N/A[2]
White Circle	Village	Yes	Surface	0/50	50	3.4
Battlefield	Village	Yes	Surface	0/200	200	3.9
WellStar Kennestone	Commuter	Yes	Structured	0/300	300	7.9
Allgood Road	Neighborhood	No	N/A	N/A	N/A	N/A
North Loop/ White Water	Commuter	Yes	Structured	0/300	300	N/A[2]
Big Chicken/ Roswell Road	Village	No	N/A	N/A	N/A	N/A
University	Village	No	N/A	N/A	N/A	N/A
Dobbins Air Reserve Base	Village	No	N/A	N/A	N/A	N/A
Windy Hill Road	Village	Yes	Existing Commercial	0/175	175	2.8
Cumberland North	Village	Yes	Structured	0/300	300	2.1
Cumberland South	TOD	Yes	Structured	0/1,000	1,000	3.2
Arts Center (Existing)	TOD	No	N/A	N/A	N/A	N/A

[1] See Section 4.19 for discussion of proposed future stations at Northside Parkway/Paces Ferry; Howell Mill Road; BeltLine; Millennium Gate; and Atlantic Station.

[2] Additional spaces will be placed in existing publicly owned property; no right-of-way acquisition is required.

Figure 3.2-13. MARTA Arts Center Station Routing

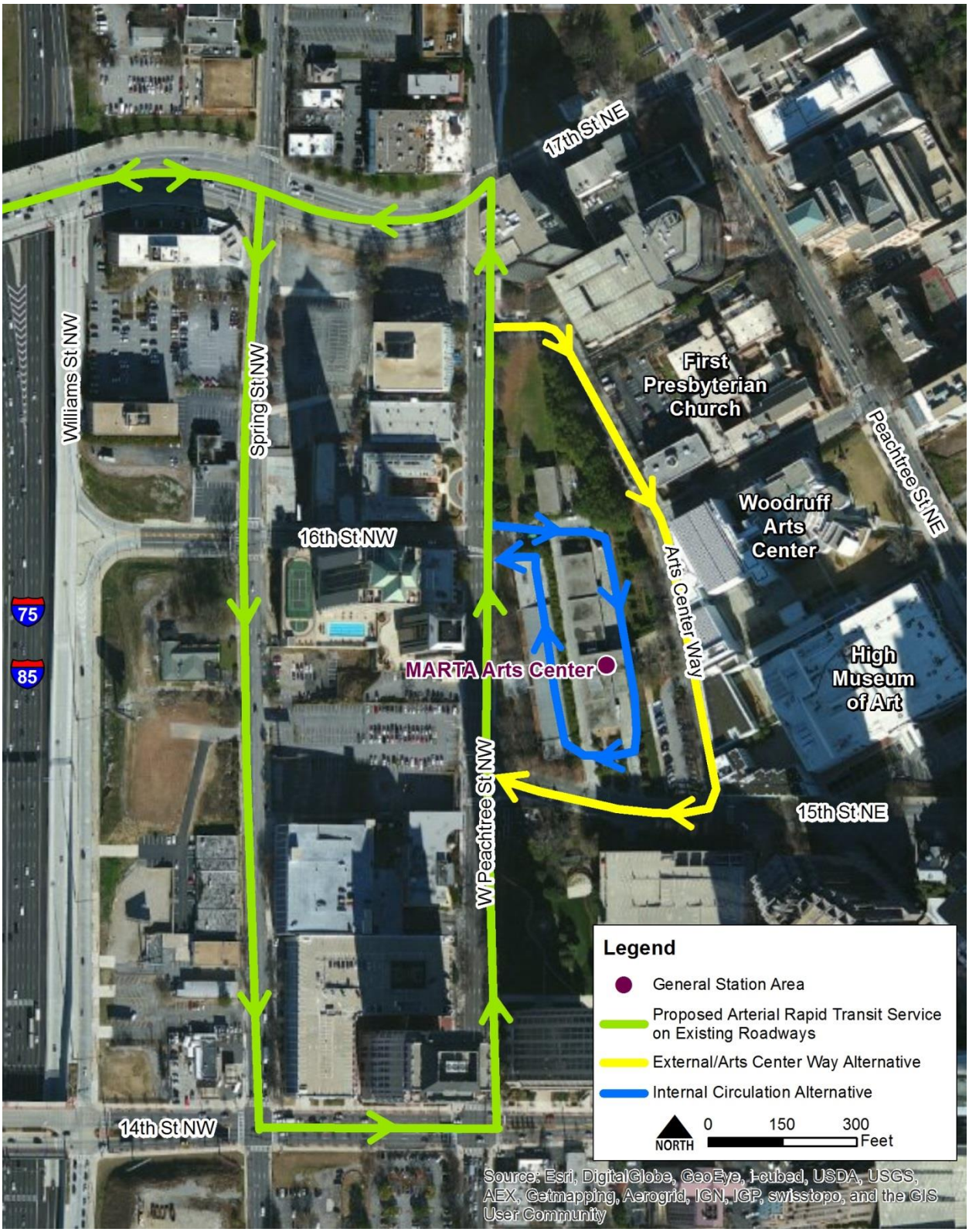
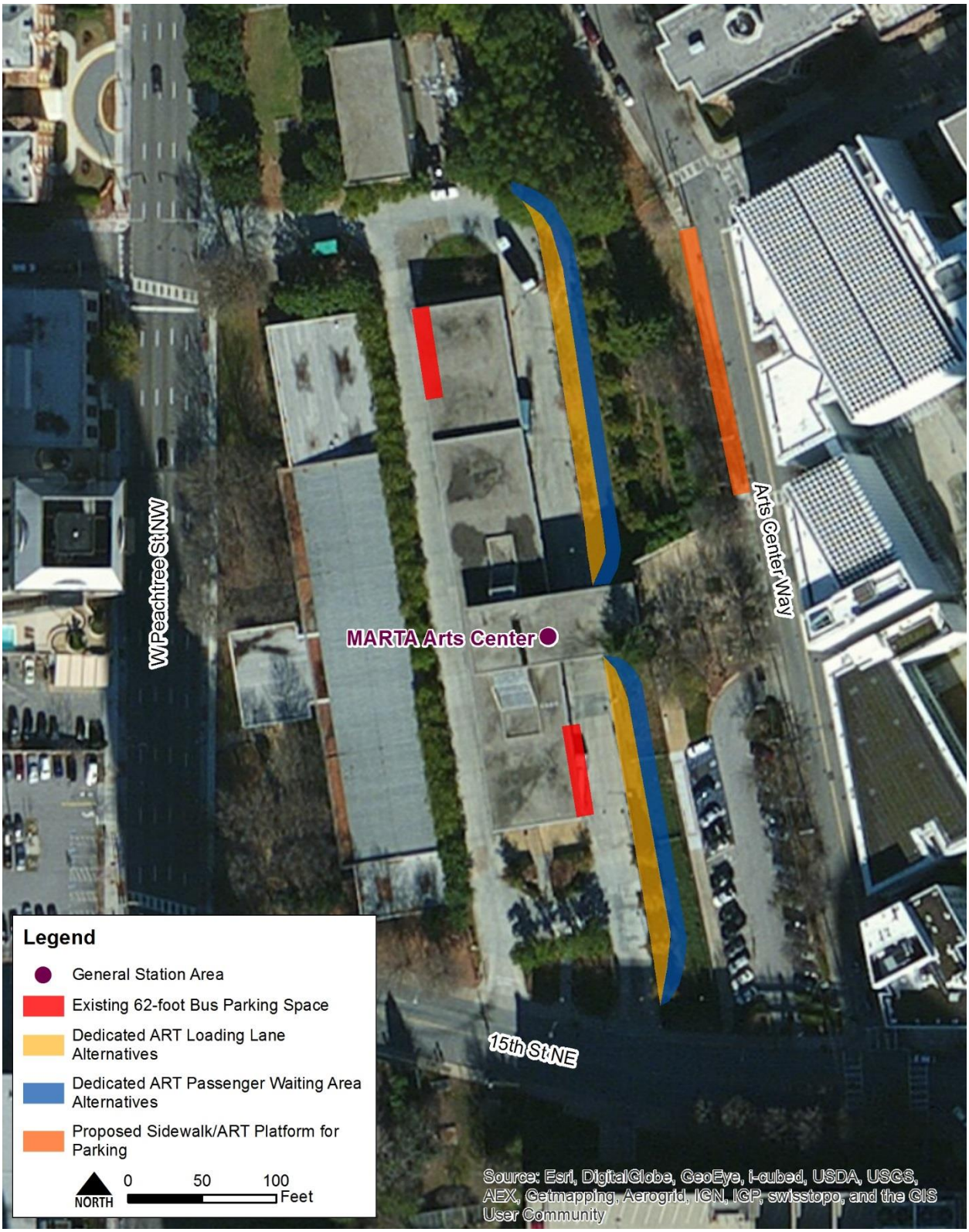


Figure 3.2-14. MARTA Arts Center Station Configuration



3.2.4 VEHICLE MAINTENANCE FACILITY (VMF)

A vehicle maintenance facility (VMF) accommodates storage, service, and maintenance of ART vehicles. The facility would be equipped to perform daily cleaning and repair activities on the vehicles as they enter and leave revenue service. To ensure operational safety and reliability, scheduled service and maintenance inspections would be performed in this facility.

The proposed VMF site is located approximately 0.75 miles to the west of US 41/Cobb Parkway on South Marietta Parkway. This is an existing CCT bus storage and maintenance facility. No new right-of-way would be acquired for the VMF. The proposed VMF site is shown in **Figure 3.2-15**.

3.2.5 VEHICLES AND OPERATING PARAMETERS

Fifteen ART vehicles would be purchased for the proposed project. General ART vehicle characteristics and ART operating parameters are summarized in **Table 3.2-2.** The operating parameters are the same as for existing CCT service.

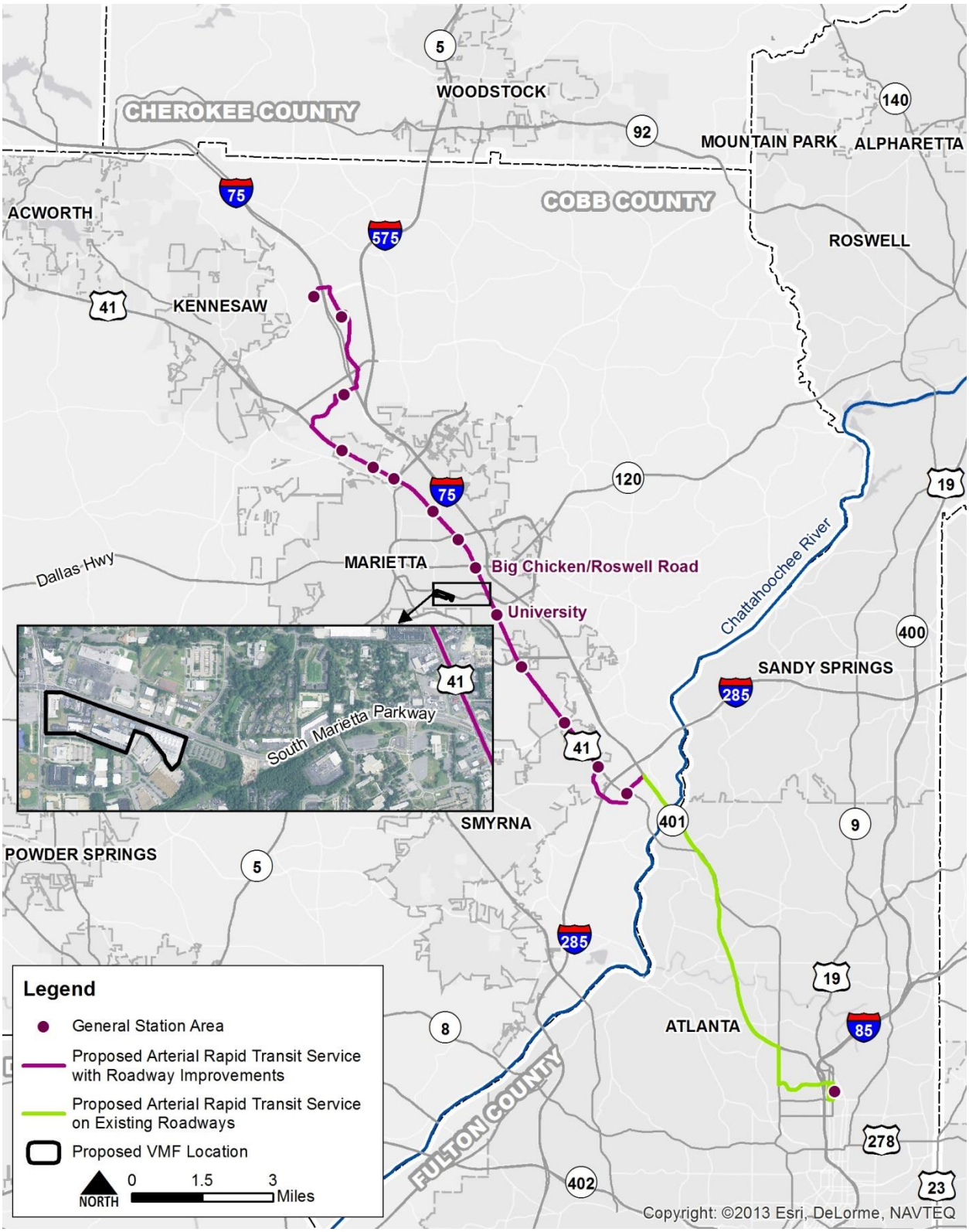
Table 3.2-2. Approximate ART Vehicle Specifications Under the Proposed Project

Vehicles	
Dimensions	62 feet long x 8.5 feet wide x 11 feet high (articulated)
Fuel Type	Compressed Natural Gas or Diesel-Electric Hybrid
Capacity	110 passengers (60 seated plus 50 standing)
Turning Radius	39 feet
Door Location	Both sides
Fare Collection	None on ART vehicle, at stations only
Operating Parameters	
Alignment Length	25.3 miles
Hours of Operation	Monday-Thursday – 5:00 AM to 1:00 AM Friday-Saturday – 5:00 AM to 3:00 AM Sunday – 6:00 AM to 10:00 PM Holiday – 6:30 AM to 9:30 PM
Peak Headway[1]	8 minutes
Minimum Weekday Layover[2]	10 minutes
Minimum Weekend Layover[2]	10 minutes

[1] Time between vehicles in the peak (busiest) period. A shorter headway indicates more frequent service.

[2] Break the driver or the vehicle is given at the end of a trip before it starts operating its reverse route, or if the route is circular, before beginning its next trip.

Figure 3.2-15. Proposed VMF Location



3.2.6 ADDITIONAL CONSIDERATIONS

The Georgia Department of Transportation's (GDOT) complete streets design guidelines (from Chapter 9 of the Design Policy Manual)[21] will be incorporated into the proposed project. Specifically, the following text from Section 9.4.3 of the Design Policy Manual would apply:

Transit Warrants[22]

Standards: Transit accommodations shall be considered in all planning studies and be included in all reconstruction, new construction, and capacity-adding projects that are located in areas with any of the following conditions:

- For transit vehicles: on corridors served by fixed-route transit
- For pedestrian transit users: within the ½-mile pedestrian catchment area of an existing fixed-route transit facility (i.e., stop/station or park-and-ride lot). A catchment area is defined by a radial distance from a transit facility per Federal Transit Administration (FTA) guidelines - this includes crossing and intersecting streets.

Guidelines: Transit accommodations should be considered on projects that are located in areas with any of the following conditions:

- For bicycle transit users: within the three-mile bicycle catchment area of an existing fixed-route transit facility
- Along a corridor programmed (and funded) to begin construction of high-capacity transit before the roadway project design year
- For all transit users: between transit stops/stations and local destinations

Where the standards above are met, the need for accommodations should be validated through coordination with the transit service provider (and metropolitan planning organization (MPO), regional planning commission, and/or local government, where applicable). This coordination is necessary for existing as well as planned transit facilities. It should be recognized that although classified as fixed- route transit, local and express bus routes are periodically changed in order to improve services to riders. Coordination with CCT and MARTA has occurred throughout the planning process for the Connect Cobb Corridor project.

3.3 Other Alternatives Considered But Eliminated

3.3.1 ALIGNMENT ALTERNATIVE

During the AA study, an alignment alternative in the northwest section of the Connect Cobb Corridor was identified and advanced for more detailed review.

The alignment alternative under consideration was routed as follows from Kennesaw State Station near the intersection of Frey Road and Skip Spann Connector:

- Continue in mixed traffic west on Chastain Road/McCollum Parkway to US 41/Cobb Parkway
- Turn south on US 41/Cobb Parkway in center-running dedicated guideway (one lane in each direction)

[21] http://www.dot.ga.gov/PartnerSmart/DesignManuals/DesignPolicy/GDOT-DPM.pdf

[22] Warrants are circumstances under which action is required (for standard warrants) or suggested (for guideline warrants).

- Connect to the proposed project at the intersection of Cobb Parkway/US 41 and Greers Chapel Road

Upon further review, this alignment alternative was eliminated from further consideration based on the number of residential relocations and increased costs. The alignment alternative is longer and would require more stations as compared to the proposed project, incurring greater construction, operation, and maintenance costs. It would also result in more right-of-way impacts (including residential properties). **Table 3.3-1** summarizes the differences with and without this alignment alternative. While ridership is greater with the alignment alternative, that benefit was determined to not outweigh the associated impacts, and the alignment alternative was ultimately eliminated from further consideration.

Table 3.3-1 Comparison of Alternatives

Feature	Proposed Project	Alignment Alternative	Difference
Project Length	25.3 miles	25.8 miles	+0.5 mile
Number of Stations	13	17	+4
Proposed Additional Parking Spaces	2,529	3,629	+1,100
Estimated Ridership	17,714	18,621	+907
Right-of-Way (total parcels)	69 (30 acres)	81 (41 acres)	+12 parcels
Residential parcels	*0*	*7*	*+7 parcels*
Non-residential parcels	*69*	*74*	*+5 parcels*
Estimated Capital Costs	$491 million	$529 million	+$38 million

3.3.2 VMF LOCATION OPTION

Two sites were initially considered as potential VMF locations: the selected site described in Section 3.2.4 and a site located approximately 0.33 miles to the east of US 41/Cobb Parkway on Canton Road Connector NE. This site was eliminated because it would require facility changes to service just the Connect Cobb Corridor project and would potentially impact a nearby historic residential district. The selected site allows the Connect Cobb Corridor project to share maintenance facilities with other transit lines, maximizing efficiencies.

4.0 Environmental Analysis

The environmental analysis section summarizes the following for each resource area:

- Regulatory Context/Methodology – the policies and regulations that govern the particular resource and how the analysis was conducted
- Affected Environment – the existing conditions which provide the base for the analysis
- Potential Impacts – the effects of the project on the resource
- Potential Mitigation Measures – the ways in which the impacts may be minimized or avoided

All technical reports prepared as part of the Environmental Assessment (EA) are included in the appendices. Permits and approvals required for the project are identified in Section 5.1.2.

4.1 Transportation Impacts

This section describes the existing conditions of and potential impacts to multiple transportation modes in the Connect Cobb Corridor – vehicular traffic, airports, railroads, transit, and bicycles and pedestrians. Mitigation is also discussed.

4.1.1 TRAFFIC

4.1.1.1 Regulatory Context/Methodology

The approach to the traffic operations analysis is derived from the established methodologies documented in the Highway Capacity Manual (HCM). The HCM contains a series of analysis techniques for evaluating the operations of transportation facilities under various operating conditions, such as geometric configuration, intersection control, type of roadway facility, and other factors such as bus stops, parking maneuvers, and percentage of heavy vehicle traffic.

The level of service (LOS) thresholds, as defined by the HCM, are shown in **Table 4.1-1**. LOS is used to measure the average delay that a vehicle experiences at a particular intersection. The standard used for mitigation of traffic operation impacts is to mitigate to LOS D, or to the No Build LOS if the intersection operates at lower than a LOS D in the existing condition.

Table 4.1-1. Intersection Level of Service Definitions

Level of Service (LOS)	Average Delay (seconds per vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	< 10	< 10
B	10-20	10-15
C	20-35	15-25
D	35-55	25-35
E	55-80	35-55
F	> 80	> 55

Source: Highway Capacity Manual 2010, Transportation Research Board.

The Alternatives Analysis (AA), finalized in December 2012, included grade separation of the arterial rapid transit (ART) alignment at the following 10 locations (listed from north to south):

- US 41/Cobb Parkway at McCollum Parkway/Cobb International Boulevard
- US 41/Cobb Parkway at Barrett Parkway
- US 41/Cobb Parkway at North Marietta Parkway

- US 41/Cobb Parkway at Roswell Road
- US 41/Cobb Parkway at South Marietta Parkway
- US 41/Cobb Parkway at Windy Hill Road
- US 41/Cobb Parkway at Cumberland Boulevard/Windy Ridge Parkway
- Cumberland Boulevard at Spring Road
- Cumberland Boulevard at Cumberland Parkway/Mall Driveway
- US 41/Northside Drive at 17th Street

The proposed grade separations identified in the AA were based on a screening level of assessment of existing traffic operations and forecasted traffic volumes. For the Environmental Assessment (EA), a more detailed evaluation was completed to verify whether the intersections should continue to be proposed as grade separations, or whether at-grade intersections would be operationally feasible, based on potential benefit as well as potential cost.

A number of other assumptions were also made in the analysis as documented below and described in more detail in the Connect Cobb Corridor At-Grade Bus Rapid Transit (BRT) Analysis (Kimley-Horn and Associates, Inc., 2013) (referenced below as the technical memorandum; see **Appendix C**).[23]

Intersections Analysis

Five representative intersections were selected for the analysis:

- US 41/Cobb Parkway at Roswell Road
- US 41/Cobb Parkway at South Marietta Parkway
- US 41/Cobb Parkway at Windy Hill Road
- US 41/Cobb Parkway at Cumberland Boulevard
- Cumberland Boulevard at Spring Road

Six scenarios were analyzed for each intersection, assuming different levels of growth for the No Build and year 2040 conditions: 2012 No Build, 2012 Build, 2040 No Build Medium Growth, 2040 No Build High Growth, 2040 Build Medium Growth, and 2040 Build High Growth. Only PM peak hour was modeled, based on availability of existing (2012) turning movement count data.

Traffic Signal Operations

The analysis assumed a number of traffic signal operations as documented in the technical memorandum, including provisions for protected left turns to avoid vehicle conflicts and facilitate efficient transit operations. The specific operational assumptions are documented in the technical memorandum.

Transit Operations

The transit assumptions were based on the information disclosed in the AA, which include maximum ART speeds of 35 miles per hour (mph), and transit headways of eight minutes in each direction.

Geometrics

At several locations, the initial future year analysis resulted in poor operations with ART operating at-grade. Therefore, additional improvements, such as turn lanes, were identified at

[23] After the completion of the technical memorandums, it was decided that the term arterial rapid transit would be used in lieu of bus rapid transit.

these intersections, and further evaluation was conducted to determine if capacity improvements could be implemented to avoid the need for grade separation. These improvements were modeled only for the Build scenario and are as follows:

- US 41/Cobb Parkway at Roswell Road
  - Construct second northbound left-turn lane along US 41/Cobb Parkway
  - Construct second receiving lane along the Roswell Road westbound leg departing intersection for approximately 500 feet
  - Construct exclusive westbound right-turn lane and reconfigure Roswell Road approach as: right-turn lane, through lane, dual left-turn lanes
- US 41/Cobb Parkway at Cumberland Boulevard/Windy Ridge Parkway
  - Construct second northbound left-turn lane along US 41/Cobb Parkway
  - Construct second westbound left-turn lane along Windy Ridge Parkway
- Cumberland Boulevard at Spring Road
  - Increase northbound left-turn lane storage along Cumberland Boulevard to 500 feet
  - Increase southbound left-turn lane storage along Cumberland Boulevard to 250 feet
  - Construct second eastbound left-turn lane along Spring Road

4.1.1.2 Affected Environment

The AA documents an expected vehicular traffic growth rate of 1.6 percent per year to 2040 (equivalent to 56 percent growth over the forecast horizon, or “High Growth” scenario) based on the Atlanta Regional Commission (ARC) PLAN 2040 Travel Demand Model. The existing evening (PM) peak hour traffic volumes on US 41/Cobb Parkway and intersecting roadways are shown in **Table 4.1-2**, along with the estimated hourly roadway capacities, and forecast PM peak hour volumes based on the 1.6 percent growth rate.

Since the roadways in the study area would not have the capacity to deliver these forecast volumes to the intersections, an alternative approach to the future traffic volumes was considered. Other studies in the project area and recent trends in traffic volumes would suggest that a 1.0 percent per year growth rate (equivalent to 32 percent growth over the forecast horizon, or “Medium Growth” scenario) may be more realistic. The resulting 2040 forecast volumes using this growth rate are also shown in the last column of **Table 4.1-2**. Volumes that are approaching capacity are shaded orange, and volumes that are over the roadway capacity are shaded red.

Table 4.1-2. Existing and Forecast PM Peak Hour Traffic Volumes[1]

Roadway Segment	Existing (2012) PM Peak Hour Volume[2]	Planned Future Roadway Geometry	Estimated Future Peak Hour Capacity[3]	Forecast 2040 PM Peak Hour Volume	
				High Growth Scenario[2]	Medium Growth Scenario
US 41/Cobb Pkwy					
McCollum Pkwy/Cobb International Blvd to N Marietta Pkwy	2,440	4-lane divided	3,220	3,810	3,220
N Marietta Pkwy to S Marietta Pkwy	2,270	4-lane divided	3,220	3,540	3,000
S Marietta Pkwy to Windy Hill Rd	2,780	6-lane divided	4,880	4,340	3,670
Windy Hill Rd to Windy Ridge Pkwy	2,900	6-lane divided	4,880	4,520	3,830
McCollum Pkwy	1,270	4-lane divided	2,900	1,980	1,680
Cobb International Blvd	300	4-lane divided	2,750	470	400
Barrett Pkwy	2,140	5-lane divided	3,650	3,340	2,820
N Marietta Pkwy	1,470	4-lane divided	3,060	2,290	1,940
Roswell Rd					
East of US 41/Cobb Pkwy	1,390	5-lane divided	3,460	2,170	1,830
West of US 41/Cobb Pkwy	980	2-lane divided	1,480	1,530	1,290
S Marietta Pkwy	1,650	6-lane divided	4,880	2,570	2,180
Windy Hill Road	2,400	4-lane divided	2,750	3,740	3,170
Cumberland Blvd/Windy Ridge Pkwy	1,360	4-lane divided	2,900	2,120	1,800
Cumberland Blvd	2,080	4-lane divided	2,900	3,240	2,750
Spring Rd	2,580	5-lane divided	3,460	4,020	3,410
Cumberland Pkwy	670	4-lane divided	2,750	1,050	880
Mall Driveway	2,050	4-lane divided	2,750	1,050	880
US 41/Northside Dr	2,940	4-lane divided	3,220	4,590	3,880
17th St	1,580	4-lane divided	2,900	2,460	2,090

[1] Volumes that are approaching capacity (volume/capacity ratio of 0.88-1.00) are shaded orange, and volumes that are over the roadway capacity are shaded red.

[2] Source: Cobb County Department of Transportation. *Northwest Transit Corridor Alternatives Analysis Study*, December 2012.

[3] Source: Florida DOT Quality/Level of Service Handbook. Capacity Estimates for Urbanized Areas.

The volumes in **Table 4.1-2** indicate that without significant capacity improvements, which are not currently planned or programmed, many of the roadways and intersections in the study area would not be able to accommodate the High Forecast traffic volumes to the intersections being analyzed during the peak hour. Therefore, the analysis of the High Growth scenario may not be representative of what would be expected in the 2040 conditions, since those volumes would not be able to reach the intersections being analyzed. Therefore, in order to evaluate the potential range of operations under varying growth scenarios as well as assess the feasibility of the forecast traffic volumes and need for grade separation of the ART alignment, traffic analysis was conducted for both the High Growth and Medium Growth scenarios.

Access Points

Access points along the portions of US 41/Cobb Parkway and Cumberland Boulevard which are proposed for ART service within a center-running, dedicated guideway include driveways, signalized intersections, and unsignalized intersections. These access points serve a wide variety of businesses. Approximately 75 percent of these access points allow both right and left turns when entering and exiting. The remaining access points allow right-in/right-out access only.

4.1.1.3 Potential Impacts

No Build Alternative

Under this alternative, no improvements would take place except for the programmed improvements included in **Tables 4.19-1 through 4.19-3**. The No Build Alternative will not meet the purpose and need for the project because it would not alleviate congestion or provide diverse transportation choices to serve the needs of the traveling public.

Proposed Project

The results for each of the analysis scenarios are presented in **Table 4.1-3**. The results reflect the average of 10 one-hour runs.[24]

It should be noted that the US 41/Cobb Parkway/Windy Hill Road intersection is planned to be reconstructed (by others) as a grade-separated interchange prior to 2040 and will be designed to accommodate the proposed project. Therefore, capacity improvement measures, such as turn lanes, have not been analyzed for this location.

Localized intersection capacity improvements, such as turn lanes, were not analyzed for the High Growth scenario. Even with these improvements, there would not be sufficient capacity on the approach roadways to allow the forecast traffic volumes to be delivered to the intersection from the upstream roadways and intersections. Additional geometric and operational improvements would need to be explored to maintain the No Build LOS with an at-grade alignment, if the High Growth forecast is to be used as the basis for the design.

Table 4.1-3. PM Peak Hour Operations Results

Intersection	Intersection Level of Service						
	Existing (2012)		2040 High Growth Scenario		2040 Medium Growth Scenario		
	No Build	Build	No Build	Build	No Build	Build	Build Improved
US 41/Cobb Pkwy at Roswell Rd	D	D	F	F	D	F	D*
US 41/Cobb Pkwy at S Marietta Pkwy	D	D	D	E	D	D	D
US 41/Cobb Pkwy at Windy Hill Rd	D	E	F	F	E	F	F

[24] A one-hour run is a 3,600 second run of VISSIM, a traffic analysis computer model, representing the peak hour traffic volumes.

Intersection	Intersection Level of Service						
	Existing (2012)		2040 High Growth Scenario		2040 Medium Growth Scenario		
	No Build	Build	No Build	Build	No Build	Build	Build Improved
Cumberland Blvd at Spring Rd	D	D*	F	F	E	F	E*
US 41/Cobb Pkwy at Windy Ridge Pkwy/ Cumberland Blvd	D	D	F	F	D	F	D*

* With additional capacity improvements as listed in the Geometrics section under Section 4.1.1.1

Intersection Improvements

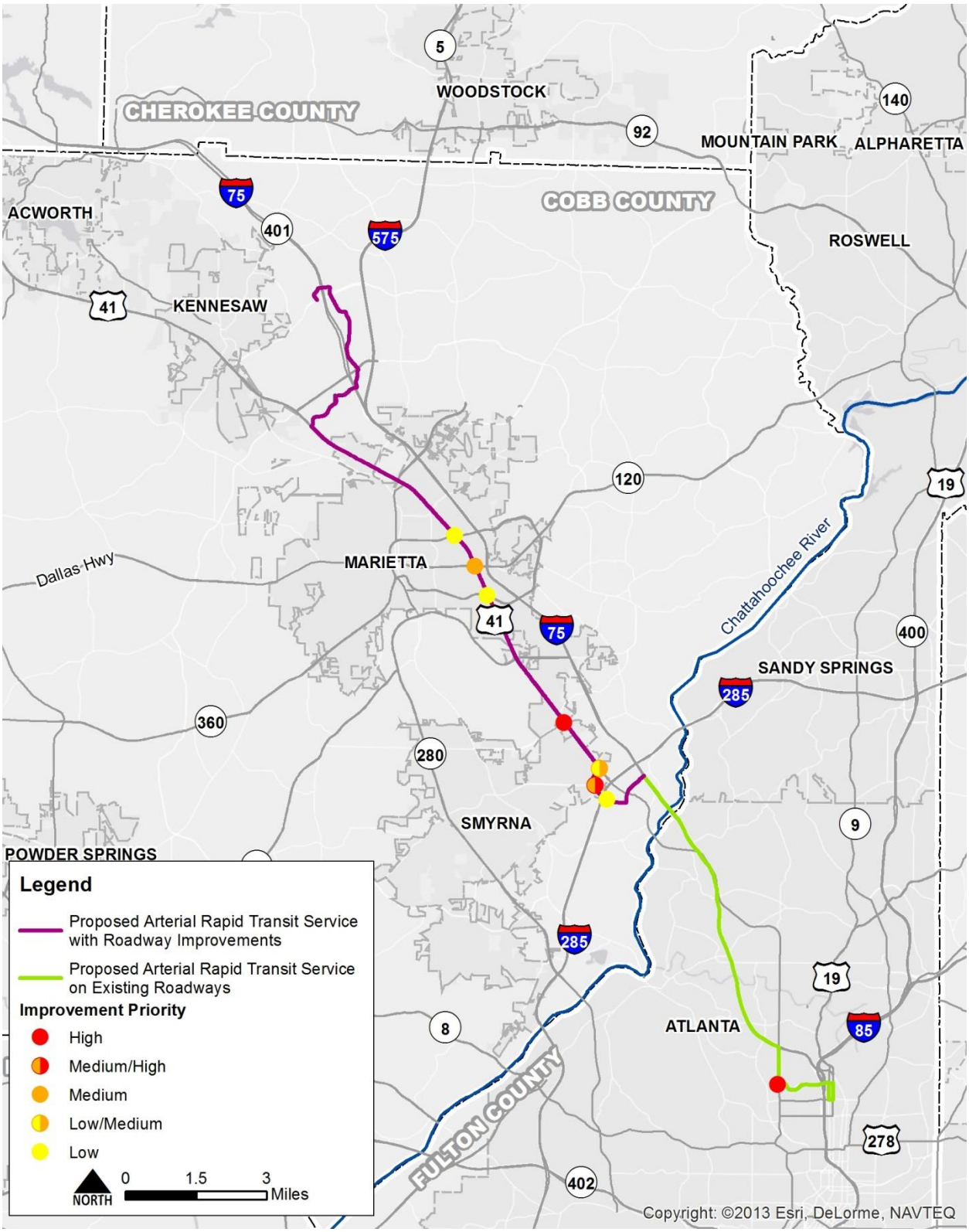
The High Growth scenario (1.6 percent annual growth as forecast in the ARC model) does not produce reasonable forecasts for the peak hour, as significant mainline capacity improvements would be needed to deliver these volumes of traffic to the intersections in question. Therefore, it is recommended that the Medium Growth (1.0 percent annual growth) peak hour volumes be used for evaluating traffic and transit operations along the corridor, unless major highway capacity improvements are planned and programmed independently of this project.

The operations analysis shows that under the Medium Growth scenario, it would be feasible to design an at-grade intersection at a number of the locations currently identified for grade separation, although some of the at-grade intersections may require turn lane and other minor capacity improvements. The potential level of improvements to allow for acceptable at-grade operations have been shown in **Table 4.1-4** and **Figure 4.1-1**. They have been categorized as High, Medium, or Low based on the LOS of the intersections that were modeled, the 2040 forecast intersection entering volumes for the PM peak hour, the volume/capacity ratio of the intersection, and the type of crossing.

