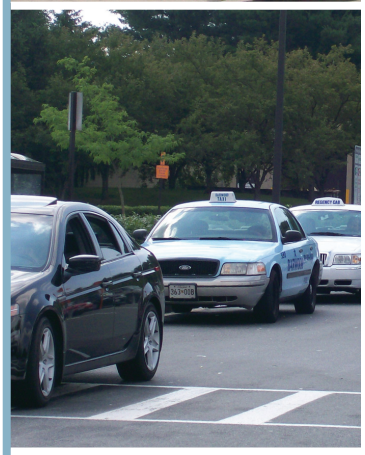
Corridor Cities Transitway



CHAPTER 1

Purpose and Need

CORRIDOR CITIES TRANSITWAY
SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

Chapter I – Purpose and Need

Introduction

This chapter discusses the purpose and need for the CCT transit project as originally established within the Purpose and Need of the I-270/US 15 Multi-Modal Study. A "Purpose and Need" statement is required as part of all NEPA documents for transit and highway projects. To assist in selecting the Locally Preferred Alternative (LPA), the Purpose and Need provides the project goals and objectives by which the various alternatives will be evaluated. The Purpose and Need describes those factors and conditions in the local environment that are driving the need for a transportation improvement – essentially providing the context for a decision on the LPA. Once the LPA is selected, final design and environmental analysis work can be done to allow the project to move toward construction.

The Purpose and Need for the I-270/ US 15 Multi-Modal Corridor Study was first provided in **Chapter I** of the **2002 DEIS**. It was updated in **Chapter I** of the **2009 AA/EA** to address changed conditions. In this chapter of the 2010 SEA, the elements of the Purpose and Need have not changed. However, only those elements most applicable to the transit element of the project are presented, as this document is focused only on the transit element. This 2010 SEA generally presents information already contained in the 2009 AA/ EA with some updates supplied as appropriate to respond to changing conditions.

Purpose of This SEA

The Maryland Transit Administration (MTA) is studying the CCT, the transit element of the I-270/US 15 Multi-Modal Transportation Corridor Study, which was developed in partnership with the Maryland State Highway Administration (SHA). The I-270/ US 15 Multi-Modal Corridor Study addresses the full range of transportation needs along a 30-mile corridor that extends from Rockville, Maryland at the intersection of I-370 and I-270 north into Frederick County and the City of Frederick, Maryland to the intersection of US 15 and Biggs Ford Road. The CCT is a proposed Bus Rapid Transit (BRT) or Light Rail Transit (LRT) line that extends 14 to 16 miles from Shady Grove Metrorail Station in Rockville, Maryland to a terminus just south of Clarksburg, Maryland at the COMSAT facility, an abandoned communications satellite industrial site that is identified for future transit-oriented development. The I-270/US 15 project study area is shown in **Figure I-1**. The CCT study area is shown in **Figure I-2**.

