

Transit Implementation Study

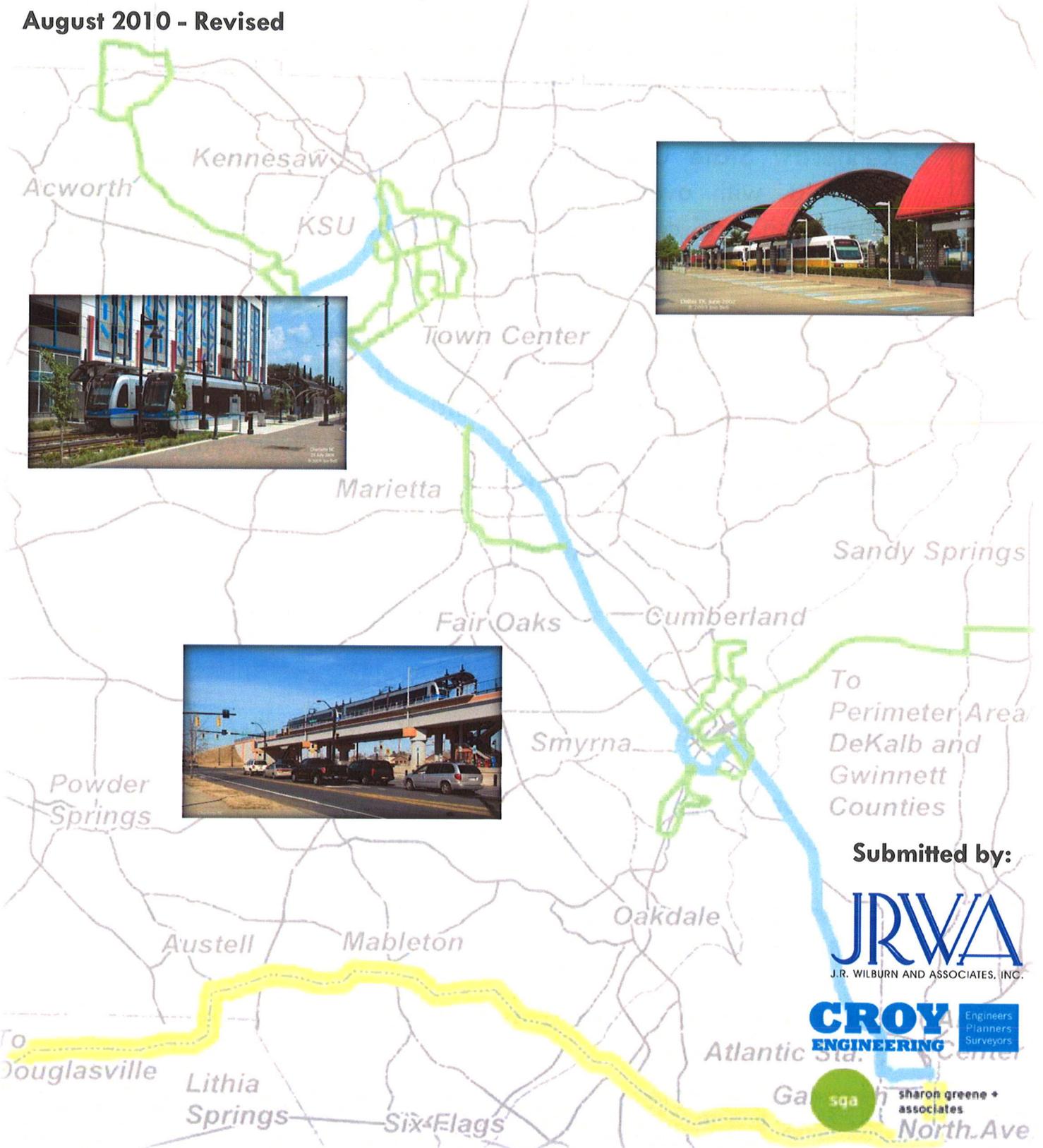
Northwest Corridor Light Rail Transit System

Cobb County, Georgia



Cobb County...Expect the Best!