Table 4.1-4. Potential Intersection Improvements

Location	Level/Priority for Improvements
US 41/Cobb Pkwy at N Marietta Pkwy	Low
US 41/Cobb Pkwy at Roswell Rd	Medium
US 41/Cobb Pkwy at S Marietta Pkwy	Low
US 41/Cobb Pkwy at Windy Hill Rd	High
US 41/Cobb Pkwy at Cumberland Blvd/Windy Ridge Pkwy	Low/ Medium
Cumberland Blvd at Spring Rd	Medium/ High
Cumberland Blvd at Cumberland Pkwy/Mall Driveway	Low
US 41/Northside Dr at 17th St	High

Figure 4.1-1. Location of Potential Intersection Improvements



The two intersections identified in the High category would be most likely to require major infrastructure improvements within the 2040 planning horizon, which could include grade separation. Additional analysis will be conducted during final design at the US 41/Northside Drive/17th Street intersection to determine the type of improvements necessary to mitigate the intersection to LOS D or the No Build LOS; mitigation will be coordinated with the Georgia Department of Transportation (GDOT). The intersections identified in the Low and Medium categories are expected to require lower levels of improvements, if any, which could include turn lanes, approach lane reconfiguration, or signal phasing changes. With the exception of diagonal crossings of the ART alignment through an intersection, the elimination of transit preemption, or a change from transit priority to no transit advantage, could also be potential future measures used to mitigate the impacts of the at-grade alignment. Additional analysis will be conducted during final design to determine the preferred signal operation and types of turn lane improvements potentially needed at each signalized intersection in the corridor to provide for safe and efficient at-grade operation of the proposed project.

Access Points

Of the total 25.3 miles of the proposed project, 13.2 miles (52.2 percent) would be in dedicated guideway and 12.1 miles (47.8 percent) would be in mixed traffic. All of the proposed center-running dedicated guideway portions would be on US 41/Cobb Parkway and on Cumberland Boulevard. In these proposed center-running dedicated guideway sections, vehicles would not be permitted to cross the dedicated ART guideway except at signalized intersections. Under the proposed project, access at unsignalized intersections and driveways would be restricted to right-in/right-out only due to installation of a median. Existing signalized intersections would be maintained, allowing full access. Many of the large businesses currently have, and would continue to have, access to a signalized intersection. Other medium and smaller businesses that are located mid-block would have their access converted to right-in/right-out only. Land uses that serve everyday travelers along US 41/Cobb Parkway and Cumberland Boulevard attract "pass-by" traffic, meaning they tend to catch the attention of a driver passing by and compel them to turn in to the businesses (i.e., gas station, convenience store). Most businesses that attract pass-by traffic primarily attract motorists from the same side of the road, who can visit the land use with a right-in/right-out maneuver.

With dedicated guideway ART, motorists desiring to turn left onto side streets and driveways would be required to continue to the next signalized downstream intersection and make a U-turn movement or use other parallel streets to reach their destination. U-turns would generally receive a protected (green arrow) signal phase. Restricting left-turns and U-turns to signalized intersections along streets with dedicated guideway ART would result in a slight increase in travel time for motorists entering/exiting side streets and driveways. The closure of median openings and restriction of left-turns along these streets, however, would improve traffic flow and safety by reducing the number of conflicting movements. Medians would also provide refuge for pedestrians and bicyclists and allow space for additional landscaping, lighting, and signage; resulting in a more aesthetically pleasing and safe environment.

4.1.1.4 Mitigation Measures

The intersections of US 41/Cobb Parkway at Barrett Parkway and Windy Hill Road, and US 41/Northside Drive at 17th Street will likely experience severe congestion within the 2040 planning horizon and will require infrastructure improvements to maintain acceptable LOS operations. These improvements could include grade separation. Additional analysis will be conducted in coordination with Cobb County and GDOT to identify specific types of improvements necessary to mitigate these intersection impacts.

In some cases, intersections will be modified to minimize vehicle delay and facilitate U-turns. Potential mitigation measures may include the addition of turn lanes, installation of signage, the construction of new traffic signals, or the revision of the existing traffic signal timing plans.

Construction Phase Mitigation Measures

For short-term changes to traffic operations during construction, Cobb County will post information on its website and via press release to local news outlets, indicating temporary closures and/or detour details.

4.1.2 AIRPORTS

4.1.2.1 Regulatory Context/Methodology

For military facilities, including Dobbins Air Reserve Base (ARB), 32 Code of Federal Regulations (CFR) 256 (Air Installations Compatible Use Zones) provides similar guidance and policy for active military airfields as the Federal Aviation Administration (FAA) Advisory Circular (AC 150/5300-13A) does for civilian airports. Immediately beyond the ends of the military runways is an area defined as the "Clear Zone," an area which possesses a high potential for accidents and has traditionally been acquired by the government in fee and kept clear of obstructions to flight. Two additional areas are beyond the Clear Zone, an Accident Potential Zone I and II (APZ I and APZ II). The Department of Defense policy is to work with the neighboring communities and regulatory agencies regarding specific land uses for proper compatibility and control. The guidance also states, "In all instances the primary objective will be to identify planning areas, and reasonable land use guidelines will be recommended to appropriate agencies who are in control of the planning functions for the affected areas."

4.1.2.2 Affected Environment

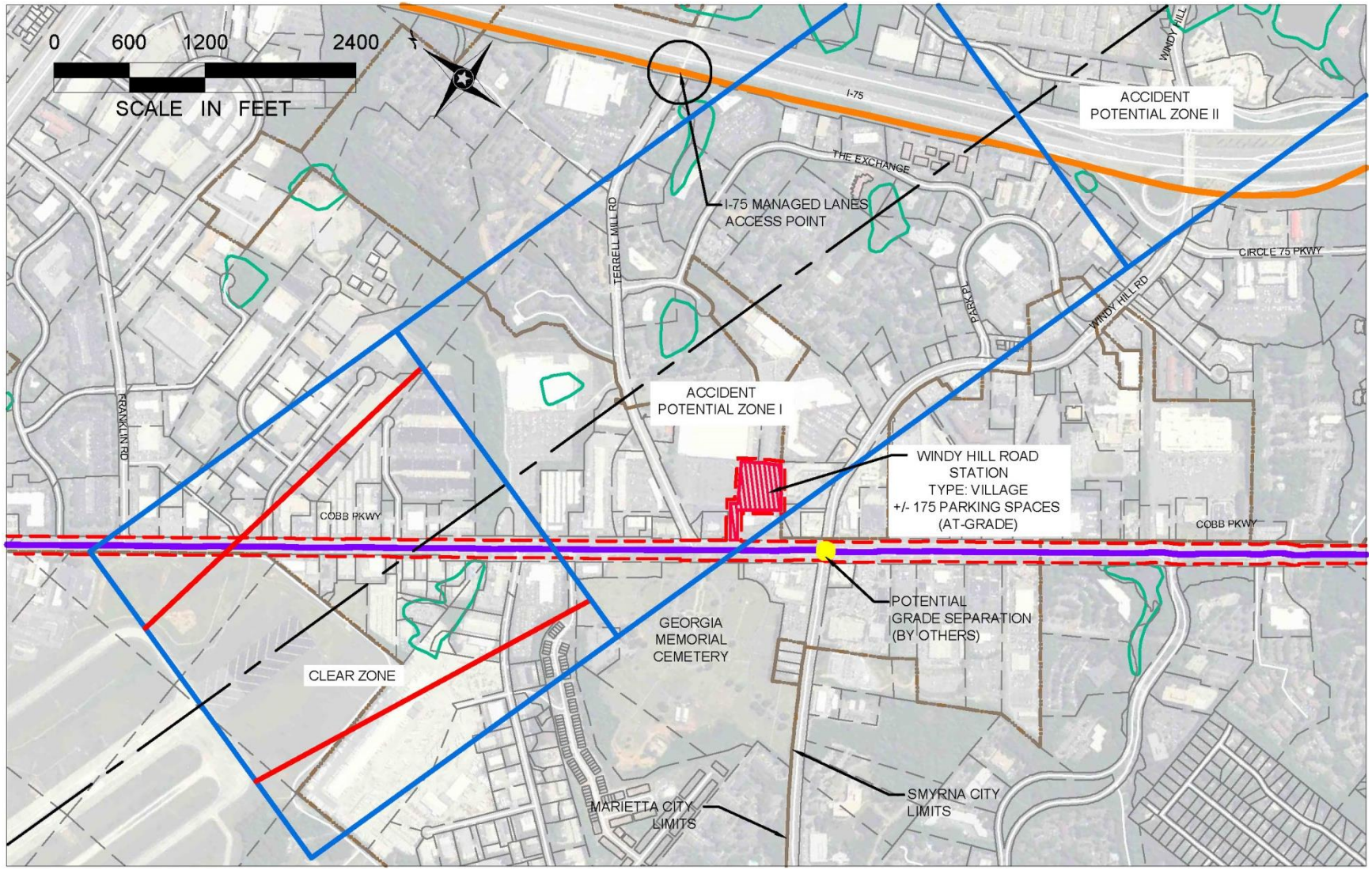
Dobbins ARB is located on the west side of US 41/Cobb Parkway and south of South Cobb Drive SE. Dobbins ARB operates one runway, Runway 11/29, which is 10,000 feet long and oriented in the east/west direction. Parallel and closely spaced to the south is an assault strip, Runway 110/290, used similarly to a runway. The airfield uses Runway 29 approximately 70 percent of the time, meaning flight arrivals occur over US 41/Cobb Parkway most of the time. The Clear Zone for Runway End 29 (southeast of and on approach to Runway 29) extends over US 41/Cobb Parkway. US 41/Cobb Parkway also extends through the inner portion of APZ I, which is closest to the Clear Zone (see **Figure 4.1-2**). The potential parking area for the Windy Hill Road Station, located at the intersection of US 41/Cobb Parkway and Windy Hill Road, is partially located in the APZ I. The Clear Zone and APZ for Runway End 290 (assault strip) is contained within the Clear Zone of Runway End 29, and, therefore, the land use criteria for Runway End 29 are the controlling factors for this area (Runway End 290).

4.1.2.3 Impacts

No Build Alternative

The No Build alternative is not expected to have any construction phase impacts on the aviation environment in the study area.

Figure 4.1-2. Accident Potential Zones



Proposed Project

At Dobbins ARB, automobile parking, such as is proposed at Windy Hill Road Station, is a compatible land use within APZ I.[25] No impacts are anticipated as a result of the proposed project.

4.1.2.4 Mitigation Measures

No mitigation is required.

4.1.3 RAILROADS

4.1.3.1 Regulatory Context/Methodology

Preliminary Connect Cobb Corridor design drawings and aerial photography were used to identify potential physical impacts to freight rail infrastructure. American Railway Engineering and Maintenance-of-Way Association (AREMA) and GDOT requirements were reviewed to determine vertical and horizontal clearance requirements for the freight rail track.

4.1.3.2 Affected Environment

There are two potential rail crossings within the proposed project:

- US 41/Cobb Parkway near the Canton Road crossing in Marietta – CSX rail line overpasses US 41/Cobb Parkway
- 17th Street in Atlanta – the existing roadway overpasses the Norfolk Southern rail line

4.1.3.3 Potential Impacts

Neither of the railroad crossings identified above would be affected by the proposed project. In both cases the railroad is grade-separated from the roadway with overpasses in both directions, and no roadway improvements are proposed that would alter the existing bridge structures or interfere with freight rail service.

4.1.3.4 Mitigation Measures

No mitigation is required.

4.1.4 TRANSIT

4.1.4.1 Regulatory Context/Methodology

Transit demand (ridership) forecasts prepared in support of the Connect Cobb Corridor project used a draft version of the ARC base year 2010 and PLAN 2040 models. As work proceeded on the environmental document, a final version of the ARC 2010 and 2040 models was made available in early 2013. This model version included refinements to the transportation networks, updated socioeconomic estimates and forecasts, and added many traffic counts that had not been available in the earlier draft version. This final version was used to forecast ridership for the purposes of this EA.

4.1.4.2 Affected Environment

The Regional Travel Demand Forecast Model uses the existing service as a base for analysis. Existing transit service available in the Connect Cobb Corridor is provided by Cobb Community

[25] Table 3-1: USAF Land Use Compatibility Guidelines, Air Installation Compatible Use Zone (AICUZ) Study at Dobbins Air Reserve Base, Georgia, Headquarters Air Force Reserve Command, October 2011.

Transit (CCT) and the Georgia Regional Transportation Authority (GRTA) and is summarized in **Table 4.1-5**.

Table 4.1-5. Existing Corridor Transit Service

Route	Provider	Description
10	CCT	Operates from Marietta to the Cumberland Boulevard Transfer Center via US 41/Cobb Pkwy, then to the Metropolitan Atlanta Regional Transit Authority (MARTA) Arts Center Station (Monday-Saturday)
10A	CCT	Reverse peak-hour service of Route 100. Operates from Atlanta to Delk Rd via the Cumberland Boulevard Transfer Center, US 41/Cobb Pkwy, and Terrell Mill Rd. Peak periods only, Monday-Friday.
10B	CCT	Reverse peak-hour service of Route 101. Operates from Atlanta to Windy Hill Rd via the Cumberland Boulevard Transfer Center and Interstate North. Peak periods only, Monday-Friday.
10C	CCT	Operates from Town Center to MARTA Arts Center Station via Marietta Transfer Center. Peak periods only, Monday-Friday.
40	CCT	Operates from Marietta to Kennesaw State University (KSU) via Bells Ferry Road and George Busbee Pkwy, with stops in the Town Center Mall area (Monday-Saturday)
45	CCT	Operates from Marietta to Town Center Mall area via US 41/Cobb Pkwy and Ernest Barrett Pkwy, with access to Chastain Meadows Industrial Park and KSU (Monday-Saturday)
50	CCT	Operates from Marietta to the Cumberland Boulevard Transfer Center via US 41/Cobb Pkwy and Powers Ferry Rd; also serves Overton Park and the Galleria area (Monday-Saturday)
100	CCT	Operates express, peak-hour service from Busbee Park-and-Ride Lot in Kennesaw near Town Center Mall to Atlanta via I-75. Limited service from Children's Healthcare Park-and-Ride. Peak periods only, Monday-Friday.
101	CCT	Operates express, peak-hour service from a park-and-ride lot at the Marietta Transfer Center to Atlanta via I-75. Peak periods only, Monday-Friday.
102	CCT	Non-stop service between Acworth Park-and-Ride Lot and MARTA Arts Center Station. Peak periods only, Monday-Friday.
480	GRTA	Route 480 operates Monday-Friday from Acworth to Downtown Atlanta. The Acworth Park-and-Ride is located at 6045 Lake Acworth Dr, Acworth, GA 30101, off GA 92 and I-75. The route provides six trips in the morning and six return trips in the afternoon. There is a single mid-day trip from Acworth with a stop at the Busbee Park-and-Ride en route to Downtown.
481	GRTA	Route 481 operates Monday-Friday from the Big Shanty-Town Center Station to Midtown Atlanta. The station is located at 3019 George Busbee Pkwy, Marietta, GA 30066. The route provides five departures in the morning and five return trips in the afternoon.

4.1.4.3 Potential Impacts

Results from the updated model runs were compared against results of previous runs using the earlier model version and with station assumptions used in defining the proposed project. **Table 4.1-6** below provides final estimates of ridership for the proposed project during the AA

completed in late 2012. Year 2040 daily transit ridership was projected at approximately 15,600 for the ART. Year 2010 ridership estimates were also produced as a means to identify the impact that forecasted 2010-2040 population growth would have on project ridership. As shown, that growth was anticipated to account for a 60 percent increase in ridership in the US 41/Cobb Parkway corridor.

Table 4.1-6. Final AA Transit Ridership Model

	AA Locally Preferred Alternative with Draft ARC Model Socioeconomic and Network Data; Exclusive Lane	
	US 41/Cobb Pkwy ART	
	2010	2040
Daily Transit Ridership	9,739	15,593
Travel Time (minutes)	107.61	106.73
Travel Speed (mph)	29.94	25.42

Source: ARC Model, PLAN 2040 zip file, dated 10/19/2011

The EA scenario was run for the 2040 horizon year. **Table 4.1-7** depicts 2040 model outputs using the updated ARC PLAN 2040 model. Year 2040 ART ridership increases with the new model to approximately 17,700 compared to the AA ridership forecast of 15,600 using the older ARC model.

Table 4.1-7. Proposed Project Ridership

Select Statistics from ARC Model	Proposed Project with Updated ARC Model Socioeconomic and Network Data
	2040 US 41 Arterial Rapid Transit
Daily Transit Ridership	17,714
Travel Time (minutes)	119.39
Travel Speed (mph)	24.03

Source: ARC PLAN 2040 Model, PLAN 2040 TIP Amendment 1 zip file, updated 4/8/2014

Note that the proposed project as refined for this EA includes “future” stations that had been excluded from the model during latter phases of the AA or were coded in a different location previously. These future stations included in the proposed project are as follows:

- Battlefield
- White Circle
- Barrett Lakes Boulevard (relocated from US 41/Cobb Parkway intersection to I-75 overpass)

Table 4.1-8 compares ridership and other model statistics between the proposed project and the No Build Alternative. For Cobb County, the commuter transit mode share (the percentage of all commuting trips made using transit) under the proposed project is higher than under the No Build Alternative. That is, the proposed project increases the attractiveness of transit commuting in Cobb County versus the No Build Alternative. However, given the scale of the forecast ridership, the share of transit trips is not significantly changed between the No Build Alternative and the proposed project.

Table 4.1-8. 2040 Ridership and Other Model Statistics for the No Build and Proposed Project

Scenario	No Build Alternative	Proposed Project
Home Based Work (HBW) Trip Length (minutes)	49.58	49.57
Regional Linked Transit Trips	510,247	517,799
ART Ridership		
Proposed Project	0	17,714
Transit Mode Share		
Cobb County HBW Transit Mode Share	2.7%	3.3%
Regional HBW Transit Mode Share	6.0%	6.1%
ART Ridership		
Proposed Project	0	17,714
Travel Efficiency		
US 41/Cobb Pkwy Speed	23.92	24.03
Cobb County Vehicle Miles Traveled (VMT)	25,838,000	25,807,000
Cobb County Vehicle Hours of Travel (VHT)	1,345,000	1,341,000
Regional VMT	232,523,000	232,411,000
Regional VHT	11,441,000	11,424,000

4.1.4.4 Mitigation Measures

For implementation of the proposed project, CCT will develop and refine a service plan to enhance service in the corridor, including service changes to improve transfers from connecting bus service to ART. CCT will follow standard procedures for route changes, additions, and deletions which would include a Title VI analysis to determine how service changes may affect low-income and minority communities, a community outreach process in designing route changes, a public hearing for the proposed service changes, and ongoing outreach efforts to communicate service changes prior to implementation.

Construction Phase Mitigation Measures

For short-term changes to bus operations during construction, CCT will post information at bus stops indicating temporary stop closures and/or detour details. Information will also be published in advance of detours on CCT's and GRTA's websites and in on-board information brochures.

4.1.5 PEDESTRIANS AND BICYCLES

4.1.5.1 Regulatory Context/Methodology

Existing sidewalks and bicycle facilities were identified using aerial photography, a windshield survey, and Cobb County's Desktop Interactive Map Viewer.[26]

[26] Available at http://www.cobbcounty.org/index.php?option=com_content&view=article&id=1126&Itemid=517

4.1.5.2 Affected Environment

Along the proposed alignment, continuous sidewalks exist in the following locations:

- Along Frey Road from Campus Loop Road to Chastain Road
- Along Busbee Drive, George Busbee Parkway, Barrett Lakes Boulevard, and Greers Chapel Road from Chastain Road to US 41/Cobb Parkway
- Along US 41/Cobb Parkway from Bells Ferry Road to Canton Road Connector
- Along US 41/Cobb Parkway from Terrell Mill Road to Cumberland Boulevard
- Along Cumberland Boulevard and Akers Mill Road

Short segments of sidewalk can be found along US 41/Cobb Parkway between Barrett Lakes Boulevard and Bells Ferry Road and between Canton Road Connector and Terrell Mill Road.

Skip Spann Connector and South Barrett Reliever, both currently under construction by others, will also include sidewalk facilities.

Existing sidewalks near proposed station locations are shown in **Appendix C**.

There are no existing bicycle facilities along the corridor except on 17th Street and on South Barrett Reliever (see **Figures 3.2-5 and 3.2-7**).

4.1.5.3 Potential Impacts

No impacts to the existing sidewalks or bicycle facilities are anticipated.

4.1.5.4 Mitigation Measures

Americans with Disabilities Act (ADA) compliant pedestrian ramps will be constructed at proposed station locations if they do not currently exist. Pedestrian connections from park-and-ride locations to station platforms will also be provided. Any pedestrian facilities disrupted by construction of the proposed project will be replaced.

Construction Phase Mitigation Measures

For short-term changes to bicycle and pedestrian operations during construction, Cobb County will post information on its website and via press release to local news outlets, indicating temporary closures and/or detour details.

4.2 Utilities

This section discusses existing public and private utilities in the Connect Cobb Corridor and potential impacts as a result of constructing and operating ART. Mitigation measures are also summarized.

4.2.1 REGULATORY CONTEXT/METHODOLOGY

4.2.1.1 Regulatory Context

The following is a representative summary of the laws, regulations, and guidelines that are associated with utility relocation and accommodation.

- Federal
    - US Code (USC), Title 23, Sections 123 and 109(l)(1)
    - USC, Title 23, CFR 645, Chapter I, Subchapter G, Part 645, Subparts A and B (Federal Highway Administration (FHWA), 2003)

- Federal Transit Administration's (FTA) Project and Construction – Management Guidelines (2003), Appendix C – Utility Agreements

- State
  - Official Code of Georgia Annotated, Title 32, Chapter 6, Article 6, Part 1

4.2.1.2 Methodology

Existing utilities were reviewed within the corridor where roadway widening is proposed, using existing information that was provided by Cobb County and Dobbins ARB, including aerial images and existing topography of the corridor. Site visits to the locations of the proposed stations with parking were conducted to identify obvious, above-ground utility features. Utilities in Fulton County were not reviewed as no roadway widening activities are proposed within Fulton County, and the vehicles would travel in existing transit or general purpose lanes which would not require modifications to existing utilities.

This information was compared to the proposed project alignment to identify potential conflicts. Due to the conceptual nature of the design of the proposed alignment, the location and magnitude of utility impacts information were estimated based off the information available.

4.2.2 AFFECTED ENVIRONMENT

The affected environment is defined as those utilities within, or directly adjacent to, the potential area of disturbance. The potential area of disturbance can be defined as the estimated area where construction would occur for the proposed project at this stage of design.

Proposed construction of the ART guideway would generally occur within existing roadway rights-of-way, with roadway reconstruction required within portions of the alignment to accommodate the proposed dedicated guideway. Widening is anticipated along US 41/Cobb Parkway from Cumberland Boulevard to Barrett Lakes Boulevard (or to McCollum Parkway on the alternate alignment) and along Cumberland Boulevard from US 41/Cobb Parkway to Akers Mill Road. Along all other roadways, no dedicated guideway is proposed to be added as the ART vehicles would operate in existing general purpose lanes, existing transit lanes, or existing general purpose lanes that are converted to transit lanes without the need for any type of widening. Several utilities exist within the study area, most of which are located within the roadway rights-of-way. Underground utilities include water, sanitary sewer, telecommunications, and electric utility lines. Several overhead utilities, including electric, telecommunications, and traffic control, are also located along the US 41/Cobb Parkway corridor.

Table 4.2-1 summarizes those facilities that were observed during the proposed station site visits.

Table 4.2-1. Facilities Present at Proposed Station Locations with Parking

Station Name	Overhead Electrical Distribution	Overhead Electrical Transmission	Cellular Tower	Traffic Control Equipment	Underground Storage Tanks	Underground Electrical/ Telecommunications	Sanitary Sewer	Stormwater	Gas	Water
Town Center	X		X			X		X		X
Barrett Lakes Boulevard								X		X
White Circle						X	X	X		
Battlefield	X							X		X
WellStar Kennestone	X							X		X
North Loop/White Water	X			X			X	X		X
Windy Hill Road	X							X		
Cumberland North	X			X		X	X	X	X	X
Cumberland South	X	X				X	X	X		X

4.2.3 POTENTIAL IMPACTS

4.2.3.1 No Build Alternative

No impacts to utilities would occur under this alternative.

4.2.3.2 Proposed Project

Utility lines are located within the existing roadway rights-of-way and will need to be relocated due to a conflict with the proposed alignment and facilities. In parts of the corridor that require roadway widening to accommodate the dedicated guideway, potential impacts could include the relocation of above ground electric, water, sewer, telecommunication, and natural gas lines. These utilities may also need to be relocated for station platform locations and structured parking facilities. In addition, storm sewer piping and structures will need to be modified to accommodate adjustments to curb locations in areas where the roadway is proposed to be widened.

Proposed station platforms may require a connection to electrical power and a communication network to provide lighting, real-time messaging systems, security cameras, and fare collection. Because detailed engineering design has not yet occurred, the extent of impacts due to station areas cannot be measured at this time. However, there is a high likelihood that most, if not all, of the observed facilities will be impacted and/or required to relocate. Further coordination with utility owners during the engineering design phase will be required.

4.2.4 MITIGATION MEASURES

Prior to any construction activities, utilities throughout the corridor and near the stations will be identified and avoided to the extent practicable. In the event that an impacted utility facility is located on a utility easement, then the utility owner will likely seek reimbursement for relocation costs. Cobb County will be responsible for relocation of any Cobb County-owned utilities, such as water, sewer, and stormwater. Relocation of private utilities such as telecom, electric, or gas will be coordinated with the owner, and in many cases an agreement exists that states in the event of a roadway improvement, the utility owner will move the utility facility at the owner's cost. Any relocation costs not subject to such an agreement will be the responsibility of Cobb County.

As design of the project progresses, actual utility impacts and necessary mitigations (i.e., utility relocations, replacements, or other actions) will be determined in coordination with the owners of the utilities.

Construction Phase Mitigation Measures

Coordination with the service operators would be undertaken to determine the potential disruptions in service. If disruptions in service would occur, affected property owners would be notified. Disruptions would be temporary and services would be restored to preconstruction levels in a timely manner.

4.3 Land Use

This section reviews existing land use conditions around the proposed project, discloses what type of land use impacts would result from implementation of the proposed project, and describes efforts to minimize adverse effects. Any necessary mitigation measures are also presented in this section.

Discussion of past land use can be found in Section 4.19.2.

4.3.1 REGULATORY CONTEXT/METHODOLOGY

The patterns of how land is used are largely determined by counties and local municipalities. The project corridor is 25.3 miles in length and passes through three cities and unincorporated Cobb County, which are all involved in land use planning for the area (see **Figure 3.2-1**). The study area consists of the proposed project corridor and a buffer that is bounded by I-75 to the east and extends approximately ½ mile to the west. In addition to portions of unincorporated Cobb County, the project corridor includes parts of the cities of Marietta, Smyrna, and Atlanta. Each municipality has its own regulatory context regarding land use, including zoning, permitting, and planning, that must be considered. Also, the Town Center Area Community Improvement District (CID), the Gateway Marietta CID, the Cumberland CID, the Atlanta BeltLine Tax Allocation District, the Atlantic Station Tax Allocation District, and the Midtown Improvement District (also known as Midtown Alliance) participate with their appropriate municipality's regulatory agency in the planning process for their specific districts.

Maps obtained from the respective municipality and improvement district websites[27] depicting current land use, zoning, and future land use/master plans for unincorporated Cobb County, the CIDs, and the cities of Marietta, Smyrna, and Atlanta (see **Appendix D**) were analyzed in relation to the Connect Cobb Corridor to identify the existing and future land uses and to review for potential impacts related to the proposed project. Existing land use was verified by review of aerial photography and site visits. Verified existing land uses were then compared to the future land use plans/master plans.

4.3.2 AFFECTED ENVIRONMENT

4.3.2.1 Existing Land Uses

More than 50 percent of the parcels immediately bounding the proposed project are designated for commercial use with pockets of industrial, residential, office, and public institutional uses. Farther from US 41/Cobb Parkway within the study area, residential land uses are dominant. Some of the corridor occurs in unincorporated Cobb County; however, the majority (79 percent) is located in incorporated cities as shown in **Table 4.3-1**.

Table 4.3-1. Proposed Project Alignment by Place

Municipality	Miles	Percent
Marietta	7.5	30%
Smyrna	1.6	6%
Atlanta	8.3	33%
Unincorporated Cobb County	7.9	31%
TOTAL	**25.3**	**100%**

City of Marietta

Through the city of Marietta, US 41/Cobb Parkway is currently surrounded by industrial and commercial land uses, including several automobile sales and service facilities, and scattered conservation/park spaces. Residential areas are clustered around Barnes Mill Road and North and South Marietta Parkway, as well as a residential redevelopment area between Franklin Road and I-75. Adjacent to a commercial area, along US 41/Cobb Parkway between South

[27] See following footnotes for website addresses

Marietta Parkway and South Cobb Drive, there is a large segment of institutional land use associated with Southern Polytechnic State University[28] and Life University. South of the universities, along US 41/Cobb Parkway, Dobbins ARB is the predominant land use on the west side of US 41/Cobb Parkway.[29]

City of Smyrna

The proposed project travels through the northeastern edge of the city of Smyrna. As of the date of this document, similar to the rest of the corridor, the current land uses are composed of office space, general commercial, mixed use, and multi-family residential communities.[30]

City of Atlanta

Improvements to the Metropolitan Atlanta Regional Transit Authority (MARTA) Arts Center Station in Midtown Atlanta are included as part of the proposed project. The MARTA Arts Center Station is located in a mixed-use area consisting of the High Museum and Woodruff Arts Center as well as commercial uses, office space, and multi-family residential development.

Unincorporated Cobb County

In unincorporated Cobb County, the proposed project is bounded by areas zoned for institutional, industrial, commercial, and multi-family residential uses along with areas adjacent to the interstate that are still undeveloped. The Town Center Area is a major activity center anchored by Kennesaw State University (KSU). The Cumberland area of unincorporated Cobb County is a large activity center with significant commercial development, as well as hotels and offices.[31] In the vicinity of Cumberland Mall the US 41/Cobb Parkway segment of the project rejoins I-75.

4.3.2.2 Future Land Uses

With undeveloped land rare and suburban sprawl noted as a concern throughout metropolitan Atlanta, municipalities have focused their attentions on planning how to develop or redevelop within their limits. The approved Master Plans or Comprehensive Plans act as the counties' and municipalities' guidebooks for rezoning and transitioning the community into "livable" areas for their citizens and business partners. While there is not an overall comprehensive county plan that includes each municipality, there is a high degree of cohesion between each of the individual comprehensive plans as each municipality is included under the ARC umbrella.

[28] KSU and Southern Polytechnic State University will consolidate into a third, new institution. The new KSU will be a single integrated institution that has two main campuses with buildings, functions, and people located at two sites approximately 10 miles apart. The consolidation is scheduled for completion for the 2015 fall semester. (http://www.ksuspsuconsolidation.com/specific-guiding-principles-for-the-consolidation-of-ksu-and-spsu/)

[29] City of Marietta. Comprehensive Plan 2006-2030. http://www.mariettaga.gov/City/media/Docs/MRC/mastercompplan2006-20303.pdf.

[30] City of Smyrna Official Zoning Map (http://www.smyrnacity.com/Modules/ShowDocument.aspx?documentid=228)

[31] Cobb County GIS Zoning Search (http://www.cobbcounty.org/index.php?option=com_content&view=article&id=1126&Itemid=517)

City of Marietta

In the vicinity of the proposed project, Marietta's Comprehensive Plan[32] Future Land Use Map and Livable Centers Initiative (LCI) study area master plans indicate an evolution from existing commercial and industrial to community and regional activity centers that support a mixture of uses. The plan envisions industrial and industrial manufacturing remaining in the vicinity of I-75 and Canton Road south. The residential area at Franklin Road will be redeveloped into mixed uses, as envisioned by the Franklin-Delk LCI Study.[33] The residential areas near Barnes Mill Road and South and North Marietta Parkway will be future low and medium density residential uses, as envisioned by the Envision Marietta LCI Study,[34] Franklin-Delk LCI Study and Marietta University Enhancement District LCI Study[35] master plans. Southern Polytechnic State University,[36] Life University, and Dobbins ARB will remain in their current locations. Southern Polytechnic State University and KSU each have a master plan, Life University does not have a published master plan, and Dobbins ARB has an Air Installation Compatible Use Zone Study. The proposed station locations are compatible with the existing plans.

City of Smyrna

The City of Smyrna's Comprehensive Plan[37] and the Smyrna Town Center LCI Study[38] envision future land use changes for the northeast edge of the city adjacent to the US 41/Cobb Parkway portion of the proposed project. The comprehensive plan calls for a transition from "multi-family residential" to "urban residential," and "office," "mixed-use," and "general commercial" areas have been combined into a large area of mixed use, a grouped area of office and professional space, and areas along Cumberland Boulevard that are transitioned to neighborhood and community activity centers.[39]

City of Atlanta

Future land use policy for the Connect Cobb Corridor in the city of Atlanta is documented in the 2011 Comprehensive Development Plan.[40] An additional layer of planning policy is defined by the Atlanta BeltLine Subarea 8 Master Plan,[41] one of eight subarea master plans supporting

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[32] City of Marietta Comprehensive Plan 2006-2030 (http://www.mariettaga.gov/City/media/Docs/MRC/mastercompplan2006-20303.pdf)
[33] Available at http://www.mariettaga.gov/city/cityhall/planzone/studies
[34] Available at http://www.mariettaga.gov/city/cityhall/planzone/studies
[35] Available at http://www.mariettaga.gov/city/businesses/ecodev/mu2lci
[36] KSU and Southern Polytechnic State University will consolidate into a third, new institution. The new KSU will be a single integrated institution that has two main campuses with buildings, functions, and people located at two sites approximately 10 miles apart. The consolidation is scheduled for completion for the 2015 fall semester. (http://www.ksuspsuconsolidation.com/specific-guiding-principles-for-the-consolidation-of-ksu-and-spsu/)
[37] Available at http://www.smyrnacity.com/index.aspx?page=347
[38] Available at http://atlantaregional.com/land-use/livable-centers-initiative/recipients/search-lci-recipients; enter "Smyrna" in area provided below the heading "search file title"
[39] City of Smyrna Future Development Map. http://www.smyrnacity.com/Modules/ShowDocument.aspx?documentid=229.
[40] City of Atlanta 2011 Comprehensive Development Plan, available at http://www.atlantaga.gov/index.aspx?page=376
[41] Available at http://beltlineorg.wpengine.netdna-cdn.com/wp-content/uploads/2012/05/ABI-Subarea-8-Master-Plan.pdf

redevelopment of property within and surrounding the BeltLine Tax Allocation District.[42] In addition, the Atlantic Station Tax Allocation District,[43] the Greater Home Park Master Plan,[44] and the Loring Heights Neighborhood Master Plan[45] provide future land use policy. Outside Subarea 8, future land uses are similar to existing uses except for a reclassification of single and multi-family residential areas to low density, medium density, and single family residential areas. Some of the residential and commercial areas are anticipated to be areas of mixed use. A transition to transit-oriented, mixed use development is envisioned for Subarea 8, Loring Heights, and Greater Home Park along US 41/Northside Drive and 17th Street that encourages live/work/play neighborhoods with easy access to future transit and green space.