Figure I-1: I-270/US 15 Project Study Area

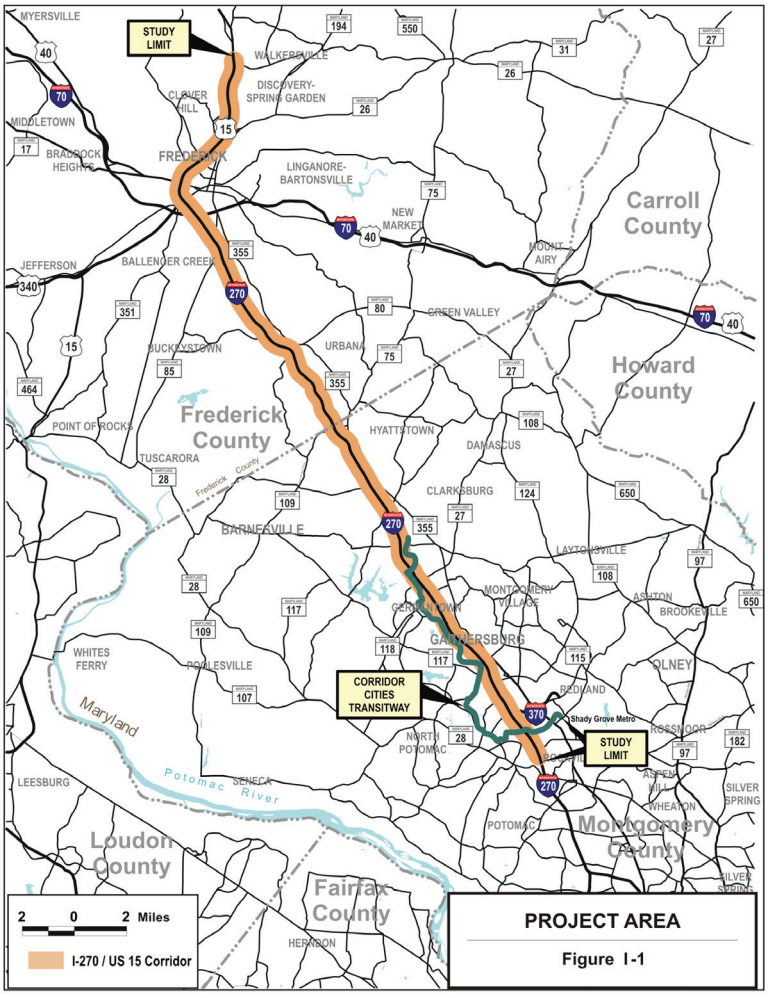
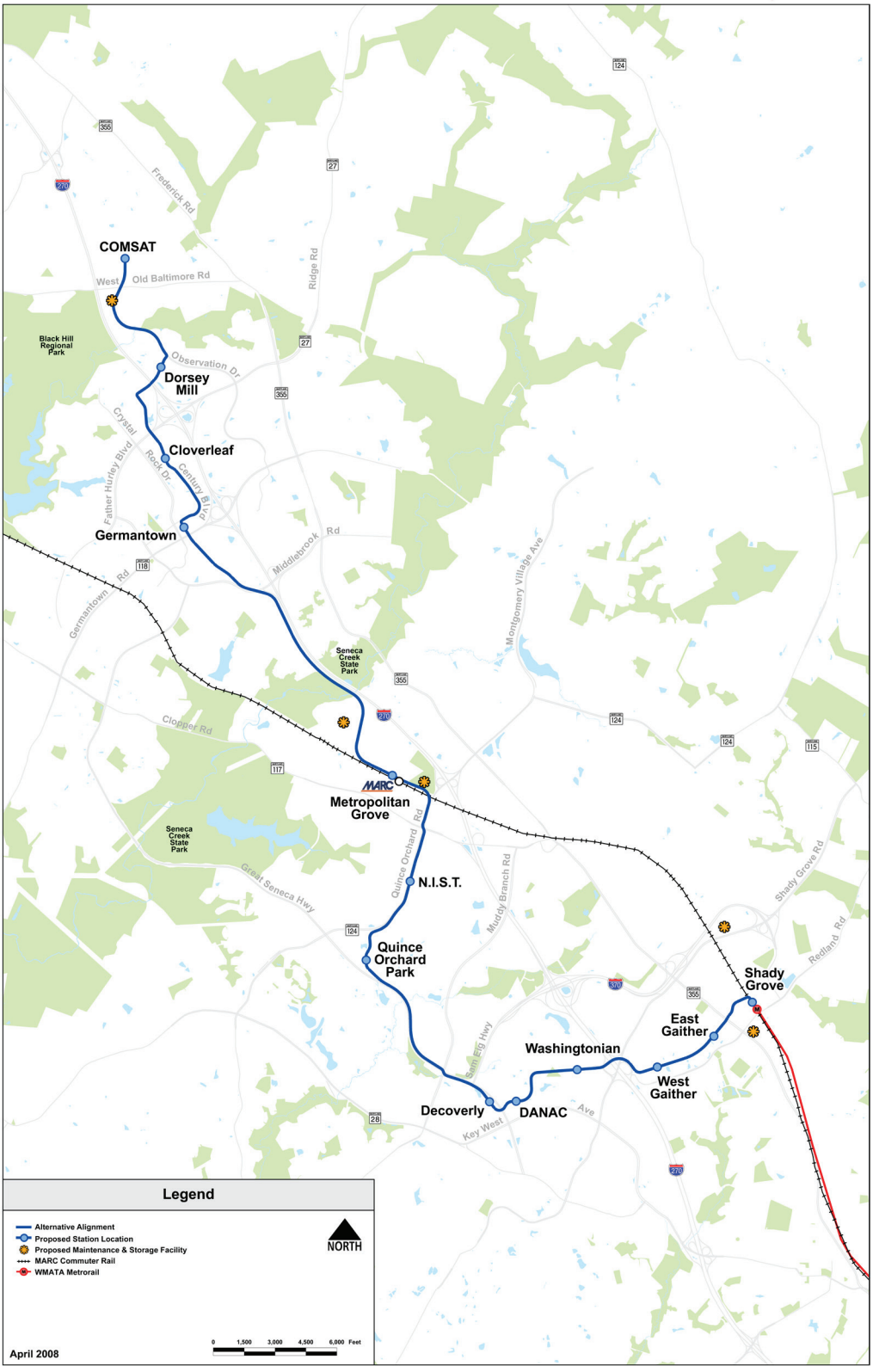


Figure I-2: CCT Study Area



This SEA focuses on the engineering and environmental impacts of three recently proposed CCT alignment modifications and new station locations. This SEA is being prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and is a companion to two other documents that have been prepared for the I-270/US 15 Multi-Modal Corridor Study in order to comply with NEPA provisions. These include the 2002 DEIS and the 2009 AA/EA. Together these documents analyze the transportation and environmental performance of a range of highway and transit improvements against a set of common transportation goals and objectives.

Project Background and History

Below is a brief summary of the relevant project events that have occurred since its inception. **Chapter I.C** (pages I-2 to I-3) of the **2002 DEIS** provides a detailed project history. Additional information is provided in **Chapter I** (pages I-2 to I-3) of the **2009 AA/EA.**

The I-270/US 15 corridor has been the subject of multimodal transportation studies since 1970, as local and state agencies have looked at ways to address the transportation needs in the corridor. The 2002 DEIS and 2009 AA/EA represent Stage II of a three-stage project planning process by SHA and MTA and is a transition between prior concept planning and Stage III – the Final Environmental Impact Statement (FEIS). This SEA is a companion to the 2009 AA/EA and 2002 DEIS and represent part of Stage II of the planning process. It analyzes the environmental impacts of three sets of new alignment modifications and corresponding new stations proposed for the CCT BRT or LRT transitway. It also provides additional environmental analysis on the locations of the two possible Operations and Maintenance (O&M) facility sites.

The 2002 DEIS contained five alternatives of combined highway and transit improvements for evaluation: No-Build, TSM/TDM, and three build alternatives (3A/B, 4A/B and 5A/B/C). Public hearings to receive comments on the document were held on June 25, 2002 in Montgomery County and on June 27, 2002 in Frederick County.

