

# Transit Implementation Study

Northwest Corridor Light Rail Transit System  
Atlanta, Georgia

## Executive Summary

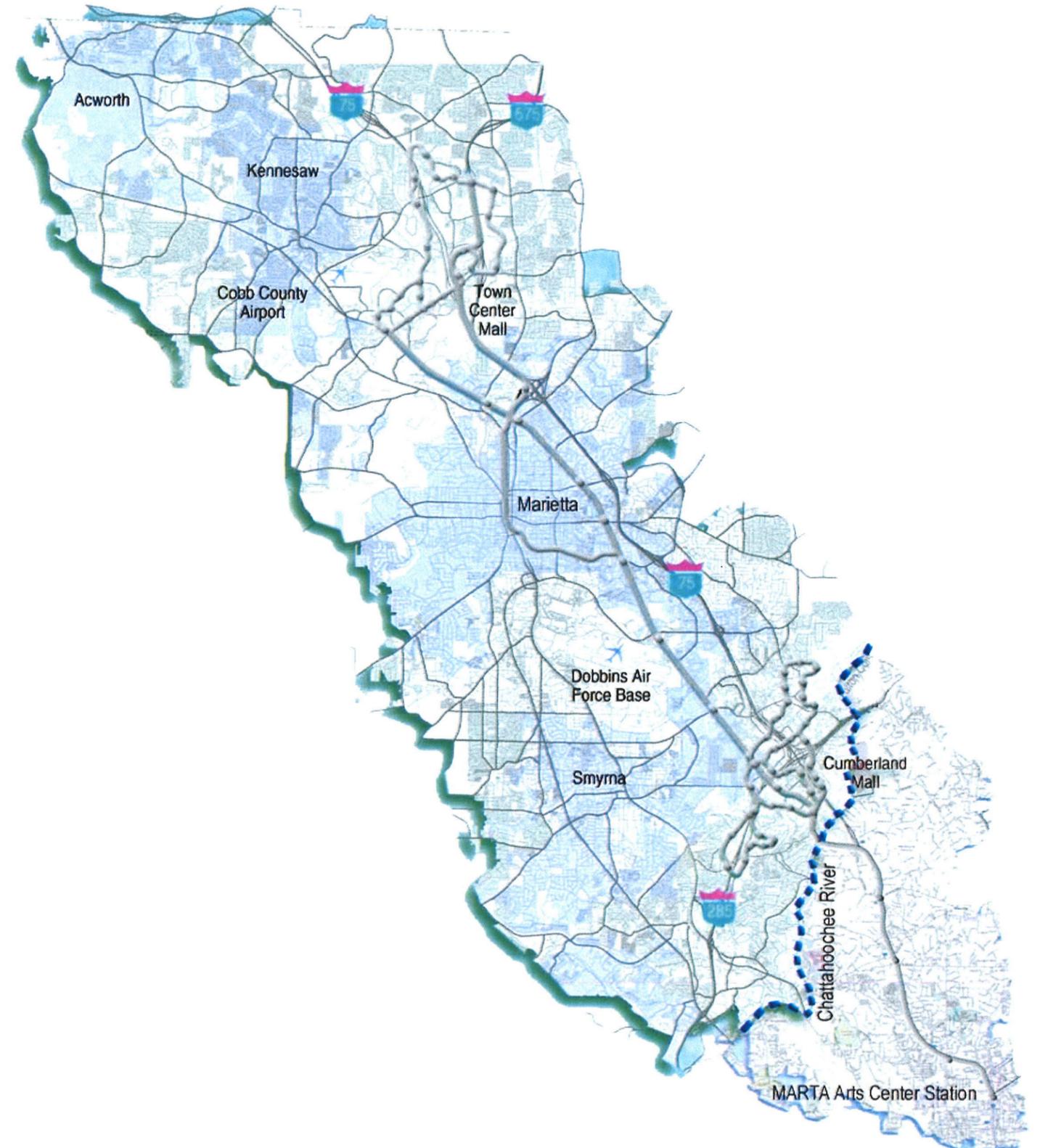
Submitted to  
**Cobb County Department of Transportation**  
**Cumberland Community Improvement District**  
**Town Center Area Community Improvement District**

Submitted by  
**Bechtel Infrastructure Corporation**  
**Mayes, Sudderth & Etheredge, Inc.**



# Project Background

- A light rail transit line connecting the rapidly growing Town Center and Cumberland areas with Midtown Atlanta has been identified in several studies as a key component to addressing the region's transportation and air quality problems
- 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
- The magnitude and growth potential of these two areas make them vital to the future of the entire region.