Unincorporated Cobb County

Commercial, office, and residential zones in unincorporated Cobb County, as shown in the future land use map,[46] are grouped into two regional activity center zones (Town Center and Cumberland) sprinkled with areas dedicated to medium and high density residential. One large priority industrial area is adjacent to the I-75 portion of the corridor north of the city of Marietta near Chastain Road. This is similar to existing land uses, other than in the undeveloped areas planned to be developed into regional activity centers. Particularly in the vicinity of Town Center at Cobb (mall) and Cumberland Mall, where the Town Center Area CID and the Cumberland CID play active roles in the planning process, future development/redevelopment includes sidewalks, multi-use trails, and bike lanes to make those areas attractive to pedestrians and residents.[47, 48]

4.3.3 POTENTIAL IMPACTS

4.3.3.1 No Build

This alternative would result in no change to existing land uses within the project limits. No impacts to land use are anticipated.

4.3.3.2 Proposed Project

There would be no significant changes to land uses as a result of the proposed project. The proposed project would use existing transportation corridors that are identified as transportation uses on future land use maps. Further, the proposed project would provide enhanced transit access to the existing and future land uses identified on adopted comprehensive plans. The proposed project is compatible with the existing development and future land use plans in all of the municipalities.

4.3.4 MITIGATION MEASURES

Because of the compatibility of the proposed project with existing and future land uses, there are no anticipated adverse impacts to land use compatibility and no mitigation is required or proposed.

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[42] Available at http://beltline.org/resources/redevelopment-area-tax-allocation-district-map/
[43] Available at http://beltline.org/resources/redevelopment-area-tax-allocation-district-map/
[44] Available at http://www.atlantaga.gov/modules/showdocument.aspx?documentid=3802
[45] Available at http://www.atlantaga.gov/modules/showdocument.aspx?documentid=3801
[46] Cobb County Future Land Use Map (http://www.cobbcounty.org/images/documents/comm-dev/homepage/2013FLUM8x11.pdf)
[47] Town Center Area CID RoadMap Master Plan (http://tcacid.com/roadmap-master-plan/)
[48] Cumberland CID Development Plan. Available at http://www.cumberlandcid.org/projects/plans-and-studies/.

4.4 Neighborhood and Community Resources

This section describes the neighborhoods and community resources located in the corridor. There are multiple neighborhoods, community areas, and districts surrounding the proposed station locations. From north to south, as categorized by the station(s) included in each area, the nature of each area is characterized in terms of predominant uses. Specific community facilities in the corridor are also identified. Potential impacts to these resources from the project's implementation are also described.

4.4.1 REGULATORY CONTEXT/METHODOLOGY

No specific laws or executive orders regulate how impacts to community character, cohesion, and community facilities resulting from transit projects are evaluated. The National Environmental Policy Act (NEPA) and 41 USC 4321 form the general basis of consideration of these potential social impacts.

The study area for community facilities, defined as a ½-mile buffer around the proposed alignment, was surveyed for the presence of community facilities that could potentially be impacted by a new transit service. A windshield survey of the study area was conducted July 29, 2013 to August 1, 2013 to identify churches, health care centers, government facilities, schools, cemeteries, or other community facilities within the corridor.

4.4.2 AFFECTED ENVIRONMENT

4.4.2.1 Community Characteristics

The project corridor extends 25.3 miles northwest of Atlanta into Cobb County and passes through the cities of Marietta and Smyrna. The corridor is generally built out with commercial uses and, with the exception of the southern section, has low densities. It is home to a diverse range of activity centers, including two state universities, an active military (air reserve) base, two national parks and other historic and recreational sites, as well as residential enclaves and major commercial centers, such as Town Center and Cumberland.

For purposes of this analysis, five neighborhoods, communities, or districts have been identified in the study corridor, as shown in **Figure 4.4-1**. These areas reflect station clusters, as characterized below.

- **Kennesaw State Station:** This terminal station is located to serve the KSU campus; a commercial development that includes fast food restaurants and gas stations; and two existing park-and-ride lots, Busbee and Town Center, that provide parking to access multiple CCT and GRTA routes.
- **Barrett Lakes Boulevard Station and Town Center Station:** These stations in the Kennesaw and Town Center areas serve large shopping areas, including mall-style retail and big box stores. Barrett Lakes Boulevard Station provides access to an area of multi-family residential development.
- **US 41/Cobb Parkway Corridor:** There are nine stations in this portion of the corridor along US 41/Cobb Parkway in Marietta and Smyrna: White Circle Station; Battlefield Station; WellStar Kennestone Station; Allgood Road Station; North Loop/White Water Station; Big Chicken/Roswell Road Station; University Station; Dobbins Air Reserve Base Station; and Windy Hill Road Station. This portion of the corridor has many automobile-related businesses, such as automotive sales and service facilities and gas stations. In

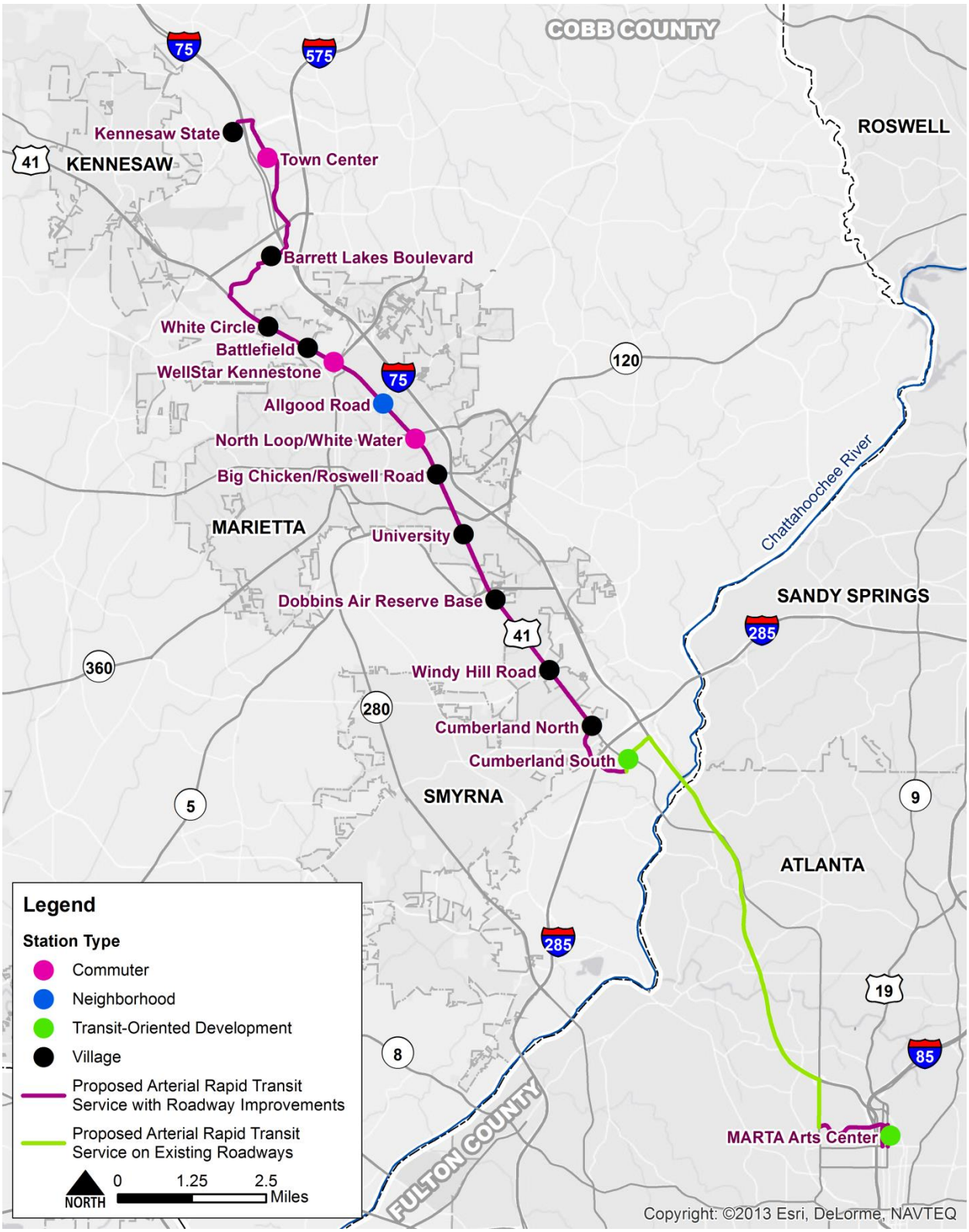
addition, there are a variety of fast food and chain restaurants, strip mall retail and big box stores, motels, and pawn shops.

In the areas surrounding the US 41/Cobb Parkway portion of the corridor, other types of non-commercial development are also found. Near to White Circle Station is the Kennesaw Mountain National Battlefield Park. South of WellStar Kennestone Station is a large hospital and medical district. A low-income community with minorities[49] representing over half of the total population is located in the residential area surrounding Allgood Road Station. University Station would provide access to the adjacent campuses of Southern Polytechnic State University and Life University. Dobbins ARB dominates the area around its namesake station.

- **Cumberland North and Cumberland South Stations:** These stations would serve Cumberland Mall and Akers Mill Shopping Center. Development in the area consists of large malls, a variety of big box stores, and fast food restaurants. CCT's Cumberland Boulevard Transfer Center is also located in this area and provides connections to six routes, including MARTA Route 12 that originates at Midtown Station.
- **MARTA Arts Center Station:** This station is in the high-density, mixed-use district of Midtown Atlanta. The district is home to a variety of museums, offices, retail establishments, restaurants, and multi-family residential units, and is a very walkable area. The station provides connections to CCT, Gwinnett County Transit, and GRTA Xpress and offers connecting bus service to several points of interest throughout Atlanta, such as Atlantic Station, Buckhead, Midtown, and Emory University.

[49] See demographic analysis in Section 4.20

Figure 4.4-1. Corridor Neighborhoods and Communities



4.4.2.2 Community Facilities

Table 4.4-1 details the community facilities that were observed near the proposed transit alignment. These facilities and services contribute to community identity, neighborhood cohesion, and the general social welfare of local communities.

Table 4.4-1. Community Facilities Inventory

Facility Type	Number	Names
Cemetery	4	Georgia Memorial Cemetery, Greers Chapel Cemetery, Haney Grove Cemetery
Church	22	Beautiful Presbyterian Church, Christ Evangelical Global Outreach Ministries, Destiny Metropolitan Worship, Destiny World Church, Enlightened Christian Center, First Church of Christ Scientist, First Presbyterian Church, First United Lutheran Church, Gospel Light Community Church, Grace Church Town Center, Greers Chapel Baptist Church, Kennesaw Avenue Missionary Church, Liberty Churches, Marietta First Christian Church, Mt Calvary Baptist Church, Must Ministries (x2), North River Church of Christ, Shepherd's House Ministries, St. Stephen United Methodist Church, Turner Chapel, Worship With Wonders Church
Government	9	CCT Cumberland and Marietta Transfer Centers, Cobb County Civic Center, Dobbins ARB, Marietta Power & Water, Marietta Streets Department, Pardons & Parole State Board, Social Security Administration
Health Care	24	Allstar Health Care, Amedisys Hospice Care of Kennesaw, Atlanta Blood Services of Cobb County, Atlanta Clinic – Preventative, Center for Family Resources, Children's Healthcare of Atlanta, Chiropractic Total Health Center, Concentra Urgent Care, Health Care Solutions, Inspire Health Care, Joffe Medicenter Lasik, Kaiser Permanente Townpark, Medlin Treatment Center, Midtown Physical Rehabilitation Center, Orleans Chiropractic Clinic, Pediatric Orthopedic Associates, Physicians Immediate Med, Primary Care Partners PC, The Chiropractic Center of Marietta, Walgreen's Clinic, WellStar Kennestone Hospital, WellStar Windy Hill Hospital, Wesley Horne Pastoral Counseling, Women's Pregnancy Center
School/ University	13	Carman Adventist School, Fortis College Smyrna, Gwinnett College Sandy Springs, John Marshall Law School, KSU, Life University, Lincoln College of Technology, Marietta Sixth Grade Academy, Medtech College - Atlanta-Marietta Campus, Sheltering Arms Early Education, Southern Polytechnic State University, The Walker School, Westwood College - Atlanta Midtown Campus
Other Community Facility	10	Atlanta International Museum of Art & Design, Atlanta Symphony Orchestra, Center Stage Theater, Cobb Energy Centre, Cobb Galleria Centre, High Museum of Art, Kennesaw Mt Shrine Club, The Georgia Ballet, William Breman Jewish Heritage & Holocaust Museum, Woodruff Arts Center

Note: Facilities are listed alphabetically.
Source: Windshield survey 7/29/13 – 8/1/13

Churches, cemeteries, and government facilities are largely dispersed throughout the corridor, as shown in **Figure 4.4-2**. Government facilities include police and fire stations, municipal services, and the Dobbins ARB, which is located along US 41/Cobb Parkway in the central part of the corridor.

Figure 4.4-3 displays the locations of the observed health care facilities, schools and universities, and other community facilities within the study area. Health care facilities are loosely concentrated in two areas: the northern part of the corridor in the Town Center area of unincorporated Cobb County and in Marietta. The 13 schools and universities are dispersed along the corridor. The largest two are KSU at the northwest terminal of the Connect Cobb Corridor project and Southern Polytechnic State University near US 41/Cobb Parkway and South Marietta Parkway in the central part of the corridor.[50]

4.4.3 POTENTIAL IMPACTS

4.4.3.1 No Build Alternative

There would be no acquisitions or displacements of neighborhood or community facilities resulting from implementation of the No Build alternative. Any impacts associated with the programmed improvements listed in Section 3.1 would be assessed in the Georgia Environmental Policy Act (GEPA)/NEPA document for each project.

4.4.3.2 Proposed Project

While some right-of-way acquisition would be required, there would be no acquisitions or displacements of neighborhood or community facilities as a result of project implementation, nor would the proposed project divide a community or its access to local business or shopping areas. Rather, the Connect Cobb Corridor project is expected to have a positive impact on community cohesion, which is defined as the degree that residents have a sense of belonging to their neighborhood or experience attachment to community groups or institutions as a result of continued association over time. The project would provide focal points for community activity and development in the vicinity of the stations. Because the project would be constructed along existing transportation rights-of-way, the communities and neighborhoods adjacent to the corridor would not experience a disruption in cohesion.

4.4.4 MITIGATION MEASURES

There are no anticipated negative impacts to neighborhoods and community resources; therefore, no mitigation is needed.

[50] KSU and Southern Polytechnic State University will consolidate into a third, new institution. The new KSU will be a single integrated institution that has two main campuses with buildings, functions, and people located at two sites approximately 10 miles apart. The consolidation is scheduled for completion for the 2015 fall semester. (http://www.ksuspsuconsolidation.com/specific-guiding-principles-for-the-consolidation-of-ksu-and-spsu/)

Figure 4.4-2. Churches, Cemeteries, and Government Facilities

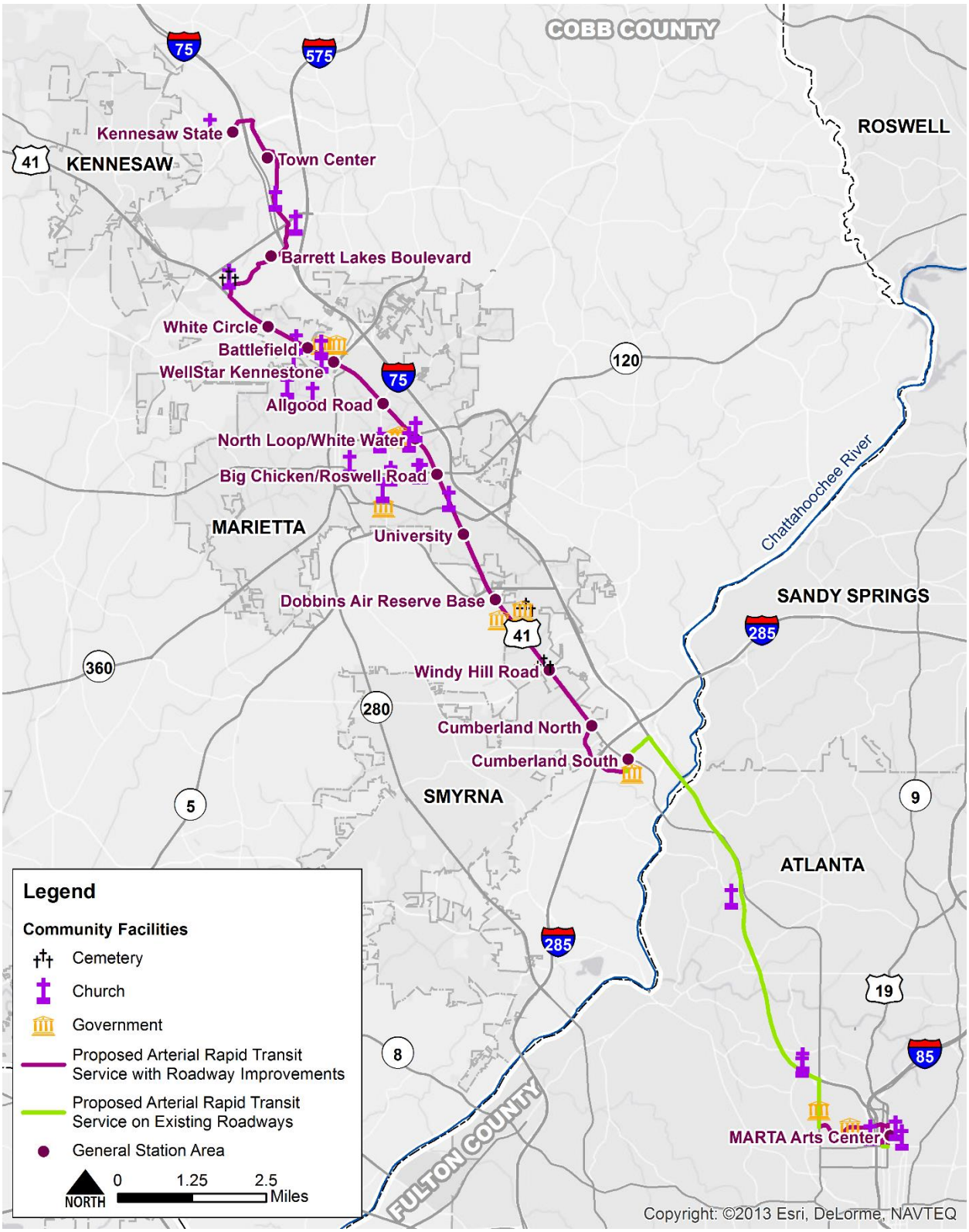
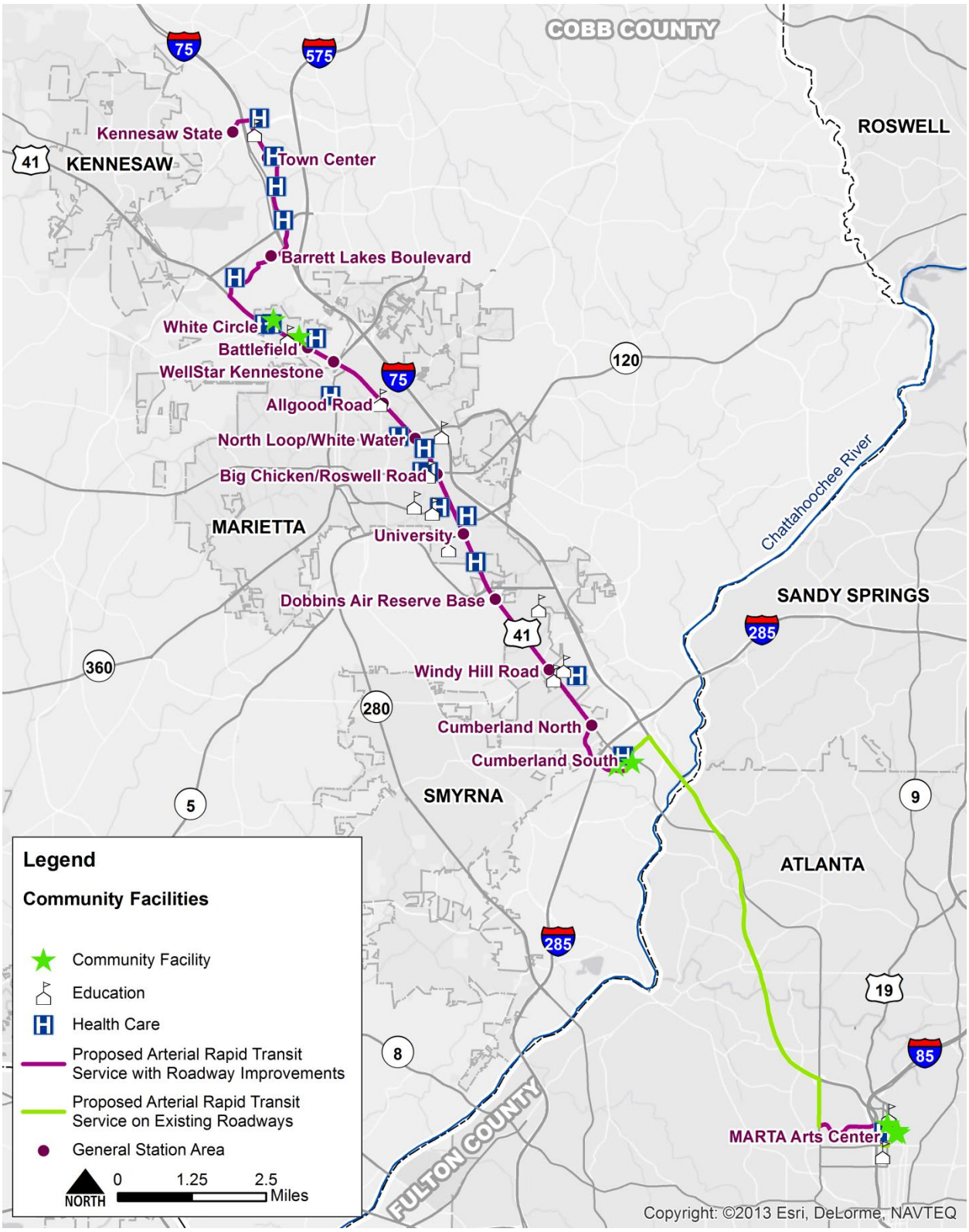


Figure 4.4-3. Health Care, Education, and Other Community Facilities



4.5 Cultural Resources

This section includes the assessment of the proposed project on cultural resources – specific to this project historic structures and archaeological resources. The section begins with a regulatory context of Section 106 of the National Historic Preservation Act and the consultation process. The methodology for assessment, identification of the affected environment, and assessment for potential impacts is then discussed, first for historic properties and then for archaeological sites.

4.5.1 SECTION 106 PROCESS

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. The Section 106 process consists of:

- Steps for identifying and evaluating historic properties
- Assessing the effects of a proposed project on historic properties
- Consultation for methods to avoid, minimize, or mitigate adverse effects

The goal of the Section 106 process is to avoid adverse effects to historic properties. Where avoidance cannot be accomplished, measures to mitigate adverse effects are undertaken. Adverse effects occur when the project results in changes to the property, its setting, or its use that affect the NRHP characteristics of the property in a manner that diminishes the integrity of its location, design, setting, materials, workmanship, feeling, or association.

No impacts to historic properties are anticipated as a result of the proposed project; however, if needed, methods for avoidance, minimization, or mitigation of impacts to historic property (any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the NRHP) would be developed by the FTA in consultation with the HPD, which acts as the SHPO, and other interested parties. The ACHP may also participate. Measures for avoidance, reduction, and mitigation would be addressed through the development of an appropriate Section 106 agreement document. If an agreement document is developed it would include avoidance, minimization or mitigation for adverse effects to historic properties and would be signed by FTA, SHPO and Cobb County.

Section 106 consultation is ongoing for the proposed project and will be completed prior to the signing of an FTA decision document. The finalization of this EA will not impact the completion of the Section 106 process.

4.5.1.1 Section 106 Consultation

Local governments are entitled to participate in the Section 106 process as consulting parties, along with the SHPO, Native American tribes, and other interested organizations and individuals. Consulting parties play an important role in determining how potential effects on historic properties would be avoided or mitigated during the planning and implementation of a project. The potential consulting parties identified and invited to participate in the Section 106 process for this project are listed in **Table 4.5-1**. Consulting party documentation can be found in **Appendix E**.

Table 4.5-1. Potential Consulting Parties Invited to Participate in the Section 106 Process

Agency/Organization	Response Received
City of Acworth	No
City of Atlanta	No
Atlanta Regional Commission	No
Cobb County Board of Commissions	No
Cobb County Community Development Agency	Yes – accepted
Cobb County Historic Preservation Commission	No
Cobb Landmarks and Historical Society	No
Dobbins Air Reserve Base	Yes – declined
Georgia Department of Natural Resources Historic Preservation Division (SHPO)	Yes – accepted
City of Kennesaw	No
Kennesaw Mountain National Battlefield Park	No
Kennesaw Historic Preservation Commission	No
Kennesaw State University	No
Life University	No
City of Marietta	No
City of Smyrna	No
Smyrna Historical and Genealogical Society	No
Southern Polytechnic State University	No
Vinings Historic Preservation Society	No

4.5.1.2 Tribal Consultation

In December 2014, FTA reached out to federally recognized Native American tribes with historic or current interest in the project area, asking each to identify any concerns regarding potential impacts of the proposed project, particularly with regard to any potentially adverse effects to cultural resources. The following tribes were contacted:

- The Chickasaw Nation
- Eastern Band of Cherokee Indians
- Muscogee (Creek) Nation
- Eastern Shawnee Tribe of Oklahoma
- Poarch Band of Creek Indians
- Seminole Tribe of Florida
- Seminole Nation of Oklahoma
- Thlopthlocco Tribal Town of Oklahoma
- United Keetoowah Band of Cherokee Indians in Oklahoma

Replies were received from two entities. The Eastern Shawnee Tribe of Oklahoma indicated they were not currently aware of any existing documentation directly linking Shawnee religious, cultural, or historic sites to Cobb County but asked to be contacted if any inadvertent discoveries are made. The United Keetoowah Band of Cherokee Indians did not identify any specific concerns but agreed to be a consulting party.

4.5.2 HISTORIC STRUCTURES

4.5.2.1 Regulatory Context/Methodology

As defined in 36 CFR 800.16(d), the area of potential effects (APE) of an undertaking is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist." Based on this definition, the nature and scope of the undertaking and past experience with similar projects, the APE was defined, in consultation with the Georgia State Historic Preservation Office (SHPO) (see correspondence in **Appendix E**), as limited to a 150-foot buffer on either side of the proposed alignment (except in Fulton County where there would be no construction along the roadway) and a 500-foot buffer around each proposed station location.

Existing information on previously identified historic properties was checked to determine if any are located within the APE of this undertaking. This review of existing information revealed that there are no properties listed in the National Register of Historic Places (NRHP). However, there is one bridge that has been determined eligible for inclusion in the NRHP in the updated Georgia Historic Bridge Survey. According to the Georgia's Natural, Archaeological, and Historic Resources Geographic Information Systems database (GNAHRGIS), there appear to be four previously identified historic resources within the proposed project's APE. These include one district and three buildings and draw on resources identified in three previous Georgia Department of Natural Resources (DNR) surveys.[51]

A field survey was conducted based on geographic parameters established during a May 30, 2013, kick-off meeting with the Georgia SHPO. It was determined at this meeting that all resources 40 years old and older would be documented and evaluated in the Historic Resources Survey Report: Connect Cobb Project (Edwards-Pitman Environmental, Inc., 2015).[52] This will accommodate the proposed long-range nature and funding of the project. It was also determined at this meeting that since no construction and ground-disturbing activity along I-75 are associated with the proposed project, it was not necessary to identify any historic resources in the APE along I-75.

Following the review of existing information on previously identified historic properties, potential consulting parties in the Section 106 process and Native American tribes were identified as described in Section 4.5.1. Field surveys and background research were conducted within the APE of the proposed project to identify any historic properties or archaeological sites eligible for listing in the NRHP, based on NRHP criteria (36 CFR part 63). The Federal agency makes a determination of eligibility based on the available information and the SHPO will either concur, not concur and/or comment on the agency findings.

Each resource within the APE that was identified as eligible for listing in the NRHP was then assessed per the criteria of adverse effect. Per 36 CFR 800.5, criteria for determining adverse effects include:

- Damage or physical destruction to all or part of the property
- Alteration of a property that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
- Removal of the property from its historic location

[51] The previous surveys include a 1994 Cobb County Historic Resources Survey, a 2005 Cobb County Historic Resources Survey, and a 2005 Fulton County Historic Resources Survey.

[52] Subsequent to the kick-off meeting, FTA recommended and SHPO agreed that only resources 45 years and older should be documented in the Historic Resources Survey Report (see **Appendix E**).

- Changes in the character of the property's use or physical features within the property's setting that contribute to its historic significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic characteristics or features
- Neglect of a property which causes its deterioration
- Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance

As defined in 36 CFR 800.5, "an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association."

4.5.2.2 Affected Environment

As a result of the initial survey effort, 80 resources were identified along the US 41/Cobb Parkway corridor in the APE. At the request of the FTA, Cobb County transmitted the initial Historic Resource Survey Report to the Georgia Department of Natural Resources Historic Preservation Division (HPD) in June 2014. HPD provided comments on the report in July 2014 and at the request of the FTA, Cobb County responded to those comments in a December 3, 2014 letter and transmitted a revised report. See **Appendix E** for the transmittal letter. The letter described that, during the NEPA process, the alternative alignment in the vicinity of Kennesaw State Station and Chastain Road/McCollum Parkway was eliminated from further consideration (see Section 3.3.1). Based on this revision to the project the APE was refined and resources inside the revised APE were included in the Historic Resources Survey Report (**Appendix E**), which identified 15 of the properties as potentially eligible for the NRHP. At FTA's request, Cobb County Department of Transportation transmitted the Historic Resources Survey Report, which determined that the 15 properties are eligible for the NRHP, to the HPD on February 12, 2015. (Historic Resources Survey Report: Connect Cobb Project, Cobb County and Fulton County, Georgia (Edwards-Pitman Environmental, Inc., 2015). See **Appendix E**. The HPD issued a letter on February 25, 2015 concurring with the FTA's determination and determined that an additional eight properties were recommended as eligible for the NRHP. The FTA accepted HPD's determination.

Based on the consultation with SHPO, 23 historic properties in the APE are eligible for listing on the NRHP and are summarized in **Table 4.5-2**. These resources meet one or more of the following National Register criteria:

- (a) associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) associated with the lives of persons significant in our past; or
- (c) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) have yielded, or may be likely to yield, information important in prehistory or history.

FTA requested that Cobb County include the 23 resources in the Assessment of Effects: Connect Cobb Project, Cobb County and Fulton County, Georgia (Edwards-Pitman Environmental, Inc., 2015). See **Appendix E**.

Table 4.5-2. Resources within the APE Recommended Eligible for the NRHP

Resource Number	Resource Name	Applicable NRHP Criteria[1]
1	Marietta Motel	A, C
2	Regency Inn & Suites	A, C
3	Crown Inn	A, C
5	Traveler's Motel	A, C
6	Sun Inn	A, C
7	Atlanta Office Machines	A
8	Bisma Cars	A
15	Marietta Auto Mart	A, C
22	Marietta Lanes	A
27	Dairy Queen	C
33	IHOP	C
35	Marietta Muffler	A, C
39	Pawn shop	C
42	Marietta Auto Center	A
44	Assembleia de Deus	C
52	Hillcrest Apartments	A, C
65	CSX Railroad	A
69	Ranch house	C
73	Office building	C
74	Woodruff Arts Center	A, B, C
75	First Presbyterian Church	C
77	Artmore Hotel	C
79	Arts Center Tower	C

[1] The National Register Criteria for Evaluation are defined as follows:

- Criterion A: association with events that have made a significant contribution to the broad patterns of our history
- Criterion B: association with the lives of significant persons in or past
- Criterion C: embodiment of the distinctive characteristics of a type, period, or method of construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components may lack individual distinction

4.5.2.3 Potential Impacts

No Build Alternative

With no changes implemented under this alternative, no adverse effects to eligible resources are anticipated.

Proposed Project

Each of the 23 properties determined as eligible for listing in the NRHP was assessed per the criteria listed in Section 4.5.2.1, and the results are summarized in **Table 4.5-3**. This includes the 15 properties recommended in the Historic Resources Survey Report and the eight additional properties recommended by the HPD on February 25, 2015.

Table 4.5-3. Determination of Effect

Resource Number	Resource Name	Determination
1	Marietta Motel	No adverse effect
2	Regency Inn & Suites	No adverse effect
3	Crown Inn	No adverse effect
5	Traveler's Motel	No adverse effect
6	Sun Inn	No adverse effect
7	Atlanta Office Machines	No adverse effect
8	Bisma Cars	No adverse effect
15	Marietta Auto Mart	No adverse effect
22	Marietta Lanes	No adverse effect
27	Dairy Queen	No adverse effect
33	IHOP	No adverse effect
35	Marietta Muffler	No adverse effect
39	Pawn shop	No adverse effect
42	Marietta Auto Center	No adverse effect
44	Assembleia de Deus	No adverse effect
52	Hillcrest Apartments	No adverse effect
65	CSX Railroad	No adverse effect
69	Ranch house	No adverse effect
73	Office building	No adverse effect
74	Woodruff Arts Center	No adverse effect
75	First Presbyterian Church	No adverse effect
77	Artmore Hotel	No adverse effect
79	Arts Center Tower	No adverse effect

A specific discussion of the determination of effects for each of the 23 properties can be found in the Assessment of Effects: Connect Cobb Project (Edwards-Pitman Environmental Inc., 2015). The proposed project has been determined by FTA to have no adverse effect on historic properties, based on no adverse noise, air quality, or visual effects, and no right-of-way or easement requirements from the subject properties. On April 1, 2015, the FTA transmitted the determination of no adverse effects to the Georgia SHPO. The SHPO response to the FTA determination will be included in the FTA EA decision document for the proposed project.

4.5.2.4 Mitigation and Avoidance Measures

The proposed project will have no adverse effect on historic properties, and no mitigation is required unless the SHPO does not concur with the agency finding during the on-going Section 106 consultation process.

Avoidance measures for the proposed project included eliminating an alternative location for a vehicle maintenance facility near US 41/Cobb Parkway and the Canton Road Connector NE. The elimination of this alternative avoids potential impacts to a nearby historic residential district, as discussed in Section 3.3.2. In addition, the design for the proposed project in the vicinity of the intersection of Cobb Parkway and South Marietta Parkway was modified to avoid the right of way boundary near Historic Resource 27.

4.5.3 ARCHAEOLOGICAL RESOURCES

4.5.3.1 Regulatory Context/Methodology

Due to the nature and scope of the undertaking, the APE for archaeological resources is limited to a 150-foot buffer on either side of the proposed alignment and a 500-foot buffer around each proposed station location. Because this project could involve the creation of lane separations, a number of intersections would be modified. Within the project area, ground-disturbing activities related to construction, such as grading, filling, paving, and infrastructure construction have the potential to adversely affect surface and/or subsurface cultural resources that may be present.

During August, September, and October of 2013, a Phase I archaeological survey was conducted for the Connect Cobb Corridor project in Cobb and Fulton Counties (Phase I Archaeological Survey for the Proposed Connect Cobb Transit Improvement Project in Cobb and Fulton Counties, Georgia; Edwards-Pitman Environmental, Inc., 2014). Survey for this project utilized visual inspection, systematic shovel testing, and metal detecting to investigate archaeological sites. Standards and terminology for archaeological survey are defined in the *Georgia Standards and Guidelines for Archaeological Surveys* (Georgia Council of Professional Archaeologists [GCPA], 2001) and were employed following consultation and approval in a project kick-off meeting with SHPO held May 30, 2013.