In the fall of 2003, the Maryland Department of Transportation (MDOT) directed SHA to consider Express Toll Lanes℠ (ETLs℠)[1] as an alternative for the highway elements of the I-270/US 15 corridor alternatives. Public workshops were held on June 29 and 30, 2004 to introduce the ETLs concept for the project.

The 2009 AA/EA presented the results of a comprehensive environmental analysis of the two new ETL alternatives, named "6A/B" and "7A/B", which combined different highway capacity options (referred to as Alternatives "6" or "7") with either LRT or BRT (referred to as "A" or "B" for LRT or BRT respectively) on the Original CCT Alignment. The Original CCT Alignment is a single transitway alignment identified initially in local area master plans and adopted by MTA for this corridor. Additionally, the document includes a transit Alternatives Analysis focused on the transportation costs and benefits of alternatives 6A/B and 7A/B. MTA and SHA held two public hearings in Montgomery and Frederick Counties on June 16 and 18, 2009 respectively and provided a sixty-day public review and comment period to provide members of the public and other stakeholders with a chance to provide input on this document.

Over 430 people attended the two public hearings in which information was presented and displayed in an "open house" format where attendees could interact with agency staff to ask questions and provide feedback on what was shown. Approximately 60 of those who attended chose to present either public or private testimony that was recorded by a court reporter and made part of the permanent public record for the project. The majority of the comments submitted related to the proposed CCT with most in favor of the project. Support was expressed for both BRT and LRT modal alternatives with some disagreement regarding whether the project alignment should be altered to serve areas identified for growth and development, particularly the Life Sciences Center. Some residents were concerned that the CCT would have limited ability to reduce the auto travel associated with the anticipated growth, while others testified to the importance of the transitway in managing traffic associated with growth.

[1] ETLs are tolled highway lanes that operate in conjunction with toll-free lanes to provide a relatively congestion-free trip when travel time is critical. The ETLs would use variable rate tolling to manage the amount of traffic, and thus the level of congestion, within the lanes.

Corridor Setting

The Original CCT Alignment studied in the 2002 DEIS and the 2009 AA/EA is entirely contained within Montgomery County on a 14 to 16 mile alignment between the COMSAT facility just south of Clarksburg and the Shady Grove Metrorail station in Rockville.

Planning Context

In the 1970s, Montgomery County developed plans for a transitway corridor, the CCT, extending northward from the then-planned terminus of the Washington Metropolitan Area Transit Authority's (WMATA) Metrorail Red Line at Shady Grove. The CCT alignment was incorporated into the County's master plan, as well as in individual sector plans, to ensure that land is reserved for the corridor as part of any development and redevelopment planned and constructed in the study area. Over the years, this corridor reservation process has enabled the county to keep much of the corridor available either through direct donation by developers or by developers providing easements or assurances that nothing will be built within the planned right-of-way. At this time, approximately 60 percent of the transitway alignment right-of-way is controlled by or under reservation by Montgomery County for the purposes of developing the transitway project.

The developers of a number of properties within the CCT study area, including Crown Farm in Gaithersburg, Germantown Town Center, and the Casey Property near the proposed Metropolitan Grove station, have designed transit-focused plans in anticipation of future transit service along the CCT corridor. Designs include planning commercial structures near proposed station areas and increasing residential and employment densities in proximity to the stations.

Recent consultation with area developers and other factors have resulted in modifications to the master plans in the CCT corridor. The City of Gaithersburg, for example, amended their current plans for the Crown Farm property to include a modified CCT alignment that travels along Fields Road to a future extension of Decoverly Drive rather than diagonally across Crown Farm as provided for in the Original CCT Alignment. The revised CCT alignment would traverse the property in the median of Decoverly Drive. Crown Farm is proposed to be a densely developed commercial and office corridor and includes a transit station with parking as part of the development plans. Additionally, the City of Gaithersburg has identified the Kentlands Square shopping center for future redevelopment into a mixed-use activity center along the lines of the adjacent Kentlands, a New Urbanist village. The City has requested that MTA consider adjustments to the Original CCT Alignment to more directly serve these locations. In addition, Montgomery County has approved the *Great Seneca Science Corridor Master Plan*, an amendment to the County's current master plans, to permit a major new development of the Shady Grove Life Sciences Center (LSC), a mixed-use biotechnology research center that would feature up to 17 million square feet of office, commercial and residential development. A revised alignment of the CCT is featured prominently in the Master Plan as an important means of providing needed transportation in the corridor. Additionally, the plan recommends that development of the LSC be staged and triggered by different phases of CCT project development.

The 2009 AA/EA lists a number of master plans that were updated between the 2002 DEIS public hearings and the publication of the 2009 AA/EA. These may be found in **Chapter I** (pages I-2 and I-3) of **the 2009 AA/EA**. Master plans and updates relevant to the alignment modifications are summarized below. Each of these recommendations is consistent with the current CCT study, which aims to provide a convenient transit connection to Metrorail at the Shady Grove Station.

- *The Shady Grove Sector Plan*, adopted in March 2006. This plan covers the area around the Shady Grove Metrorail station, and only the southern-most half-mile of the CCT is within this area. The plan includes the proposed CCT, and one of the plan's transportation objectives is to "incorporate the Corridor Cities Transitway into the Metro station to provide convenience for transit riders." More specifically, the plan supports a cross-platform connection between the CCT and Metrorail, the CCT O&M facility to be located outside the Shady Grove planning area, and the use of a grade-separated route to carry the CCT across MD 355/ Frederick Road (including a safe at-grade pedestrian crossing).