Submitted to:
Cobb County Department of Transportation
August 2010 - Revised



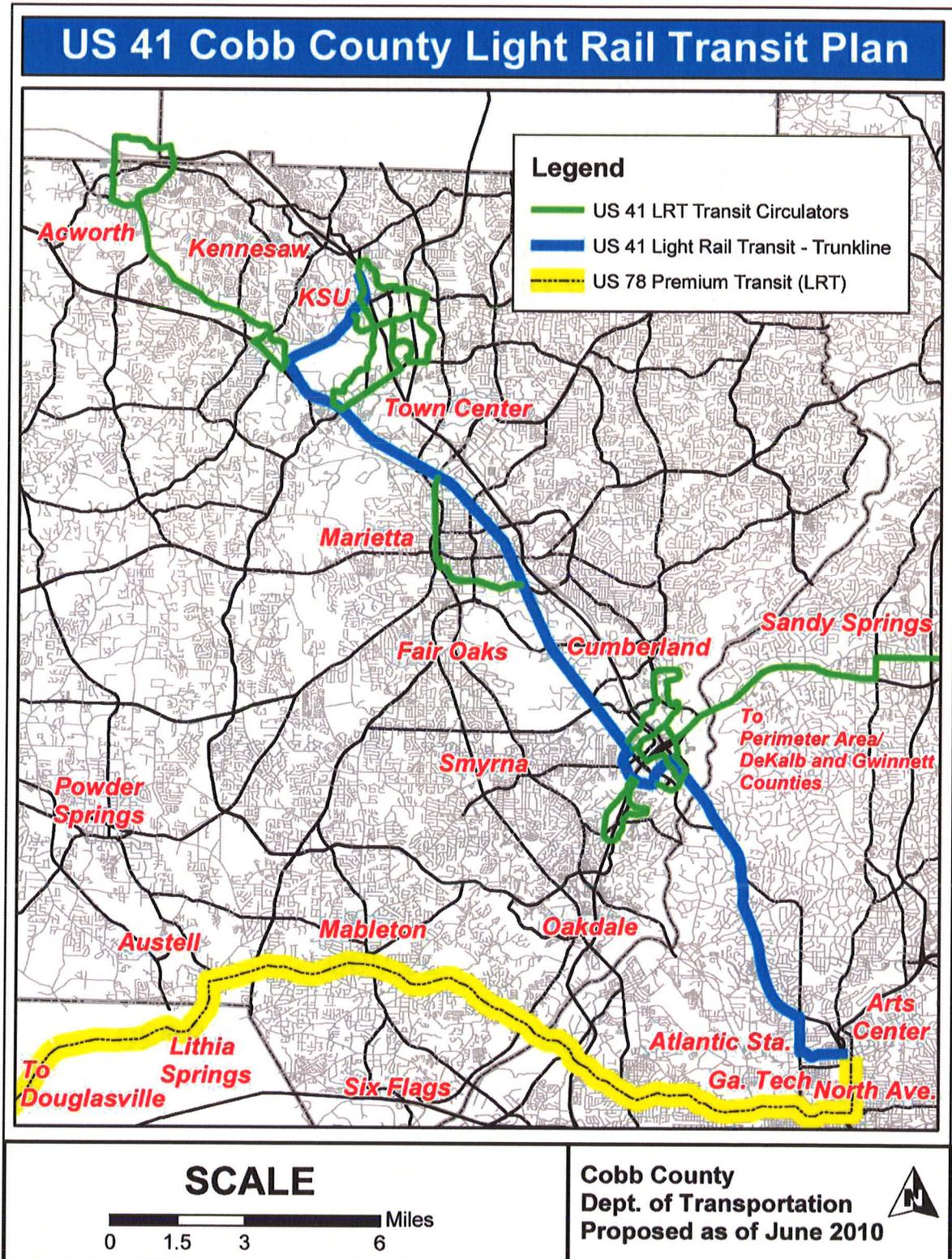
Submitted by:



PROPOSED PROJECT: NORTHWEST CORRIDOR LIGHT RAIL TRANSIT

- The Cumberland Community Improvement District (CID) and the Town Center Area (CID) represent two of the largest and fastest growing Activity Centers in the Atlanta Region.
- Kennesaw State University (KSU) is the 3rd largest university in Georgia, with over 23,000 students in 2010. 85% of student population are commuters and KSU has a \$450 million dollar annual economic impact on the area.
- The guiding principals of the Redevelopment Overlay District (ROD) is to create a synergistic relationship between the land along US41 and the light rail system and its stations by promoting redevelopment of a community or regional activity center scale that supports pedestrian and transit travel modes.
- Trunkline length: approximately 14 miles
- Tracks would be both at grade and elevated where appropriate and feasible.
- Maintenance Facilities in Canton Road Connector Area
- Circulators support accessibility within Cumberland Galleria and Town Center Area Regional Activity Centers.
- Cumberland/Galleria Circulator- Approximately 14.1 miles (Light Rail and/or Shuttle Bus)
- Town Center/KSU Circulator-Approximately 12.4 miles (Shuttle Bus System)

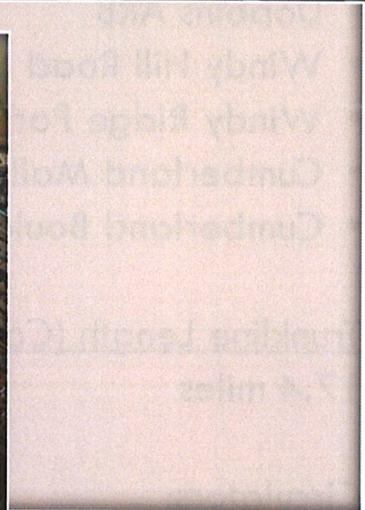
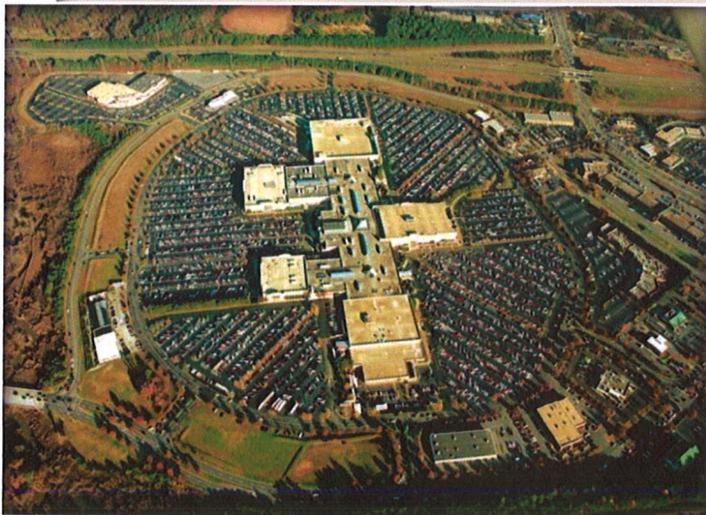
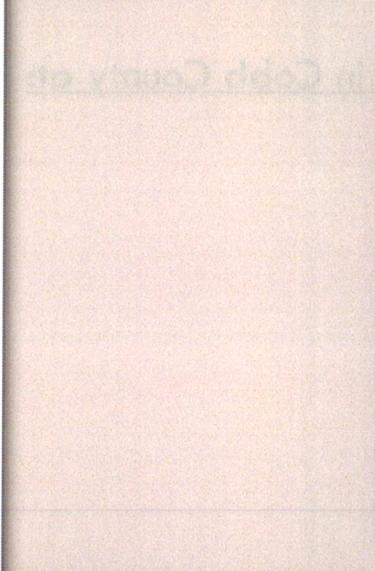
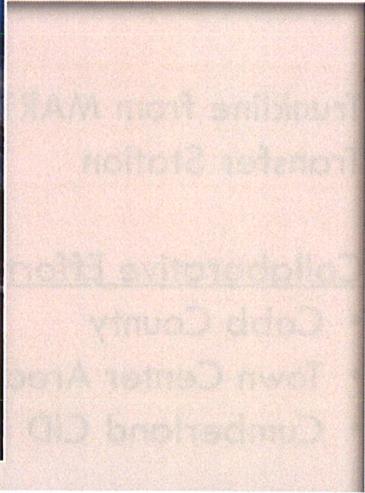
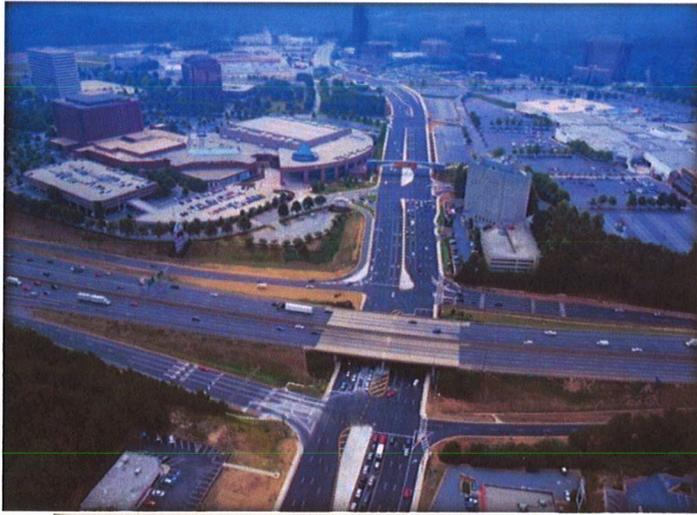
2010 PROPOSED LIGHT RAIL TRANSIT ROUTE