# Cumberland and Town Center Areas

- The Cumberland area currently contains:
  - more than 20 million square-feet of office space
  - 3.5 million square-feet of major retail space
  
- The Town Center Area currently contains:
  - more than 4.5 million square-feet of major retail space
  - 4 million square-feet of office space
  - 2.3 million square-feet of industrial space
  - Kennesaw State University, with more than 13,000 students
  
- Based on the results of the Study, both areas will experience tremendous growth in employment and population:

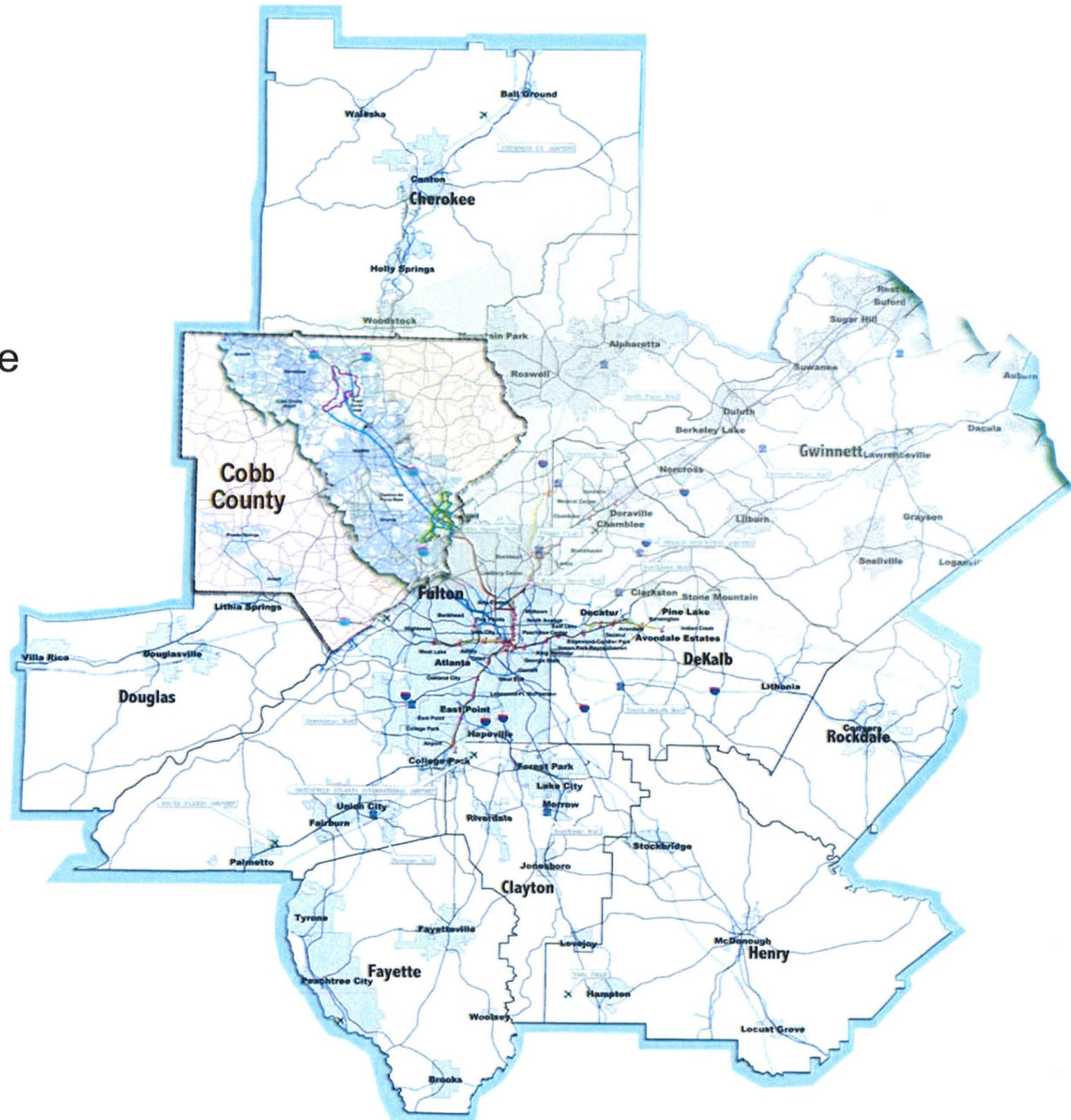
	Cumberland		Town Center	
	<u>2000</u>	<u>2025</u>	<u>2000</u>	<u>2025</u>
Population	33,759	45,846	8,408	15,874
Employment	70,565	140,138	32,815	55,582



# 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 development of a light rail trunkline extending from MARTA's Arts Center Station through Cumberland to Town Center and a light rail circulator in the Cumberland area was a vital part of the RTP
- The light rail transit system is defined in the RTP as follows:

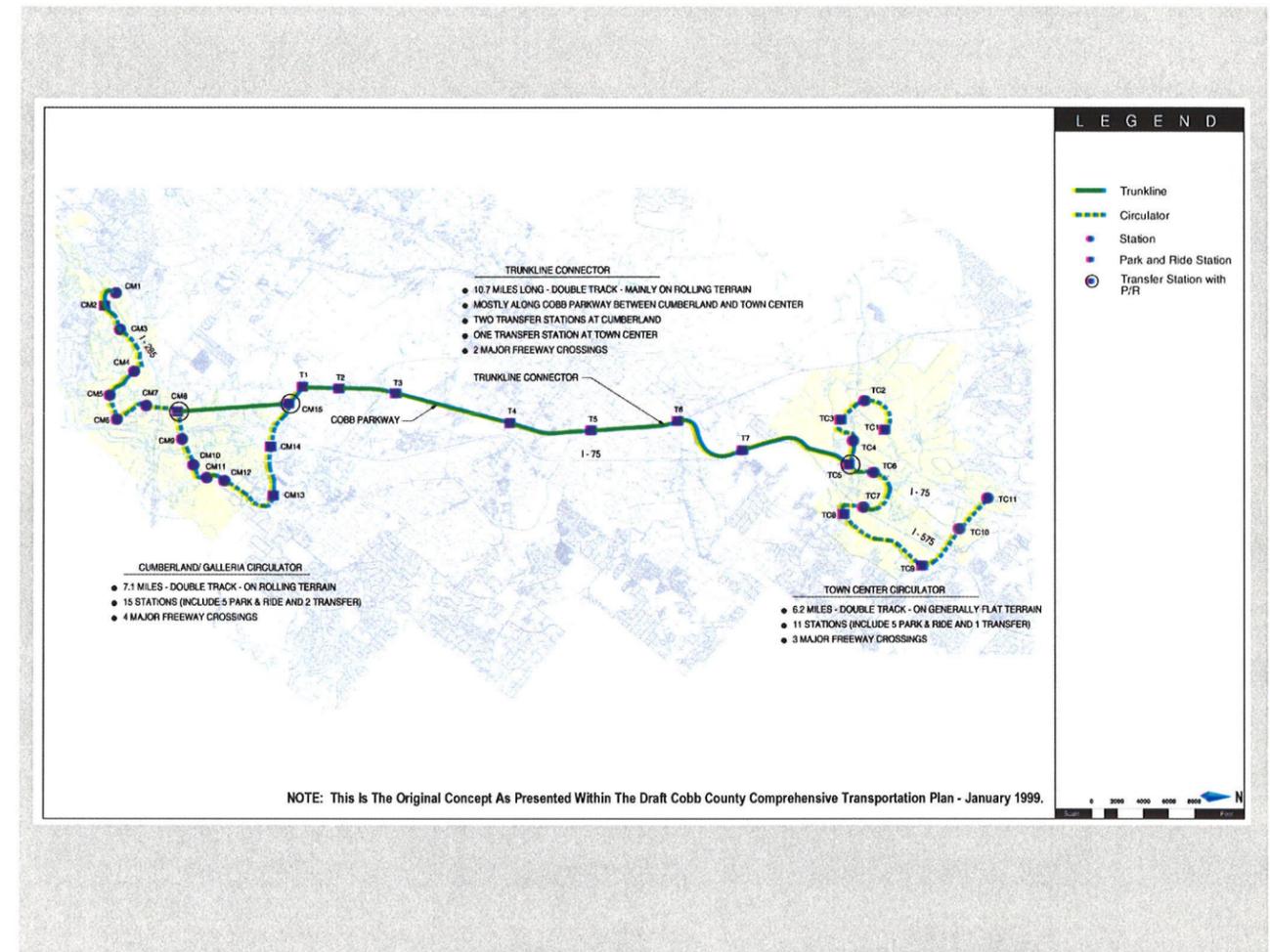
	<u>Length (miles)</u>	<u>Cost (millions)</u>
Trunkline	21.6	\$ 1,677
Cumberland		
Circulator	5.2	\$ 250
<u>Totals</u>	<u>26.8</u>	<u>\$ 1,927</u>



# The Northwest Corridor Light Rail Transit Project in the Draft Cobb County Comprehensive Transportation Plan

- The Cobb County Department of Transportation developed the *Draft Cobb County Comprehensive Transportation Plan (DCCCTP)* 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 (portion in Cobb Only)	10.7	10
Cumberland Circulator	7.1	15