- The *Great Seneca Science Corridor Master Plan*, adopted in May 2010. This plan, formerly referred to as the Gaithersburg West Master Plan, provides the vision for the LSC, a health care and biotechnology research and development center. The LSC is designed to be a mixed-use destination that provides residential, office, and commercial land uses developed on a mix of public and private land. The goal is to transform the low density office park into a densely developed self-sustaining community and offer a mix of closely located land uses to manage accessibility and provide environmental protection, green space and buffers. The CCT on a modified alignment is featured as a cornerstone of the plan, although a grid road network and hiker biker trails are also provided. The plan builds a pattern of density over a 25-35 year time period oriented around the three proposed CCT stations within the LSC: LSC West, LSC Central, and LSC Belward. The density levels are intentionally phased to coincide with different stages of infrastructure development, particularly development of the CCT.
- *Kentlands Boulevard Commercial District Special Area Study*, Amendment to the 2003 Land Use Plan, adopted May 5, 2008. The purpose of this plan is to develop a town center concept for the Kentlands commercial district that provides consistency with surrounding communities. The surrounding Kentlands residential communities were developed using New Urbanist principles and feature a walkable grid street network of residential housing and neighborhood commercial and office uses. Great Seneca Highway is the district's eastern border and Quince Orchard Drive is the district's northern border. The plan calls for the CCT to be aligned on the southwestern side of Great Seneca Highway to act as a catalyst for redevelopment into the envisioned mixed-use town center.

In addition to these approved and adopted master plans, there are draft updates to the master plans for the City of Gaithersburg and Germantown that are undergoing review and pending approval. These modifications are described below:

- *City of Gaithersburg Master Plan*, draft 2009. This document updates the most recently updated master plan, adopted in 2003. The update considers the effects of proposed developments in Germantown and the Life Sciences Center on the City's land uses and road network. It proposes modifying the City's Adequate Public Facilities Ordinance to include a less restrictive Critical Lane Volume standard to be more competitive with surrounding parts of the County in attracting development. Additionally, this plan supports a realignment of the CCT to serve the proposed Kentlands and Crown Farm redevelopments within the City. It also states a preference for the CCT to be light rail. This document is currently undergoing public review and comment. Adoption was anticipated for the summer of 2010.
- *Germantown Forward: Germantown Master Plan,* draft 2010. Germantown Forward recommends that the Germantown Town Center expand and improve into a mixed-use, walkable and transit-centered environment. The plan envisions transit as a central element of Germantown with MARC, local bus, express bus, and the CCT all serving the community. The CCT Germantown station is identified as the central location for density, with a proposed Floor-Area-Ratio of 2.0 (meaning that the building square footage can be up to twice the area of the land parcel it sits on). Growth is anticipated to surpass that proposed for the Life Sciences Center. Up to 20,000,000 square feet of commercial development, 14,000 dwelling units, and 62,500 jobs are proposed. Adoption of the plan is pending a completed review process.

Programmed Transportation Improvements

Programmed transportation improvements associated with the I-270/US 15 corridor study area are identified in the Metropolitan Washington Council of Governments (MWCOG) *2009 Constrained Long Range Transportation Plan* (CLRP), as amended, and in the *Maryland Consolidated Transportation Program 2010-2015* (CTP). **Table I-1** of the **2009 AA/EA** identifies the projects within the study area that were included in the travel demand modeling for this study. **Table I-1** on the following page is the same list with some minor modifications as reflected in the most recent update to the CLRP. Though not listed, improvements to I-270/US 15 and the CCT are included in the CLRP.

Table I-1: Transportation Improvements Programmed for the I-270/US 15 Corridor Included in 2030 Forecasts

LOCATION	DESCRIPTION	PROJECTED COMPLETION DATE
HIGHWAY UPGRADE, RECONSTRUCTION, EXTENSION AND WIDENING PROJECTS		
I-70 from Mount Phillip Road to MD 144	Replace I-70 bridge over Reich's Ford Road and reconstruct ramps, widen from MD 144 to west of Monocacy Boulevard	2020
I-270 Interchange at Watkins Mill Road	Widen and extend Watkins Mill Road from four to six lanes	2016
I-270 at MD 121	Reconstruct interchange of I-270 and MD 121	2010
Bridge over I-270 I-4 Dorsey Mill Road	Century Boulevard to Milestone Center Drive	2015
MD 27 from MD 355 to Snowden Farm Parkway (A-305)	Widen to six lanes from MD 355 to Midcounty Highway; widen to four lanes from Midcounty Highway to Snowden Farm Parkway	2010
Midcounty Highway (M-83) from Montgomery Village Avenue to MD 27	Construct four to six lane roadway	2020
MD 117 from Seneca Creek Sate Park to I-270	Improve roadway and reconstruct intersections. Includes sidewalks where appropriate & multi-use path on south side.	2020
MD 118 from MD 355 to M-83 (Midcounty Highway)/ Watkins Mill Road	Extend MD 118 as a six-lane divided highway (includes bicycle/pedestrian accommodation)	2020
Watkins Mill Road at I-270	Add an interchange at I-270.	2010
Father Hurley Boulevard from Wisteria Road to Germantown Road	Construct final link of Father Hurley Boulevard as a four- or six-lane roadway	2011
Father Hurley Blvd. from I-270 to existing MD 27	Widen Father Hurley Boulevard	2010
Middlebrook Road extended from MD 355 to M-83	Study to construct six lanes	2010
Observation Drive extended	Planning study to extend Observation Drive as a four-lane divided roadway from south of Little Seneca Creek to Clarksburg Town Center	2020
Intercounty Connector (ICC)	Construct toll freeway between I-270 and I-95/US 1; engineering, right-of-way acquisition and construction under way	2012
TRANSIT EXTENSIONS AND PARKING EXPANSION PROJECTS		
Olney Transit Center	Construction of transit center in Olney	2015
Montgomery County Randolph Road bus enhancements	Bus Rapid Transit (BRT) from MD 355 to US 29	2010
Clarksburg Transit Center	Construct Transit Center	2015
Paul S. Sarbanes Transit Center Silver Spring	Transit center at Silver Spring to include Metrorail/MARC station, local and intercity bus, and a taxi queue area.	2011
Metropolitan Grove Transit Center	Vicinity of Watkins Mill Road and MD 117	2015
Purple Line	16-mile transitway between New Carrollton and Bethesda Metrorail stations, connecting the Metrorail Red, Green and Orange lines to key destinations in Prince George's and Montgomery Counties.	Phase I (Bethesda to Silver Spring) 2015[2]