CUMBERLAND AND TOWN CENTER AREAS

- The Cumberland area currently contains:
 - more than 23.4 million square-feet of office space
 - 3.5 million square-feet of major retail space
- The Town Center Area currently contains:
 - more than 935 acres of major retail land area
 - 425 acres of office land area
 - 1,223 acres of industrial land area
- Kennesaw State University has an enrollment of more than 23,000 students.
- Based on the results of the Town Center Area Road Map Update (2007) and the Cumberland CID Market Assessment (2009), both areas will experience steady growth in both employment and population:

	Cumberland		Town Center	
	<u>2010</u>	<u>2025</u>	<u>2010</u>	<u>2025</u>
Households	18,720	20,900	8,350	9,720
Employment	65,565	74,400	35,020	40,840



PROJECT HISTORY: 2001 LIGHT RAIL TRANSIT SYSTEM STUDY

Trunkline from MARTA Arts Center to Proposed Chastain Rd/I-575 Transfer Station

Collaborative Effort Between:

- Cobb County
- Town Center Area CID
- Cumberland CID

In 2001 Study, 14 Stations Located in Cobb County at:

- Chastain/I-575
- Town Center Mall
- Barrett Parkway
- Canton Road
- Bells Ferry Road
- North 120 Loop
- Roswell Street
- South 120 Loop
- Dobbins ARB
- Windy Hill Road
- Windy Ridge Parkway
- Cumberland Mall
- Cumberland Boulevard

Trunkline Length (Cobb County):