Any resource within the APE that was identified as eligible for listing in the NRHP is assessed per the criteria of adverse effect as defined in 36 CFR 800.5. A determination of effect is made by the FTA and sent to the SHPO for concurrence.

4.5.3.2 Affected Environment

Prior to the commencement of fieldwork, a review of the Georgia Archaeological Site File and GNAHRGIS database was completed. This search revealed that 89 previously recorded sites are located within one kilometer of the project area, 12 of which have been recommended eligible for the NRHP. These sites were discovered during the course of 70 archaeological surveys completed over the past 35 years. Of these 12 sites within one kilometer of the project area that have been recommended eligible, seven are nineteenth century Civil War sites, three are non-Civil War Historic period sites, and two date to the Precontact era. In addition to these 12 sites, 31 ineligible and 46 previously recorded sites with unknown NRHP eligibility are also located within one kilometer of the project area.

The survey resulted in the re-visitation of nine previously recorded sites situated within the project area, and in the discovery of one new Isolated Find. Per GCPA guidelines, all previously recorded sites within a given project area must be revisited. Of the nine previously recorded sites in the project area, only one, 9CO535, was recommended eligible for the NRHP by the original recording archaeologist. This site was originally recorded in 1998 and recommended eligible due to its relatively undisturbed nature and potential to yield additional significant information about the Civil War. This site was revisited for the current survey and concurs with the original eligible recommendation (see SHPO correspondence in **Appendix E**). The remaining eight sites have been previously recommended as ineligible or of unknown eligibility for the NRHP. Current recommendations of eligibility for these sites remain the same, as summarized in **Table 4.5-4**.

Table 4.5-4. Archaeological Site Descriptions

Site Number	Description	Recommended Eligible for NRHP
9CO97	Precontact era lithic scatter	No
9CO611	Precontact era lithic scatter	No
9CO125/9CO446	Precontact era (Woodstock phase of the Late Woodland period) artifacts; 19th and 20th century artifacts most likely associated with a homesite	No
9CO613	Precontact era lithic scatter; Civil War artifact scatter	No
9CO345	19th century Historic period homesite	No
9CO555	20th century Historic period homesite	No
9CO428	19th and 20th century trash dump	Unknown[1]
9CO502	Historic period artifact scatter	No
9CO535	Remnant of a Civil War entrenchment that was part of the Brushy Mountain Line (a series of fortifications associated with the Battle of Kennesaw Mountain during the Atlanta Campaign of 1864)	Yes[2]

[1] Site 9CO428 (revisit) has unknown eligibility because survey limits precluded full investigation; however, the portion of the site within the project area is non-contributing to overall NRHP eligibility of the site.
[2] Site 9CO535 (revisit) is eligible for inclusion in the NRHP, but the site lies approximately 510 feet beyond potential construction impacts for the proposed project and will not be adversely effected.

4.5.3.3 Potential Impacts

The proposed project has been determined by FTA to have no adverse effect on any eligible or potentially eligible archaeological properties within the project area (see letter dated April 14, 2014 in **Appendix E**). The Georgia SHPO concurred with this determination on July 16, 2014 (see **Appendix E**).

4.5.3.4 Mitigation Measures

There are no adverse effects to archaeological resources. Therefore, no mitigation is required. In the above-referenced July 16, 2014 letter, the Georgia SHPO concurred that Site 9CO535 be designated an Environmentally Sensitive Area (ESA) to help minimize the chance for inadvertent disturbance during planning or construction. However, as a result of refinements to the proposed project location, the APE was reduced in size, and Site 9CO535 is located outside of the revised APE. No ESA is required for this site.

4.6 Parks and Public Lands

This section describes the parks and public lands located in the corridor. While there are parks and trails present in the corridor as identified in Section 4.6.2, no impacts as a result of the project are anticipated. A separate Section 4(f) evaluation (see Section 4.7) provides this determination.

4.6.1 REGULATORY CONTEXT/METHODOLOGY

The study area for parks and public lands is defined as a ½-mile buffer around the proposed alignment. Parks and public land resources were inventoried based on information available from the ARC and a windshield survey completed July 29 through August 1, 2013. To determine

potential for impacts, park mapping was reviewed against preliminary construction limits consisting generally of 70 feet either side of the centerline of the proposed alignment.

4.6.2 AFFECTED ENVIRONMENT

There are 11 parks and three existing trails or side paths adjacent to or within the parklands study area; and an additional 14 trails are planned within the same area, as well as an extension to an existing trail. These are listed in **Table 4.6-1** and displayed in **Figure 4.6-1**. The concept plan exhibits in **Appendix K** provide a closer look at the location of the proposed project in relation to the resources closest to the project limits; specifically Kennesaw Mountain National Battlefield Park (sheet 2), Custer Park and Six Flags White Water Park (sheet 3), and A.L. Burruss Nature Park (sheet 4).

Table 4.6-1. Park Inventory

Facility Type	Number	Names
Parks	11	A.L. Burruss Nature Park, Atlantic Station Park, Birney Street Park, Circle 75 Park, Custer Park, Kennesaw Mountain National Battlefield Park, Kennesaw Station Park, Larry Bell Park, Liberty Park, The Foundry Park, Six Flags White Water Park
Trails (existing)	3	Bob Callan Trail, Kennesaw Mountain to Chattahoochee River Trail, Noonday Creek Trail
Trails (proposed)	14	Akers Mill Road Trail, Atlanta BeltLine Trail, Big Shanty Road Ext Trail, Bob Callan Trunk Trail, Chattahoochee River Trail, Cheatham Hill Trail, Cobb Parkway Trail, Kennesaw Trail, North Segment Trail, Proctor Creek Trail, Rottenwood Creek Trail, Sope Creek Greenway, University Trail, West Cobb Trail

Sources: Atlanta Regional Commission; Windshield Survey 7/29/13 – 8/1/13

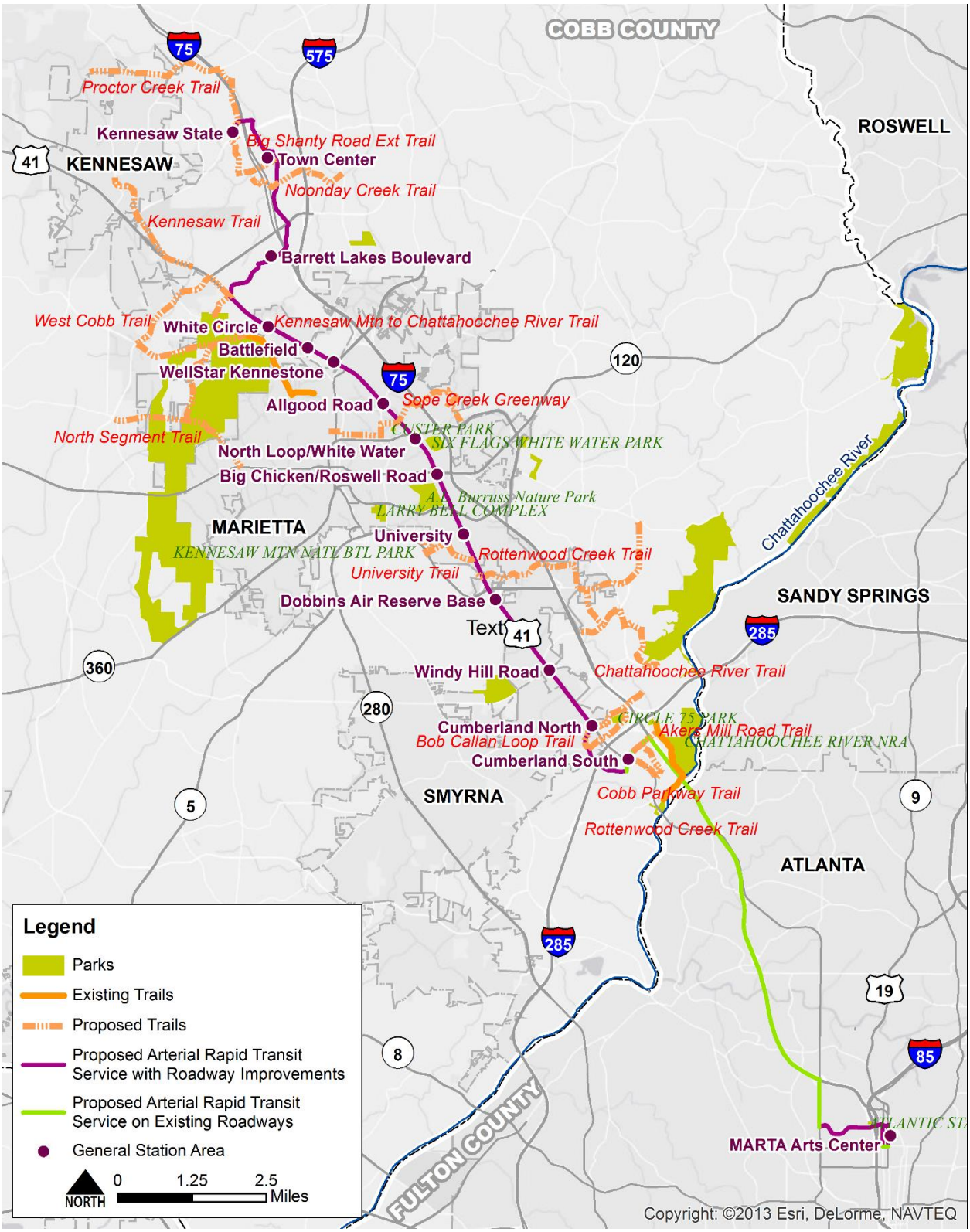
The most significant parkland in the parklands study area is Kennesaw Mountain National Battlefield Park. The Kennesaw Mountain National Battlefield Park, which is part of the National Park Service system, is located to the south of US 41/Cobb Parkway in unincorporated Cobb County between the cities of Kennesaw and Marietta. There have been discussions with staff at the park related to the proposed project (see Section 5.2.1 and **Appendix B**), and transit access is viewed as beneficial to the park.

Larry Bell Park is under the jurisdiction of Cobb County Parks, Recreation, and Cultural Affairs Department. City of Marietta Parks and Recreation facilities within the parklands study area are A.L. Burruss Nature Park, Custer Park, and Birney Street Park. Kennesaw Station Park is managed by City of Kennesaw Parks and Recreation Department.

Liberty Park is adjacent to US 41/Cobb Parkway in Marietta, while Foundry Park and Atlantic Station Park are part of the Atlantic Station development along 17th Street in Atlanta. The Six Flags White Water Park and Circle 75 Park are privately-owned, and are therefore not subject to provisions of Section 4(f) or Section 6(f).

In addition to these parks, 17 existing or proposed trails are located within the parklands study area. Existing trails within the study area include the Bob Callan Trail, located east of I-75 and generally south of I-285; the Kennesaw Mountain to Chattahoochee River Trail (Mountain to River Trail), which has a segment not far from Akers Mill Road on the south end of the US 41/Cobb Parkway alignment; and Noonday Creek Trail, which links the Kennesaw Mountain National Battlefield Park to the Town Center Mall area.

Figure 4.6-1. Existing Parks, Parkland Resources, and Trails (within ½ mile of alignment)



Some of the proposed trails in Cobb County and Atlanta include Kennesaw Trail (which provides access to and runs through Kennesaw Mountain National Battlefield Park), Cheatham Hill Trail, North Segment Trail, West Cobb Trail, and Atlanta BeltLine Trail.

In the central part of the corridor, examples of existing or proposed trails include the Chattahoochee River Trail, Akers Mill Road Trail, Bob Callan Trail, and the Bob Callan Trunk Trail. The southern part of the study area includes the proposed Proctor Creek Trail.

4.6.3 POTENTIAL IMPACTS

4.6.3.1 No Build Alternative

With no action proposed under the No Build Alternative, parks and trails would not be impacted.

4.6.3.2 Proposed Project

None of the parks referenced above fall within the construction limits identified for the project. The majority of the proposed project would be constructed within the existing right-of-way. Where expansion of the right-of-way is required to accommodate stations and park-and-ride facilities, it is not anticipated that the expansion would affect parks and trails.

There are three planned trails that would cross the proposed project. Two of these are the Bob Callan Loop Trail and the Sope Creek Trail. Implementation of the ART project would not preclude future construction of these trails, the timing of which is not currently known; coordination would occur as ART design plans are developed, to ensure trail construction can be accommodated as planned. The third programmed trail is an extension of the Rottenwood Creek Trail, which is proposed to cross the project alignment. However, the ART project would be grade separated at this location, and therefore no impact to the trail is anticipated.

4.6.4 MITIGATION MEASURES

No adverse impacts from the Connect Cobb Corridor project are anticipated; therefore, no mitigation is needed.

4.7 Section 4(f)/Section 6(f)

This section summarizes the findings of the evaluation completed for parks and public lands under Section 4(f) of the US Department of Transportation Act of 1966 and Section 6(f) of the Land and Water Conservation Fund Act of 1965.

4.7.1 SECTION 4(F)

Section 4(f) of the US Department of Transportation Act of 1996, 49 USC 303(c) applies to transportation projects requiring the use of land from significant historic sites or from publicly-owned land from a public park, recreation area, or certain wildlife refuges. The law generally prohibits such use unless (1) there is no prudent or feasible alternative to the use of the land, and (2) the project has included all possible measures to minimize harm to the park, recreation area, refuge, or historic site resulting from the use. “Use” of a Section 4(f) property can be direct, constructive, or temporary as described below:

- **Direct use** occurs when property is permanently incorporated into a proposed transportation facility
- **Constructive use** occurs when a transportation project does not permanently incorporate land from the Section 4(f) resource, but the project’s proximity results in

impacts so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired

- **Temporary occupancy** results when Section 4(f) property, in whole or in part, is required for temporary project construction-related activities.

Various methods were used to identify Section 4(f) properties near the Connect Cobb Corridor and to assess the potential use of those properties. Maps, aerial photography, and local comprehensive plans were consulted to determine the location of parks and recreational lands, wildlife and waterfowl refuges, and historic sites. Additional materials reviewed included property ownership boundaries, preliminary construction limits, and field notes.

4.7.1.1 Potential Impacts

A total of 11 park and recreational properties and 23 historic properties were identified adjacent to the proposed project and were evaluated for Section 4(f) use based on ownership and review of the proposed project limits. Because no park land is being physically affected, and proximity impacts would be negligible or non-existent, evaluation for potential "use" of these parks is not necessary. As noted in the cultural resources section (Section 4.5), no effects to, or use of, historic or cultural resources is expected. Therefore, there is no Section 4(f) use for any of the identified properties, and no further evaluation of Section 4(f) resources is required.

The No Build Alternative would not include a federally-funded transportation component; therefore, it would not be subject to the Section 4(f) requirements of the Department of Transportation Act of 1966.

4.7.2 SECTION 6(F)

In addition to the protection provided by Section 4(f), Section 6(f) of the Land and Water Conservation Fund Act of 1965 (LAWCON) stipulates that any land or facility planned, developed, or improved with LAWCON funds cannot be converted to uses other than parks, recreation, or open space unless land of at least equal fair market value and reasonably equivalent usefulness is provided. Anytime a transportation project would cause such a conversion, regardless of funding sources, such replacement land must be provided.

No permanent right-of-way would be acquired from Section 6(f) resources within the study area. Therefore, no properties planned, developed, or improved with LAWCON funds would be converted to non-outdoor recreation use, and no further evaluation of Section 6(f) resources is required.

4.8 Visual

This section assesses the existing physical character of the Connect Cobb Corridor study area including physical development, vegetation and other natural features, and visually sensitive landmarks and views. Potential impacts on the visual character of the areas adjacent to the proposed project are also evaluated.

4.8.1 REGULATORY CONTEXT/METHODOLOGY

The Connect Cobb Corridor project has a number of constructed elements that would have a visual presence within the corridor right-of-way including ART vehicles, stations, park-and-ride facilities, and vehicle maintenance facility (VMF). Lighting would be provided at station areas.

The term "general visual context" refers to the appearance of the nearby surroundings from the vantage point of a person from ground level, i.e., as one would perceive it from a car, train,

bus, bicycle, or on foot. The Connect Cobb Corridor passes through developed urban and suburban areas with a wide range of development patterns.

The methodology used for this analysis is composed of two primary aspects: inventory of existing visual features (natural and built) and assessment of project effects on those features. The project area was observed directly by driving the corridor, and unique visual features or landmarks were inventoried. Specific areas where the project may have an impact on these features or the general visual character of the area were identified by reviewing the conceptual project design and potential right-of-way impacts. These included areas along the roadway corridors and around proposed stations. These areas were then studied using aerial mapping, photography, and Google Street View to assess potential visual impacts, including changes in views of unique features or landmarks, loss of vegetation, or other visual changes not in character with the surrounding land uses/visual landscape.

A three-tier scale (high, moderate, or minimal) was used to qualitatively assess the degree of visual quality effect that the project elements would have on higher quality visual features. The following definitions summarize each classification:

- **High:** Introduction of new elements that would substantially affect the quality of the visual/aesthetic features
- **Moderate:** Introduction of new elements that may have an effect on the quality of the visual/aesthetic features
- **Minimal:** Introduction of new elements that are not likely to have an effect on visual/aesthetic features

The study area is defined as the right-of-way for the alignments currently under consideration and the immediately adjacent properties with a visual connection to the proposed alignment or station areas.

4.8.2 AFFECTED ENVIRONMENT

The study area includes developed urban and suburban communities extending from Kennesaw to Midtown Atlanta. It includes a diverse array of development patterns, highways, and local roadways. For the US 41/Cobb Parkway, I-75, and Midtown Atlanta portions of the project, a summary of the general visual context is provided along with a list of identified unique visual features or local landmarks.

4.8.2.1 Northern Connection

The northern end of the US 41/Cobb Parkway alignment generally begins at the Kennesaw State Station near the intersection of Chastain Road and Frey Road, and south on Busbee Drive to George Busbee Parkway. This is primarily a four-lane divided roadway with a landscaped center median. In this area, the alignment travels through wooded high-density residential areas, then transitions to the buildings, facilities, and wooded areas of the KSU campus. Past the campus and until it rejoins Barrett Lakes Boulevard to US 41/Cobb Parkway, the setting is suburban commercial, with wide local highway sections and intermittent green space.

The KSU campus is the only local landmark visible from this area.

4.8.2.2 US 41/Cobb Parkway Corridor

US 41/Cobb Parkway is a four-lane divided roadway with a center grassed median. It is a typical highway commercial/industrial corridor, with pockets of high-density and low-density residential areas screened from the highway with wooded areas and vegetated berms. There are some wooded and wetland areas along the highway. Unique visual features or local

landmarks visible from US 41/Cobb Parkway between Barrett Lakes Boulevard and Windy Ridge Parkway, and Cumberland Boulevard to Akers Mill Road before joining I-75 include:

- Kennesaw Mountain
- "Big Chicken" sculpture (Kentucky Fried Chicken Marietta)
- A.L. Burruss Nature Park
- Dobbins ARB
- Georgia Memorial Cemetery

4.8.2.3 I-75 Corridor

The I-75 corridor from the existing park-and-ride facility at the intersection of Cowan Road/SR 92 and Lake Acworth Drive/SR 92 to the MARTA Arts Center Station in Midtown Atlanta is a six- to eight-lane divided freeway section, with managed lanes to be open for service by the year 2018. The view from I-75 is mostly highway right-of-way consisting of dense wooded areas, with intermittent suburban commercial and residential development. The corridor crosses the Chattahoochee River at the Cobb/Fulton County border. The Chattahoochee River National Recreation Area is located in this vicinity. Approaching and entering Atlanta, the setting becomes more urban, with multiple-story buildings in a more dense setting visible from I-75.

Although there are multiple parks, churches, and other landmark features located along I-75, they are screened from the freeway by walls, berms, or vegetation. Views of the river from I-75 are intermittent and limited by the adjoining dense forested areas.

4.8.2.4 Midtown Atlanta

As the corridor approaches US 41/Northside Drive, the view is of a mix of residential and commercial buildings. Once the CSX railroad is crossed, the view is generally of light industrial and small office buildings. At 17th Street, the view changes to include a hotel and railroad related views. The IKEA (big box) store begins a transition to the multi-family residential buildings and vertical mixed use areas of Atlantic Station. Crossing I-75/I-85 and turning onto Spring Street, the views are of restaurants, small retail structures, and office buildings.

4.8.2.5 Stations

Table 4.8-1 summarizes the station types proposed and the visual context around each station.

Table 4.8-1. Proposed Stations and Visual Context

Station Name	Station Type	Visual Context
Kennesaw State	Village	Institutional (college campus)
Town Center	Commuter	Commercial, park-and-ride
Barrett Lakes Boulevard	Village	Commercial, residential, wooded
White Circle	Village	Commercial, wooded
Battlefield	Village	Commercial
WellStar Kennestone	Commuter	Commercial, wooded
Allgood Road	Neighborhood	Smaller-scale commercial, residential, wooded
North Loop/White Water	Commuter	Commercial, wooded, residential
Big Chicken/Roswell Road	Village	Commercial, wooded, residential
University	Village	Commercial, wooded, high-density residential
Dobbins Air Reserve Base	Village	Institutional (AFB), wooded, residential
Windy Hill Road	Village	Commercial, cemetery, residential
Cumberland North	Village	Commercial, residential, wooded

Station Name	Station Type	Visual Context
Cumberland South	TOD[1]	Commercial (mall), high-density residential, wooded
MARTA Arts Center	TOD[1]	Institutional (Arts Center), urban commercial, wooded

[1] Transit-Oriented Development

4.8.3 POTENTIAL IMPACTS

4.8.3.1 No Build

With no improvements proposed, no effects to visually sensitive resources are anticipated as a result of the No Build Alternative.

4.8.3.2 Proposed Project

Potential effects on unique visual features or local landmarks are summarized in **Table 4.8-2**. This table is intended to summarize impacts to unique visual features and landmarks in the corridor, as a result of the proposed project. It also includes a summary of visual impacts to proposed station area, in recognition that these are the areas with the potential for the most visual change, due to the addition of infrastructure. Where "minimal" impacts at proposed station areas are identified, it is assumed that changes to the visual environmental as a result of implementing stations would be consistent with current views and land uses (i.e., the station would occur on a parcel which is already developed with commercial, industrial, or institutional use, or is vacant).

Table 4.8-2 Potential Effects on Unique Visual Features/Landmarks

Visual Resource	Impact	Description of Impact
Kennesaw Mountain	Minimal	Current views would not change
"Big Chicken" sculpture (Kentucky Fried Chicken Marietta)	Minimal	Consistent with current views and land uses
A.L. Burruss Nature Park	Minimal	Consistent with current views and land uses
Dobbins ARB	Minimal	Consistent with current views and land uses
Georgia Memorial Cemetery	Minimal	Consistent with current views and land uses
Chattahoochee River	Minimal	Views of the river would not change; views from the river would be consistent with current views of traffic
Kennesaw State Station Area	Minimal	Consistent with campus uses
Town Center Station Area	Minimal	Consistent with current views and land uses
Barrett Lakes Boulevard Station Area/ Wooded Area	Moderate	Station would remove part of wooded area; would remain consistent with adjacent parking lot use
White Circle Station Area	Minimal	Consistent with current views and land uses
Battlefield Station Area	Minimal	Consistent with current views and land uses
WellStar Kennestone Station Area	Minimal	Consistent with current views and land uses
Allgood Road Station Area	Minimal	Consistent with current views and land uses
Whitewater Station Area/ Wooded Area	Moderate	Station would remove part of wooded area; would remain consistent with adjacent parking lot use

Visual Resource	Impact	Description of Impact
Big Chicken/Roswell Road Station Area	Minimal	Consistent with current views and land uses
University Station Area	Minimal	Consistent with current views and land uses
Dobbins Air Reserve Base Station Area	Minimal	Consistent with current views and land uses
Windy Hill Road Station Area	Minimal	Consistent with current views and land uses
Cumberland North Station Area	Minimal	Consistent with current views and land uses
Cumberland South Station Area	Minimal	Consistent with current views and land uses
MARTA Arts Center Station Area	Minimal	Consistent with current views and land uses

4.8.4 MITIGATION MEASURES

The proposed project will not result in a substantial change to the visual character of the corridor as a whole, particularly along the guideway.

Minimal to moderate impacts are anticipated as a result of station construction, with moderate effects anticipated to occur in areas where dense wooded areas will be removed to construct stations and parking areas. Stations can be designed to be aesthetically attractive and to complement their surroundings. For all stations, the community will be involved in the station design process, and the process of selecting landscaping and streetscape elements that will complement and benefit the visual nature of the neighborhoods. Specific design, including lighting, and aesthetics will be addressed during subsequent engineering phases.

As a separate effort, Cobb County is committed to providing visual enhancement to the existing I-75 bridges that spans the Chattahoochee River.

Construction Phase Mitigation Measures

With exception of where trees will be removed to accommodate station construction, vegetation removed during construction will be replaced with vegetation of a similar type.

4.9 Displacements and Relocations

This section identifies and quantifies the right-of-way impacts associated with the proposed project and the resulting relocation of any residents or businesses.

4.9.1 REGULATORY CONTEXT/METHODOLOGY

Public agencies are required by law to compensate landowners for property acquired for public uses. Any potential acquisition of property due to the proposed project would be conducted in accordance with the Uniform Relocation and Real Property Acquisitions Polices Act of 1970 as amended (Uniform Act) (PL 91–646) and 49 CFR 24, the implementing regulation. The Federal Transit Administration Grant Management Guidelines (Circular 5010.1D dated November 1, 2008) would also apply to any real estate acquisitions.

Right-of-way acquisitions can be divided into two categories: partial takes and full takes. A partial take occurs when a public agency acquires part of a property but the original use of the property remains intact. In contrast, a full take occurs when the entire property is taken for public use.

This analysis evaluates the amount and type of property that may be acquired to accommodate the Connect Cobb Corridor project. The proposed acquisitions (partial and full) were identified and estimated using preliminary construction limits and approximate right-of-way requirements for the project.

4.9.2 AFFECTED ENVIRONMENT

Development along the proposed Connect Cobb Corridor includes commercial, mixed use, industrial, institutional, park, residential, and transportation uses, as summarized in greater detail Section 4.3. Parklands are described in Section 4.6.

4.9.3 POTENTIAL IMPACTS

4.9.3.1 No Build Alternative

Under this alternative, no improvements would take place, and the corridor would remain largely unchanged. There would be no impacts related to displacements and relocations.

4.9.3.2 Proposed Project

To accommodate stations as well as roadway reconstruction necessary for the implementation of ART service, acquisition of property would be required (see figures in **Appendix K**).

Improvements along US 41/Cobb Parkway between the Kennesaw State Station and Cumberland would require the permanent acquisition of approximately 30 acres of right-of-way from up to 69 non-residential parcels along the proposed alignment. The total of 30 acres includes approximately 13 acres of partial property takes, and approximately 17 acres of full property takes. No right-of-way acquisition was assumed for a VMF, as the potential site identified is owned by Cobb County. No residential property takes would result from the proposed project. Commercial properties that would be affected by the full parcel takes include a variety of stand-along food and retail uses, as well as four larger buildings housing multiple uses. This equates to the displacement of up to 26 individual businesses. Right-of-way takes are summarized in **Table 4.9-1**.

Table 4.9-1. Anticipated Right-of-Way Impacts Along US 41/Cobb Parkway Between Kennesaw State Station and Cumberland[1]

	Full Takes		Partial Takes		Total	
	Number of Parcels	Acres	Number of Parcels	Acres	Number of Parcels	Acres
Guideway Impacts	0	0	57	6.5	57	6.5
Station Impacts	10	16.6	2	6.7	12	23.3
Total	**10**	**16.6**	**59**	**13.2**	**69**	**29.8**

[1] All right-of-way impacts from the proposed project are to commercial parcels, public right-of-way, or publicly-owned parcels (e.g., GDOT, City of Marietta).

4.9.4 MITIGATION MEASURES

No impacts to residential properties are anticipated; therefore no mitigation for residential acquisitions is required. For non-residential displacements, the following will be provided:

- Relocation advisory services
- Minimum 90 days written notice to vacate prior to requiring possession
- Reimbursement for moving and reestablishment expenses

Construction Phase Mitigation Measures

All necessary coordination with property owners will occur prior to the construction phase.

4.10 Safety and Security

This section identifies specific community facilities and parklands with vulnerability to safety issues and discusses the various safety and security aspects that will be implemented as part of the Connect Cobb Corridor project.

4.10.1 REGULATORY CONTEXT/METHODOLOGY

The applicable parts of the following safety and security codes and standards would be followed for the Connect Cobb Corridor project:

- The National Fire Protection Association 130, *Standard for Fixed Guideway Transit or Passenger Rail Systems*
- Uniform Fire Code, 1997 Edition as amended
- The Life Safety Code, as well as Internal Organization for Standardization standards
- American National Standards Institute and American Society for Testing and Materials Standards

In addition, FTA provides safety and security oversight for major capital projects (*Safety and Security Guidance for Recipients with Major Capital Projects*, covered under 49 CFR 633, "Project Management Oversight"). The design of the Connect Cobb Corridor project should meet the following minimum objectives:

- Design for minimum hazard through the identification and elimination of hazards through the use of appropriate safety design concepts and/or alternative designs
- Use of fixed, automatic, or other protective safety devices to control hazards which cannot be eliminated
- Use of warning signals and devices if neither designs or safety devices can effectively eliminate or control an identified hazard
- Provide special procedures to control hazards which cannot be minimized by the aforementioned devices

Safety and security aspects of the Connect Cobb Corridor project would be developed in accordance with the Cobb County Department of Transportation's (CCDOT) policies and procedures.

At this time, safety and security policies and procedures have not been developed specifically for the Connect Cobb Corridor project; policies, procedures, and any mitigation measures required for safety and security would be specified at an appropriate level of detail in the Finding of No Significant Impact (FONSI) and finalized during the Project Development process.

CCT employees and consultants are expected to fully comply with the provisions of all safety and security plans developed and fully cooperate during planning, engineering, and construction to provide a safe Connect Cobb Corridor project.

The study area includes facilities within and adjacent to the construction limits of the proposed project and considers the proximity of proposed alignments to schools, playgrounds, and other places that attract school-age children and other persons of special concern relative to safety and security.

4.10.2 AFFECTED ENVIRONMENT

Public safety and security along the corridor is currently provided by the police, fire departments, and the emergency response units of the communities through which the proposed Connect Cobb Corridor project passes. The alignment passes through the cities of Marietta, Smyrna, and Atlanta. Each city has a system for responding to emergencies such as weather, fire, rescue incidents, hazardous materials issues, and homeland security.

There are multiple areas along the US 41/Cobb Parkway corridor for which safety may be a concern, based on the nature of the use and the types of users (i.e., schools having a large population of young children who may be more vulnerable to safety risks). I-75 is an interstate with no direct access to land uses, therefore less potential for conflict and no identified safety concerns.

Specific community facilities and parklands with potential safety issues are listed in **Table 4.10-1** along with their locations. These areas were identified as areas with potential safety issues based on being adjacent or very near to the US 41/Cobb Parkway alignment or proposed stations in Atlanta. Community facilities are also identified in Section 4.4 and discussed in the context of social impacts. Parks and trails are identified and discussed in Section 4.6 regarding potential project impacts to these recreational resources.

Table 4.10-1. Community Facilities and Parklands with Potential Safety Concerns

Name	Address	City
Kennesaw State University	1000 Chastain Road NW	Kennesaw
Kennesaw Mountain National Battlefield Park	900 Kennesaw Mountain Drive	Kennesaw
The Walker School	700 Cobb Parkway N	Marietta
Southern Polytechnic State University[1]	1100 South Marietta Parkway SE	Marietta
Life University	1269 Barclay Circle	Marietta
Custer Park	600 Kenneth E. Marcus Way	Marietta
A.L. Burruss Nature Park	75 South Cobb Drive	Marietta
Carmen Adventist School	1330 Cobb Parkway NW	Marietta
SunTrust Park (Atlanta Braves Stadium)	US 41/Cobb Pkwy at Circle 75 Pkwy	Unincorporated Cobb County

[1] KSU and Southern Polytechnic State University will consolidate into a third, new institution. The new KSU will be a single integrated institution that has two main campuses with buildings, functions, and people located at two sites approximately 10 miles apart. The consolidation is scheduled for completion for the 2015 fall semester. (http://www.ksuspsuconsolidation.com/specific-guiding-principles-for-the-consolidation-of-ksu-and-spsu/)

4.10.3 POTENTIAL IMPACTS

4.10.3.1 No Build Alternative

No positive or adverse impacts to safety and security are anticipated to result from the No Build Alternative.

4.10.3.2 Proposed Project

This section describes proposed design elements and other measures to increase personal safety and security at the proposed stations and along the Connect Cobb Corridor.

A coordination meeting was held on January 26, 2015 with the Cobb County Department of Public Safety, City of Marietta Police, City of Smyrna Police, and Cobb County Department of

Transportation to discuss the proposed project and related public safety issues. Issues discussed included ADA compliance, safety at stations and on ART vehicles, education regarding the dedicated guideway, access to stations, and the need for U-turn locations for public safety responsiveness (which will be identified in the next phase of design). Meeting notes are found in **Appendix B**.

Given adherence to transitway design guidelines and the oversight of security personnel, no adverse impacts to safety and security are anticipated along the corridor.

Design Elements

Stations would include public address systems, video monitoring, and emergency telephones. A public address system, with both speakers and signs, would convey information to people with disabilities in compliance with ADA requirements. Speakers and signs would be positioned to be clearly audible and visible. To deter vandalism, the speakers and signs would be out of public reach. Closed circuit television would record activity at ticket vending areas and platforms. Camera locations would be coordinated with the locations of other equipment such as lighting, audio equipment, and signage. Cameras would be visible to the public but not readily accessible. Stations would incorporate an emergency telephone on or near the platform for use in emergency situations.

General illumination of station areas, as well as vehicular and pedestrian circulation lighting, would be consistent with established guidelines. Emergency lighting would be provided in all public areas, including platforms. Pedestrian lighting would be located along walkways, crosswalks, ramps, stairs, and bicycle storage areas. Vehicular traffic areas within station boundaries, such as bus loading and unloading zones, would be illuminated. Lighting would also be provided for park-and-ride facilities.

Station platforms would include bollards or fencing on the side not used to access the guideway at median stations and where significant grade changes exist at side platforms.

To facilitate median crossover by emergency vehicles, medians would likely be constructed with a Type 7 curb facing, which is mountable. Specific provisions to ensure emergency access would be incorporated during the engineering phase.

Safety and security within the Connect Cobb Corridor is the joint responsibility of the operator and local law enforcement authorities.

Construction Phase Impacts

Construction activity may pose a safety risk to both workers and the public. Potential construction impacts for workers include temporary hazards to personal safety such as the possibility for worker-vehicle conflict in restricted workspaces under traffic conditions, work in deep and confined spaces during utility relocations and construction, and the potential for exposure to potential contaminants during soil excavation and drilling work. Federal Occupational Safety and Health Administration (OSHA) standards for safety of construction site personnel would be maintained. Access to construction sites would be limited by fencing and security gates to prevent inadvertent access by those without access clearance.

Public safety, particularly the encroachment of pedestrians, bicyclists, and other spectators near open excavations and other construction activity, is an issue to be resolved by the creation, proper timing, and placement of protective safety programs, public information efforts, and selected protective measures. The use of construction equipment, delivery of materials, and other construction site activity may have temporary negative safety impacts on adjacent roadways and pedestrian areas.