Sources: MWCOG 2009 CLRP and FY 2010-2015 TIP Air Quality Conformity Inputs, 2/8/09; MWCOG 2009 CLRP Amendments http://www.mwcog.org/clrp/projects/new/added_2009.asp.

[2] *Project changed to include phased development*

Purpose and Need of the Project – An Overview

As explained in the introduction, this SEA is focused on proposed alignment modifications within a roughly two-mile segment of the CCT corridor between I-270 to the east and Quince Orchard Drive to the west, to respond to requests by Montgomery County officials to better integrate the alignments with the updated community master planning documents described on the previous pages. This SEA is being prepared as a supplement to the previous analysis work done on the entire I-270/US 15 study area (**Figure I-1**). Therefore the alignment modifications and other issues discussed in the next chapters (e.g., additional analysis on the O&M sites) would be modifications to full-length (Shady Grove to COMSAT) transit alternative components. Therefore the original Purpose and Need, which arises from transportation issues in the full corridor and sets out goals for full-length multi-modal alternatives, still applies.

The Purpose and Need of the I-270/US 15 Multi-Modal Corridor Study is defined in **Chapter I** of the **2002 DEIS** and updated in **Chapter I** of the **2009 AA/EA**.

The I-270/US 15 corridor (**Figure I-1**) provides an essential connection between the Washington, DC metropolitan area and both central and western Maryland, and is an important corridor for carrying local and long distance trips within and beyond the corridor. Addressing traffic congestion and safety on I-270 and US 15 were the principal motivating factors for the multimodal study. It was determined early in the study process that congestion could not be effectively addressed solely through capacity improvements to I-270 and US 15. Additionally, factors such as environmental constraints, air quality conformity, and regional policies supportive of encouraging investments in, and use of, transit and other more sustainable forms of transportation in highly congested and growing areas led transportation officials to seek a multimodal approach to addressing these basic transportation problems in the I-270/US 15 corridor.

Population and employment growth in Montgomery and Frederick Counties is expected to cause peak period traffic congestion along the I-270/US 15 corridor to worsen. The need for transit and highway improvements stems from the mobility challenges resulting from this growing traffic congestion in the I-270 and US 15 corridors. The lack of alternate, high-speed routes within the corridor also contributes to congestion on I-270 and US 15. Transit provides an alternative for some trips in the corridor, but existing transit service in the most densely developed areas of the corridor is limited to express and local bus service operating in mixed traffic, as opposed to on a dedicated or exclusive transit guideway. This means transit is subject to the same congestion as other vehicles, and since transit vehicles stop at bus stops and stations, the travel times are not competitive with auto travel. MARC provides fast and reliable travel options for some residents of the study area – those traveling the longest distances and/or who live along the CSX corridor on which MARC operates. However, MARC does not serve those areas identified for targeted growth and development in the corridor. Metrorail also operates in a very limited portion of the corridor (serving Rockville and Shady Grove stations), but access to Metrorail is hampered by the same congestion as other traffic, and parking at some of the existing MARC and Metrorail stations is filled to capacity before the morning peak travel hours are over.

Transit has long been identified as an important element of meeting the transportation needs in the corridor. Transit provides an important option for persons traveling to and between key activity centers within the rapidly growing Montgomery County portion of the I-270 corridor. Improving connections to existing transit services along the I-270 corridor at locations such as the Germantown Transit Center, Metropolitan Grove, and Shady Grove would provide improved mobility for those already taking transit and new travel options for those who typically drive. By providing travelers with mobility options, the CCT project would address the unmet travel needs of persons who now rely on congested highways or on other, less accessible, transit alternatives.

Project Goals

In order to effectively evaluate the proposed transportation strategies and alternatives, the project team developed five goals for this project. These goals were developed very early in the study process in consultation with the I-270/US 15 Multi-Modal Corridor Study Focus Group, approximately 20 individuals representing business and community interests in the project area. The Study Focus Group reviewed and offered input on the many transportation improvement options and

evaluation measures. (For more information on the focus group and goal development process refer to the **2002 DEIS**, **Chapter VII**, pages VII-4 to VII-7.)

The project goals were purposely broadly defined to have a multimodal application related to the transportation and related needs of the corridor. The various highway and transit capital investment alternatives that have been analyzed over the full range of NEPA documents have been defined and evaluated against these goals within the context of a full transportation network.

This SEA focuses solely on the role of the proposed alignment/station modifications for the CCT in meeting the goals of the I-270/US 15 Multi-Modal Corridor Study. Transit is an important component of a multimodal strategy designed in consultation with Montgomery County, other local communities, and members of the public to meet the project goals. The following identifies the four goals of the I-270/US 15 Multi-Modal Corridor Study in which transit could play an important role in meeting.