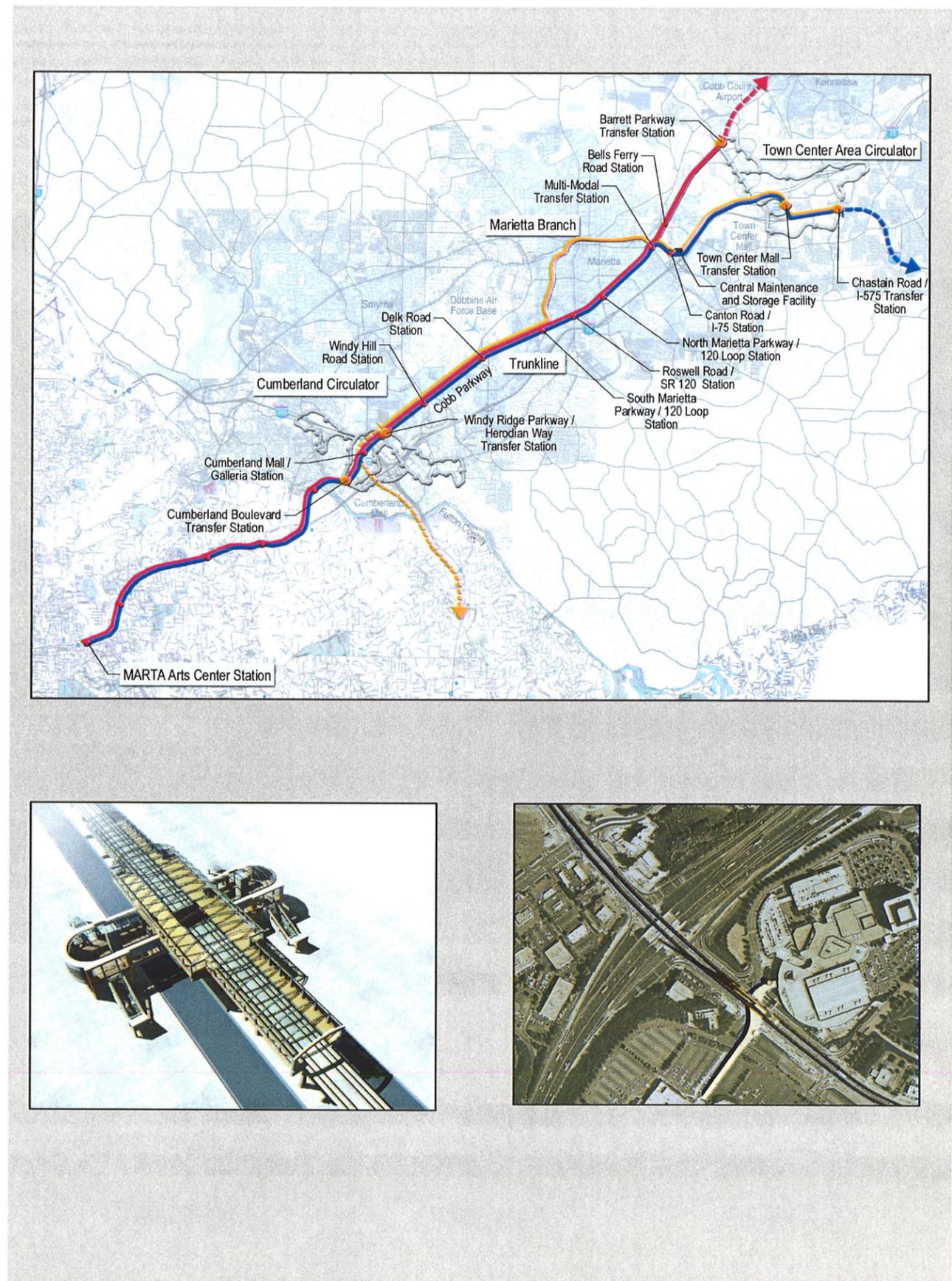
# Transit Implementation Study for the Northwest Corridor Light Rail Transit System