Applicable safety and security precautions would be specified in a future Safety and Security Management Plan and Safety and Emergency Preparedness Plan and would be overseen by the CCDOT in cooperation with local law enforcement and emergency response personnel.

4.10.4 MITIGATION MEASURES

System safety and security oversight for the project will be achieved through implementation of safety and security plans that would be prepared by the CCDOT. The primary purpose of these plans is to consider safety and security when designing and constructing the project. These plans will cover requirements for safety and security design criteria, hazard analyses, threat and vulnerability analyses, operational staff training, and emergency response measures.

These plans and programs will also specify actions and requirements of the CCDOT to maintain continuation of safety and security during operations. Safety and security plan development for the project will be closely coordinated with city and county law enforcement agencies. Safety and security notification and outreach to the affected communities could include mass media public service announcements, signage of roadway or trail closures, and announcements during community meetings or public events. The CCDOT would be the responsible agency for communicating safety and security measures during operations of the Connect Cobb Corridor project.

Construction Phase Mitigation Measures

Provisions for construction safety and security will be incorporated into safety and security plans prepared for the project, including equipment safety measures for the contractor, and site safety measures such as fencing and signage to promote safety of the general public. The CCDOT will be the responsible agency for communicating safety and security measures during construction.

4.11 Hazardous Materials

This section identifies regulated facilities and sites that have been located within a mile of the proposed project and the measures that will be taken if hazardous materials are found during construction.

4.11.1 REGULATORY CONTEXT/METHODOLOGY

The US Environmental Protection Agency (EPA) Office of Solid Waste and Emergency Response along with state and local governments have established guidelines regarding certain products that they deem to be hazardous to the environment and/or human health, such as petroleum, kerosene, drywall, and the chemicals used during dry cleaning. Large databases are maintained by the EPA, individual states, and other regulatory agencies to keep track of both sites that have been contaminated at some point as well as companies or agencies that handle or produce hazardous materials on a regular basis.

While any sort of hazardous material has the potential to contaminate the environment and affect human health, there are certain sources that are at higher risk to cause contamination if disturbed during construction of a transportation project. Underground Storage Tanks (UST), leaking USTs (LUST), above ground storage tanks (AST), landfills, known contaminated sites called Brownfields, and TIER 2 sites that either store or manufacture hazardous materials (typically associated with USTs) are among the things that are most likely to impact a transportation project. During the environmental assessment process it is important to identify both the past and existing high risk contamination sources in the project area. This evaluation is divided into three primary tasks: a database search, field verification, and documentation of the

results and conclusions. For projects in Georgia, the following databases are reviewed specifically because these sites are considered higher risk:

- US MINES: The US Department of Labor Mine Safety and Health Administration maintains this Mines Master Index File
- GA SWF/LF: The DNR's Operating Solid Waste Facility List maintains the Solid Waste Facilities/Landfill Sites records that the State of Georgia pulls into their state database
- GA SWRCY: This is a listing of recycling facility locations in Georgia
- GA LUST: This is a state database of Leaking Underground Storage Tank Incident Reports that contains an inventory from the DNR's Confirmed Release List
- GA UST: The Underground Storage Tank database contains registered USTs, regulated under the Resource Conservation and Recovery Act
- GA AST: This is a listing of liquefied petroleum gas (propane or butane) tank site locations
- GA Brownfields: The Brownfields Public Record lists properties where response actions under the Georgia Hazardous Site Reuse and Redevelopment Act are planned, ongoing, or completed
- GA TIER 2: This is a database of facilities which store or manufacture hazardous materials and submit a chemical inventory report

4.11.2 AFFECTED ENVIRONMENT

A survey along the project corridor has been conducted for sites which may contain hazardous materials, including soil and/or water contaminated by leaking underground storage tanks. A database search was conducted by Environmental Data Resources, Inc. (EDR) in October 2013 to identify recorded contaminated sites within a standard search radius of one mile from the approximate centerline of the proposed project. The purpose of the initial database search was to identify sites containing hazardous materials or petroleum that could potentially contaminate the local environment if disturbed by earth-moving activities during construction of the proposed project.

Over 300 regulated facilities were identified within the initial one-mile radius. A targeted study area consisting of preliminary construction limits was then applied in order to more accurately define those sites that would potentially be impacted by the project. The initial list of more than 300 sites was reduced to 172 regulated facilities. The proposed project corridor has been highly developed for many years, with many industrial land uses. Because facilities opened and closed over time, there is difficulty determining the precise location of certain sites listed in the EDR report (**Appendix F**). Of the 172 sites, a total of 83 sites were field verified to exist or are considered likely to have USTs still present despite the parcel's current use. These sites do not include the residential or commercial facilities that are not regulated. Facilities that are not regulated may contain hazardous materials such as asbestos.

Appendix F provides a listing of those sites that have been field verified as occurring within the survey area that, as discussed above, have a higher risk for soil contamination or to create regulatory concerns if disturbed during construction. These sites are also illustrated in **Appendix F**.

4.11.3 POTENTIAL IMPACTS

4.11.3.1 No Build Alternative

This alternative would not result in any changes to currently contaminated sites within the study area.

4.11.3.2 Proposed Project

Aerial photography and preliminary field survey indicate that the majority of the USTs are located toward the rear of each parcel away from the areas where construction is likely to occur (e.g., along the existing roadway) (see **Appendix F**). Therefore, based on their relative distance, topographic conditions, and the current conceptual design of the proposed project, the majority of the regulated facilities identified in **Appendix F** are unlikely to adversely impact the Connect Cobb Corridor project. One LUST/UST site is located on a parcel that Cobb County would acquire for the North Loop/White Water Station. Following approval of a final project design and prior to construction, those sites that occur within (or near) the construction limits would need further assessment such as subsurface testing to determine the presence, type, and magnitude of contaminated soil and/or groundwater. There would be a greater potential for contamination at identified LUST sites occurring in the limits of construction.

4.11.4 MITIGATION MEASURES

Prior to construction, CCDOT will complete subsurface testing to identify the presence of contaminated materials. If contaminated materials are found, avoidance alternatives may be considered, or applicable laws and regulations concerning the removal of toxic or hazardous material will be followed and the removal coordinated with the DNR Environmental Protection Division (EPD). Implementation of the proposed project will not preclude any necessary site remediation to be performed by others.

For those sites that would be partially taken for the proposed project, further survey will be conducted to determine if tank removal would be necessary. Should the project design change, further assessment will be required.

Construction Phase Mitigation Measures

Should unforeseen contaminants be encountered during construction, applicable laws and regulations concerning the removal of toxic or hazardous material will be followed and the removal coordinated with the DNR Environmental Protection Division (EPD).

4.12 Noise

This section identifies land uses within the Connect Cobb Corridor which may be sensitive to noise and the sources and levels of noise that may be generated by the proposed project. A more detailed memo summarizing the noise analysis can be found in **Appendix G**.

4.12.1 REGULATORY CONTEXT/METHODOLOGY

The noise impact criteria used for the project are based on the information contained in Chapter 3 of FTA's "Transit Noise and Vibration Impact Assessment" guidance manual.[53] The FTA noise impact criteria compare the project noise with the existing noise (not the No Build noise).

[53] Federal Transit Administration, "Transit Noise and Vibration Impact Assessment." Report FTA-VA-90-1003-06, May 2006.

The FTA noise impact criteria are based on the land use category of the sensitive receptor, and use L_{dn} (the day-night equivalent sound level) for locations where people sleep (Category 2) and L_{eq} (the equivalent sound pressure level) for locations with daytime and/or evening use (Category 1 or 3), as shown in **Table 4.12-1**.

Table 4.12-1. Land Use Categories and Metrics for Transit Noise Impact Criteria

Land Use Category	Noise Metric (dBA)	Description of Land Use Category
1	Outdoor L_{eq}[1]	Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use. Also included are recording studios and concert halls.
2	Outdoor L_{dn}	Residences and buildings where people normally sleep. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
3	Outdoor L_{eq}[1]	Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material. Places for meditation or study associated with cemeteries, monuments, museums, campgrounds, and recreational facilities can also be considered to be in this category. Certain historical sites and parks are also included.

Source: FTA Guidance Manual (2006)

[1] L_{eq} for the noisiest hour of transit-related activity during hours of noise sensitivity

The FTA noise impact criteria include three levels of impact:

- **No Impact:** In this range, the proposed project is considered to have no impact since, on average, the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new project noise.
- **Moderate Impact:** At the moderate impact range, changes in the cumulative noise level are noticeable to most people but may not be sufficient to cause strong, adverse reactions from the community. In this transitional area, other project-specific factors must be considered to determine the magnitude of the impact and the need for mitigation, such as the existing level, predicted level of increase over existing noise levels, and the types and numbers of noise-sensitive land uses affected.
- **Severe Impact:** At the severe impact range, a significant percentage of people would be highly annoyed by the new project noise. Severe noise impacts are considered to be "significant" under NEPA and should be avoided if possible. Noise mitigation should be applied for severe impacts where feasible.

4.12.1.1 Impact Assessment Methodology

The study area for noise impacts was based on the screening distances provided in Chapters 4 and 9 of FTA's "Transit Noise and Vibration Impact Assessment" guidance manual.[54] The study area includes station locations.

Noise impact has been evaluated using the detailed noise assessment methodology contained in Chapter 6 of the FTA guidance manual. The steps in a noise assessment for a transit project include:

- Identifying noise-sensitive land uses in the corridor using aerial photography, Geographic Information System (GIS) data, and field surveys
- Screening out areas, such as those along I-75, where no noise sensitive receptors are located within 200 feet of the proposed alignment
- Measuring the existing noise levels in the corridor
- Projecting noise levels from transit operations and station activities
- Assessing impact from transit by comparing the project noise with the existing noise using the criteria detailed above
- Recommending mitigation at locations where project noise levels exceed the impact criteria

Specific assumptions used in the noise impact assessment include:

- ART vehicle speeds were assumed to be consistent with existing roadway speed limits. Generally ART vehicle speeds ranged from 45 mph to 55 mph on the US 41/Cobb Parkway portion of the alignment and 25 mph to 35 mph on connector roads and city streets in Atlanta.
- The operating hours and headways included the following:
    - Early morning hours (5:00 am to 6:00 am) – 15 minute headways
    - Peak operating hours (7:00 am to 9:00 am and 4:00 pm to 6:00 pm) – eight minute headways
    - Daytime and late evening hours (9:00 am to 4:00 pm and 6:00 pm to 1:00 am) – 15 minute headways
- Bus vehicle reference noise levels are based on information contained in the FTA noise and vibration guidance manual.

4.12.2 AFFECTED ENVIRONMENT

4.12.2.1 Noise Sensitive Land Uses

Noise-sensitive land uses for the Connect Cobb Corridor project were identified based on aerial photography, project maps, and a site survey. Noise-sensitive land uses are summarized in **Table 4.12-2**.

[54] Federal Transit Administration, "Transit Noise and Vibration Impact Assessment." Report FTA-VA-90-1003-06, May 2006.

Table 4.12-2. Noise-Sensitive Land Uses

Location	Noise Sensitive Land Uses
Barrett Pkwy to South Barrett Reliever	Mixed with one hotel and a multi-family residence on the north side of the alignment
Barrett Lakes Blvd	One hotel and several multi-family residences along the roadway
US 41/Cobb Pkwy, south of Barrett Lakes Blvd	Primarily commercial and industrial. There is one residential development between Barrett Lakes Blvd and White Circle Dr and two churches along US 41/Cobb Pkwy.
US 41/Cobb Pkwy, between Canton Rd and North Marietta Pkwy	Three hotels, single-family residences, and a school
US 41/Cobb Pkwy, between South Marietta Pkwy and South Cobb Dr	Two hotels
Caswell Pkwy to south of Windy Hill Rd SE	Georgia Memorial Cemetery is located just south of Caswell Pkwy, to the west of US 41/Cobb Pkwy. No residential land uses along this portion of the alignment.
Cumberland Blvd	Four hotels, one multi-family development, and commercial shopping areas
Northside Dr, Northside Cir to 17th St NW	Primarily commercial, with one residential development north of Northside Cir NW to the east of Northside Dr
17th St NW, Bishop St to Market St NW (Atlantic Station)	Several multi-story residential developments, mixed-use residential and commercial buildings, and three hotels
Spring St NW, 17th St to 10th St	Two performance halls
W Peachtree St, 17th St to 10th St	Multi-family residences and commercial buildings

4.12.2.2 Existing Noise Measurements

Existing noise levels were measured at 13 sites near the proposed Connect Cobb Corridor project during October 2013 (see **Figure 4.12-1**). Because the thresholds for impact in the FTA noise criteria are based on the existing noise levels, measuring the existing noise and characterizing noise levels at sensitive locations is an important step in the impact assessment. The noise measurements included long-term (24-hour) and short-term (1-hour) monitoring of the A-weighted sound level at noise-sensitive locations near the proposed alignment.

Table 4.12-2 summarizes the results of the existing noise measurement program. At each site, the measurement was conducted at the approximate setback of the building or buildings relative to the project location. The results of the existing noise measurements program are used to determine the existing noise levels for all the noise sensitive locations for the project. The noise measurement results at each site are summarized below.

Figure 4.12-1. Noise Measurement Locations

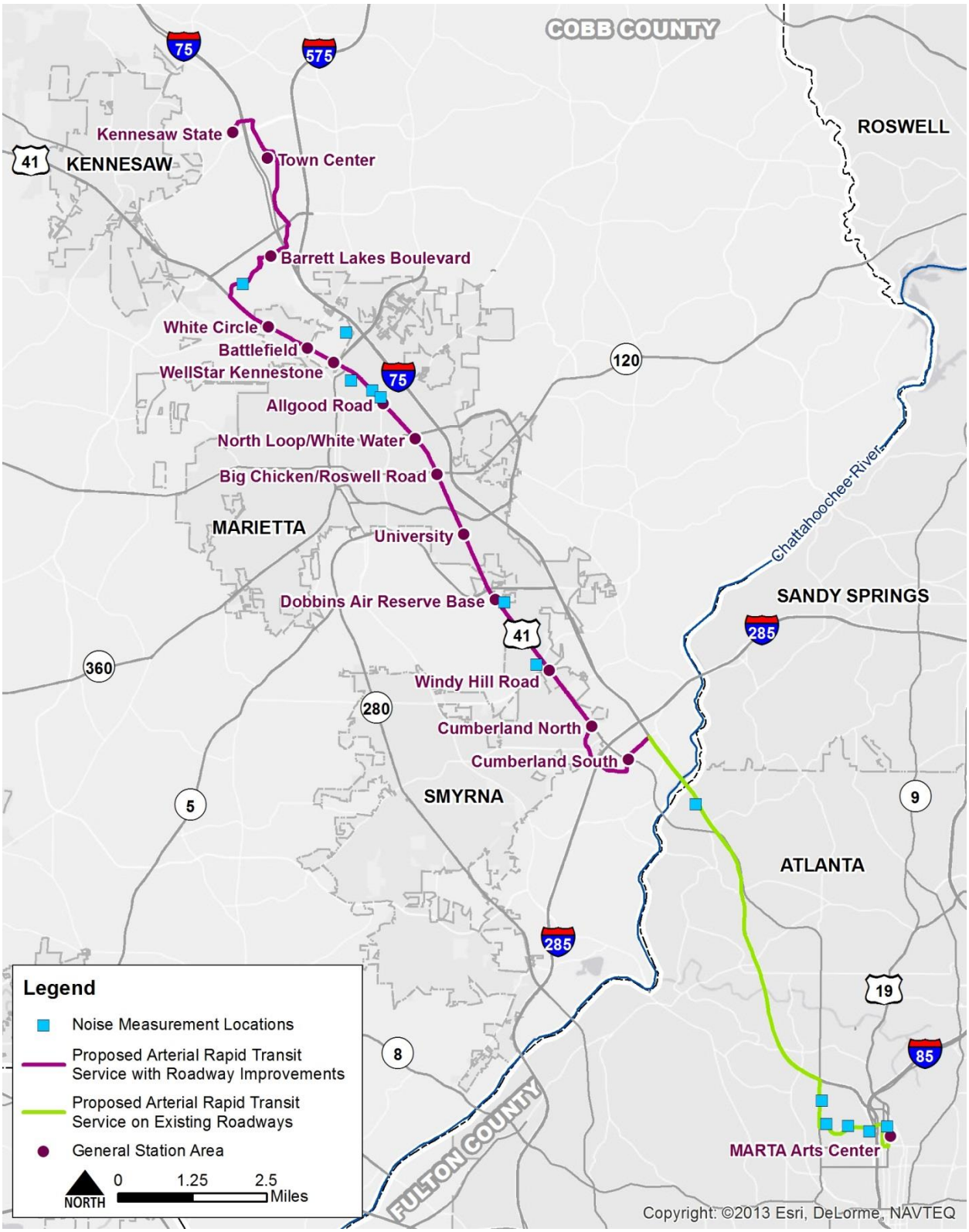


Table 4.12-2. Summary of Existing Long- and Short-Term Noise Level Measurements

Site No.	Measurement Location	Measurement Start		Meas. Duration (Hrs)	Noise Level (dBA)[1]	
		Date	Time		L_{dn}	L_{eq}
N1	Century Crest Apartments	10/22/2013	13:17	24	71	--
N2	121 Paris Lane St, Marietta	10/22/2013	10:41	24	64	--
N3	Princeton Place Apartments	10/22/2013	15:29	24	61	--
N4	Budget Inn Motel – US 41/ Cobb Pkwy	10/24/2013	10:21	24	69	--
N5	The Walker School	10/22/2013	08:05	1	58	60
N6	Cumberland Crossing Apartments	10/22/2013	13:55	24	55	--
N7	Georgia Memorial Park	10/23/2013	11:07	1	54	56
N8	Trinity School	10/23/2013	08:25	1	54	56
N9	Highland Ridge Apartments	10/21/2013	16:43	24	64	--
N10	Bishop St NE & 17th St	10/24/2013	10:01	1	57	59
N11	17th St Playground	10/23/2013	15:30	1	59	61
N12	Fowler St & 16th St	10/24/2013	14:40	1	61	63
N13	17th St & Peachtree St	10/23/2013	16:34	1	57	59

[1] L_{dn} is used for Category 2 (residential) land use, and L_{eq} is used for Category 3 (institutional land use).

4.12.3 POTENTIAL IMPACTS

For the proposed Connect Cobb Corridor project, a detailed noise assessment was conducted. The results are presented below and include an assessment of both residential and institutional land use. The results include tables of all sensitive locations, which show the location information for each sensitive receptor group, the existing noise levels, the projections of future noise levels, the impact criteria, and whether or not there are any noise impacts from transit operations or station activities.

The results in **Tables 4.12-3 and 4.12-4** indicate no noise impacts for residential or institutional land uses along the corridor from either transit operations or station activities. Project noise impacts do not even approach a level indicating moderate impact, largely due to the high existing noise levels in the corridor from traffic on local streets, US 41/Cobb Parkway, and I-75.

Table 4.12-3. Summary of Noise Impacts for Residential Land Use

Receiver		Existing L_{dn}	Criteria - Moderate Impact	ART Noise Level	Impact
Type[1]	Location				
MF	General Wheeler Ct & Shiloh Valley Dr NW	64	61	56	No
MF	Roberts Ct NW Kennesaw & Heritage Park Trace	64	61	55	No
Hotel	Roberts Ct NW Kennesaw & Heritage Park Trace	64	61	55	No
MF	General Wheeler Ct & Shiloh Valley Dr NW	64	61	59	No

Receiver		Existing L_{dn}	Criteria - Moderate Impact	ART Noise Level	Impact
Type[1]	Location				
MF	Barrett Lakes Blvd & Shiloh Valley Dr NW	64	61	59	No
MF	Barrett Lakes Blvd & Shiloh Valley Dr NW	69	64	59	No
MF	Barrett Lakes Blvd & Esquire Cir	69	64	59	No
SF	Barrett Lakes Blvd & Esquire Cir	69	64	60	No
MF	1615 Cobb Pkwy N	69	64	57	No
Hotel	US 41/Cobb Pkwy & Canton Dr	69	64	59	No
Motel	525 Cobb Pkwy N	69	64	60	No
Motel	525 Cobb Pkwy N	69	64	60	No
SF	525 Cobb Pkwy N	69	64	59	No
Motel	Seminole Dr & Custer St	69	64	60	No
Hotel	Seminole Dr & Custer St	69	64	60	No
MF	Franklin Dr & Hidden Glen Dr	69	64	58	No
MF	Franklin Dr & Hidden Glen Dr	69	64	57	No
MF	Wind Cliff 2350 Cobb Pkwy SE	69	64	57	No
Hotel	Cumberland Blvd & US 41/Cobb Pkwy	64	61	58	No
Hotel	Cumberland Blvd & Cobb Pkwy	64	61	58	No
Hotel	Cumberland Blvd & Cobb Pkwy	64	61	57	No
MF	499 Northside Cir NW, Atlanta	64	61	53	No
Hotel	17th St to W Peachtree St	60	58	52	No
MF	17th St to W Peachtree St	60	58	54	No
MF	17th St to W Peachtree St	60	58	55	No
Hotel	17th St to W Peachtree St	66	62	53	No
MF	17th St to W Peachtree St	66	62	53	No
MF	17th St to W Peachtree St	60	58	54	No
SF	Chastain Rd NW & Town Point Pkwy NW	64	61	56	No
Hotel	Chastain Rd NW & Town Point Pkwy NW	64	61	57	No
Hotel	Busbee Dr & George Busbee Pkwy	64	61	58	No
Hotel	Busbee Dr & George Busbee Pkwy	64	61	58	No
Hotel	Busbee Dr & George Busbee Pkwy	60	58	57	No
MF	Busbee Dr & George Busbee Pkwy	64	61	58	No
Hotel	Busbee Dr & George Busbee Pkwy	64	61	57	No
MF	Big Shanty Rd & George Busbee Pkwy	64	61	57	No
MF	Greers Chapel Rd & US 41/Cobb Pkwy NW	64	61	55	No
Hotel	George Busbee Pkwy NW	64	61	57	No
Hotel	George Busbee Pkwy NW	64	61	55	No

Note: The reported noise levels are rounded to the nearest decibel.

[1] SF = Single-family residences; MF = Multi-family residences

Table 4.12-4. Summary of Noise Impacts for Institutional Land Use

Receiver		Existing L_{eq}	Criteria - Moderate Impact	Projected ART Noise Level	Impact
Type	Location				
School	1285 Cobb Pkwy N	60	63	56	No
Church	1285 Cobb Pkwy N	63	65	57	No
Church	1285 Cobb Pkwy N	63	65	55	No
Park	75 South Cobb Dr SE	55	61	59	No
Cemetery	2000 Cobb Pkwy S	55	61	55	No
Theater	17th St to W Peachtree St	60	63	56	No
Museum	Busbee Dr & George Busbee Pkwy	58	62	57	No
School	4301 Northside Pkwy NW	63	65	55	No
Art Center	17th St NE & Spring St NW	60	63	53	No

Note: The reported noise levels are rounded to the nearest decibel.

4.12.4 MITIGATION MEASURES

There are no noise impacts identified for the Connect Cobb Corridor project, so no mitigation is required.

Construction Phase Mitigation Measures

Construction activities would be carried out in compliance with all applicable local noise regulations. A variety of best management practices for noise mitigation will be included in construction contract specification in order to reduce noise effects during construction. These may include:

- Avoiding nighttime (10 pm to 7 am) construction in residential neighborhoods
- Using specially quieted equipment with enclosed engines and/or high-performance mufflers
- Requiring all equipment to comply with pertinent EPA equipment noise standards
- Locating stationary construction equipment as far as possible from noise-sensitive sites
- Re-routing construction-related truck traffic along roadways that would cause the least disturbance to residents
- Notifying nearby residents and community stakeholders whenever extremely noisy construction work would occur

4.13 Air Quality

This section reviews existing conformance with air quality standards in the project area, discloses potential impacts to conformance status that would result from implementation of the proposed project, and describes efforts to minimize adverse effects. Any necessary mitigation measures are also presented.

4.13.1 REGULATORY CONTEXT/METHODOLOGY

The Clean Air Act Amendments (CAAA) of 1990 and the Final Conformity Rule (40 CFR 51 and 93) direct the EPA to implement environmental policies and regulations that will ensure

acceptable levels of air quality. The Clean Air Act (CAA) and the Final Conformity Rule apply to proposed transportation projects. According to Title I, Section 176 (c) 2, "No federal agency may approve, accept, or fund any transportation plan, program, or project unless such plan, program, or project has been found to conform to any applicable State Implementation Plan (SIP) in effect under this act."

The Final Conformity Rule defines conformity as consistency with the SIP's purpose to eliminate or reduce the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and to achieve expeditious attainment of such standards. In particular, such activities will not:

- Cause or contribute to any new violation of any NAAQS in any area
- Increase the frequency or severity of any existing violation of any NAAQS in any area
- Delay timely attainment of any NAAQS or any required interim emission reductions or other milestones in any area

The EPA established NAAQS for air pollutants that are of nationwide concern. These air pollutants, referred to as criteria pollutants, are carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), particulate matter (PM), ozone (O_3), and sulfur dioxide (SO_2).

In addition to the criteria pollutants, EPA also regulates air toxics. Mobile source air toxics (MSATs) are a subset of the 188 air toxics defined by the CAA. The MSATs are compounds emitted from highway vehicles and non-road equipment.

The ARC is responsible for managing the process to ensure that transportation plans and programs within the Atlanta nonattainment area do not cause or contribute to violations of the NAAQS. This process is referred to as transportation conformity. A transportation project is analyzed as part of a regional transportation network developed by the county or state. Projects included in this network are found in the Transportation Improvement Program (TIP), which is the basis for the regional mobile source air quality analysis that utilizes vehicle miles traveled (VMT) and vehicle hours traveled (VHT) within the region to determine daily "pollutant burden" levels. The results of this analysis, which are presented in the SIP, determine if an area is in compliance with regulations set forth in the EPA's final conformity rule. The goal of the SIP is to demonstrate how the region plans to meet the NAAQS by the EPA attainment deadlines. The fiscal year (FY) 2014-2019 TIP is the current adopted plan for the Atlanta region. It was adopted by the ARC on March 26, 2014 and by GRTA on April 9, 2014 and was approved by the US Department of Transportation (US DOT) on April 30, 2014.

A conformity determination must be made for transportation plans, programs, and individual projects within air quality nonattainment areas in order for federal transportation funding to be allocated, without restriction, to the region. This determination is provided by the US DOT with the concurrence of EPA. The current conforming regional transportation plan for the ARC is PLAN 2040.

All roadway segments adjacent to and crossing the proposed alignment were included in the evaluation of air quality impacts.

4.13.2 AFFECTED ENVIRONMENT

The proposed project is in an area where the TIP contains transportation control measures. The CAA requires Transportation Plans and TIPs in areas not meeting the NAAQS to conform to the motor vehicle emissions budget of the SIP. As previously noted, the FY 2014-2019 TIP (PLAN 2040) is the current adopted plan for the Atlanta region showing the region's highest transportation priorities.

Section 107 of the CAAA requires that EPA publish a list of all geographic areas in compliance with the NAAQS, as well as those not in compliance with the NAAQS. A designation of "attainment" means an area is in compliance with the NAAQS, and "nonattainment" means it is not. The Atlanta area, including Cobb and Fulton Counties, is classified as a moderate nonattainment area for O_3 (eight-hour standard), a nonattainment area for $PM_{2.5}$, and an attainment area for all other pollutants.

Therefore, for those pollutants which the Atlanta area is in nonattainment (ozone and particulate matter), the project must be shown to be consistent with the region's goals for reaching attainment for the subject pollutant. In the case of ozone, the project should be shown to be included in a conforming plan and program (i.e., the TIP's emissions budget for air quality). In the case of particulate matter, this determination is based on a review of the project scope and type by an interagency group consisting of the ARC, EPA, FHWA, FTA, and DNR EPD.

When presenting a discussion of the affected environment related to air quality, it is often helpful to present data associated with the existing/observed quantities of the various pollutants for which NAAQS have been established. This data can provide a source for comparison or help paint a picture of the air quality concerns/issues of an area. The Ambient Monitoring Program, run by the DNR, measures concentrations of criteria and non-criteria air pollutants at various locations throughout the state. The monitored air quality data collected from the four monitoring locations nearest to the study area for the three most current years available (2011 through 2013) are presented in **Table 4.13-1**. The descriptors and data types used for each pollutant are consistent with the NAAQS.

4.13.3 POTENTIAL IMPACTS

4.13.3.1 No Build Alternative

Specific air quality impacts are not quantified for the No Build Alternative; however, over time, air quality could be further degraded in the study area if motor vehicle traffic increases and no alternate modes of transportation are implemented.

4.13.3.2 Proposed Project

The project-level air quality determination will be made in conjunction with the NEPA decision document. Specific criteria pollutants are discussed below.

Ozone

This project is identified in the PLAN 2040 Regional Transportation Plan (RTP) by reference number AR-475. Because inclusion in this conforming plan also serves as project level analysis for ozone (O_3), no further analysis of O_3 emissions is warranted.[55]

[55] A conformity determination was required as part of the PLAN 2040 Update RTP and FY 2014-2019 TIP. A positive conformity determination was received from US DOT and EPA for both ozone and particulate matter standards on April 30, 2014. For more information, see http://atlantaregional.com/environment/air/air-quality-planning.

Table 4.13-1. Monitored Ambient Air Quality Data

			South DeKalb 2390-B Wildcat Road DeKalb County			Confederate Avenue			Kennesaw National Guard 1901 McCollum Parkway, Kennesaw, Cobb County			Georgia Power Substation 4434 Roswell Road Atlanta, Fulton County		
			2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013
Carbon Monoxide (CO) [ppm]	1-Hour	Maximum	1.7	1.4	1.22							1.9	1.8	1.8
		2nd Maximum	1.7	1.4	1.18							1.8	1.7	1.5
		# of Exceedences	0	0	0							0	0	0
	8-Hour	Maximum	1.5	1.6	1.1							1.3	1.1	1.1
		2nd Maximum	1.5	1.6	1.1							1.3	1.1	1.1
		# of Exceedences	0	0	0							0	0	0
Particulate Matter [µg/m³]	PM_{10}	2nd Maximum 24-Hour	46	43	34									
		Mean Annual	20.5	20.55	17.83									
		# of Exceedences	0	0	0									
	$PM_{2.5}$	98th Percentile	33.6	30	20.2				24.5	18.9	16.8			
		Mean Annual	11.85	9.98	11.0				11.54	10.14	8.71			
		# of Exceedences	0	0	0				0	0	0			
Ozone (O_3) [ppm]	8-Hour	First Highest	0.088	0.099	0.082	0.093	0.101	0.096	0.082	0.087	0.073			
		Second Highest	0.084	0.087	0.063	0.092	0.089	0.075	0.079	0.076	0.073			
		Third Highest	0.082	0.086	0.062	0.086	0.087	0.067	0.079	0.076	0.067			
		Fourth Highest	0.082	0.085	0.061	0.084	0.048	0.066	0.079	0.075	0.065			
		# of Days Standard Exceeded	8	9	1	15	10	1	11	3	0			

		South DeKalb 2390-B Wildcat Road DeKalb County			Confederate Avenue			Kennesaw National Guard 1901 McCollum Parkway, Kennesaw, Cobb County			Georgia Power Substation 4434 Roswell Road Atlanta, Fulton County		
		2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013
Sulfur Dioxide (SO_2) [ppb]	1-Hour Maximum	18.6	10.6	14.4	29.4	12.4	10.4						
	3-Hour Maximum	13.2	6.4	8.1	17.6	8.9	5.0						
	24-Hour Maximum	4.3	2.3	1.7	6.2	3.8	2.0						
	Arithmetic Mean	0.91	0.44	0.35	1.7	1.97	1.50						

Particulate Matter (PM_{10} and $PM_{2.5}$)

On March 10, 2006, EPA issued a final rule regarding the localized or "hot-spot" analysis of $PM_{2.5}$ and PM_{10} (40 CFR 93). This rule requires that $PM_{2.5}$ and/or PM_{10} hotspot analysis be performed for transportation projects with significant diesel traffic in areas not meeting $PM_{2.5}$ and/or PM_{10} air quality standards. The project area is classified as an attainment area for PM_{10}. As such, a PM_{10} hotspot analysis is not required.

On January 5, 2005, the EPA designated 24 counties and three partial counties in Georgia as nonattainment areas for $PM_{2.5}$. Metropolitan $PM_{2.5}$ non-attainment areas are now required to have a TIP and long range transportation plan that conforms to the $PM_{2.5}$ standard.

Based on preliminary results in **Appendix H**, changes to the regional air quality conformity models as a result of this project are not expected to be significant, nor is this project expected to be a project of local air quality concern.

The proposed project was evaluated by an interagency group consisting of the ARC, EPA, FHWA, FTA, GDOT, GRTA, and DNR EPD, and on January 27, 2015 they agreed that this project does NOT appear to be a "Project of Concern" per the Transportation Conformity Rule and thus meets the statutory and regulatory requirements for $PM_{2.5}$ hotspots without a qualitative analysis. Correspondence of this determination by the interagency group is included in **Appendix H**.

Mobile Source Air Toxics

An MSAT assessment is required statewide for most federal transportation projects. Based on the example projects defined in the FHWA guidance "Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents" updated December 6, 2012, the Connect Cobb Corridor would be classified as a project with *Low Potential MSAT Effects*.

The amount of MSATs emitted would be proportional to the VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT is the amount of daily traffic on a given roadway segment multiplied by the length of the segment.

Because the estimated VMT under the proposed project and the No Build Alternative are nearly the same, varying by less than one percent, it is expected there would be no appreciable difference in overall MSAT emissions between the Build and No Build Alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050 while VMT is projected to increase by over 100 percent. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

Carbon Monoxide

Carbon monoxide (CO) concentrations can be highest at locations where there are large volumes of idling traffic (e.g., at traffic signals). ART vehicles to be used along the transit corridor would travel in designated lanes that would limit idling to primarily transit stations. Headway times at transit stations would be a maximum of approximately eight minutes during peak hour traffic periods and less during nonpeak periods. The 15 ART vehicles to be purchased for the ART system would either be compressed natural gas or diesel-electric hybrid, minimizing CO emissions.

Under the proposed project, construction of ART vehicle only lanes on US 41/Cobb Parkway would minimize idling delays for transit vehicles. Headway times at transit stops during peak periods are not anticipated to be longer than eight minutes at each station. Transit station locations have been identified that would encourage pedestrian access based on existing infrastructure. Some stations would not offer parking, so driving to the stations is not an option. For transit stations with parking, it would be limited with the intent of encouraging short destination trips instead of attracting users from the larger region.

Based on the scope of infrastructure improvements and operations planned for the proposed project, a "hot spot" analysis is not required, and the project is not anticipated to result in increased CO emissions in excess of state and federal regulatory limits on a local level.

4.13.4 MITIGATION MEASURES

The analysis presented in this document demonstrates there would be no anticipated exceedances of air pollutant concentrations during the operating phase of the proposed project; therefore, no mitigation measures are necessary.