Support Orderly Economic Growth

Support the orderly economic development of the I-270/US 15 corridor consistent with the local government land use plans and Maryland's Economic Growth, Resource Protection and Planning Act.

Enhance Mobility

Provide enhanced traveler mobility by: optimizing travel choices by destination, mode and route; minimizing delay; and improving the overall efficiency of the transportation system.

Preserve and Protect the Environment

Deliver transportation services in a manner that preserves, protects and enhances the quality of life and social, cultural and natural environment in the I-270/US 15 corridor.

Optimize Public Investment

Provide a transportation system in the I-270/US 15 Corridor that makes optimal use of existing transportation infrastructure while making cost effective investments in facilities and services that support other project goals.

A fifth study goal, Improve Goods Movement, is not a goal that transit addresses directly, because transit moves people, not goods. However, transit investments in the corridor would address goods movement by limiting the interactions and conflicts with motorized vehicles on area roadways, thus reducing constraints on long distance goods movement and local freight delivery. Transit systems should also be designed, where feasible, to minimize potential interference with goods movement, for example, by not delaying truck traffic at grade crossings.

Need for Transportation Improvements

This section updates descriptions of three contributors to the project need: population and employment growth, current and projected growth in traffic congestion, and limitations of the current transit services. Some of the projected traffic volumes and new development forecast in the 2002 DEIS have been realized, so the need for a solution remains imperative.

Regional Population and Employment Growth Update

Round 7.2a Cooperative Forecasts of demographics were approved by MWCOG on October 14, 2009 and provide projections of population, household and employment growth to the year 2040. These forecasts indicate that population, household, and employment growth is expected to continue in the metropolitan Washington region, including in Montgomery County. They are the land use forecasts used in the travel demand modeling for the alignment modifications that are reported in **Chapter III** of this document. Land use forecasts are updated frequently and are currently under review once again. These forecasts are developed cooperatively among the individual jurisdictions that fall within MWCOG Region and reflect current expectations for employment and population growth. **Table I-2** identifies population and employment projections for 2030 based upon the MWCOG forecasts. The year 2030 was selected for reporting because it matches the current planning horizon year for the CCT.

Growth trends show a modest amount of growth in Montgomery County relative to the rest of the MWCOG region over the 25 year span analyzed above. Population will grow at a modest 22.8 percent from 2005 to 2030, but job growth is expected to be at a rate of 34.5 percent over that same time period. It's important to note that these growth rates reflect the land uses anticipated for Montgomery County,

Table I-2: Demographic Forecasts

AREA	2005 POPULATION	2030 POPULATION	PERCENT CHANGE	2005 EMPLOYMENT	2030 EMPLOYMENT	PERCENT CHANGE
Montgomery County	931,424	1,144,383	22.8%	500,584	673,725	34.5%
Metropolitan Washington Region*	6,276,440	8,157,467	30%	3,785,481	5,272,309	39.2%

** The Metropolitan Washington Region includes: Anne Arundel, Calvert, Carroll, Charles, Frederick, Howard, Montgomery, Prince George's and St. Mary's Counties in Maryland; Arlington, Clarke, Fairfax, Fauquier, King George, Loudoun, Prince William, Spotsylvania, and Stafford Counties in Virginia; Jefferson County in West Virginia; the cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas and Manassas Park in Virginia; and the District of Columbia.*

Source: MWCOG, Round 7.2a (October 14, 2009) Cooperative Forecast.

including planned growth along I-270 and in the CCT corridor as reflected in local area master plans. This includes robust development anticipated for Life Sciences Center, Metropolitan Grove, and the City of Gaithersburg. However, it is also important to note that the cooperative forecasting land use assumptions are frequently changed in response to economic and other factors. The recent economic downturn in the region may be reflected in less robust growth projections in subsequent versions of these demographic forecasts.

Traffic Growth Update

Analysis of current and projected traffic volumes identifies existing and future congestion that will result in reduced Levels of Service (LOS), longer travel times, and higher future travel costs. Traffic trends and details of traffic projections anticipated for the I-270/US 15 corridor since the publication of the 2002 DEIS are presented in **Chapter I** of the **2009 AA/EA** (page I-6). Traffic volume projections were based on the MWCOG regional travel demand model Version 2.1D#50. As with the cooperative forecasts for the MWCOG region, travel demand models are updated frequently to account for changing conditions. However, because the SEA has been prepared so soon after the recently published 2009 AA/EA, new traffic projections are not being recalculated at this time.

The 2030 No-Build Average Daily Traffic (ADT) volumes on I-270/US 15 for areas within the CCT corridor are shown in **Table I-3** of the **2009 AA/EA** (page I-6). Traffic volume growth on I-270 and US 15 is expected to continue well into the future in response to land use and demographic growth. Year 2000 existing traffic volumes on I-270 ranged from 210,000 vehicles per day at the southern end of the project area to approximately 96,000 vehicles per day at the northern end, whereas 2030 traffic volumes range from approximately 247,000 vehicles per day at the southern end of the project area to approximately 148,300 vehicles per day at the northern end.

Transit Demand Update

The 2002 DEIS notes that the I-270/US 15 corridor is one of the most traveled north-south transportation corridors in Maryland, and provides an essential connection between the Washington, DC metropolitan area and central and western Maryland. The 2000 Census indicates that nearly 22 percent of workers residing in Montgomery County work in Washington, DC. In 2000, this added up to an estimated 99,700 commuters. While employment is growing rapidly in Montgomery County, it is expected that a large number of corridor residents will continue to travel to DC for work in the future.