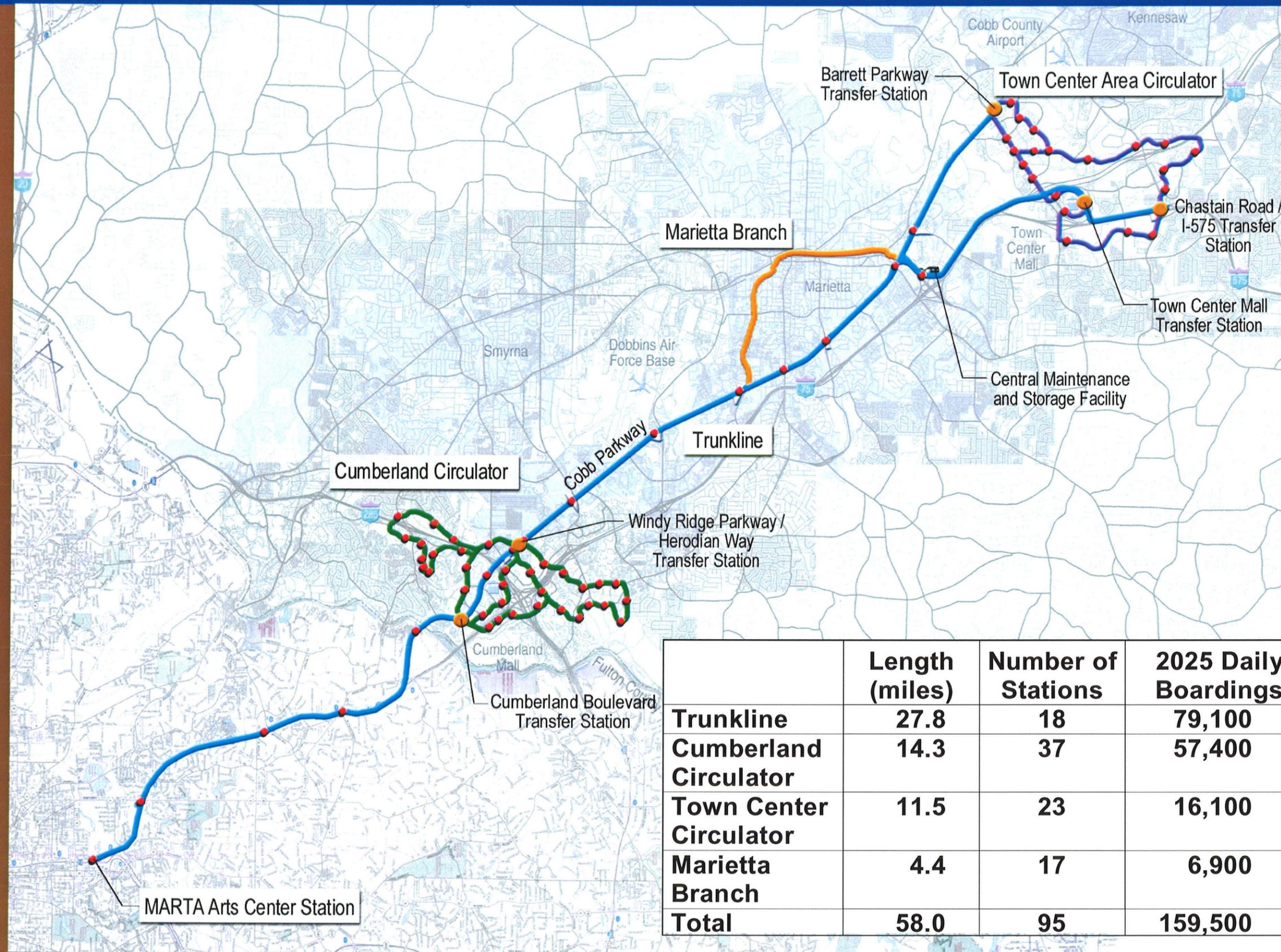
- The Cumberland and Town Center Community Improvement Districts (CIDs) sponsored the development of the *Transit Implementation Study* for the Northwest Corridor Light Rail Transit System (NWCLRT)
- The Study began in the Spring of 1999 and will conclude in the Summer of 2001
- The Study was paid for by the two CIDs at a cost of \$3.8 million



# Transit Implementation Study for the Northwest Corridor Light Rail Transit System

- The Scope of Work for the Study included the following:
  - Transportation Planning and Demand Forecasting
  - Conceptual Facilities Engineering
  - Operations Planning
  - Vehicle Technology and Systems Engineering
  - Economic, Financial and Environmental Assessments
  - Capital and Operations Cost Estimating
  - Recommended Project Phasing
  - Strategic Implementation Planning
  - Coordination with Marietta to Lawrenceville Study
- The Study defined the Ultimate System to serve the corridor and the Cumberland and Town Center areas