Construction Phase Mitigation Measures

A series of best management practices (BMPs) will be implemented during construction to control dust. This may include the following preventive and mitigation measures:

- Minimization of land disturbance during site preparation
- Use of watering trucks to minimize dust
- Covering of trucks while hauling soil/debris off-site or transferring materials
- Stabilization of dirt piles if they are not removed immediately
- Use of dust suppressants on unpaved areas
- Minimization of unnecessary vehicle and machinery idling
- Revegetation of any disturbed land post-construction

4.14 Federal and State Protected Species

This section provides an overview of all potential habitat in the project area. For federal and state protected species known to occur near the corridor, this section describes species range, known occurrences within a ½-mile radius, suitable habitat, suitable survey seasons, observed habitat, anticipated impacts, and potential mitigation measures.

4.14.1 REGULATORY CONTEXT/METHODOLOGY

In compliance with Section 7 of the Endangered Species Act (ESA), the proposed project must identify the presence of threatened and endangered species and their designated critical habitat as well as evaluate project impacts.

The Georgia Endangered Wildlife Act prohibits the capture, killing, or selling of protected species and protects the habitat of these species on public lands. Georgia's Wildflower Preservation Act of 1973 provides for the designation and protection of plant species that are rare, unusual, or in danger of extinction that are found on public lands of the state.

The Bald and Golden Eagle Protection Act of 1940 protects bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of such birds, except under certain specified conditions. The United States Fish & Wildlife Service (USFWS) is the responsible agency for this Act.

In compliance with the Magnuson-Stevens Fishery Conservation and Management Act, the proposed project must identify unavoidable adverse impacts to Essential Fish Habitat (EFH). Congress describes EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) is the responsible agency for this Act.

The Migratory Bird Treaty Act and the Executive Order on the Responsibility of Federal Agencies to Protect Migratory Birds (Executive Order (EO) 13186), requires the protection of migratory birds and their habitats. The USFWS is the responsible agency for this Act.

For the survey methodology, the first task included reviewing ecological data such as aerial photographs, topographic maps, soil maps, ecoregion information, protected species lists, protected species suitable habitat requirements, and designated critical habitat. The protected species include species listed on the USFWS Information, Planning, and Conservation System (IPAC) for Cobb and Fulton Counties (see **Appendix I**). In addition, federal and state species listed by the DNR Nongame Conservation Section and their response letter is included in **Appendix I**. This information was requested from DNR because they keep a data base of previously identified locations of federal and state protected species.

Project limit habitat surveys were completed in June through August 2013 (see Ecology Report in **Appendix I**) and included the federal and state listed species in **Tables 4.14-1 and 4.14-2**. The surveys were conducted during appropriate months to identify vegetative communities and habitat which are based on each species' flowering or fruiting season. An aquatic survey was completed in October and November 2014 (see Protected Aquatic Species Survey Report in **Appendix I**). According to the July 1, 2013 DNR letter, there are no known occurrences of federal candidate threatened or endangered species within ½ mile of the study area.

4.14.2 AFFECTED ENVIRONMENT

The study area is very developed with roadways, sidewalks, residences, schools, commercial areas, parking lots, office buildings and industrial land uses. The project area includes grassed medians, maintained road shoulders, ornamental commercial and residential landscaping and adjacent slopes along the existing paved roads. Areas of maintained plant community habitat are interspersed with mixed pine/hardwood communities. The presence of invasive species has degraded habitat in many unpaved areas, and those areas are not suitable for protected species.

Federally Threatened and Endangered Species

The federally listed species in Cobb and Fulton Counties are listed in **Table 4.14-1**.

Table 4.14-1. Federal Protected Species

Species	Common Name	Federal Status	State Status	Habitat Within Project Limits	Survey Season
Amphianthus pusilus	pool sprite	T	T	Not Observed	March – May
Elliptoideus sloatianus	purple bankclimber	E	E	Not Observed	May – November
Etheostoma scotti	Cherokee darter	T	T	Not Observed	May – November
Hamiota altilis	finelined pocketbook	T	T	Not Observed	May – November

Species	Common Name	Federal Status	State Status	Habitat Within Project Limits	Survey Season
Hamiota subangulata	shinyrayed pocketbook	E	E	Not Observed	May – November
Medionidus penicillatus	Gulf moccasinshell	E	E	Not Observed	May – November
Myotis septentrionalis[1]	northern long-eared bat	T	NL	No Cave Habitat Observed, Summer Roosting Habitat Observed	May – August
Myotis sodalis	Indiana bat	E	E	Cave Habitat Not Observed	May – August
Platanthera integrilabia	white fringeless orchid	FC	T	Not Observed	Mid-July – August
Pleurobema pyriforme	oval pigtoe	E	E	Not Observed	May – November
Rhus michauxii	dwarf sumac	E	E	Not Observed	June – October
Key: E = Endangered; T = Threatened; FC = Federal Candidate; NL = Not Listed; Prop. E = Proposed Endangered					

[1] Surveys and survey data analysis by the USFWS are ongoing to determine the presence or absence of this species in the developed areas of northern metro-Atlanta. Suitable summer roosting habitat needs to be considered.
Source: Georgia Department of Natural Resources, Nongame Conservation Section (updated June 2010) Data and 7/01/13 letter; USFWS IPAC Database, Cobb & Fulton County 2013

Critical Habitat

Critical habitat, as defined under the ESA, identifies specific geographic areas that include physical and biological features essential to the conservation of a federal listed species. Critical habitat has been designated for the Gulf moccasinshell in a stream more than 20 miles away from the project area. No critical habitat has been designated in Cobb or Fulton Counties for any protected species in the study area. It is noted that due to its very recent federal listing (April 1, 2015), critical habitat has not yet been designated for the northern long-eared bat.

Bald and Golden Eagles

There are no known occurrences of bald eagles or golden eagles within three miles of the study area, and no bald eagle or golden eagle nests were observed during the habitat surveys. The study area contains no suitable foraging or nesting habitat for these species.

Essential Fish Habitat

In Georgia, essential fish habitat (EFH) has been defined in Camden, Glynn, McIntosh, Liberty, Bryan, and Chatham Counties. The project area is not located within any of these coastal counties of Georgia.

Migratory Birds and Bats

For bridges and large culverts that would require reconstruction or removal, a field survey will be completed prior to construction to identify use by migratory birds and roosting bats. All of the stream crossings include bridges or culverts that provide suitable habitat for migratory bird nests.

State Threatened and Endangered Species

The state threatened and endangered species known to occur in the project vicinity are listed in **Table 4-14.2**.

Table 4.14-2. State Threatened and Endangered Species

Species	Common Name	Federal Status	State Status	Project Limits Habitat	Survey Season
Cambarus howardi	Chattahoochee crayfish	NL	T	Habitat Observed	May - November
Draba aprica	sun-loving draba	NL	E	Not Observed	March - May
Notropis hypsilepis*	highscale shiner	NL	R	Habitat Observed	May - November
Schisandra glabra	bay star-vine	NL	T	Marginal Habitat Observed	May - August
Symphyotrichum georgianum	Georgia aster	NL	T	Not Observed	October - November
Key: E = Endangered; T = Threatened; R = Rare; NL = Not Listed					

Source: Georgia Department of Natural Resources, Nongame Conservation Section (updated June 2010) Data and 7/01/13 letter T & E species; USFWS IPAC Database, Cobb & Fulton County 2013

***** This rare species has been included based on the observed suitable habitat during the 2014 aquatic survey

During the 2014 aquatic survey, suitable habitat was observed for the Chattahoochee crayfish (*Cambarus howardi*) and highscale shiner (*Notropis hypsilepis*). The following streams had suitable habitat for the Chattahoochee crayfish: S-8, S-9, S-12, S-13, S-14, S-15, S-16, and S-17 and the Chattahoochee crayfish were collected in S-15 and S-16 (see water resource maps in the Ecology Report in **Appendix I**). Highscale shiner suitable habitat was observed in S-12, S-13, S-16, and S 17, but no highscale shiners were collected.

4.14.3 POTENTIAL IMPACTS

No Build Alternative

This alternative would have no impacts to federal or state protected species, designated critical habitat, bald eagles, migratory birds or bat roosts.

Proposed Project

Summer roosting habitat for the federally listed northern long-eared bat (*Myotis septentrionalis*) is typically found in hardwood forest areas. The project will directly affect some hardwood forest by the clearing of trees during the construction phase, specifically approximately 725 feet southwest of the southernmost intersection of White Circle Drive NW and US 41/Cobb Parkway and near the North Loop/Whitewater station area. Implementation of mitigation measures (see Section 4.14.4) would cause the project to "may affect, but not likely to adversely affect" the northern long-eared bat. The project would have "no effect" to the other federally listed species.

The proposed project would have no effect to designated critical habitat. The project is not anticipated to result in a "take" as defined in the Bald and Golden Eagle Protection Act. The project will not have an impact on EFH. No impacts to migratory birds are anticipated with implementation of mitigation measures (see Section 4.14.4).

For the state listed Chattahoochee crayfish and the highscale shiner, implementation of the mitigation measures (see Section 4.14.4) would cause the project to have "no significant

adverse effect" to the Chattahoochee crayfish and the highscale shiner. Because no state listed bay star-vines (*Schisandra glabra*) were identified, the project will have "no significant adverse effect" to the bay star-vine. The project would have "no effect" to the other state listed species in this report.

4.14.4 MITIGATION MEASURES

Mitigation measures have been identified during coordination between Cobb County, FTA, and USFWS as outlined below. Cobb County will include in the contract documents a requirement that the project will implement special provisions.

In correspondence from December 2014, USFWS made the following comments and a response was provided in April 2015 (see **Appendix I**). Notations of how the USFWS comments (in italics) were addressed follow each bullet below. The mitigation measures will be implemented to prevent direct, indirect, or cumulative impacts.

- *Measures to protect water quality from direct and indirect impacts should be considered*
  - During the construction phase, Cobb County will ensure that all practicable enhanced erosion control measures are taken within the construction limits. This includes, but is not limited to: hydro-seeding, street sweeping, dust control, vehicle covers on sediment transport vehicles, and concrete washouts. In addition, Cobb County could use wet ponds, stormwater infiltration or detention facilities, and bio-retention to filter stormwater runoff from the impervious surfaces of the proposed park-and-ride facilities. When practical, Cobb County could also utilize impervious surfaces to mirror predevelopment hydrologic conditions in order to encourage infiltration and filtering during the construction phase within project limits. Cobb County will also preserve existing landscaped areas to encourage stormwater infiltration and nutrient filtering.
- *If the proposed project would directly or indirectly affect hardwood forests, the habitat would need to be assessed for its suitability as foraging or roosting habitat for northern long-eared bats and a determination made if bat surveys may be necessary*
  - The concept drawings included in the appendix of the Ecology Report (see **Appendix I**) illustrate areas of hardwood forests in relation to the proposed project limits. The project will directly affect hardwood forests by the clearing of trees during the construction phase in the area approximately 725 feet southwest of the southernmost intersection of White Circle Drive NW and US 41/Cobb Parkway in Marietta (Sheet 2 of the concept drawings). There is also a small area of hardwood forest that could be impacted by the parcel acquired for the North Loop/Whitewater station at Marietta Parkway (Sheet 3 of the concept drawings). Locations of suitable roosting habitat will be labeled on the construction plans.
  - Cobb County will include a special provision in the contract documents for the protection of the northern long-eared bat (Myotis septentrionalis), which will stipulate that tree clearing within suitable hardwood forest habitat will not occur from March 30th to October 15th. This will prevent clearing of suitable habitat

for roosting northern long-eared bats during time periods that include spring migration, summer roosting, and raising young in early fall. If northern long-eared bats are found in suitable roosting habitat, the construction Contractor will notify the Project Engineer who in turn will notify the Deputy Director of the Cobb County Department of Transportation to provide information.

- *The proposed project is within the potential range of the dwarf sumac, monkeyface orchid, and Georgia aster*
  - Within the project limits, no suitable habitat was identified for the dwarf sumac, monkeyface orchid, or Georgia aster during the pedestrian field surveys conducted in 2013.
- *If the proposed project would modify bridges or culverts, inspections of all bridges/culverts would need to be completed to determine if there is evidence of migratory bird species using the structure for nesting and to determine if it is being utilized as a roost by bats*
  - Cobb County will conduct surveys during the nesting and common bat roosting season (March 30th to October 15th) and prior to construction to determine if these structures are used by migratory birds and bats. If birds and bats are observed nesting or roosting in culverts or bridges, Cobb County will ensure that measures to survey and protect migratory birds and bat use will be implemented through the use of a special provision. Cobb County will include a special provision in the contract documents that will utilize netting to prevent bids and bats from nesting or roosting, and/or limit construction timing to avoid the breeding season of migratory birds and use by roosting bats, from March 30th to October 15th. Existing culvert and bridge locations are labeled on the attached concept drawings.
- *For new culverts, culvert suitability for passage of aquatic fauna would need to be assessed*
  - In the event that new or wholly replaced culverts are included in the project, Cobb County will ensure that they are designed under the specified fish passage guidelines for new culverts included in Section E of the U.S. Army Corps of Engineers (USACE) Savannah District's Regional Conditions for Nationwide Permits. These guidelines dictate culvert dimension design, bank-full flow accommodations, culvert embedding, culvert slope, flooding design, and stormwater management considerations. Per the USACE Savannah District's Regional Conditions for Nationwide Permits and prior to construction, Cobb County will evaluate the use of bottomless culverts to determine if they may be a good alternative for fish passage, where foundation conditions allow their construction and width criteria can be met. This requirement applies to proposed new culverts for perennial streams only. Culvert design options, including box culverts that allow for the natural embedment of stream material

as well as bottomless culverts, will also be evaluated to determine the appropriate design for fish passage, constructability, and meeting of hydraulic criteria.

Construction Phase Mitigation Measures

Cobb County will implement the following additional construction phase mitigation measures along the project corridor:

- Cobb County will include special provisions in the contract documents for enhanced erosion control in streams containing suitable habitat for the Chattahoochee crayfish (*Cambarus howardi*). Enhanced erosion control measures are outlined in Section 4.0 of the Ecology Report (see **Appendix I**) and are necessary to prevent sedimentation of streams with suitable habitat for aquatic species.
- Cobb County will include special provisions in the contract documents for seasonal restrictions (no in-stream construction during the spawning season from April to June) and enhanced erosion control in streams containing suitable habitat for the highscale shiner (*Notropis hypsilepis*) (see page 12 and Figures 2A through 2H of the Ecology Report in **Appendix I**).
- Cobb County will utilize construction timing restrictions, construction monitoring, and habitat replacement and/or enhancement.
- Cobb County will locate staging areas away from environmentally sensitive areas where mature vegetation and potential fish and wildlife habitats are present (no new staging areas are identified at this time).
- Where applicable, Cobb County will provide educational materials to construction personnel for awareness of protected species and their habitats.
- Cobb County will ensure that the design plans include the locations of Environmentally Sensitive Areas.

4.15 Hydrology/Floodplains

This section describes the impact of the proposed project on 100-year floodplains in the study area and the associated implications for hydrology.

4.15.1 REGULATORY CONTEXT/METHODOLOGY

EO 11988 requires federal agencies to avoid, to the extent possible, the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, agencies provide leadership and take action to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains. FEMA 100-year floodplains were identified using existing topographical, aerial, and GIS mapping.

4.15.2 AFFECTED ENVIRONMENT

The project area streams that are located within a 100-year floodplain are:

- S-4: intersects White Circle Road then parallels US 41/Cobb Parkway
- S-5: tributary to Noonday Creek
- S-8: Sope Branch
- S-9: Sope Creek
- S-12: Rottenwood Creek
- S-13: US 41/Cobb Parkway near Cobb Drive
- S-14: Poorhouse Creek
- S-16: Poplar Creek
- S-17: tributary to Poplar Creek

These locations are shown in the Ecology Report in **Appendix I**.

4.15.3 POTENTIAL IMPACTS

4.15.3.1 No Build Alternative

Because the proposed project includes no work to bridges and because proposed culvert extensions would only be designed for a Build Alternative, no impacts to floodplains would result from the No Build Alternative.

4.15.3.2 Proposed Project

Existing culverts will be extended unless a visual inspection during design finds obvious signs of damage or deterioration that would warrant replacement. Any modifications to existing structures on FEMA-studied streams would be coordinated with the appropriate local, state, and federal agencies with the goal of achieving a "No Rise" certification from FEMA. Any impacts to FEMA floodplains as a result of final design will be documented in a Hydraulic and Hydrology Report.

4.15.4 MITIGATION MEASURES

The proposed project will follow applicable local and state stormwater management requirements. A stormwater analysis will determine the appropriate water quality BMPs for affected stormwater outfalls. Mitigation measures could include using structures to cross floodplains instead of fill material, providing adequate flow circulation, reducing grading requirements and preserving natural drainage.

Construction Phase Mitigation Measures

Short-term mitigation measures will include the development of erosion and sediment control plans to reduce erosion and sedimentation during construction.

Water Resources

Water resource issues are discussed in a number of sections in this EA:

4.15 Hydrology/ Floodplains

4.16 Water Quality/ Stormwater

4.17 Navigable Waterways

4.18 Waters of the US and Buffered State Waters

4.16 Water Quality/Stormwater

This section summarizes stormwater requirements and identifies the location of nearby impaired waters. Changes in impervious surface as a result of the proposed project are quantified, and measures that will be taken to preserve and maintain water quality in the study area are described.

4.16.1 REGULATORY CONTEXT/METHODOLOGY

Traditionally, stormwater management has been the responsibility of local municipalities. Implementation of the Clean Water Act has resulted in new local water quality regulations that deal with stormwater (see **Table 4.16-1**).

Clean Water Act (CWA): The CWA was originally enacted in 1948 and revised in 1972. Because of the CWA, there is a federal-state partnership for water quality, where federal guidelines, objectives and limits are to be set under the authority of the EPA, while states, territories, and authorized tribes would largely administer and enforce the CWA programs, with significant federal technical and financial assistance. Prior to 1987, CWA programs were primarily directed at point source pollution. CWA Section 319 created a new federal program that provides money to states, tribes, and territories for the development of programs to reduce pollution from unregulated, diffuse sources, including stormwater.[56]

Every two years on even-numbered years, the CWA requires all states to submit to the EPA for approval a list of impaired and threatened waters (stream/river segments, lakes), called the 303(d) list.

National Pollutant Discharge Elimination System (NPDES) and Municipal Separate Storm Water Systems (MS4): To address water quality concerns that might occur as a result of stormwater runoff, an amendment to the CWA in 1987 and subsequent Georgia legislation requires local communities to address stormwater quality. One of the primary regulations is Georgia's Municipal NPDES MS4 Stormwater Permit Program which is overseen by the DNR EPD. Construction-related erosion and sedimentation impacts will be addressed through conformance with the applicable NPDES Construction Permit.

Georgia Stormwater Management Manual: The Georgia Stormwater Management Manual provides guidance on stormwater management policy, technical design standards, and pollution prevention. This manual is used by many Georgia communities, including those in the corridor, for setting stormwater management and mitigation requirements.

Table 4.16-1 includes a summary of the local regulatory requirements.

[56] http://water.epa.gov/polwaste/nps/cwact.cfm

Table 4.16-1. Local Stormwater Requirements

Jurisdiction	Detention Requirements	Infiltration Requirements
City of Smyrna	More stringent requirements than Georgia Stormwater Management Manual (Blue Book): Overbank flooding protection: Post development peak discharge rate to be at least 10% less than the pre-development rate for the 2-year, 10-year, and 25-year 24-hour return frequency storm events Extreme flooding protection: Post development peak discharge rate to be at least 10% less than the pre-development rate for both the 50-year and 100-year, 24-hour return frequency storm events	Georgia Stormwater Management Manual (Blue Book) requirements
City of Marietta	Georgia Stormwater Management Manual (Blue Book) requirements	Georgia Stormwater Management Manual (Blue Book) requirements
City of Atlanta	Work within public right-of-way is exempt from post-development stormwater management requirements Georgia Stormwater Management Manual (Blue Book) requirements	Georgia Stormwater Management Manual (Blue Book) requirements, except: Stormwater Runoff Quality: Projects must treat the first 1.0" of Stormwater runoff with green infrastructure

4.16.2 AFFECTED ENVIRONMENT

The study area, defined as 100 feet beyond the project limits and 500 feet beyond station project limits, is generally urbanized and highly altered as compared to natural conditions, and characterized by commercial, industrial, and institutional development. The intensity of development ranges from suburban to urban.

The proposed project crosses three municipalities that have MS4 permits: Cobb County (GAS000108), Marietta (GAS000125), and Smyrna (GAS000132).

The alignment of the proposed project is on roads that cross four streams on the Georgia 303(d) list of impaired waters (see **Table 4.16-2**). States identify all waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards, and establish priorities for development of a Total Maximum Daily Load (TMDL). A TMDL is a calculation of the maximum amount of a pollutant that waters can receive and still meet water quality standards and an allocation of that load among the various sources of that pollutant. TMDL requirements must be considered when evaluating potential runoff from a project.

Table 4.16-2. 303(d) List Impaired Waters in the Connect Cobb Corridor

Reach Name	Resource Label	Designated Use	Violation Criterion	Source	TMDL Completion Date	Reason Designated Use is Not Supported
Noonday Creek	S-5	Fishing	Bio F	NP	2009	Nonpoint or unknown sources
Sope Creek	S-10	Fishing	FC	UR	2003	Urban runoff
Rottenwood Creek	S-12	Fishing	FC, Bio M	UR	2003 (FC)	Urban runoff
Nancy Creek	S-18	Fishing	FC, Bio F	UR	2003 (FC) 2008 (Bio F)	Urban runoff
Key: Bio F = Biota Impacted (Fish Community); FC = Fecal Coliform Bacteria; Bio M = Biota Impacted (Macroinvertebrate Community); NP = Nonpoint Sources/Unknown Sources; UR = Urban Runoff/Urban Effects						

Source: 2012 Georgia 303(d) List of "Not Supporting" Impaired Waters

4.16.3 POTENTIAL IMPACTS

4.16.3.1 No Build Alternative

No impacts to stormwater would be anticipated under this alternative.

4.16.3.2 Proposed Project

The project would result in an increase in the impervious area by approximately 25 percent for guideway construction and between 25 and 50 percent for each park-and-ride facility construction, depending on the number of parking spaces provided. Walk-up stations would also add impervious surface, but at a lesser degree than park-and-ride facilities.

Table 4.16-3. Percent Increase in Impervious Area for Project Alignment

Corridor Type	Quantity (route-feet)	Percent Increase in Impervious Area
Mixed Traffic Length	23,400	0%
Guideway Construction Within Existing Median	3,900	50%
Guideway Construction With Road Reconstruction (Rural)	5,400	35%
Guideway Construction With Road Reconstruction (Urban)	48,900	35%
Guideway Construction (Akers Mill Rd)	3,900	40%

Table 4.16-4. Percent Increase in Impervious Area for Proposed Station Areas

Station Location	Park-and-Ride Type	Number of Parking Stalls Provided	% Increase in Impervious Area
Kennesaw State	N/A	N/A	0%
Town Center	Existing Surface	1,000	0%
Barrett Lakes Boulevard	Surface	50	25%
White Circle	Surface	50	15%
Battlefield	Surface	200	45%
WellStar Kennestone	Structured	300	55%

Station Location	Park-and-Ride Type	Number of Parking Stalls Provided	% Increase in Impervious Area
Allgood Road	N/A	N/A	0%
North Loop/White Water	Surface	300	70%
Big Chicken	N/A	N/A	0%
University	N/A	N/A	0%
Dobbins Air Reserve Base	N/A	N/A	0%
Windy Hill Road	Existing Surface	175	30%
Cumberland North	Structured	300	40%
Cumberland South	Structured	1,000	50%

The proposed project will not affect water quality impairment for the 303(d) listed waters. This project will encourage the use of transit and more efficient transportation. The use of the ART system could result in fewer cars traveling along this corridor, which would lessen the amount of runoff materials associated with cars.

4.16.4 MITIGATION MEASURES

Long-term mitigation measures, to be determined by CCDOT, would include the design and construction of permanent BMPs, which would control and treat stormwater runoff caused by an increase in impervious surfaces as a result of the project, and meet the appropriate rate control, volume control and water quality requirements. Surface stormwater runoff would be filtered through the use of wet ponds, stormwater infiltration or detention facilities, and bio-retention BMPs for proposed park-and-ride facilities. BMPs that are compatible with linear corridors would be used to the extent possible without the need to purchase additional right of way.

Construction Phase Mitigation Measures

Short-term mitigation measures would include the development of erosion and sediment control plans to control runoff and reduce erosion and sedimentation during construction. Construction activities will be phased to minimize runoff. Specific mitigation measures that will be used for stormwater impacts include:

- Minimize soil compaction in landscaped areas by techniques such as scarification and incorporate appropriate amendments to improve soil quality/water holding capacity and foster healthy vegetation.
- When practical, utilize impervious surfaces to mirror predevelopment hydrologic conditions in order to encourage infiltration and filtering during construction.
- Preserve existing landscaped areas to encourage stormwater infiltration and nutrient filtering.
- Enhanced erosion control measures including supplemental hydroseeding, street sweeping/vacuuming, stabilized construction access points and sediment stockpiles, dust control, sediment transport vehicle covers, and concrete washouts.

Management of stormwater and water quality is also very important to the protection of wildlife, including protected species. These mitigation measures will help to protect critical habitat as identified in Section 4.14.2 and in the Ecology Report found in **Appendix I**.

4.17 Navigable Waterways

Potential impacts to the navigability of the Chattahoochee River are discussed in this section.

4.17.1 REGULATORY CONTEXT/METHODOLOGY

The term "navigable waters" of the United States means "navigable waters" as defined in section 502(7) of the Federal Water Pollution Control Act (FWPCA), and includes: (1) all navigable waters of the United States, as defined in judicial decisions prior to the passage of the 1972 Amendments of the FWPCA (Pub. L. 92-500) also known as the Clean Water Act, and tributaries of such waters as; (2) interstate waters; (3) intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and (4) intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.[57]

The River and Harbor Act of 1899 (33 USC 401 et. seq.)[58] requires that the Secretary of the Army issue permits for various activities affecting a navigable water of the US. Section 9 of the Act[59] requires authorization from the US Army Corps of Engineers (USACE) prior to construction of a dam or dike across a navigable water of the US. Section 10 of the Act[60] requires authorization from USACE prior to construction of any structure over, excavation from, or disposal of materials into navigable waters.

4.17.2 AFFECTED ENVIRONMENT

The Chattahoochee River is the only navigable waterway within the project area. I-75 crosses the Chattahoochee River approximately 1.5 miles south of the I-75/I-285 interchange, in the section of the proposed project where ART vehicles would utilize existing HOV lanes.

4.17.3 POTENTIAL IMPACTS

None of the alternatives under consideration would result in any changes to the bridge structure on I-75 crossing the Chattahoochee River, and no dams or dikes would be constructed. Nothing would be excavated from or disposed into the river. No impacts to navigable waters are anticipated as a result of the alternatives, and no USACE Section 9 or Section 10 permits are necessary.

Water Resources

Water resource issues are discussed in a number of sections in this EA:

4.15 Hydrology/ Floodplains

4.16 Water Quality/ Stormwater

4.17 Navigable Waterways

4.18 Waters of the US and Buffered State Waters

[57] http://www.epa.gov/oem/content/spcc/spcc_nov08waters.htm
[58] http://www.fta.dot.gov/12347_2234.html
[59] https://www.fws.gov/laws/lawsdigest/RIV1899.HTML
[60] http://water.epa.gov/lawsregs/guidance/wetlands/sect10.cfm

4.17.4 MITIGATION MEASURES

No mitigation is required for navigable waterways.

4.18 Waters of the US and Buffered State Waters

This section identifies streams, wetlands, ponds, and Georgia stream buffers within the study area and evaluates impacts to these resources as a result of culvert extensions and placement of fill assumed for the proposed project.

4.18.1 REGULATORY CONTEXT/METHODOLOGY

For this document, Jurisdictional Waters of the US and Buffered State Waters includes all ponds and streams which are presumed to have either perennial or intermittent base flows. Jurisdictional Waters of the US are defined by 33 CFR 328.3(b) and are protected by Section 404 of the Clean Water Act (33 USC 1344). Buffered State Waters are defined by the Official Code of Georgia 12-7 and protected by the Georgia Erosion and Sedimentation Control Act of 1975. Wetlands are Jurisdictional Waters of the US, but do not have a protected 25-foot buffer; therefore, wetlands are not shown as Buffered State Waters.

Buffered State Waters within the study area, defined as 100 feet beyond the project limits and 500 feet beyond station project limits, include a protected 20-foot buffer.

Streams, wetlands, ponds, and Georgia stream buffers were identified using existing topographic, aerial, and GIS mapping. A field survey was conducted to determine the presence or absence of Waters of the US and Buffered State Waters.

4.18.2 AFFECTED ENVIRONMENT

In the following tables, streams are designated with an “S”, ponds with a “P”, and wetlands with a “W”. These resources are also illustrated graphically in **Appendix I**.

Table 4.18-1. Water Resources

Resource Label	Stream Name	100-Year FEMA Floodplain
P-1	N/A	No
S-1	N/A	No
S-2	N/A	No
P-2	N/A	No
W-1	N/A	No
S-3	N/A	No
S-4	N/A	Yes
S-5	Tributary To Noonday Creek	Yes
W-2	N/A	No
S-6	N/A	No
S-7	N/A	No
S-8	Sope Branch	Yes
S-9	Sope Creek	Yes
S-10	N/A	No
S-11	N/A	No
S-12	Rottenwood Creek	Yes
S-13	N/A	Yes
S-14	Poorhouse Creek	Yes
S-15	N/A	No

Resource Label	Stream Name	100-Year FEMA Floodplain
P-3	N/A	No
S-16	Poplar Creek	Yes
S-17	N/A	Yes
P-4	N/A	No

Source: DNR Environmental Protection Division and GIS Mapping including FEMA 2008 100 year floodplain data

4.18.3 POTENTIAL IMPACTS

4.18.3.1 No Build Alternative

The No Build Alternative would not result in impacts to Waters of the US or Buffered State Waters.

4.18.3.2 Proposed Project

The conceptual studies have been initiated to support the planning process and are based on an analysis of existing available information. **Tables 4.18-2 through 4.18-4** provide estimated stream piping and pond and wetland fills based on the conceptual design.

Table 4.18-2. Estimated Stream Piping

Water ID	Quantity within Study Area (linear feet)	GDOT Structure ID	Assumed Impact Estimate in Preliminary Project Limits		Assumed Buffer Variance[1]
			Type	Length (feet)	
S-1	13	N/A	None	0	None
S-2	482	N/A	None	0	None
S-3	478	N/A	Culvert Extension	364	None
S-4	254	N/A	None	0	Yes
S-5	304	N/A	Culvert Extension	70	None
S-6	545	N/A	None	0	Yes
S-7	1,184	N/A	Culvert Extension	810	Yes
S-8	146	N/A	None	0	Yes
S-9	404	N/A	Culvert Extension	70	None
S-10	213	N/A	Culvert Extension	143	Yes
S-11	429	N/A	Culvert Extension	61	Yes
S-12	210	067-0015 Triple 10’x10’ Box	Culvert Extension	115	Yes
S-13	351	N/A	Culvert Extension	35	Yes
S-14	366	067-0012 Double 10’x10’ Box	Culvert Extension	35	None
S-15	364	N/A	None	0	Yes
S-16	500	067-0011 Double 10’x10’ Box	Culvert Extension Assumed	70	None

Water ID	Quantity within Study Area (linear feet)	GDOT Structure ID	Assumed Impact Estimate in Preliminary Project Limits		Assumed Buffer Variance[1]
			Type	Length (feet)	
S-17	1,524	N/A	None	0	Yes
S-18	1,525	N/A	None	0	None
S-19	1,177	N/A	None	0	None
S-20	339	N/A	None	0	None
			TOTAL	**1,773 feet**	

Source: Kimley-Horn and Associates, Inc. 2013. Quantities were measured using GIS software. Structure types were obtained from GDOT Bridge Inspection Reports obtained from the Georgia Department of Transportation online GeoTraqs online mapping tool. Stream impacts shown as 70 feet in length are assumed to receive a 35-foot culvert extension on each side of the culvert. Stream impacts shown as 35 feet in length are assumed to have only side of the culvert extended. Streams with different impact lengths are due to the stream's geometry. All streams located outside of the preliminary project limits are not considered for impacts.

[1] Buffer variances shown as "None" would not require variance approval during construction, and those shown as "Yes" would require variance approval during construction. Avoidance and minimization of vegetative stream buffers will be completed during roadway design development.

Table 4.18-3. Estimated Pond Fill

Water ID	Quantity within Study Area (acres)	Assumed Impact Estimate in Preliminary Project Limits		Assumed Buffer Variance
		Type	Acres	
P-1	0.44	None	0	None
P-2	0.59	None	0	None
P-3	0.4	None	0	Yes
P-4	0.23	None	0	None
		TOTAL	**0 acres**	

Source: Kimley-Horn and Associates, Inc. 2013. Quantities were measured using GIS software.

Table 4.18-4. Estimated Wetland Fill

Water ID	Quantity within Study Area (acres)	Assumed Impact Estimate in Preliminary Project Limits		Assumed Buffer Variance
		Type	Acres	
W-1	0.34	None	0	N/A
W-2	1.25	None	0	N/A
		TOTAL	**0 acres**	

Source: Kimley-Horn and Associates, Inc. 2013. Quantities were measured using GIS software.

For multiple streams in **Table 4.18-2**, assumed impacts of 70 feet are based on an assumed 35 foot culvert extension on each side of roadway. The assumed stream buffer variance and impact lengths listed as greater than 70 feet are based upon a review of the stream geometry within the preliminary project limits. Assumed impact lengths listed as 35 feet were made based on the stream already being culverted within the preliminary project limits on one side of the road.

4.18.4 MITIGATION MEASURES

- Streams, Wetlands, Ponds
    - Complete steps necessary for federal and state agency verification of federal and state waters as required by the federal Clean Water Act and the Georgia Erosion and Sediment Control Act. This includes a USACE Jurisdictional Determination submittal and field verification and an EPD buffered state water field verification.
    - The project will utilize design measures to avoid or minimize disturbance of water resources. Design measures will include shifting improvements away from water resources, utilizing guardrail to reduce shoulder fill slopes, and sizing and locating new drainage structures to support natural stream and floodplain hydrology.
    - For new or wholly replaced culverts, culvert stability for passage of aquatic fauna will be assessed. This is addressed in detail in Section 4.14.4.
- State Water Buffers
    - The project will limit the amount of clearing and grubbing areas to minimize habitat disturbance and preserve existing vegetation
    - As soon as possible during or after construction activities, the project will remove any temporary fill and construction debris and restore disturbed areas to pre-project conditions use native vegetation replanting. Native riparian plant species will be species that are adapted to riparian forests or stream edges in Georgia and the Southeast.

4.18.4.1 Construction Phase Mitigation Measures

- Streams, Wetlands, Ponds
    - The project will utilize a phased construction schedule to limit the extent of land disturbance activities, and use Orange Barrier Fencing to prevent construction staging in the vicinity of water resources and buffers
    - The construction contractor will be required to have trained personnel responsible for BMP installation and maintenance
- State Water Buffers
    - As soon as possible during or after construction activities, the project will remove any temporary fill and construction debris and restore disturbed areas to pre-project conditions use native vegetation replanting. Native riparian plant species will be species that are adapted to riparian forests or stream edges in Georgia and the Southeast.

Protection of Waters of the US and Buffered State Waters is also very important to the protection of wildlife, including protected species. These mitigation measures will help to protect critical habitat as identified in Section 4.14.2 and in the Ecology Report found in **Appendix I**.