Many of the commuters headed to DC use transit to avoid the high levels of congestion on the roads. Minor changes in service on individual bus routes have occurred including the addition of bus routes to the Germantown Transit Center and new or expanded transit centers and park-and-ride lots.

Recently adopted master plans for the CCT corridor include considerable housing and job growth that might result in additional intra-county commuting and recreational travel. For example, the *Great Seneca Science Corridor Master Plan* includes plans for up to 52,500 jobs and 9,000 dwelling units just in the area between Fields Road and Quince Orchard Boulevard within the CCT corridor. This type of growth and development will affect travel needs and travel patterns.

Current Transit Services

Transit services are described by type below, with ridership numbers provided in **Table I-3.** It is clear that use of transit services is high, both within the County and for those headed south toward DC. Given the growth anticipated for the region through 2030, it is reasonable to expect that travel needs will increase and so will demand for transit service to help meet those needs.

MARC Service

MARC commuter rail transit service is available from a number of Brunswick Line stations in Montgomery County, including the Washington Grove, Gaithersburg, Metropolitan Grove and Germantown Stations located in the study area. Frederick County is served by four stations: Brunswick, Point of Rocks, downtown Frederick and Monocacy. MARC takes commuters directly to Union Station in Washington, DC. There are some limitations to MARC service for commuters to DC, including:

- MARC serves one station in Washington, DC. Riders traveling to other locations in and around DC must transfer to the Metrorail Red Line service at Union Station, Rockville or Silver Spring Station.
- Park-and-ride lots at many of the MARC stations are operating at or near capacity, including Point of Rocks and Germantown. The Point of Rocks station park-and-ride lot recently opened its expanded 550-space capacity. Plans exist to add a parking garage to the 657-space Germantown surface park-and-ride lot by 2015. Parking is free at all MARC stations in the CCT corridor.
- MARC commuter rail transit service in the corridor is only offered during weekday morning and evening peak hours, with one mid-day (1:45 PM train northbound out of Union Station) and no weekend service.
- Service is only in the peak direction, making reverse commuting impossible.
- Downtown Frederick, Monocacy, and Washington Grove stations are served by three trains in the morning peak hours resulting in long wait times between trains. The other Brunswick Line stations are served by nine trains during peak hours, which is one train approximately every thirty minutes.

Table I-3: Current Transit Ridership

	MTA[1]		WMATA[2]		MONTGOMERY COUNTY[3]
	MARC BRUNSWICK LINE	COMMUTER BUS #991	SHADY GROVE METRORAIL	METROBUS (J5, J9, Q2)	RIDE ON BUS
Annual	1,887,000	231,637	7,515,500	4,092,300	27,300,000
Average Daily	7,400	932	27,292	12,826	87,397
AM Peak	3,700	475	9,345	4,087	23,400

Sources: [1] *MTA (FY 2007)*
[2] *WMATA (FY 2007)*
[3] *Montgomery County Department of Public Works and Transportation, Transit Services Division (FY 2006)*

MARC is running at capacity on most of its lines and has a number of planned projects to increase capacity in the short- and long-term. The September 2007 MARC Growth and Investment Plan includes increasing seating capacity by 200 seats on the Brunswick Line by 2010, largely by lengthening existing trains to accommodate growing ridership demand. Additional plans for 2015 and 2020 include increasing seating capacity by 8,400 seats, doubling service on the Frederick Branch (Downtown Frederick and Monocacy stations) to achieve 30-minute peak headways, and adding additional parking at the Germantown, Metropolitan Grove, and Rockville stations.

Metrorail Service

Metrorail service is available at the southern terminus of the CCT corridor at the Red Line's Shady Grove station. Metrorail is a heavy rail system and service is frequent and rapid. Connections are available to other Metrorail lines near downtown, providing access to a wide range of destinations throughout Washington, DC and the surrounding region.

The parking facilities (garages and surface lots) at the Shady Grove station operate at capacity. Despite a recent expansion adding 2,140 spaces, and a daily charge of $4.75 per day, the parking facilities continue to be filled. Parking capacity is currently 5,745 spaces, 76 of which are reserved for short-term (metered) use.

Bus Service

Over 40 bus routes serve the I-270/US 15 corridor, with service provided by WMATA Metrobus, Montgomery County Ride On, and MTA Commuter Bus Route 991. Three routes run express service (limited stops) during peak hours. The rest are local routes. Many routes connect to MARC stations, the Shady Grove Metrorail station, and to transit centers.

The Germantown Transit Center was opened in 2002. It is located on Aircraft Drive near the MD 118 interchange with I-270. The center includes a 175-space park-and-ride lot and bus bays for the nine Ride On routes that stop there. It was designed to serve the Germantown community and the I-270 employment corridor with improved bus service to Gaithersburg and the Metrorail station, including an express bus to Metrorail with timed transfers to other bus routes. The location of the Transit Center has been identified in the most recent Germantown Master Plan update to be the center of an enhanced Germantown Town Center and the location of a planned future CCT station.

MTA Route 991 provides express service from Hagerstown via I-70 to Frederick and then via I-270 to the Shady Grove Metrorail station and Rock Spring Business Park. It travels only in the peak direction and only during morning and afternoon peak hours, with headways of about 15 minutes. As **Table I-3** shows, this route carries more than 900 riders on a typical weekday.

An indicator of the high demand for a link to Metrorail service within the corridor is that 16, of the 40 corridor bus routes, stop at the Shady Grove station. In contrast, MARC stations between Germantown and Washington Grove are each served by one or two bus routes.