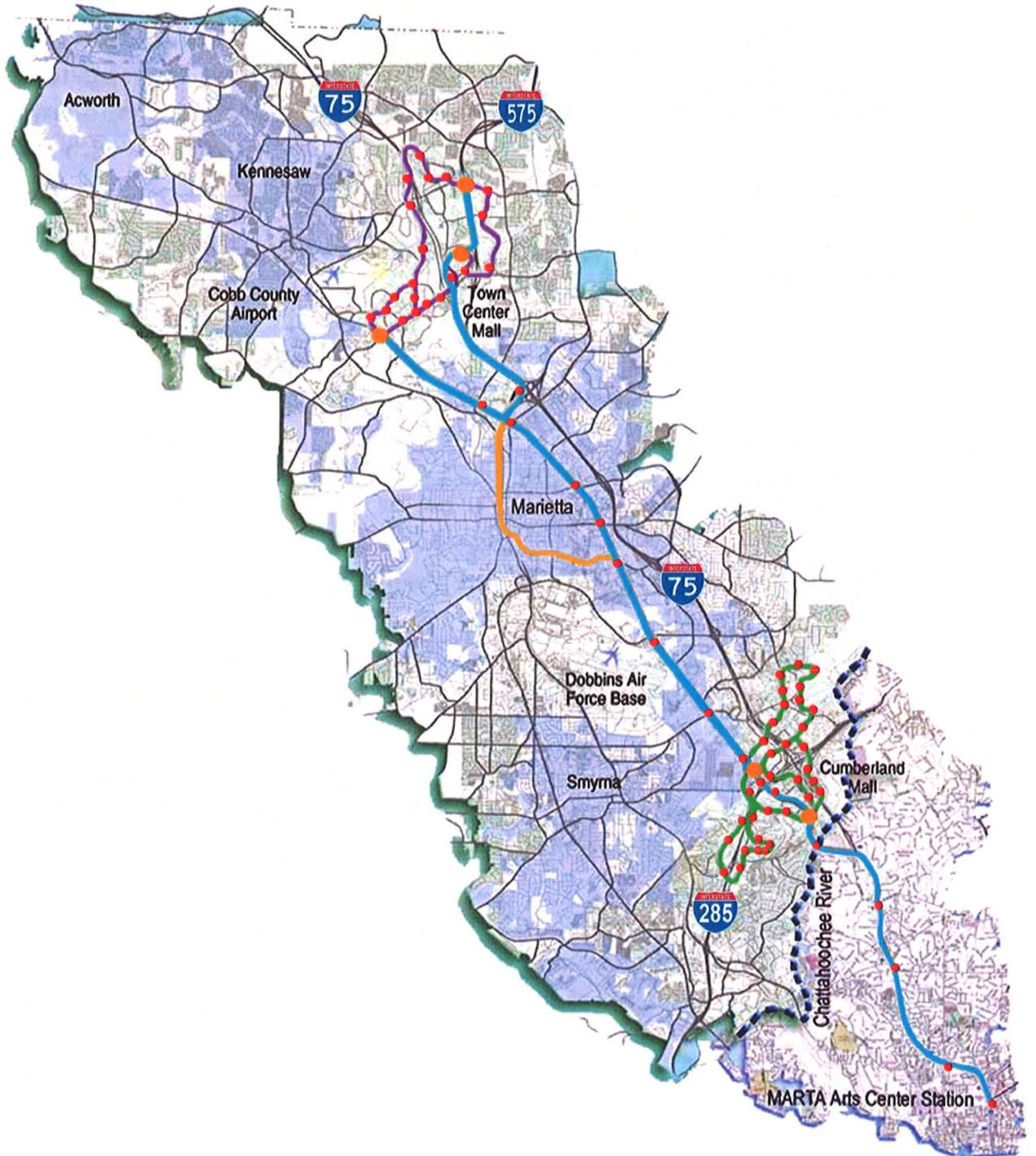
17.4 miles

Circulators:

Town Center – 12.4 miles, with 23 stations

Cumberland – 14.1 miles, with 37 stations

2001 NORTHWEST CORRIDOR LIGHT RAIL TRANSIT SYSTEM



THE NORTHWEST CORRIDOR LIGHT RAIL TRANSIT PROJECT IN THE REGIONAL TRANSPORTATION PLAN

- The Atlanta Regional Commission (ARC) developed the Regional Transportation Plan (RTP) to program transportation improvements for the region that would address transportation issues and bring the region into conformity with the requirements of the Federal Clean Air Standards.
- The light rail transit system is defined in the RTP (AR-931A, AR-931B, AR-931E) as follows:

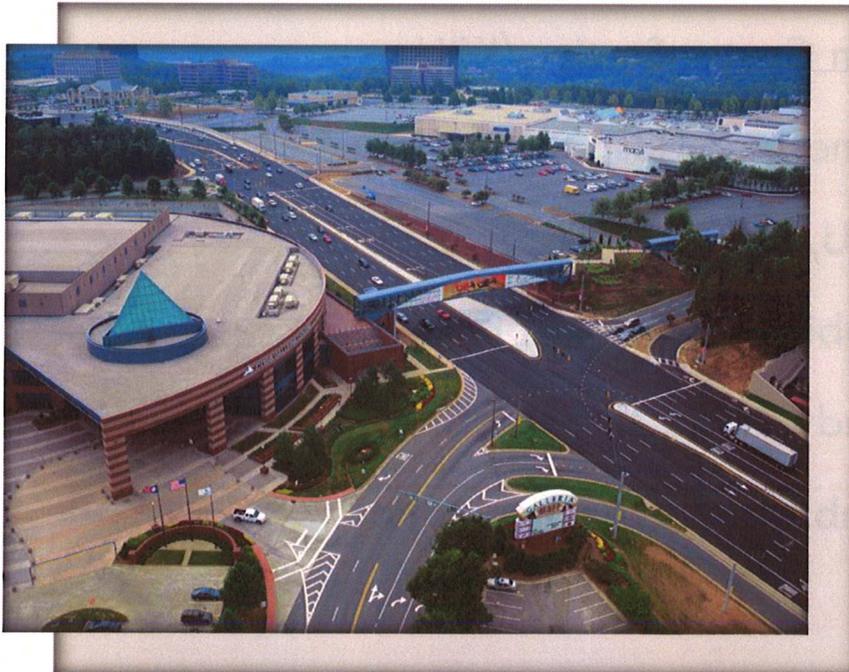
	Length (miles)	Cost (millions)
Trunkline	14.6	\$ 1,677
<u>Cumberland Circulator</u>	<u>14.1</u>	<u>\$ 250</u>
Totals	28.7	\$ 1,927

- TRANSIT PLANNING BOARD – CONCEPT 3 (2008)
 - TPB was established to coordinate development of a seamless regional transit system for the Atlanta metro region
 - Created plan, Concept 3, identifying transit projects to reduce traffic and congestion by increasing additional mobility solutions through transit options
 - In the Northwest Corridor, plan proposes high capacity rail line, such as light rail, from Cumberland through Marietta to KSU/Town Center in the US 41/Cobb Parkway I-75 corridor

THE NORTHWEST CORRIDOR LIGHT RAIL TRANSIT PROJECT IN THE COBB COUNTY COMPREHENSIVE TRANSPORTATION PLAN

- The Cobb County Department of Transportation (2008) developed the *Cobb County Comprehensive Transportation Plan (CCCTP)* to analyze and address the transportation and air quality issues within Cobb County.
- The light rail transit system was defined as follows:

	<u>Length (miles)</u>	<u>Number of Stations</u>
Trunkline (in Cobb Only)	14.6	7
Cumberland Circulator	14.1	33
<u>Town Center Area Circulator</u>	<u>12.4</u>	<u>21</u>
Totals	41.1	61