4.19 Indirect and Cumulative Impacts

The disclosure of potential indirect and cumulative impacts attempts to assess the wider consequences of a proposed project and to anticipate probable growth induced by the project.

4.19.1 REGULATORY CONTEXT/METHODOLOGY

The Council of Environmental Quality's *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR 1500-1508) require that not only direct impacts, but indirect and cumulative impacts also be evaluated.

Direct, indirect, and cumulative effects can be defined as follows:

- **Direct effects** are caused by, and coincide in time and place, with the action.
- **Indirect effects** are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.
- **Cumulative effects** are impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Methodology for addressing indirect and cumulative impacts is described below.

4.19.1.1 Indirect Effects

Given the urban and suburban nature of the Connect Cobb Corridor, the assessment of indirect effects focused on changes in land use and the intensity of development that could occur around the project and impacts that may follow from these changes (i.e., future projects). Although no residential, commercial, or industrial development is proposed by the project itself, transitway development is known to serve as a catalyst for residential and commercial development, in particular in areas surrounding stations.

Specific potential indirect impacts were identified qualitatively using the following methodology:

- Existing Conditions and Trends: Reviewed and analyzed the existing condition of each potentially affected resource as described in the sections of this EA. The review focused on understanding the status, viability, and context of each resource to determine the relative vulnerability of the resource to secondary impacts.
- Project Impacts: Reviewed and analyzed the impacts from the proposed project on each resource, as described in the sections of this EA. The understanding of project impacts combined with existing conditions, past trends, and future development was used to provide an understanding of the state of each resource and its likely vulnerability to any secondary impacts identified.
- Indirect Impacts: Identified potential indirect impacts and estimated their magnitude based on understanding of existing conditions and trends and project impacts. This

included reviewing each resource area described in the EA for potential physical, spatial, and ecological (system) interactions. The emphasis of the analysis was on being comprehensive with respect to potentially affected resources and estimating potential magnitude.

The analysis for indirect effects focuses on a ½-mile radius around each of the proposed transit stations. This approach is supported by the National Cooperative Highway Research Program (NCHRP) Report 466: *Desk Reference for Estimating Indirect Effects of Proposed Transportation Projects* which states, "development effects are most often found up to one-half mile around a transit station."

Indirect effects of the Connect Cobb Corridor project (such as induced development) would be most likely to occur in the areas around stations because of the improved access to those locations provided by the new transit service. However, secondary development impacts beyond a ½-mile radius of the stations are possible. For example, new development in a station area could have natural resource impacts that follow the resource itself, such as sediment in a stream, for a given distance rather than the ½-mile boundary relevant to the build environment. To address this, potential natural resource impacts were analyzed following natural resource boundaries (e.g., wetland complex, waterway, floodplain, habitat).

4.19.1.2 Cumulative Effects

This cumulative effects assessment considers past, present, and reasonably foreseeable future actions and the resulting impacts on resources within the environment. For the purpose of this analysis, development actions within the ½-mile study area were considered according to the following three categories and time horizons:

- Past: Past actions were defined as development occurring between 1990 and 2010, which was the timeframe for development of the Cumberland Galleria Centre
- Present: Present development includes those projects underway or programmed for 2014-2018
- Future: Reasonably foreseeable development includes those actions included in plans and announced projects through the 2040 planning year but that are not programmed for construction

Specific potential cumulative impacts were identified qualitatively using the following methodology:

- Existing Conditions and Trends: Reviewed and analyzed the existing condition of each potentially affected resource as described in the sections of this EA. The review focused on understanding the status, viability, and context of each resource to determine the relative vulnerability of the resource to secondary impacts.
- Project Impacts: Reviewed and analyzed the impacts from the proposed project on each resource, as described in the sections of this EA. The understanding of project impacts combined with existing conditions, past trends, and future development was used to provide an understanding of the state of each resource and its likely vulnerability to any secondary impacts identified.

- Impacts of Other Actions: Identified other present actions and reasonably foreseeable future actions and their possible impacts to each resource. These actions are discussed in Section 4.19.2.
- Cumulative Impacts: Considered the combination of existing conditions and trends, project impacts, and the impacts of other present actions and other reasonably foreseeable future actions. Professional judgment was used to reach conclusions as to the potential magnitude of cumulative impacts, taking into account the frequency, duration, magnitude, and extent of potential past, present, and future impacts.

Additionally, a review of the development history in the corridor and surrounding areas was conducted using historical aerial photographs, a field visit, and desktop research into past, present, and reasonably foreseeable anticipated development. ARC's PLAN 2040, comprehensive plans, small area plans (including LCI studies), and other announced development plans for the corridor vicinity were also reviewed to identify proposed future land uses.

4.19.2 AFFECTED ENVIRONMENT

Tables 4.19-1 through 4.19-3 summarize the key past, current, and reasonably foreseeable projects and developments within the corridor. While not comprehensive, these key projects and developments are those that had, or will have, an impact on the character of or traffic in the project corridor.

Prior to the late 1960s, the corridor was primarily rural, comprised of forestland and farmland. Urban growth was concentrated around the cities of Marietta, Smyrna, and Atlanta with US 41/Cobb Parkway being the only major connecting roadway in the area. Through the 1940s and 1950s there was no extensive development along the corridor despite the building of Dobbins ARB in 1941 and the beginning of I-75 in the mid-1950s. Based on historical aerials, significant growth and development in the corridor began in the late 1960s and early 1970s. By 1978 the US 41/Cobb Parkway corridor was almost entirely developed and the area around the completed I-75 corridor had also experienced extensive growth. The age of this development and demands for different uses to serve a growing population are now providing opportunities for redevelopment and future growth in the corridor.

Table 4.19-1. Past Actions

Project Name	GDOT Project Number (if applicable)	Project Limits	Date
Cobb Galleria Centre	Not Applicable	Not Applicable	Constructed 1992
Cobb Galleria Specialty Shops	Not Applicable	Not Applicable	Acquired 1999
Cobb Galleria Centre Expansion	Not Applicable	Not Applicable	Completed 2002
Cobb Energy Performing Arts Centre	Not Applicable	Not Applicable	Completed 2007
Town Center at Cobb	Not Applicable	Not Applicable	Constructed Prior to 1990
Cumberland Mall	Not Applicable	Not Applicable	Constructed Prior to 1990

Project Name	GDOT Project Number (if applicable)	Project Limits	Date
US 41/Cobb Parkway	Not Applicable	Not Applicable	Constructed Prior to 1990

Table 4.19-2. Contributing Projects – Present Actions

Project Name	GDOT Project Number (if applicable)	Project Limits	Construction Programmed
Northwest Corridor Managed Lanes	0008256	Akers Mill Rd to Hickory Grove Rd (on I-75) and I-75 to Sixes Rd (on I-575)	2014-2018
Skip Spann Connector	0010157	Busbee Pkwy to Frey Rd	2014-2016
US 41/Cobb Pkwy Intersection/Pedestrian Improvements	0012607 (ARC Project # CO-443)	Intersection of US 41/ Cobb Pkwy at N Marietta Pkwy	2016
US 41/Cobb Pkwy Intersection Improvement	0012608 (ARC Project # CO-444)	Intersection of US 41/ Cobb Pkwy at Roswell St	2016
US 41/Cobb Pkwy Widening	721152	From Paces Mill Rd to Akers Mill Rd	2014-2016
North Cobb Park-and-Ride Lot	Not Applicable (Programmed – ARC Project # CO-401)		2017
US 41/Cobb Pkwy Pedestrian Facilities – Phase II	0010384	From Spring Rd/Circle 75 Pkwy to Herodian Way	2014 (completed)
Bob Callan Trunk Trail Phase II – Section A	0010009 (ARC Project # CO-446)	From Interstate North Pkwy to the existing Bob Callan Trailhead	2016
Bob Callan Trunk Trail Phase II – Section B	0012808 (ARC Project # CO-447)	From Interstate North Pkwy to Terrell Mill Road	2016
US 41/Cobb Pkwy Intersection Improvements and Queue Jumper Lanes	0011738 (ARC Project # CO-460)	Intersection of US 41/ Cobb Pkwy at Windy Hill Rd	2016
South Barrett Reliever	Phase 2 (CO-450A, CST 2016) and Phase 3 (CO-450B, CST 2018)	Barrett Lakes Blvd to just south of the intersection of Barrett Pkwy at Roberts Ct	2016
US 41/Cobb Pkwy Intersection Improvements	Not Applicable	Intersection of US 41/Cobb Pkwy at Windy Ridge Pkwy	2016
I-75 North Diverging Diamond Interchange	0012774 (ARC Project # CO-452)	I-75 at Windy Hill Rd	2015
Windy Hill Rd (East) Improvements	Not Applicable	I-75 to Powers Ferry Rd	2014

Project Name	GDOT Project Number (if applicable)	Project Limits	Construction Programmed
Windy Hill Rd (West)	Not Applicable (Programmed – ARC Project #CO-454)	US 41/Cobb Pkwy to I-75	2014
Corridor Park-and-Ride Lots	Not Applicable	Various locations along US 41/Cobb Pkwy	2016
Corridor Signal Queue Jumper Lanes	Not Applicable	US 41/Cobb Pkwy Cumberland to Town Center	2015
Corridor Signal Preemption Upgrades	Not Applicable	US 41/Cobb Pkwy Cumberland to Town Center	2015
Rottenwood Creek Trail Phase 1 & 2	12873 (ARC Project # CO-448)	Alumni Dr to Franklin Rd	2017
SunTrust Park (Atlanta Braves Stadium)	Not Applicable	Located near the northwest intersection of I-75/I-285	To be open for 2017 season
I-285 Pedestrian and Transit Bridge	Not Applicable (Programmed – ARC Project #CO-459)	Spanning I-285 from Cobb Galleria area to SunTrust Park vicinity	2016

Table 4.19-3. Reasonably Foreseeable Future Actions

Project Name	GDOT Project Number (if applicable)	Project Limits	Construction Programmed
Extension of 15th St	Not Programmed. To be constructed by others	W Peachtree St to Spring St	Not identified
Marietta University Enhancement District Livable Community Initiative (LCI)	Not Applicable	Generally Roswell Rd (north) to east of US 41/ Cobb Pkwy (east) to S Cobb Dr (south) to Fairground St (west)	Not identified
US 41/Cobb Pkwy (Capacity Improvements)	0010510	Windy Ridge Pkwy to N Marietta Pkwy	Long Range
I-75 N Interchange Project	713600	From I-285 N to Delk Rd	Long Range (2030)
Windy Hill Rd/Cobb Pkwy Grade Separation	0006047	Intersection of Windy Hill Rd at US 41/Cobb Pkwy	Long Range (2030)
I-285 N Corridor High Capacity Rail Service – Right-of-Way Acquisition	Right-of-way AR-409A	From Cumberland to Perimeter Center	Long Range (2030)
Improvements to Arts Center Station	Not Applicable	W Peachtree St and 15th St	Not identified

Project Name	GDOT Project Number (if applicable)	Project Limits	Construction Programmed
SunTrust Park and Associated Mixed Use Development[1]	Not Applicable	General site boundaries: Windy Ridge Pkwy, Cumberland Pkwy, and I-75	Long Range
Additional potential future ART stations	Not Applicable	Stations at Northside Pkwy/West Paces Ferry Rd, Howell Mill Rd, Bellmeade Ave, Millennium Gate, and Atlantic Station	Not Identified

[1] Included as part of the Cumberland Regional Activity Center in Cobb County's 2030 Comprehensive Plan

4.19.3 POTENTIAL IMPACTS

4.19.3.1 No Build Alternative

As previously discussed, a majority of the corridor is fully developed and additional development/redevelopment is planned for the future. It is reasonably foreseeable that the No Build Alternative would neither induce nor inhibit development. Growth would continue in the proposed project area even if the No Build Alternative were chosen. While having few direct effects, the No Build Alternative has the potential to indirectly affect the environment by not reducing congestion and not creating improved transit access between economic centers in Cobb and Fulton Counties. Though the exact amount of anticipated growth is unknown and any impacts are speculative, the No Build Alternative would not have any effect in the cumulative impacts caused when combining past, present, and reasonably foreseeable future actions.

4.19.3.2 Proposed Project

It is reasonably foreseeable, based on the review of the development history in the corridor, that this project would not directly induce development in the area. The majority of the project corridor is already highly developed; however, the direct effect of improved access to active economic centers along the corridor would have indirect effects upon the environment as described below.

Because the corridor is already highly developed and considering the amount of growth and the types of transportation projects that are either taking place or anticipated, the proposed project would have a minimal cumulative impact upon the environment. Because the specific type and intensity of growth in any given area is unknown at this time the amount and type of impact to any specific location or resource is speculative.

Transportation Impacts

Indirect Effects: Indirectly the proposed project would have an impact on transportation. With ART stations set up throughout the corridor, it is likely that circulators would be added to create even greater connectivity. Circulators are anticipated in the cities of Kennesaw, Marietta, and Smyrna, the Town Center CID area, the Cumberland CID vicinity, and near the Chattahoochee River National Recreational Area. In turn this would provide more opportunities for the public to use alternative transportation as opposed to personal vehicles. When combined with past and future actions, this project would have a beneficial role in the overall cumulative effect on transportation.

Cumulative Effects: Note that the proposed project as refined for this EA includes future stations that had been excluded from the ridership model during later phases of the AA or were coded in a different location previously. These future stations are as follows:

- Howell Mill Road
- Paces Ferry Road
- Bells Ferry
- White Circle
- Barrett Lakes Boulevard

While these stations are not expected to draw many passengers individually, the cumulative effect of adding and relocating stations (in conjunction with increasing the speed on exclusive ART lanes) does increase the ridership when compared to initial 2040 model runs without these additional stations and a lower ART exclusive lane speed. Some portion of this ridership increase is also attributable to the more current ARC model, which was used for projecting ridership. Further, the additional stations and higher ART speed combine to increase ART ridership. Subsequent model runs also include removal of the existing CCT Cumberland Transfer Center, whereas prior runs included the current facility and also accommodated transfers at Cumberland South ART station.

Utilities

Several utilities exist within the study area, most of which are located within the roadway rights-of-way. Underground utilities include water, sanitary sewer, telecommunications, and electric utility lines. Several overhead utilities, including electric, telecommunications, and traffic control, are also located along the US 41/Cobb Parkway corridor. Relocations would be required to avoid conflict with the proposed alignment and facilities.

Indirect Effects: Increased development density and intensity anticipated around new transit stations would affect utility providers. New planned concentrations of residential, commercial, and other uses could cause changes in the patterns and level of demand for utilities in the area. Typically, utility fees charged to users offset net new costs to provide more service. In some cases, such changes could be beneficial to providers because higher density land use typically results in more efficient distribution of services.

Cumulative Effects: The continued development of transit and transportation facilities in the project area over time, combined with future actions, natural population growth, and the direct and indirect effects of the proposed project, will cumulatively add to the demands on and customer base of utilities in the study area. The efficiencies of more compact development patterns (anticipated in station areas) would provide operating efficiencies to utility providers over the long-term.

Land Use

The corridor is already highly developed with only small pockets of undeveloped land. While no direct effects to land use are anticipated, the direct effect of improved access to economic centers may indirectly affect how municipalities time the implementation of segments of their future land use plans.

Indirect Effects: The implementation of potential future stations at Northside Parkway/West Paces Ferry Road, Howell Mill Road, Bellmeade Avenue, Millennium Gate, and Atlantic Station would occur almost entirely within the city of Atlanta. Currently these future station areas are surrounded by single family residential in the northern portion of the city which transitions, prior to the US 41/Northside Drive interchange with I-75, to commercial and multi-family

residential uses. Interspersed sections of industrial land uses and the large network of railroads that crisscross the city are also in the vicinity of the potential future stations.[61]

Future land use policy for the potential future stations in the city of Atlanta is documented in the 2011 Comprehensive Development Plan.[62] An additional layer of planning policy is defined by the Atlanta BeltLine Subarea 8 Master Plan,[63] one of eight subarea master plans supporting redevelopment of property within and surrounding the BeltLine Tax Allocation District.[64] In addition, the Atlantic Station Tax Allocation District,[65] the Greater Home Park Master Plan,[66] and the Loring Heights Neighborhood Master Plan[67] provide future land use policy. Outside Subarea 8, future land uses are similar to existing uses except for reclassification from single and multi-family residential to low density and medium density residential as well as single family residential areas. Some of the residential and commercial areas are anticipated to be areas of mixed use. A transition to transit-oriented, mixed use development is envisioned for Subarea 8, Loring Heights, and Greater Home Park along US 41/Northside Drive and 17th Street that encourages live/work/play neighborhoods with easy access to future transit and green space.

Cumulative Effects: When combined with the overall past and reasonably foreseeable actions, such as the creation of Cobb Galleria Centre in the Cumberland area, and the future transportation capacity projects, the proposed project would have a minimal effect in the overall cumulative impact on land use.

Neighborhood and Community Resources

Indirect Effects: As the proposed project creates focal points for community activity in the vicinity of the stations, the improved access to economic centers along the corridor would indirectly impact neighborhoods and communities by bringing in residents and employees from other communities for services, shopping, meals, and entertainment.

Because the specific type and intensity of growth in any given area is unknown at this time, the amount and type of impact to any specific location is speculative.

Cumulative Effects: When taking the overall past and reasonably foreseeable actions into account, this project would be considered to have a minimal effect in the cumulative impact to neighborhoods and community resources.

Historic, Archaeological, and Cultural Resources

In addition to any potential direct effects, the proposed project indirectly would impact cultural resources in the area. The historic and archaeological sites in the vicinity of the proposed project in Cobb County are described in Section 4.5.

Indirect Effects: Improved access to economic centers foreseeably would provide a greater opportunity for the public to access historic properties or archaeological sites. This could,

[61] City of Atlanta GIS Interactive Maps. http://gis.atlantaga.gov/gishome/index.php?option=com_content&task=blogcategory&id=28&Itemid=77.
[62] City of Atlanta 2011 Comprehensive Development Plan, available at http://www.atlantaga.gov/index.aspx?page=376
[63] Available at http://beltlineorg.wpengine.netdna-cdn.com/wp-content/uploads/2012/05/ABI-Subarea-8-Master-Plan.pdf
[64] Available at http://beltline.org/resources/redevelopment-area-tax-allocation-district-map/
[65] Available at http://beltline.org/resources/redevelopment-area-tax-allocation-district-map/
[66] Available at http://www.atlantaga.gov/modules/showdocument.aspx?documentid=3802
[67] Available at http://www.atlantaga.gov/modules/showdocument.aspx?documentid=3801

indirectly, encourage education and preservation as well as indirectly provide a greater opportunity for vandalism. There are seven historic structures in the vicinity of the potential future stations in Atlanta: the Sanders House, CSX Railroad, a residence at 630 Bellemeade Avenue, the Woodruff Arts Center, First Presbyterian Church, Granada Apartments, and the US 41/Northside Drive Railroad Bridge. Because the specific type and intensity of growth in the area is unknown at this time, the amount and type of impact to historic structures and archaeological sites throughout the project corridor is speculative.

Cumulative Effects: Past, present, and future actions were generally reviewed for their potential to affect historic resources. The impacts of past (post-1966) and present federal actions have been addressed through Section 106 of the National Historic Preservation Act as part of those projects. The provisions of this act would also apply to future federal actions.

Past, present, and future actions were also generally reviewed for their potential to affect archaeological resources. Archaeological site 9CO535 may be affected by the proposed South Barrett Reliever project which is being undertaken by the Town Center Area CID and Cobb County. This site has already experienced adverse effects due to nearby residential development. The nature of these potential negative impacts is not clear due to a current lack of information regarding the type and extent of proposed construction. Future development activities related to the further conversion of land within the known boundary of site 9CO535 to residential, commercial, or transportation uses could lead to partial or total destruction of this archaeological resource. When combined with the past, present, and future actions of other projects the Connect Cobb Corridor project would have minimal effect in the overall cumulative impact on archaeology sites.

Parks and Public Lands

Indirect Effects: Parks and public lands in the project corridor would experience minor indirect effects. The direct effect of improved access to the economic centers of communities would indirectly allow for a greater number of visitors to these communities parks and public lands.

Cumulative Effects: Combined with past and reasonably foreseeable future actions, the proposed project would have a minimal effect on the overall cumulative impact to parks and public lands in the project corridor.

Visual

Indirect Effects: In a corridor already developed with a high percentage of commercial and industrial uses, the proposed project would not cause significant indirect visual impacts.

Cumulative Effects: Because the proposed project would utilize the existing roadway, there would only be a minimal cumulative impact on the visual aspect of the corridor when combined with past and reasonably foreseeable future actions.

Table 4.19-4. Potential Future Stations and Potential Visual Effects

Station Name	Impact	Visual Context
Northside Parkway/Paces Ferry	Minimal	Commercial, wooded, residential
Howell Mill Road	Minimal	Wooded, residential, commercial
BeltLine	Minimal	Residential, wooded, commercial
Millennium Gate	Minimal	Urban residential
Atlantic Station	Minimal	Urban commercial, residential, freeway, wooded

Displacements and Relocations

Indirect Effects: There would be no indirect effects related to displacements and relocations that would result from the proposed project.

Cumulative Effects: From the Akers Mill Road/I-75 interchange to the Arts Center Station, the proposed project will operate within existing right-of-way, and no roadway improvements would be required. The only right-of-way impacts for the potential future stations would be associated with station development. Eight total parcels would be impacted (seven full property takes and one partial property take) for a total impact of 3.23 acres (see **Table 4.19-5**). Properties affected by the full parcel takes include a national fast food restaurant, a national bank, and a local food truck park and market.

Table 4.19-5. Anticipated Right-of-Way Impacts for Potential Future Stations

	Full Takes		Partial Takes		Total	
	Number of Parcels	Acres	Number of Parcels	Acres	Number of Parcels	Acres
Guideway Impacts	0	0	0	0	0	0
Station Impacts	7	3.21	1	0.02	8	3.23
Total	**7**	**3.21**	**1**	**0.02**	**8**	**3.23**

Safety and Security

Indirect Effects: Although the project would be in vicinity of facilities housing populations that may be considered vulnerable to safety issues (such as children and the elderly), the proposed project would implement a number of safety and security measures to minimize any incidents. Crosswalks, street lighting, and other features at the transit stations would have the indirect effect of overall safety and security for pedestrians along the project corridor as well as for the transit riders.

Cumulative Effects: The proposed project would have a beneficial effect on the project corridor when combined with past and reasonably foreseeable future actions.

Hazardous Materials

Any direct impacts to a parcel at higher risk for contamination would necessitate the parcel to be remediated.

Indirect Effects: Indirectly, parcels that have been remediated would benefit the environment. The proposed project would have minimal indirect impacts to higher risk hazardous material sites.

Cumulative Effects: When combined with past, present, and foreseeable future actions this project would not contribute much to the overall cumulative impact of hazardous materials on the environment.

Noise

Indirect Effects: No noise impacts are anticipated as part of the proposed project. It is assumed that stations would be located and built with noise addressed as required by local zoning and building requirements. Limited noise impacts associated with outdoor gatherings around stations could occur near entertainment areas. Noise associated with any new transit-oriented development spurred by stations would be addressed as part of those developments.

Cumulative Effects: No cumulative impacts are anticipated.

Air Quality and Climate Change

Indirect Effects: As a result of the improved access to activity and economic centers, there would be a reduction in the projected number of cars on the roadway, resulting in an indirect improvement in air quality.

Cumulative Effects: With the past transportation projects and future transportation and transit projects, the proposed project would have a minimal beneficial cumulative effect to air quality and climate change.

Habitat/Endangered Species

As a result of the direct impact of improved access to activity and economic centers along the corridor it is anticipated that there would be minimal indirect effects to the habitats located in the corridor.

Indirect Effects: It is not reasonably foreseeable that there would be an indirect effect to any of the protected species along the proposed project.

Cumulative Effects: When combined with the overall past and reasonably foreseeable actions such as the creation of Cobb Galleria Centre and the future transportation capacity projects, the proposed project would be considered to have a minimal effect in the overall cumulative impact on wildlife habitat and endangered species.

Hydrology/Floodplains

It is assumed that all existing culverts would be extended and not replaced. Any modifications to existing structures on FEMA-studied streams would be coordinated with the appropriate local, state, and federal agencies with the goal of achieving a “No Rise” certification from FEMA.

Indirect Effects: It is not likely that the proposed project would have an indirect impact on floodplains or area hydrology.

Cumulative Effects: When combined with past and reasonably foreseeable actions this project is not considered to have an effect in the overall cumulative impact on floodplains or area hydrology.

Water Quality/Stormwater

Indirect Effects: Any development to occur around the station location would contribute to the impervious surface area throughout the corridor, and it is reasonably foreseeable that a greater amount of impervious surface area could contribute to runoff within the project corridor, as well as the increased pollutant load. However, as a result of improved transit and commuting could result in decreased vehicle use which could decrease pollutant load through non-point sources or through the decreased probability of spill episodes. Runoff from roadways can add pollutants such as heat, pathogens, oils, and sediment to both surface water and ground water. Because the specific type and intensity of growth in the area is unknown at this time, the amount and type of water quality impact is speculative. While the proposed project likely would indirectly affect water quality, best management practices for water quality are required for any government funded projects and are regulated for development projects through Cobb County’s development approval process.

Cumulative Effects: When combined with past and reasonably foreseeable development and transportation projects, the proposed project would have a minimal effect in the overall cumulative impact on water quality.

The addition of impervious area related to roadway improvements is expected to be limited to the US 41/Cobb Parkway corridor right-of-way. Per the General NPDES Permit No. GAR041000

with the EPD, GDOT requires that all stormwater outfalls owned and operated by GDOT adhere to the water quality and stormwater management guidance and design requirements established in the *Georgia Stormwater Management Manual*. Cobb County and the City of Atlanta are MS4 Permitted Areas and as such would be required to comply with their MS4 Permits. Examples of structural BMPs normally used on a linear infrastructure project include grass channels, enhanced swales (both dry and wet), infiltration trenches, stormwater wetlands, stormwater ponds, detention ponds, and filter strips.

Navigable Waterways

Indirect Effects: It is not reasonably foreseeable that this project would indirectly impact the Chattahoochee River, the only navigable waterway in the project corridor.

Cumulative Effects: The proposed project would not contribute to the overall cumulative impact on the navigable water in this area.

Waters of the US and Buffered State Waters

Indirect Effects: It is reasonably foreseeable that this project would indirectly contribute to impacts to wetlands and streams in the project corridor. Although the area is already developed, any redevelopment in the area has the potential for the placement of fill in wetlands or to involve the bridging, piping, or culverting of streams. The indirect effects of this project would be minimal since development/redevelopment is already planned for the corridor whether or not this project occurs.

Cumulative Effects: When combined with past and reasonably foreseeable development and transportation projects, the proposed project would have a minimal effect on the overall cumulative impact to wetlands and streams.

4.19.4 MITIGATION MEASURES

Current federal and state environmental policy such as Section 7 of the ESA, Section 404 of the Clean Water Act, and Georgia BMPs for water quality assist in minimizing direct, indirect, and cumulative impacts to the environment. Additional mitigation efforts are implemented by each separate project individually. Because determining indirect and cumulative impacts is speculative and by their very nature are quantifiable only in general terms, mitigation measures would be limited to adverse direct impacts, which are detailed throughout this EA. No specific mitigation measures for indirect or cumulative impacts are required.

4.20 Environmental Justice and Limited English Proficiency

This section discusses potential impacts to low-income and/or minority populations and populations with limited English proficiency. The information in this section is based on the Environmental Justice and Limited English Proficiency Technical Report (Cambridge Systematics, 2013) (**Appendix J**).

4.20.1 REGULATORY CONTEXT/METHODOLOGY

Environmental Justice

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was signed into law in February 1994. EO 12898 requires federal agencies to achieve environmental justice by determining and addressing social and economic impacts of programs, policies, and activities for minority and low-income populations. Impacts are determined to disproportionately affect minority and low-income populations more severely than populations which are not low-income and/or non-minority. Environmental justice refers

to fair treatment of all people regardless of race, color, sex, national origin, or income with respect to federal actions.

In May 2012, the US DOT issued an updated Internal Order, Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. A circular issued by FTA in August 2012 provides guidance for incorporating environmental justice principles into plans, projects, and activities funded by FTA.[68]

Limited English Proficiency

Title VI of the Civil Rights Act of 1964 states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance." This policy is also extended to protect persons of limited English proficiency (LEP), which, although not a federally-recognized environmental justice population, may experience disproportionate impacts compared to other groups.

EO 13166 requires meaningful access and participation for federally funded programs, policies, and activities for LEP individuals. EO 13166 provides enforcement and implementation under a provision contained in Title VI of the Civil Rights Act of 1964 which prohibits recipients of federal financial assistance from discriminating against persons based on national origins through refusal of access for LEP persons. Additionally, EO 13166 requires all agencies to meet the same standards for access to LEP persons to federally conducted programs, policies, and activities whether they are recipients of federally funding or not. Under EO 12898, each federal agency must provide LEP access. Meaningful access includes, but is not limited to document availability in one or more languages, dependent on project location; translation services during public meetings; and development of an official language implementation plan, the Language Assistance Plan.

Methodology

The methodology for analyzing the effects of the Connect Cobb Corridor project on these populations consists of the following steps:

- Define the study area boundary for environmental justice and LEP analysis and identify census tracts in that area
- Identify the location of environmental justice populations in that study area
- Identify adverse and positive effects of the project on these populations, and determine whether these effects are disproportionate as compared to effects on other populations
- Identify mitigation needed to address adverse effects, if any

To evaluate the potential for disproportionate impacts on minority, low-income, LEP and elderly communities, 2010 Census and 2006-2010 American Community Survey (ACS) tracts adjacent to the proposed ART corridor buffer, which extends ½ mile from US 41/Cobb Parkway and I-75 from KSU to Midtown Atlanta, were identified. The study area for environmental justice populations and LEP populations is defined as ½ mile on either side of the alignments and around station areas. Census tracts adjacent to this buffer were identified based on 2010 US Census and 2006-2010 ACS data, for a total of 48 census tracts. GIS was then applied to compare the fraction of minority, low-income, and LEP populations within each tract.

[68] Federal Transit Administration. *Environmental Justice Policy Guidance for Federal Transit Administration Recipients*. FTA C 4703.1. August 15, 2012.

Information for the overall Atlanta metropolitan statistical area (MSA) was also reviewed for context.

The analysis identified the environmental justice/LEP populations throughout the study area, as detailed below. For context, the analysis further identified portions of the study area where these populations are concentrated. This helped provide focus for outreach efforts specifically targeted to environmental justice and LEP populations and helped provide needed context for evaluation of disproportionate impacts.

The following definitions are used to identify areas with environmental justice and LEP populations:

- A **minority community** for this project is defined as a census tract with a minority population greater than 50 percent of the total population in the tract, or 10 percentage points higher (62.5 percent) than the two-county comparison area (Cobb and Fulton Counties). Minority populations include persons who are American Indian and Alaskan Native, Asian, Black or African-American, Hispanic or Latino, and Native Hawaiian or other Pacific Islander.
- A **low-income community** for this project is defined as a census tract in which the fraction of households with an average household income of under 150 percent of the poverty level is greater than 50 percent of the households in the tract, or exceeds the fraction in the broader two-county comparison area by at least 10 percentage points (31.1 percent). The poverty level, as defined by the US Department of Health and Human Services Poverty Guidelines (2010), includes a range of annual income for households between one and eight persons is $10,830 to $37,010.
- **LEP communities** are defined as census tracts in which the LEP population is greater than 50 percent of the total population in the tract, or at least 10 percentage points higher than the average for the two-county comparison area (17.2 percent). According to the US Census Bureau, LEP populations are those over the age of five and above who have a limited ability to read, write, speak, or understand English very well or at all.

4.20.2 AFFECTED ENVIRONMENT

Table 4.20-1 summarizes the socioeconomic and demographic characteristics of the population used for identifying environmental justice populations and compares these characteristics with the two-county comparison area (Cobb and Fulton Counties); for information purposes, characteristics are also provided for the Atlanta MSA. The environmental justice study area has approximately 166,000 persons and 73,000 households. The area has a significant minority population, but at 50.8 percent it is slightly smaller than the minority population in the two-county comparison area (52.5 percent). The low-income populations are higher in the study area (25 percent versus 21 percent); however, the environmental justice study area has a higher median income. The percent elderly is slightly lower in the environmental justice study area (about seven percent), and percent LEP is slightly (nearly 12 percent) than in the comparison area.

Table 4.20-1. Summary of Socioeconomic and Demographic Characteristics

Characteristic	Environmental Justice Study Area	Comparison Area (Two-County)	Atlanta MSA
2010 Census Population	166,395	1,608,659	5,268,860
Total Households	73,000	636,433	1,937,225
Percent Minority	50.8%	52.5%	49.3%
2006-2010 ACS Population	156,458	1,452,424	4,741,122
% Low Income Households	25.0%	21.1%	21.2%
Percent Elderly	7.3%	8.9%	9.0%
Percent LEP	11.7%	7.2%	7.7%

Sources: US Census Bureau, 2010; American Community Survey (ACS), 2006-2010

Table 4.20-2 provides a breakdown of population by racial/ethnic group. Roughly 26 percent of the environmental justice study area population is black, compared with over 35 percent in the comparison area and 32 percent in the Atlanta MSA. The environmental justice study area has a higher fraction of Latinos, about 15 percent versus 10 percent for the comparison area. Population fractions for other racial groups are similar. **Figure 4.20-1** shows the percentage of minority population in the environmental justice study area by census tract and identifies which tracts meet the threshold for environmental justice populations of 50 percent more than the total geographic unit.

Table 4.20-2. Racial and Ethnic Characteristics

Characteristics	Environmental Justice Study Area	Comparison Area (Two-County)	Atlanta MSA
White	**81,855**	**763,452**	**2,671,757**
Percentage	49.2%	47.5%	50.7%
Black, non-Hispanic	**43,594**	**568,510**	**1,679,979**
Percentage	26.2%	35.3%	31.9%
American Indian/Alaskan Native (AIAN)	**488**	**2,918**	**10,734**
Percentage	0.3%	0.2%	0.2%
Asian	**10,588**	**81,736**	**252,510**
Percentage	6.4%	5.1%	4.8%
Other Races, non-Hispanic	**5,021**	**35,147**	**106,480**
Percentage	3.0%	2.2%	2.0%
Latino	**24,849**	**156,896**	**547,400**
Percentage	14.9%	9.8%	10.4%
Percent Minority[1]	**50.8%**	**52.5%**	**49.3%**

[1] Percent minority is the total combined total of Black, AIAN, Asian, One/Two or More, and Latino.
Source: US Census Bureau, 2010

Figure 4.20-1 shows a cluster of neighborhoods in the middle of the corridor, primarily between Allgood Road and Cumberland Boulevard in the cities of Marietta and Smyrna, that exceed the threshold, with some outlying communities in Downtown Atlanta and north of the city of Acworth.

Figure 4.20-2 shows the census tracts in the environmental justice study area which exceed the threshold for percent low-income households. The threshold for defining low-income tracts is

10 percentage points more than the low-income population in the comparison area as a whole (21.1 percent), or 31.1 percent.

The figure shows a cluster of neighborhoods in the middle of the corridor, primarily between Allgood Road and Windy Hill Road in the cities of Marietta and Smyrna, that exceed the threshold of the definition of environmental justice communities according to income guidelines.

As shown in **Table 4.20-3**, the largest LEP population in the study area is Spanish or Spanish Creole speakers at 13 percent, much larger than the comparison area which has a five percent Spanish-speaking population. The second largest LEP population in the environmental justice study area is Portuguese speakers (nearly three percent).