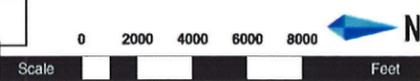


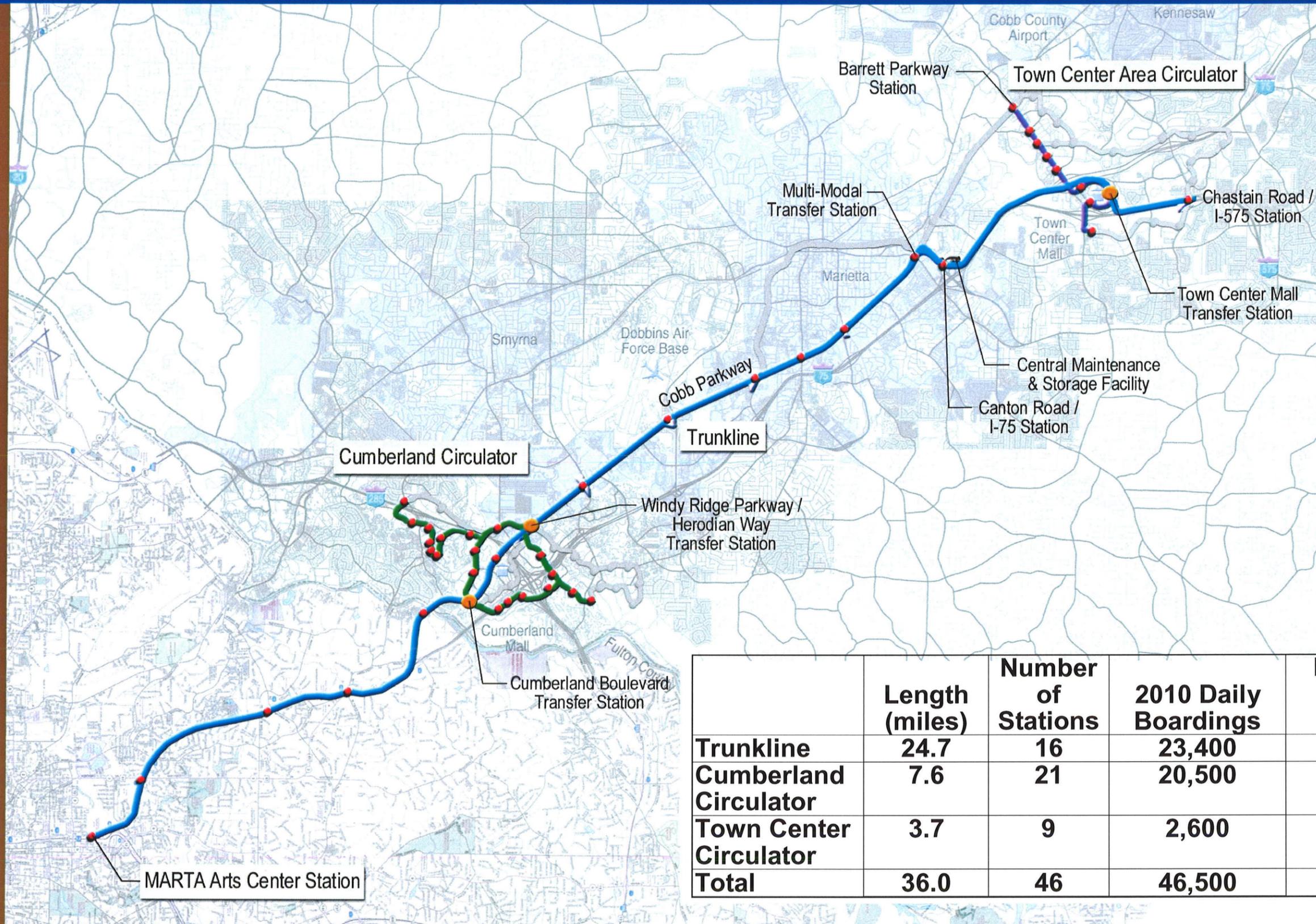


**LEGEND**

- Trunkline
- Cumberland Circulator
- Town Center Area Circulator
- Marietta Branch
- Transfer Station
- Station

	<b>Length (miles)</b>	<b>Number of Stations</b>	<b>2025 Daily Boardings</b>
<b>Trunkline</b>	<b>27.8</b>	<b>18</b>	<b>79,100</b>
<b>Cumberland Circulator</b>	<b>14.3</b>	<b>37</b>	<b>57,400</b>
<b>Town Center Circulator</b>	<b>11.5</b>	<b>23</b>	<b>16,100</b>
<b>Marietta Branch</b>	<b>4.4</b>	<b>17</b>	<b>6,900</b>
<b>Total</b>	<b>58.0</b>	<b>95</b>	<b>159,500</b>

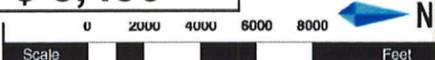




**LEGEND**

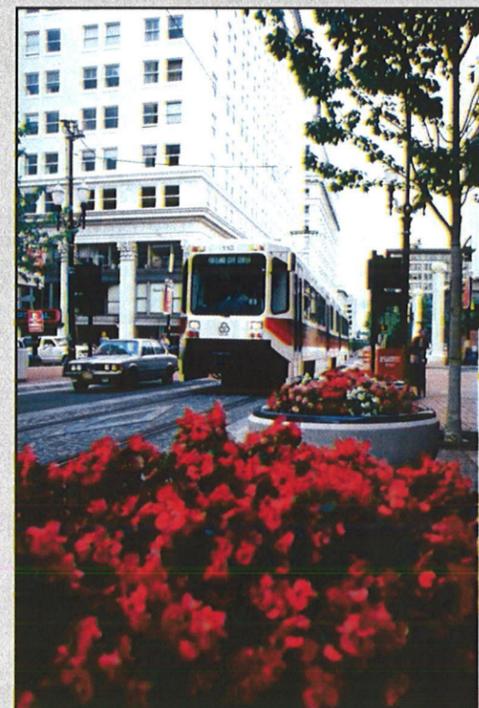
- Trunkline
- Cumberland Circulator
- Town Center Circulator
- Transfer Station
- Station