RIDERSHIP PROJECTIONS

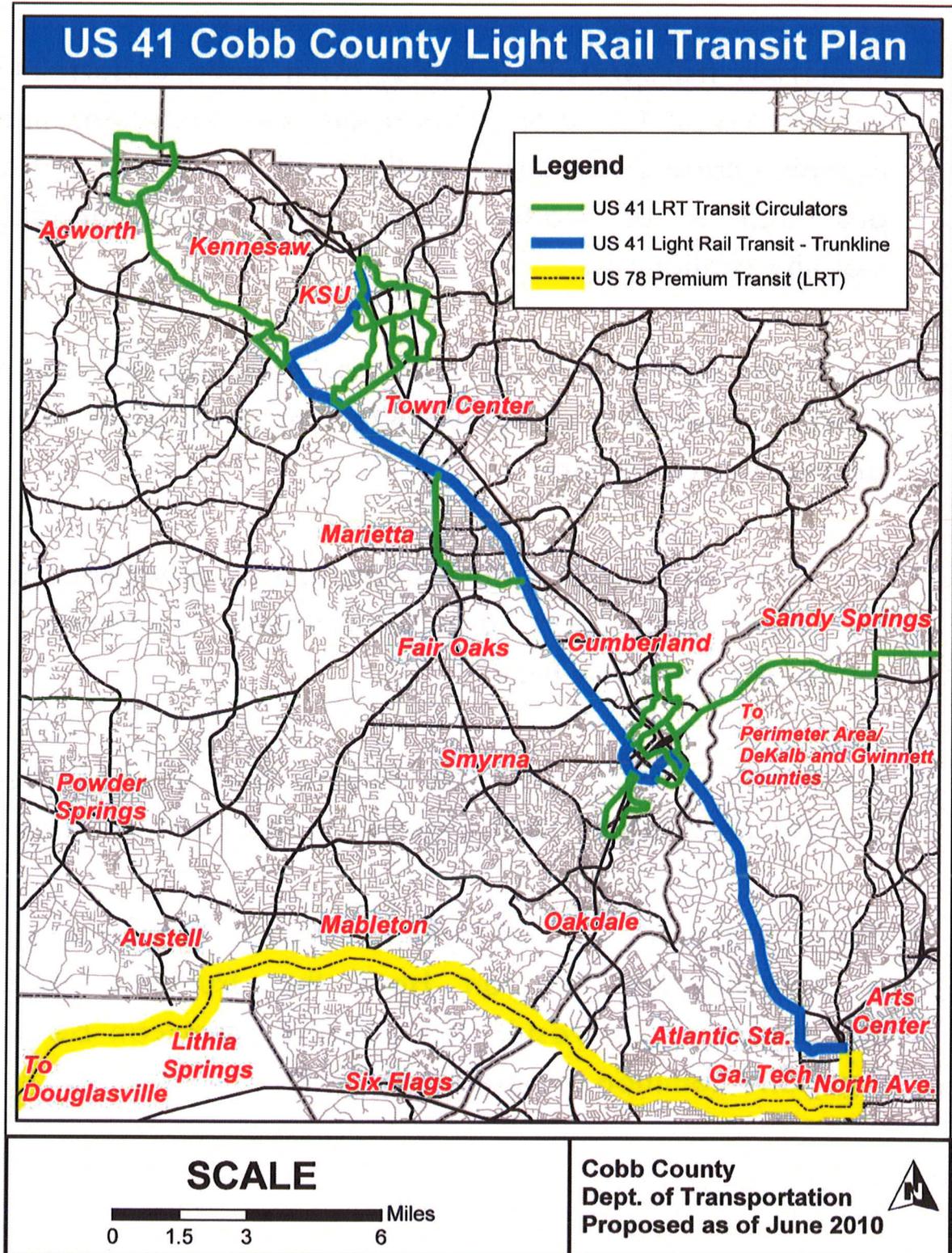
	Length (miles)	Number of Stations	2025 Projected Daily Boardings
Trunkline	14.6	7	45,400
Cumberland Circulator	14.1	33	37,600
Town Center Circulator	12.4	21	9,600
Total	41.1	61	92,600

**Updated from 2001 Study*

Proposed Stations

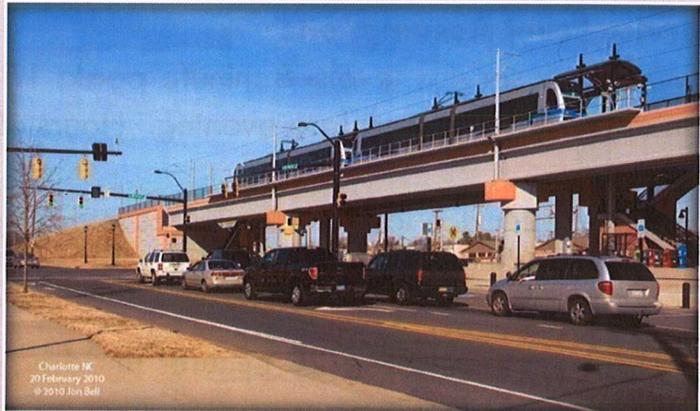
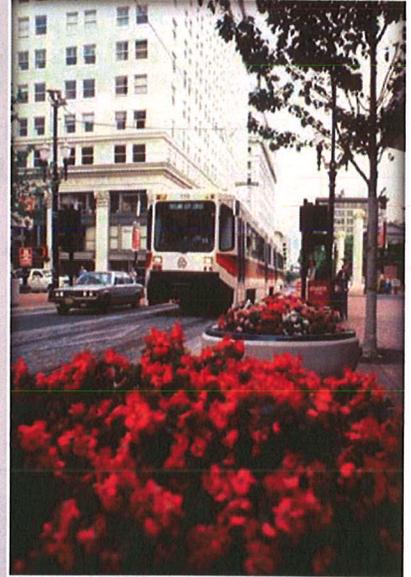
- Town Center Station/KSU
- Kennestone Hospital Station
- SPSU/CCT Station
- Dobbins Air Reserve Base
- Windy Ridge Transfer Station
- Cumberland Transfer Station