Table 4.20-3. Limited English Proficiency Distribution

Population	Environmental Justice Study Area	Benefit Area (Two-County)	Atlanta MSA
Total Population	147,609	1,452,424	4,741,122
English Only	109,513	1,199,300	3,943,937
Percentage	74.2%	82.6%	83.2%
Total Foreign Language	38,096	927,978	797,185
Percentage	25.8%	17.4%	16.8%
Total LEP Population	17,296	104,815	365,761
Percentage	11.7%	7.2%	7.7%
By Language			
Spanish	19,655	66,255	232,454
Percentage	13.3%	4.6%	4.9%
Portuguese	3,907	4,057	4,842
Percentage	2.6%	0.3%	0.1%
Chinese	1,045	4,881	15,326
Percentage	0.7%	0.3%	0.3%
Korean	502	5,498	20,780
Percentage	0.3%	0.4%	0.4%
French	1,595	2,405	6,641
Percentage	1.1%	0.2%	0.1%
Vietnamese	685	2,522	20,538
Percentage	0.5%	0.2%	0.4%
All Other Languages	10,378	19,197	65,180
Percentage	7.0%	1.3%	1.4%

Source: American Community Survey, 2006-2010

Figure 4.20-3 shows the concentration of LEP households in the environmental justice study area by census tract which exceed the threshold. The threshold for defining low-income tracts is 10 percentage points more than the LEP population in the comparison area as a whole (7.2 percent), or 17.2 percent.

The areas with the highest LEP population concentrations are clustered towards the center of the environmental justice study area primarily between Allgood Road and Spring Road in the cities of Marietta and Smyrna, where the limited English proficiency exceeds 20 percent in some areas.

Figure 4.20-1. Minority Populations in the Environmental Justice Study Area

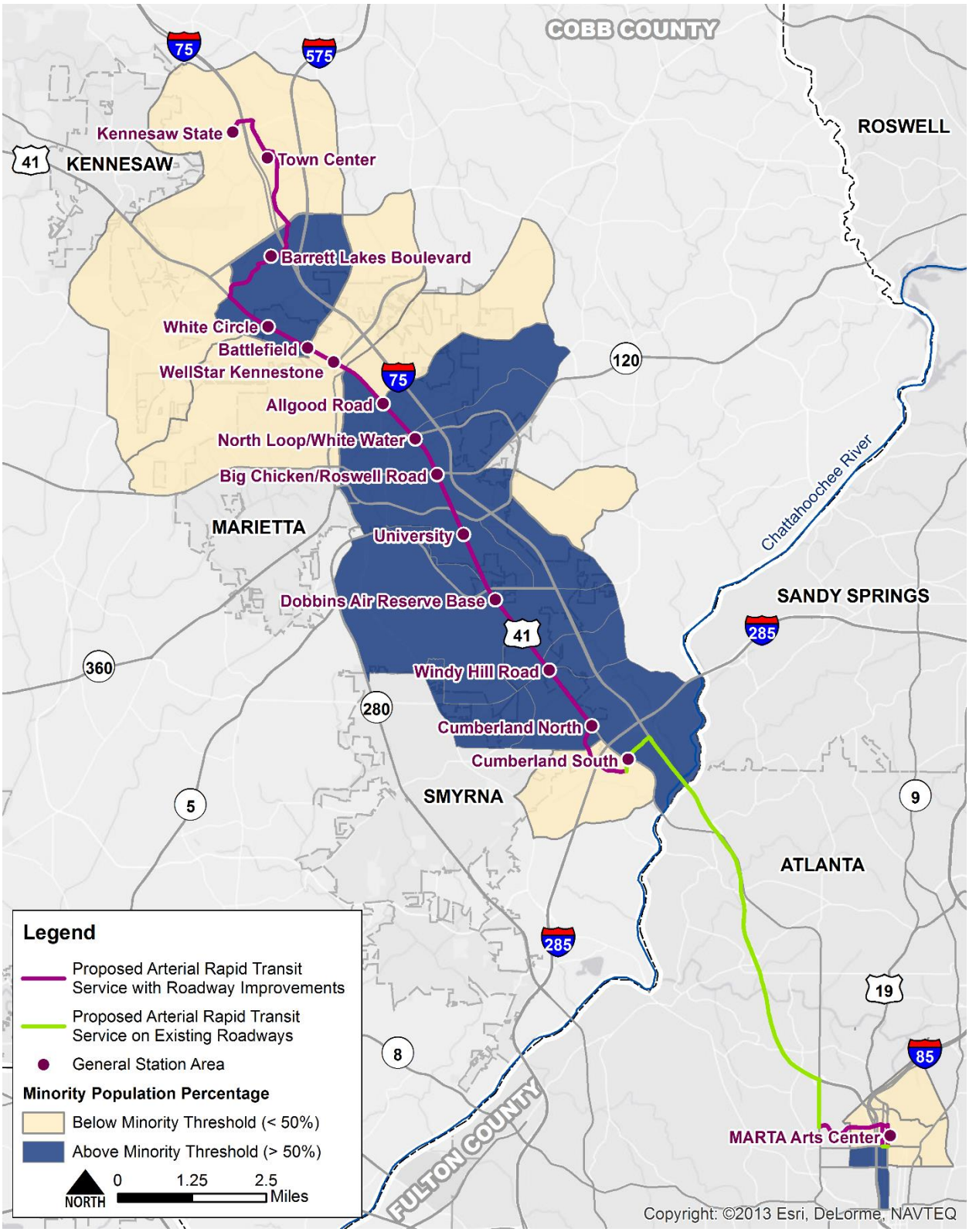


Figure 4.20-2. Low-Income Populations in the Environmental Justice Study Area

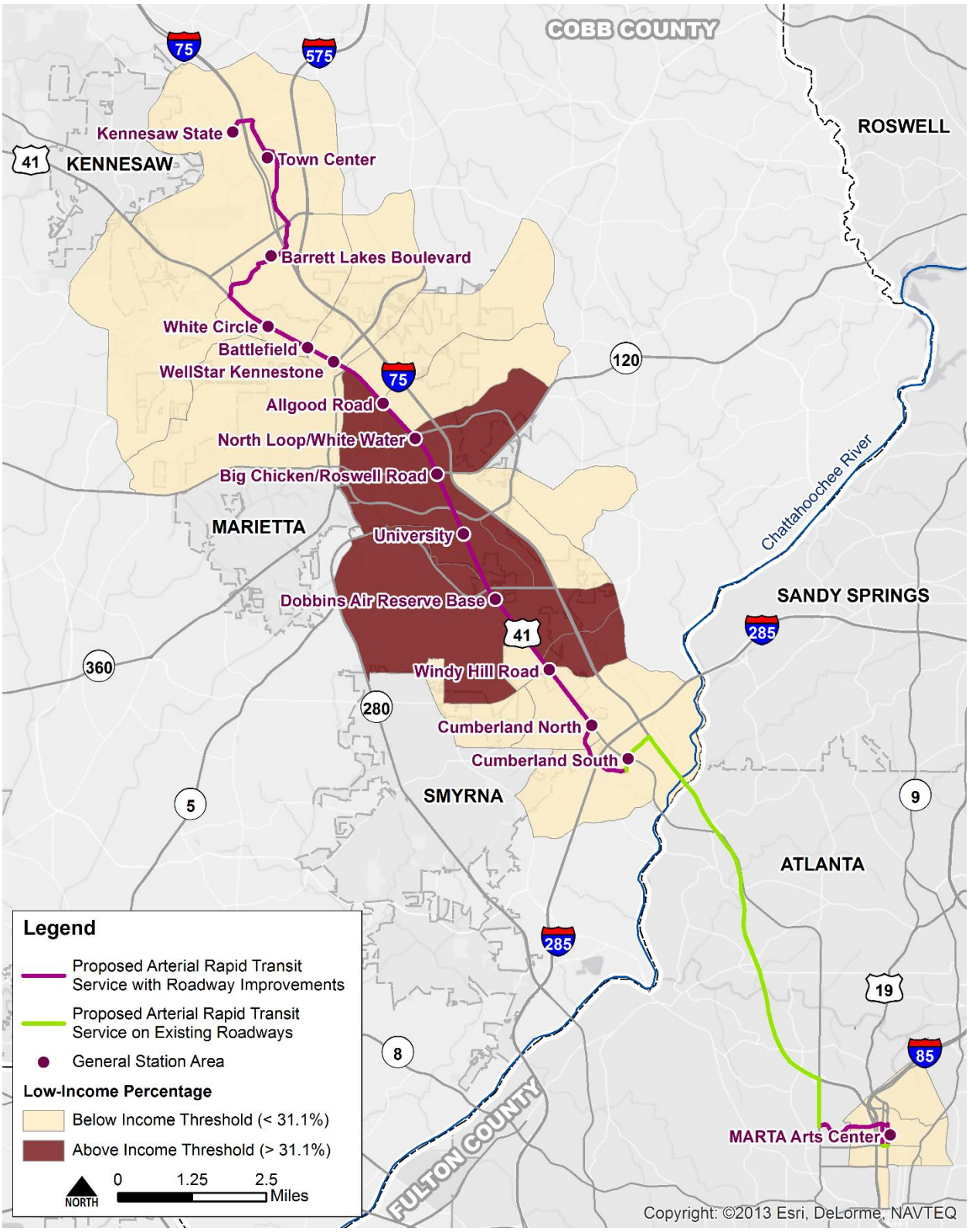
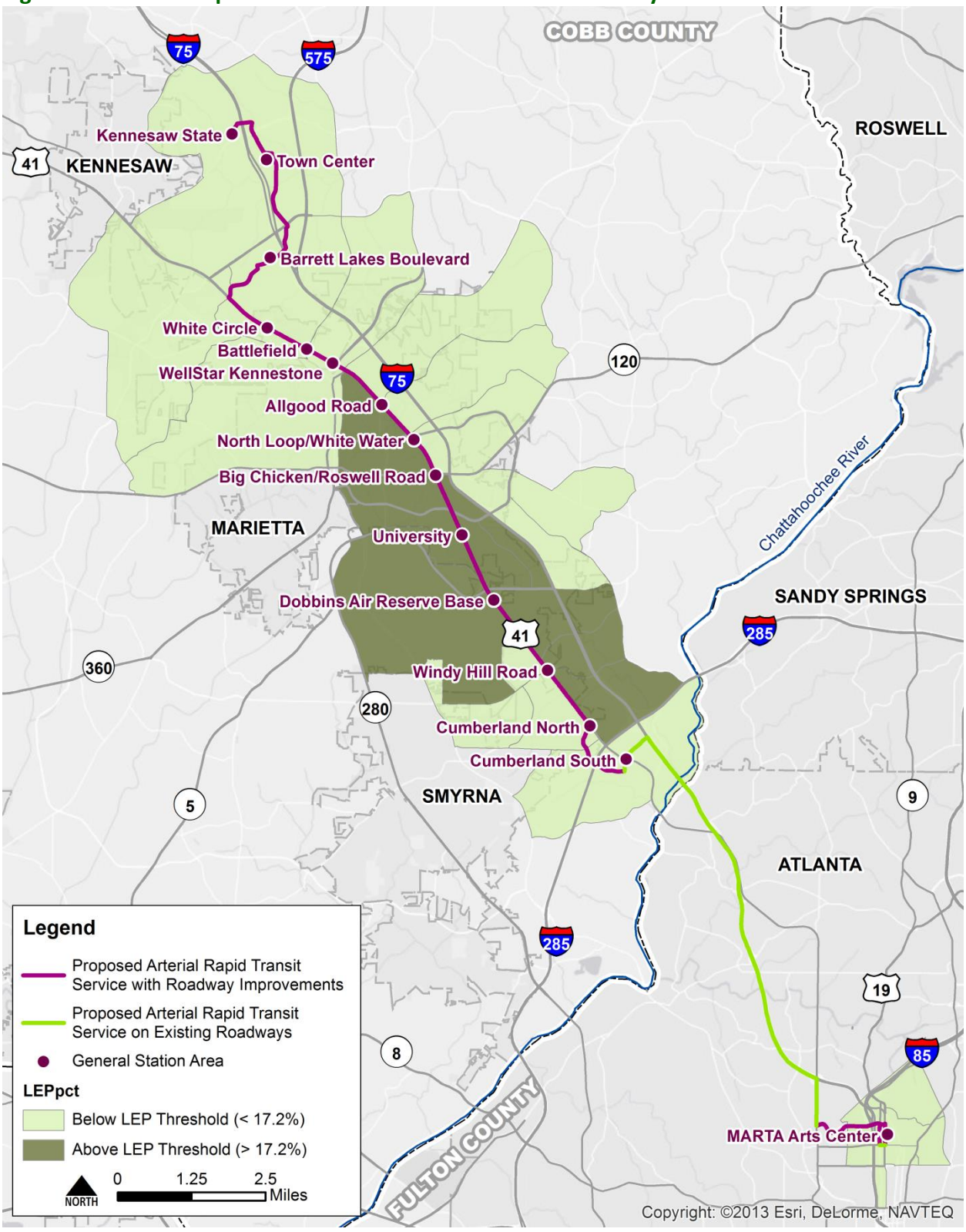


Figure 4.20-3. LEP Population in the Environmental Justice Study Area



4.20.3 POTENTIAL IMPACTS

A disproportionately high and adverse effect on environmental justice populations is defined as an effect that is predominately borne by or would be suffered by an environmental justice population or that is appreciably more severe or greater in magnitude than adverse effects suffered by a non-environmental justice population. In general, the determination of disproportionately impacted environmental justice populations is done by analyzing the pattern of overall environmental or human health impacts in relation to identified areas of environmental justice populations. Adverse effects are the totality of significant individual or cumulative human health or environmental effects.

Minority populations are not disproportionately present within the environmental justice study area as compared to the two-county comparison area. However, there are some neighborhoods that meet one or more criteria for being defined as environmental justice populations.

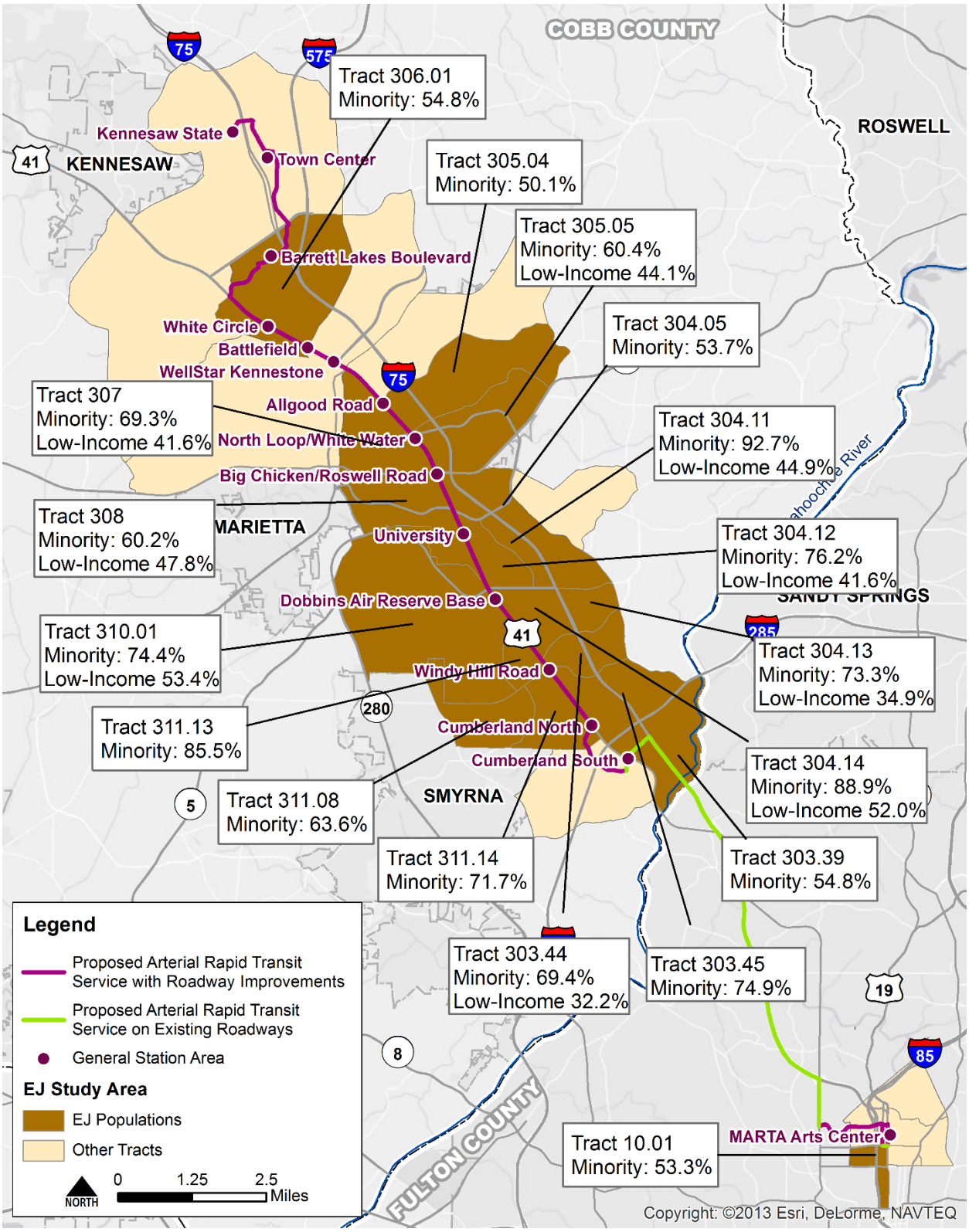
Table 4.20-4 details the 18 census tracts that exceed thresholds for low-income, minority, or LEP populations and make up the defined environmental justice communities for the purposes of this study which could potentially be impacted. As indicated, 10 census tracts meet two or more thresholds for minority, low-income, and/or LEP populations. Three census tracts have high concentrations of elderly populations, but these do not overlap with any of the other groups.

Figure 4.20-4 shows the concentration of environmental justice communities in the study area by census tract which exceed the threshold for either low-income or minority populations. The areas with environmental justice communities include a portion of Downtown Atlanta, the city of Marietta between Greers Chapel Road and Cumberland Boulevard, and one community north of the city of Acworth.

Table 4.20-4. Large Concentrations of Environmental Justice and LEP Populations by Census Tract and County

Census Tract	County	Median Household Income	Percent Low Income	Percent Minority	Percent LEP	Large Concentrations of Special Populations		
						Poverty	Minority	LEP
303.39	Cobb	$54,455	13.7%	54.8%	9.1%		X	
303.44	Cobb	$42,323	32.2%	69.4%	22.6%	X	X	X
303.45	Cobb	$53,074	25.0%	74.9%	17.4%		X	X
304.05	Cobb	$47,262	24.0%	53.7%	14.6%		X	
304.11	Cobb	$33,519	44.9%	92.7%	30.3%	X	X	X
304.12	Cobb	$40,119	41.6%	76.2%	22.5%	X	X	X
304.13	Cobb	$41,127	34.9%	73.3%	24.1%	X	X	X
304.14	Cobb	$30,409	52.0%	88.9%	25.5%	X	X	X
305.04	Cobb	$72,720	18.4%	50.1%	14.8%		X	
305.05	Cobb	$33,655	44.1%	60.4%	14.6%	X	X	
306.01	Cobb	$53,414	26.2%	54.8%	9.6%		X	
307	Cobb	$34,583	41.6%	69.3%	25.7%	X	X	X
308	Cobb	$28,710	47.8%	60.2%	29.7%	X	X	X
310.01	Cobb	$31,780	53.4%	74.4%	25.6%	X	X	X
311.08	Cobb	$40,852	30.5%	63.6%	7.6%		X	
311.13	Cobb	$35,955	28.0%	85.5%	12.5%		X	
311.14	Cobb	$43,359	22.7%	71.7%	10.1%		X	
10.01	Fulton	$52,411	18.6%	53.3%	13.0%		X	

Figure 4.20-4. Environmental Justice Populations within the Study Area



4.20.3.1 No Build Alternative

The No Build Alternative, as described in Section 3.1, represents continuation of existing service and does not include any construction activities. Therefore, there would be no short-term project-related adverse impacts to minority, low-income, or LEP populations. As described in Section 1.0, without transit investment in the corridor, congestion will continue to grow and transit travel times and reliability will deteriorate. These long-term transportation effects would result in adverse effects that would not be avoided, minimized, or mitigated. However, the effects would occur throughout the environmental justice study area, and no disproportionate adverse effects on environmental justice populations are anticipated as a result of the No Build Alternative.

4.20.3.2 Proposed Project

Throughout the planning and environmental review phases for the project, outreach efforts have ensured that environmental justice populations have been provided with a range of opportunities for meaningful engagement on the project and issues that are important to them. These public outreach activities have included preparation of informational materials in English and Spanish, as well as information kiosks at major transfer centers and briefings to community leaders. In anticipation of the November 12, 2013 public meeting, factsheets in English and Spanish were distributed at the CCT Cumberland Transfer Center and at the MARTA Arts Center Station.

A range of impact categories evaluated in this EA were selected for review as they relate to minority, low-income, and LEP populations. The selected categories include land use, traffic, parking, neighborhood and community resources (including parks), air quality, hazardous materials, noise, displacements and relocations, transportation, safety and security, and visual. These categories were selected because the impacts tend to be localized and have the potential for high or disproportionate impact to environmental justice populations. Other categories evaluated in this EA were not considered because they either presented no impacts, or their effects would be experienced by all populations living in the environmental justice study area, regardless of race, ethnicity, or socioeconomic status.

Transportation Impacts

Changes in transit service introduced by the Connect Cobb Corridor project would have a positive effect on all populations within the corridor by way of providing additional options and improved travel times. These benefits would also apply to environmental justice populations.

Land Use/Consistency with Plans

As explained in Section 4.3, no changes or adverse effects to existing land use or planned development would occur with construction or operation of the Connect Cobb Corridor project. Therefore, no related disproportionate adverse impacts on environmental justice populations are anticipated.

Neighborhood and Community Resources

The Connect Cobb Corridor project follows a generally commercially developed corridor.

As described in Section 4.6, there are no direct effects to parks or public lands in the corridor. No disproportionate adverse effects on environmental justice populations related to parks and public lands are anticipated as a result of implementation of the project.

Visual

As documented in Section 4.8, the project would not result in a substantial change to the visual character of the corridor as a whole. There would be localized impacts in vicinity of station areas, largely due to loss of existing vegetation. Other visual improvements would be made as part of the project, and no disproportionate adverse effects on environmental justice populations related to visual effects are anticipated as a result of implementation of the project.

Displacements and Relocations

Because the proposed project would be constructed primarily within existing rights-of-way, there are limited takings needed for its implementation. These takings are primarily associated with station areas, and small strip takes for stretches along US 41/Cobb Parkway. Right-of-way impacts would be borne by all populations in the corridor, and no disproportionate adverse effects on environmental justice populations are anticipated as a result of implementation of the project.

Safety and Security

Implementation of safety and security plans and station safety and security measures such as lighting and surveillance would be executed equally across the entire system, and at all stations. No disproportionate adverse effects on environmental justice populations related to safety and security are anticipated as a result of implementation of the project.

Hazardous Materials

As described in Section 4.11, operation of the Connect Cobb Corridor project would not result in increased usage, transport, release, or exposure of hazardous materials to people in the corridor. There are potential hazardous sites in the corridor, such as documented leaking underground storage tanks. However, no disproportionate adverse effects on environmental justice populations related to hazardous materials are anticipated as a result of implementation of the project.

Noise

No noise impacts are anticipated as a result of the operation of the proposed project. There would be temporary noise impacts during construction, but these would be borne by all populations in the corridor and would not cause disproportionate adverse effects on environmental justice populations.

Air Quality

The Connect Cobb Corridor project is consistent with regional air quality conformity guidelines and, based on an anticipated reduction in vehicle miles of travel, would result in a modest beneficial impact to regional emissions. No adverse impact related to toxic air contaminants would result from the project. Construction related air quality impacts would be temporary, and no disproportionate adverse effects on environmental justice populations would result from the project (see Section 4.13).

Indirect and Cumulative Impacts

In Section 4.19, the effects of past, present, and reasonably foreseeable future projects were evaluated for indirect and cumulative impacts on the natural and social environments. Based on that analysis, it was determined that mitigation efforts would be limited to adverse direct impacts. Direct impacts, as discussed above, would not result in disproportionate adverse impacts on environmental justice populations as a result of project implementation.

4.20.4 MITIGATION MEASURES

Implementation of the Connect Cobb Corridor project would not result in disproportionate adverse impacts on environmental justice populations. The mitigation measures identified under each issue area of this EA would apply to all populations, and no specific mitigation measures are required to address impacts to environmental justice populations.

5.0 Agency Coordination and Public Involvement

5.1 Agency Coordination/Permits and Approvals

5.1.1 COOPERATING AND PARTICIPATING AGENCIES

Applicable federal, state, regional, and local agencies were invited to be involved in the Environmental Assessment (EA) process by becoming a cooperating or participating agency via an invitation letter issued in February 2013.

Based on responses to the initial letters and subsequent follow-up, the agencies listed in **Table 5.1-1** are considered cooperating or participating agencies in the EA process.

Participating agencies are agencies with an interest in the project. Cooperating agencies have a more specific role and will participate in the permitting and/or jurisdictional determination process for impacts related to the project. They will work cooperatively with the lead agencies to resolve issues that could result in denial of regulatory approvals required for the project.

Responsibilities of both types of agencies included the following:

- Identifying the project's potential environmental and socioeconomic impacts and potential mitigation measures
- Providing input on the project purpose and need, how impacts to resources will be evaluated, how the proposed project will be evaluated, and the level of detail to be used in the analysis of alternatives
- Providing written comments on other project deliverables as applicable

Table 5.1-1. Cooperating and Participating Agencies

Agency	Participation Level
Federal Highway Administration	Cooperating Agency
US Army Corps of Engineers	No Response; invited as Cooperating Agency
Georgia Department of Transportation	Cooperating Agency
US Environmental Protection Agency	Participating Agency
US Department of Defense/Dobbins Air Reserve Base	Participating Agency
Georgia Department of Natural Resources	Participating Agency
State Road and Tollway Authority	Participating Agency
Georgia Regional Transportation Authority	Participating Agency
Atlanta Regional Commission	Participating Agency
Metropolitan Atlanta Rapid Transit Authority	Participating Agency
City of Acworth	Participating Agency
City of Kennesaw	Participating Agency
City of Marietta	Participating Agency
City of Smyrna	No Response
City of Atlanta	Participating Agency
City of Austell	No Response
Town Center Area Community Improvement District	Participating Agency
Cumberland Community Improvement District	Participating Agency

Agency	Participation Level
Atlanta BeltLine, Inc.	Participating Agency
Midtown Alliance	Participating Agency
Kennesaw State University	Participating Agency
Southern Polytechnic State University	Participating Agency
Life University	Participating Agency
Georgia Institute of Technology	Participating Agency
Georgia State University	No Response

5.1.2 PERMITS AND APPROVALS

Table 5.1-2. Agency Permits and Approvals

Government Agency	Type of Review, Approval, or Permit
Federal	
Federal Transit Administration	NEPA Findings Document
	Section 106 Process (Determination of Effect; Section 106 agreement as necessary)
US Army Corps of Engineers	Section 404 Nationwide Permit
State	
State Historic Preservation Office	Section 106 Process (Concurrence on effects; Section 106 agreement as necessary)
Georgia Department of Natural Resources Environmental Protection Division	Georgia Stream Buffer Variance
	NPDES Permit GAR100002 (erosion, sedimentation, pollution control)
	NPDES Permit GAR041000 (municipal separate stormwater sewer system)
Georgia Department of Transportation	Encroachment Permit for construction activities within GDOT right-of-way
County	
Cobb County	Construction Permit for Stations[1]
Local	
City of Smyrna	Construction Permit for Stations[1]
City of Marietta	Construction Permit for Stations[1]
City of Atlanta	Construction Permit for MARTA Arts Center Station[1]

[1]CCDOT will obtain all required local permits for impacts during construction including but not limited to noise, odor and dust, utilities, and grading.

5.2 Public Involvement

5.2.1 STAKEHOLDER MEETINGS

A number of meetings have been held with cooperating agencies, participating agencies, and other relevant agencies regarding the status of the Connect Cobb Corridor project, planned station locations, and coordination with nearby projects. **Table 5.2-1** summarizes these meetings. Cooperating and participating agencies are listed in **Table 5.1-1**.

Table 5.2-1. Connect Cobb Corridor Coordination Meetings Summary

Date	Attendees	Purpose	Cooperating/ Participating Agency Involvement?
2/20/13	MARTA, City of Atlanta, City of Marietta, GDOT, Georgia Tech, CCDOT	Meeting of Connect Cobb Technical and Partners Groups	✓
4/4/13	City of Marietta Departments of Development Services, Economic Development, and Public Works, CCDOT	Discussion of project status and station locations in Marietta	✓
6/21/13	City of Atlanta, MARTA, Midtown Alliance, ARC, CCDOT	Initial discussion regarding project status, funding, and planned improvements to Arts Center Station	✓
7/24/13	City of Atlanta, MARTA, Midtown Alliance, ARC, CCDOT	Second discussion regarding project funding and planned improvements to Arts Center Station	✓
9/23/13	Cobb County Transit Advisory Board, CCDOT	Presentation of project status	
10/21/13	National Park Service, Southern Polytechnic State University, Life University, Cumberland Community Improvement District, CCDOT	Cobb in Motion: Cobb County Comprehensive Transportation Plan 2040 Update stakeholder meeting	✓
11/6/13	National Park Service, CCDOT	Second discussion with the National Park Service regarding access to Kennesaw Mountain National Battlefield Park	
12/2/13	GDOT, ARC	Discussion of project status and coordination with GDOT projects in vicinity of the Connect Cobb Corridor project	✓
1/24/14	City of Atlanta, MARTA, Midtown Alliance, CCDOT	Discussion of proposed improvements to the MARTA Arts Center Station	✓
1/24/14	North American Properties (operator of Atlantic Station development), CCDOT	Introduction/overview of proposed project and station locations, review of existing transit service	
2/24/14	MARTA, CCDOT	Discussion of proposed improvements to the MARTA Arts Center Station	✓
2/24/14	Cobb County Transit Advisory Board	Discussion of technology and project status	
3/21/14 - 4/4/14	Atlanta Braves, City of Marietta Economic Development	Identify planning and urban design concepts for the	✓

Date	Attendees	Purpose	Cooperating/ Participating Agency Involvement?
	Division, City of Marietta Engineering, Cobb Chamber of Commerce, Cobb County Community Development, Council for Quality Growth, Cumberland Community Improvement District (CID), Kennesaw State University, Lockheed Martin, Olshan Properties, Town Center CID	Kennesaw State, University, and Cumberland North and South Stations	
8/12/14	City of Atlanta, MARTA, Midtown Alliance, CCDOT	Third discussion regarding alternatives to improve Arts Center Station	✓
1/26/15	City of Marietta, City of Smyrna, Cobb County Department of Public Safety	Discussion of proposed project with emergency service providers	✓

5.2.2 PUBLIC MEETINGS

A public information open house was held on November 12, 2013 from 5:30-7:30 pm at the Cobb Galleria Centre located at 2 Galleria Parkway, Atlanta, Georgia 30339. The purpose of the open house was two-fold: to educate citizens on the status of the project and to collect input on the findings to date. A total of 52 people attended the meeting, with seven comment forms and one oral comment submitted. An additional 116 viewers accessed an online video from the meeting and 27 comments were submitted via an online survey. A Spanish language translator was present at the open house.

Both general support and opposition were heard for the proposed project. Those who supported the proposed project felt that the addition of transit options would benefit commuting patterns and travel times; modernize the county by providing traveling options that citizens want and desire, particularly attracting young people; provide needed linkages to universities including Kennesaw State University (KSU), Georgia Institute of Technology, and Southern Polytechnic State University; increase access to cultural facilities in Cobb County and Atlanta; complement existing Cobb Community Transit (CCT) and Metropolitan Atlanta Regional Transit Authority (MARTA) service; and reduce the environmental impact of automobile use. Those in opposition expressed concern over costs to taxpayers; lack of ridership to support the investment; potential increase in crime in Cobb County; potential decrease in property values in Cobb County; and the impact to existing traffic on the surface streets.

Other comments addressed the need for the project to accommodate both fan and employee traffic to and from SunTrust Park; the need for connections to the arterial rapid transit (ART) stations via a shuttle system and pedestrian facilities; requests for consideration of rail and not bus; and questions on what entity would operate the system.

5.2.3 OTHER ENGAGEMENT

Cobb County Department of Transportation (CCDOT) has a project website specific to the EA process.[69] The website includes an electronic copy of the EA, general information about the project and upcoming meetings, a map of the proposed project, and ways for the public to engage online including a project video and survey. Cobb County social media links (Facebook,[70] Twitter,[71] and YouTube[72]) are also provided. A separate website specific to the Alternatives Analysis (AA) process is also linked on the EA website. Hard copies are also available at Cobb County Department of Transportation, 1890 County Services Parkway, Marietta, GA 30008.

A Connect Cobb Corridor fact sheet was also made available in English and Spanish in January 2013 and updated in the fall of 2013. The fact sheets provided the most up-to-date information available for the project at the time of production and also include a description and map of the Locally Preferred Alternative (LPA), information about ART and express bus service, and ways for the public to get involved or ask questions. The fact sheet is included on the project website and was distributed at the CCT Cumberland Transfer Center and at the MARTA Arts Center Station.

Cobb County also manages a project mailing list, for which the public can sign up for email updates. As of December 2014, the list currently includes approximately 550 active email addresses.

5.2.4 PUBLIC HEARING

CCDOT will hold a Public Hearing Open House concerning proposed transit improvements to the US 41 corridor in Cobb County and will notify the public of the date, time, and location through the project website, newspapers, and project mailing lists.

The purpose of this Open House is to provide the public with an opportunity to review the EA and its findings, ask questions, and comment on the project. The Open House will be informal and the public is invited to attend anytime during these hours. There will be no formal presentation. A court reporter will be available during this time to allow the public an opportunity to make comments about the project. These comments will be included in the transcript of the Open House.

Written comments will be accepted concerning this project and may be submitted to:

Mr. Marty Sewell
Connect Cobb EA Project Manager
Cobb County DOT
1890 County Services Pkwy
Marietta, Georgia 30008-4014

Or to: info@sycamoreconsulting.net

The displays from the Public Hearing Open House will be available for review at CCDOT, 1890 County Services Parkway, Marietta, Georgia 30008. The project website and newspaper advertisement for the Open House will identify the dates that the displays will be available at

[69] http://www.cobbcounty.org/index.php?option=com_content&view=article&id=2763:connect-cobb-nw-transit-corridor-environmental-assessment&catid=130:department-of-transportation&Itemid=596
[70] https://www.facebook.com/CobbCountyGovernment
[71] https://twitter.com/cobbcountygovt
[72] http://www.cobbcounty.org/index.php?option=com_content&view=article&id=752:tv23-youtube&catid=110

CCDOT. The meeting transcript, as soon as it is prepared, will be available at CCDOT at the address noted above.

The environmental document will be available for review 15 days before the date of the public hearing at the CCDOT location stated above. Also, copies of the environmental document will be available at the hearing for public review.

Americans with Disabilities Act (ADA) Information

The meeting site is accessible to persons with disabilities. Accommodations for people with disabilities can be arranged with advance notice by calling Nancy Rouse at CCDOT at (770) 528-1621.