	Length (miles)	Number of Stations	2010 Daily Boardings	Estimated Cost (millions)
<b>Trunkline</b>	<b>24.7</b>	<b>16</b>	<b>23,400</b>	<b>\$ 2,655</b>
<b>Cumberland Circulator</b>	<b>7.6</b>	<b>21</b>	<b>20,500</b>	<b>\$ 545</b>
<b>Town Center Circulator</b>	<b>3.7</b>	<b>9</b>	<b>2,600</b>	<b>\$ 290</b>
<b>Total</b>	<b>36.0</b>	<b>46</b>	<b>46,500</b>	<b>\$ 3,490</b>



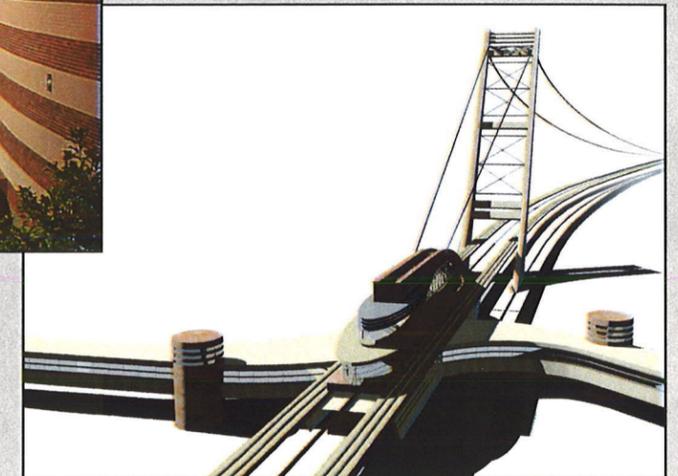
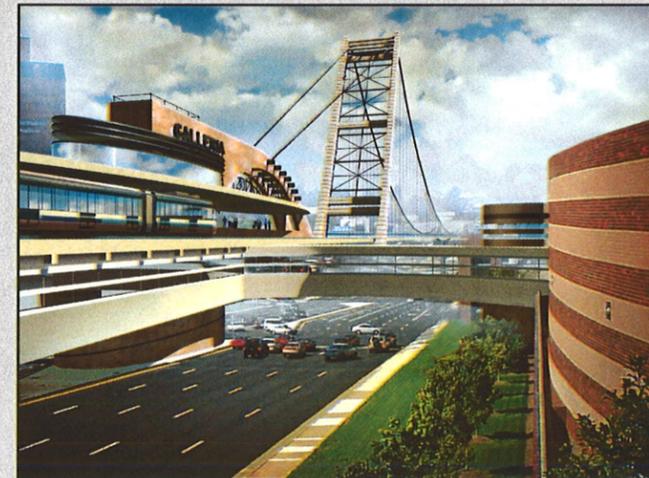
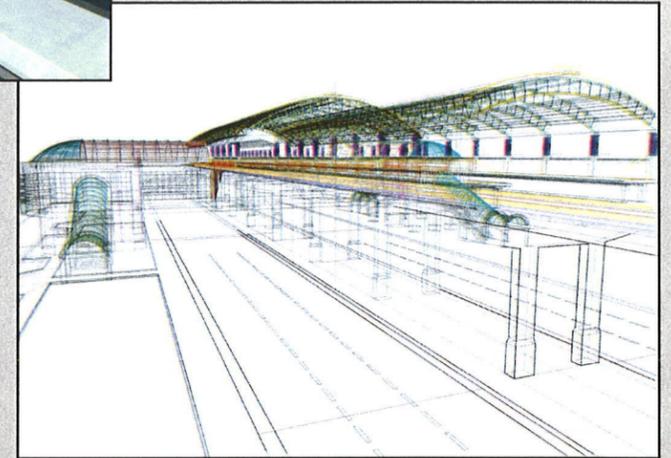
# Vehicle Technology

- The RTP designated the use of light rail transit technology to serve this corridor. This determination results from numerous transportation studies that have been undertaken for the corridor.
- The light rail transit vehicles feature steel wheels guided by steel rails and are electrically powered using overhead contact wires.
- The light rail transit vehicles are capable of running in shared lanes with motor vehicles, as well as in areas of pedestrian circulation.
- 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.