2010 PROPOSED LIGHT RAIL TRANSIT ROUTE



VEHICLE TECHNOLOGY

- Numerous transportation studies have been undertaken for the Northwest Corridor. The results of the studies indicate that high capacity rail, such as light rail, is a viable option for providing an alternative travel mode that addresses the mobility challenges.
- The light rail transit vehicles are capable of running in shared lanes with motor vehicles, as well as in areas of pedestrian circulation.
- The light rail transit vehicles feature steel wheels guided by steel rails and are electrically powered using overhead contact wires.
- Light rail transit practice allows the use of steeper grades and tighter radius curves in the track alignment.
- These characteristics of light rail transit technology make it suitable for use on both the trunkline and the circulators. As a result, the entire system can be served from one common maintenance facility.



CONCEPTUAL OPERATING COSTS

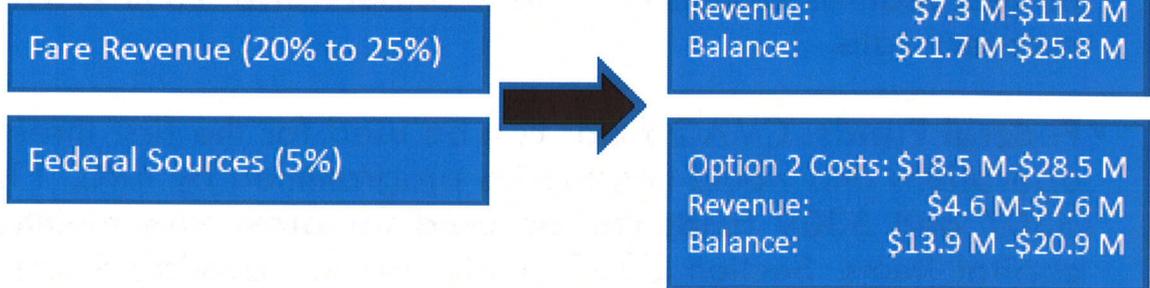
Service	Option 1: Annual O&M Costs (2010 \$, in millions)	Option 2: Annual O&M Costs (2010 \$, in millions)
Cumberland to KSU LRT Line	\$10.0 - \$14.0	\$10.0 - \$14.0
KSU/Town Center Bus Circulator	\$4.0 - \$6.0	\$4.0 - \$6.0
Cumberland Circulator: Option 1 - LRT Only	\$15.0 - \$17.0	
Option 1 Total	\$29.0 - \$37.0	
Cumberland Circulator: Option 2 - LRT/Bus Mix		
Central Loop - LRT		\$2.0 - \$4.0
Wildwood Loop - Bus		\$1.5 - \$2.5
Galleria Loop - Bus		\$1.0 - \$2.0
Option 2 Total		\$18.5 - \$28.5

Service Level Assumptions

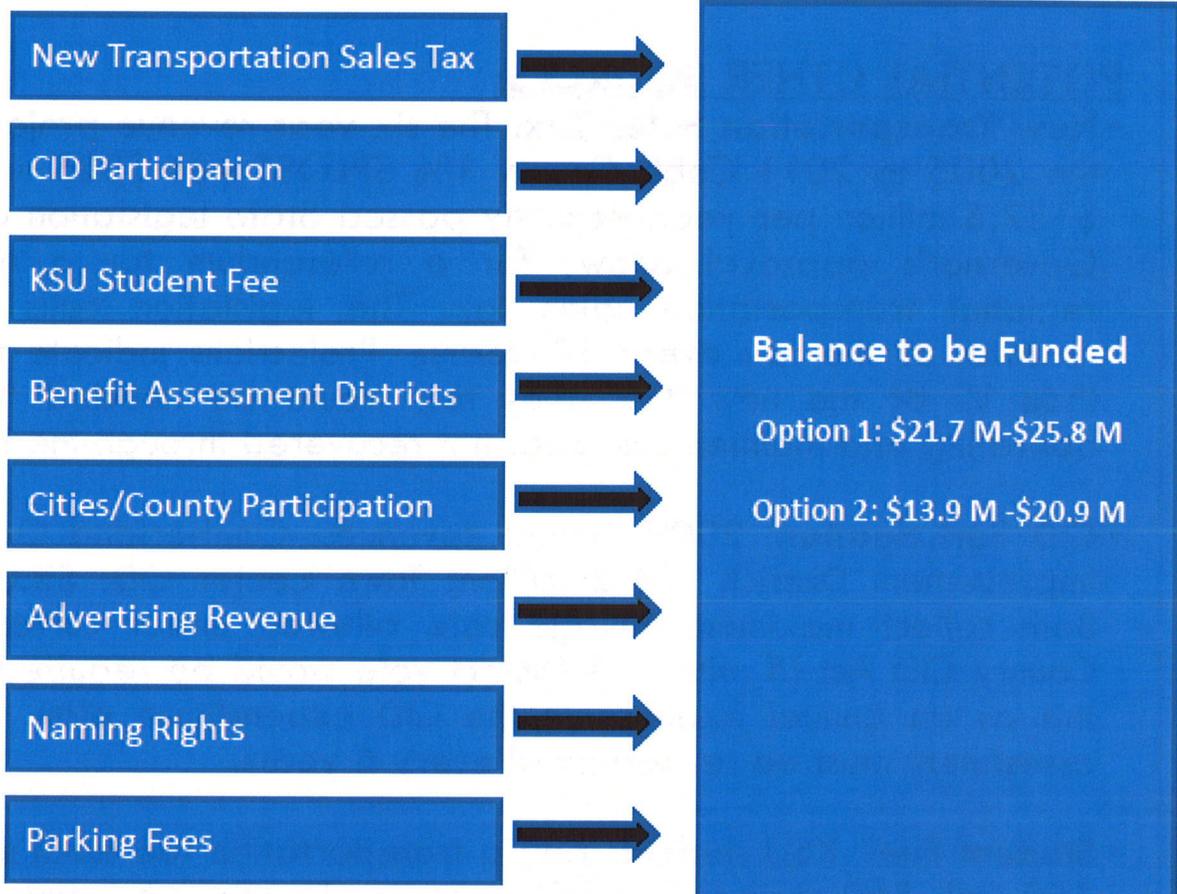
- Weekday service levels: 8 minute peak; 15-20 minutes off peak; and 30 minutes in early morning and late evening. Hours of operation 5 am to 1 am
- Saturday service levels: 15 minutes midday; and 30 minutes in early morning and late evening. Hours of operation 7 am to 1 am
- Sunday service levels: 20 minutes midday; and 30 minutes in early morning and late evening. Hours of operation 7 am to 12 am

SOURCES OF OPERATING FUNDING

Primary Funding Sources



Potential Other Sources



SOURCES OF OPERATING FUNDING

PRIMARY SOURCES:

- **Fare Revenue:** Average farebox recovery rate for LRT systems across the county is approximately 30%. For planning purposes, the project team is assuming a more conservative 20% -25% farebox recovery rate.
- **Federal Funds:** CMAQ funds can be used for the first three years of operations and would need to be programmed by ARC. FTA Section 5307 and 5309 funds can be used for preventive maintenance of capital items. Section 5309 funds are not available until 7 years after a fixed guideway system is implemented.

POTENTIAL OTHER SOURCES:

- **New Transportation Sales Tax:** The six-year revenue projection for the 2005 to 2011 Cobb County 1% SPLOST was \$825 million, or \$137.5 million per year. Recently passed State legislation awaiting Governor's approval allows for a referendum for a new 1% regional transportation sales tax. The legislation calls for the renewal of the tax every 10 years. Projections indicate that less than 1/4 of the new 1% sales tax would be needed to offset operating and maintenance costs not recovered through the farebox.
- **CID Participation:** 2009 Annual Revenues: Cumberland Community Improvement District: \$6.2 million; Town Center CID: \$3.0 million. Both collect maximum millage rate allowed under current Cobb County CID Act (5 mils). A District vote would be required to add this as an annual expense in the CID expenditure plan. The CID assessment must be re-approved every 6 years.
- **Student Fee:** KSU students pay a transportation fee each semester: \$50 fall; \$60 spring; and \$60 summer. However it is not currently used for transit. Assuming 20,000 students are enrolled in the fall and spring semester and 10,000 are enrolled in the summer semester, this fee raises approximately \$2.8 million per year.

SOURCES OF OPERATING FUNDING

- **Benefit Assessment Districts:** The underlying principle for creation of benefit assessment districts is that owners of property located within close proximity to a particular public asset, such as a rail transit station, derive benefits from the presence of that asset and, therefore, should share in the costs of its construction, maintenance, operation, and/or upgrading. A per-square-footage assessment could be levied on property lying within a quarter or half mile of proposed transit stations to support O&M costs.
- **Cities/County Participation:** The region could develop a cost-allocation methodology to share the on-going operating costs of the system. Based on examples from around the country, individual jurisdictions would pay for their share of costs based on a combination of variables which could include route miles, number of stations, annual vehicle miles and/or annual passengers.
- **Advertising Revenue:** Revenues that would be derived from advertisements placed inside and/or outside the vehicles; at stations; and/or in schedules, maps, flyers, and other promotional materials.
- **Naming Rights:** Major businesses in Cobb County could pay for naming rights of the entire system (such as the TECO Trolley in Tampa) or for individual stations or cars (examples include Portland, Seattle and Tampa).
- **Parking Fees:** A surcharge levied on paid parking within the Project study area for the use of off-street commercial or employer provided parking spaces to provide funding for O&M costs.