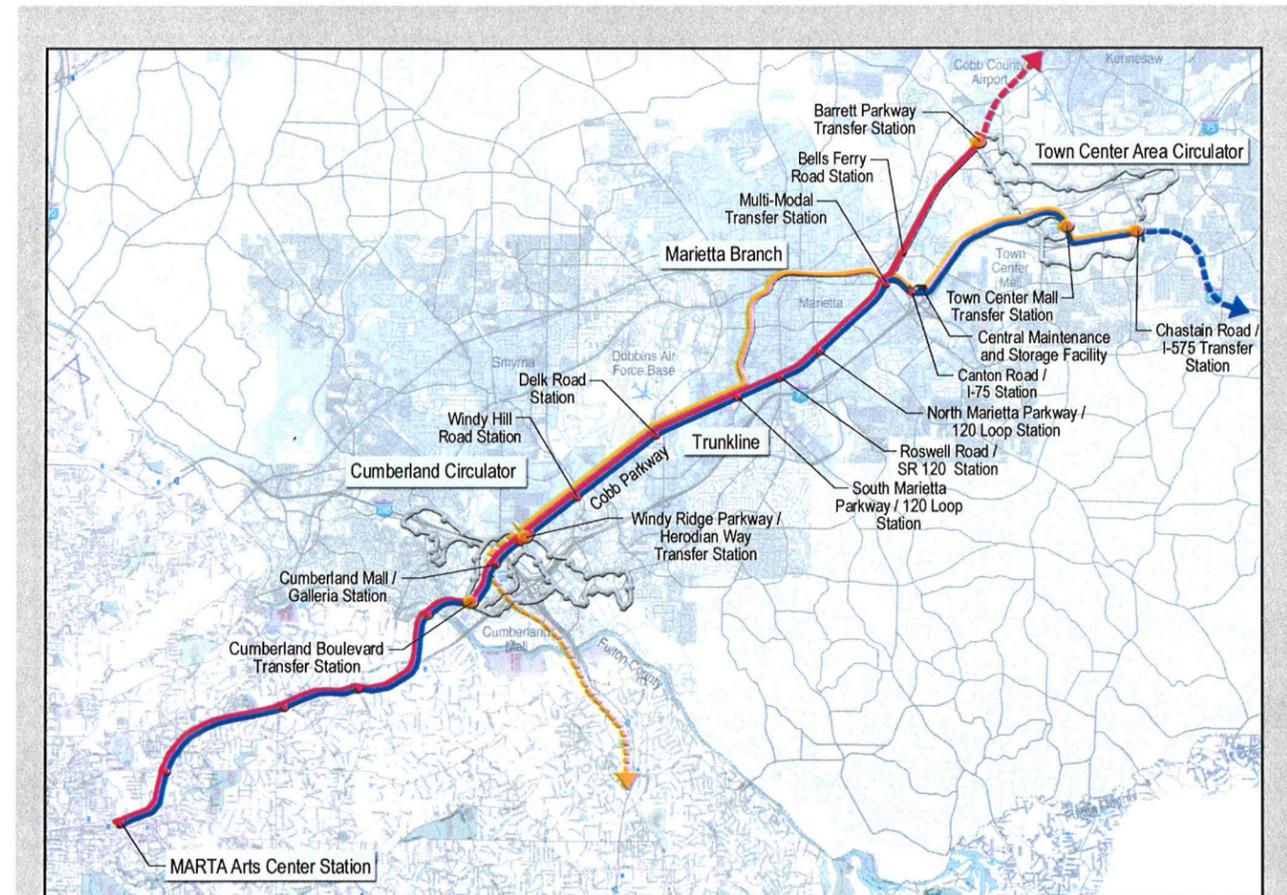
# Station Concepts

- The Study included an analysis of the types of stations that would be needed to serve the light rail transit system.
- Conceptual plans were developed for the various types of stations required.
- The key issues that affect the design and development of the stations was evaluated, including:
  - Site Size
  - Development Considerations
  - Parking Considerations
  - Safety
  - Access
  - Directional and Informational Signage
  - Site Lighting
  - Aesthetics



# System Operations

- The Study includes an analysis of the operations and service on the:
  - Trunkline
  - Cumberland Circulator
  - Town Center Area Circulator
  - Trunkline branch through the City of Marietta
  - The potential Marietta to Lawrenceville light rail system currently being studied by ARC
- The operations planning projects a travel times to the MARTA Arts Center Station of:
  - 42 minutes from the Chastain Road/I-575 Station
  - 19 minutes and 15 seconds from the Cumberland Mall/Galleria Convention Center Station



# Project Benefits

- The light rail transit system will providing 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
- The Atlanta region has been classified as a serious nonattainment 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



## Schedule

- According to the program outlined in the RTP, the project schedule would be as follows:
  - 2010: the Trunkline from MARTA Arts Center Station to Cumberland, and the Cumberland Circulator
  - 2015: the Trunkline to Marietta
  - 2020: the Town Center Area Circulator
- The *Transit Implementation Study* projects that the entire project can be completed by 2010

## Next Steps

- The next step for the project will be the preparation of the federally required Alternatives Analysis (AA) and the environmental studies required by the National Environmental Protection Act (NEPA)
- These studies will be initiated by the Georgia Regional Transportation Authority (GRTA) as the public sponsor of the project