SYSTEM RIDERSHIP

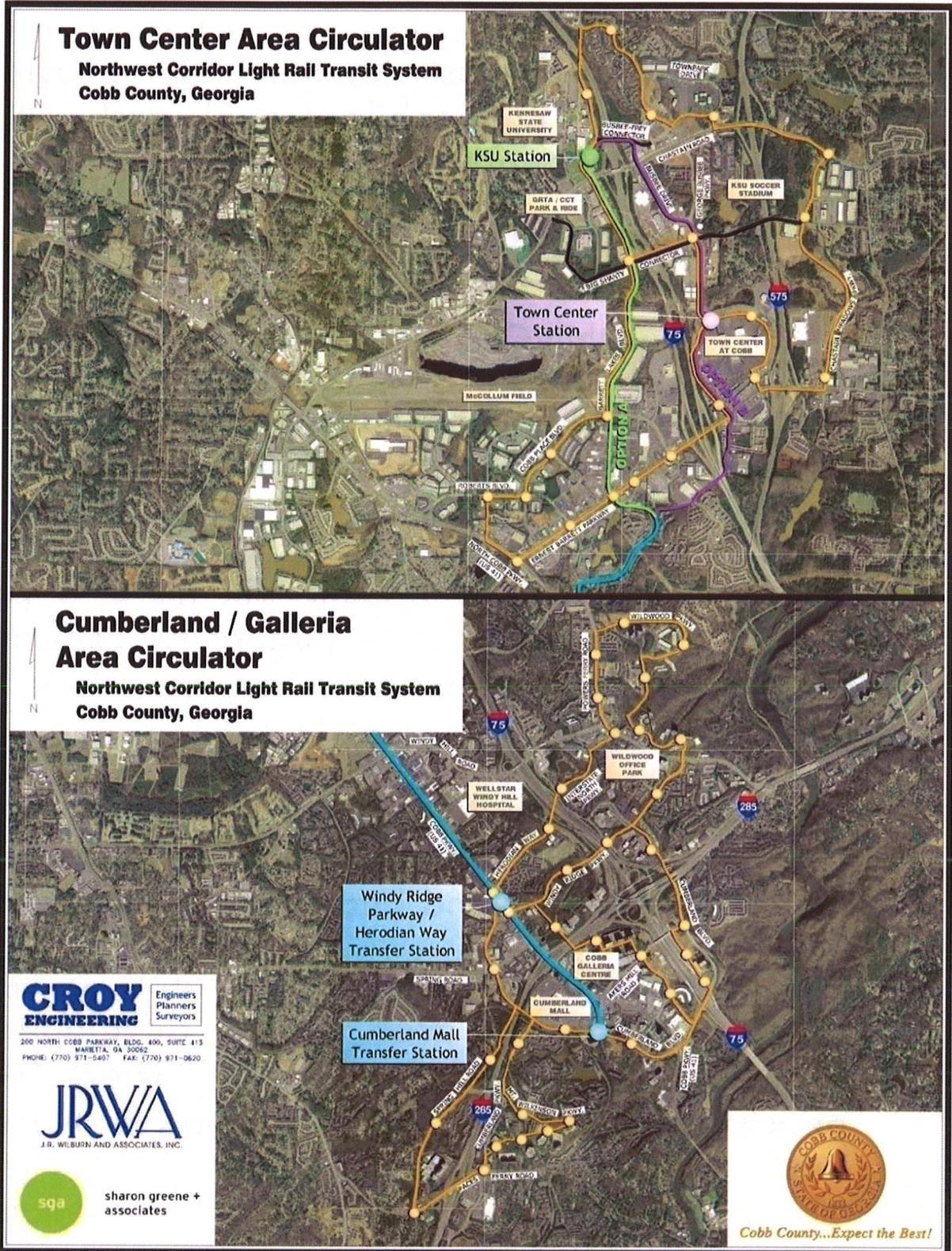
- The ridership on the system for the 2001 Study was projected using travel demand forecasting models of the entire Atlanta region
- Projections of daily boardings for the proposed project were generated for the year 2025:

Trunkline	45,400
Cumberland Circulator	37,600
<u>Town Center Circulator</u>	<u>9,600</u>
Total	92,600

- The ridership on some existing light rail transit systems is shown below. Each of these systems is part of a broader regional transit service structure.

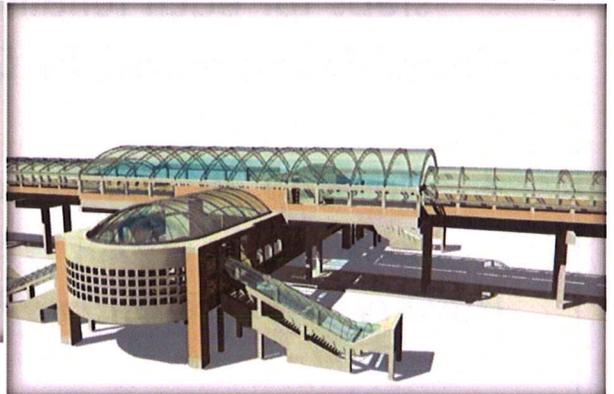
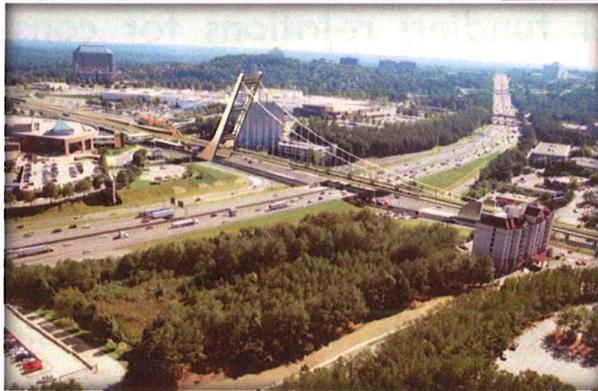
<u>System</u>	<u>Daily Boardings (2009)</u>
San Francisco "Muni"	186,200
San Diego "The Trolley"	93,100
Portland "Tri-Met"	112,400
Denver "RTD"	61,800
Charlotte "Lynx"	20,000
Houston "METRORail"	31,100

CIRCULATORS



PROJECT BENEFITS

- The light rail transit system will provide an alternative to automobile travel and will help relieve traffic congestion:
 - along the I-75 corridor
 - along the Cobb Parkway corridor
 - within Cumberland & Town Center Areas
- The Atlanta region has been classified as a non-attainment area for not meeting the federal air quality standards for ozone
- The light rail transit system will have a positive impact on the region's air quality by reducing the automobile vehicle emissions that contribute to the ozone problem
- The light rail transit system will provide the work force with better access to the large number of jobs in the Cumberland and Town Center areas
- The presence of the light rail transit system will allow land in the area to be developed and redeveloped in accordance with "Smart Growth" principles, thereby having a positive impact on land use in the area.



NEXT STEPS AND PROPOSED SCHEDULE

1. Complete early coordination with local, state and federal agencies including introduction of project into Plan 2040
 - Refine description of project (develop Need and Purpose statement) and identify funding and service processes to meet state and federal guidelines
 - Initiate the Alternatives Analysis (AA) and Environmental Impact Statement (EIS)

Complete above tasks in 2011

2. Develop draft AA/EIS
 - Distribution and review process
 - Determination of funding relations for construction plus operating and maintenance costs

Complete above tasks by December 2012

3. Complete the determination of funding mechanisms for the project and complete the needed implementation steps for each funding source.

Complete above task by December 2013

4. Develop design build contract and select contractor to construct light rail system.

Have system operational by December 2019