Current and Future Transit Market

As discussed above, public transit is identified in numerous State, local and regional plans as a critical investment to provide effective mobility options for those who might otherwise use an automobile, as well as those who are unable to drive a car. To be most successful as an alternative to the automobile, it is critical that the new transit service be on an exclusive guideway to provide a comparable or better travel time than automobiles during rush hours. Although the majority of corridor trips will continue to be made by automobile, high frequency, high quality transit service will provide another good option for travel. The projected transit demand (described in the pages that follow) demonstrates a need to include expanded transit service throughout the I-270/US 15 corridor.

The transit component of the CCT project is envisioned as serving three principal travel markets:

- Local commuters and travelers – Montgomery County residents working at employment locations along the corridor, or visiting retail or other businesses near proposed CCT stations. This type of travel is expected to become a larger part of the total travel market as the CCT corridor continues to grow and evolve.
- Traditional commuters – Residents of the I-270 corridor in Montgomery and Frederick Counties traveling south to employment locations inside

and outside the corridor, particularly to locations that can be reached on the WMATA Metrorail system

- Reverse commuters – Residents of southern Montgomery County and Washington, DC traveling to employment centers along the proposed CCT corridor

This section provides a description of the existing and projected (2030) transit markets. They are derived from the travel demand model that was used to support the transit Alternatives Analysis presented in the 2009 AA/EA document. Projected conditions assume No-Build of the CCT, but because the model was run to support the AA/EA of which there was a highway component, there is an assumption of a highway improvement on I-270 of ETLs as described for Alternatives 6A and 6B in **Chapter II** of the **2009 AA/EA** (pages II-7 – II-12).

The CCT study area has a well-established transit market. Montgomery County has traditionally shown higher transit usage than similarly-sized suburban counties. In 2000, 18 percent of commuter trips from Montgomery County used transit, higher than the 10 percent of Fairfax County, Virginia commuters and 17 percent of Prince George's County, Maryland commuters. Frederick County commuters use transit for only 1.4 percent of trips, but also have fewer transit options available to them.

Strong commuter-driven transit demand is projected to continue in the future. Even without the proposed CCT transit improvements, commuter transit share is projected to be 21 percent for Montgomery County in 2030.

Non-commuter trips, which include trips for shopping, recreation, medical appointments, and visiting relatives, make up more than three-quarters of regional motorized trips. Because of dispersed locations assumed in the land use forecasts in the model and other factors, transit makes up a relatively small share of these trips, approximately two percent according to the travel demand model. As Montgomery County's land use and transportation systems evolve, land uses are expected to be more compact and to offer more opportunities to use transit for non-commuter trips.

In Montgomery County, the transit share of non-work trips is slightly higher in inner suburban districts like Bethesda and Silver Spring with estimated transit shares of three to six percent. Within the corridor, transit shares of these trips are similar to the rest of the region at approximately two percent. Projections for 2030 indicate that transit's share of non-work trips will increase slightly above today's levels within the study area.

It should be noted that while only a small share of non-commute trips are made by transit, nearly a third of all transit trips in Montgomery County are for non-work purposes. Non-commuter trips are therefore an increasingly important component of the transit market and have the potential for future growth. In 2030 without the CCT, non-commuter transit trips are projected to account for 44 percent of all transit trips.

The total number of transit trips, as well as the transit market share for all trips in the study area, will continue to grow in the future. Without the CCT, Montgomery County's total transit trip share is projected to be 5.2 percent in 2030, a more than a 50 percent increase in transit trip share.

Transit Market Share by District

Transit market shares without the proposed CCT project investment vary by district within Montgomery County. **Table I-4** and **Table I-5**, derived from the travel demand model used to support the 2009 AA/EA, show 2000 estimated and 2030 projected transit shares for trips originating or ending in each district, as defined in **Figure I-3**.

- For the year 2000, transit shares were highest for trips originating from inner suburban areas such as Silver Spring/Takoma Park (ten percent), lower from the I-270 corridor (three to five percent), and lowest from rural areas (one percent). In particular, travelers from the Gaithersburg/Derwood and Germantown/Clarksburg districts had a transit modal split of approximately three percent in 2000.
- As expected, transit shares for trips to Washington, DC were estimated to be the highest (18 percent) among destination districts in 2000. For example, transit was used for 28 percent of trips to Washington, DC from the Gaithersburg/Derwood district and 26 percent from the Germantown/Clarksburg district. While

Washington, DC is a major transit destination for Montgomery County residents, Montgomery County as a transit destination is becoming increasingly important, particularly areas to the south, such as Bethesda/Chevy Chase and Silver Spring/Takoma Park. Both of these districts had transit shares of approximately eight percent from districts within the corridor.

- Transit shares for intra-county trips were estimated to be ten percent or higher for trips destined for Bethesda/Chevy Chase and Silver Spring/Takoma Park (communities served by the Metrorail Red Line) than for intra-county trips to other parts of the county.
- Transit shares for intra- and inter-district trips in the I-270 corridor were estimated to be approximately five percent or less in 2000. For example, transit trips were estimated to be two percent of all motorized trips from the Gaithersburg/Derwood district to the Germantown/Clarksburg district and four percent for trips going in the other direction.

Even without the proposed CCT, transit markets are projected to continue year 2000 demand patterns in 2030 with marked increases in transit shares in Frederick, Gaithersburg/Derwood, and Germantown/Clarksburg to Washington, DC; within and between Gaithersburg/Derwood and Germantown/

Figure I-3: Transit Districts

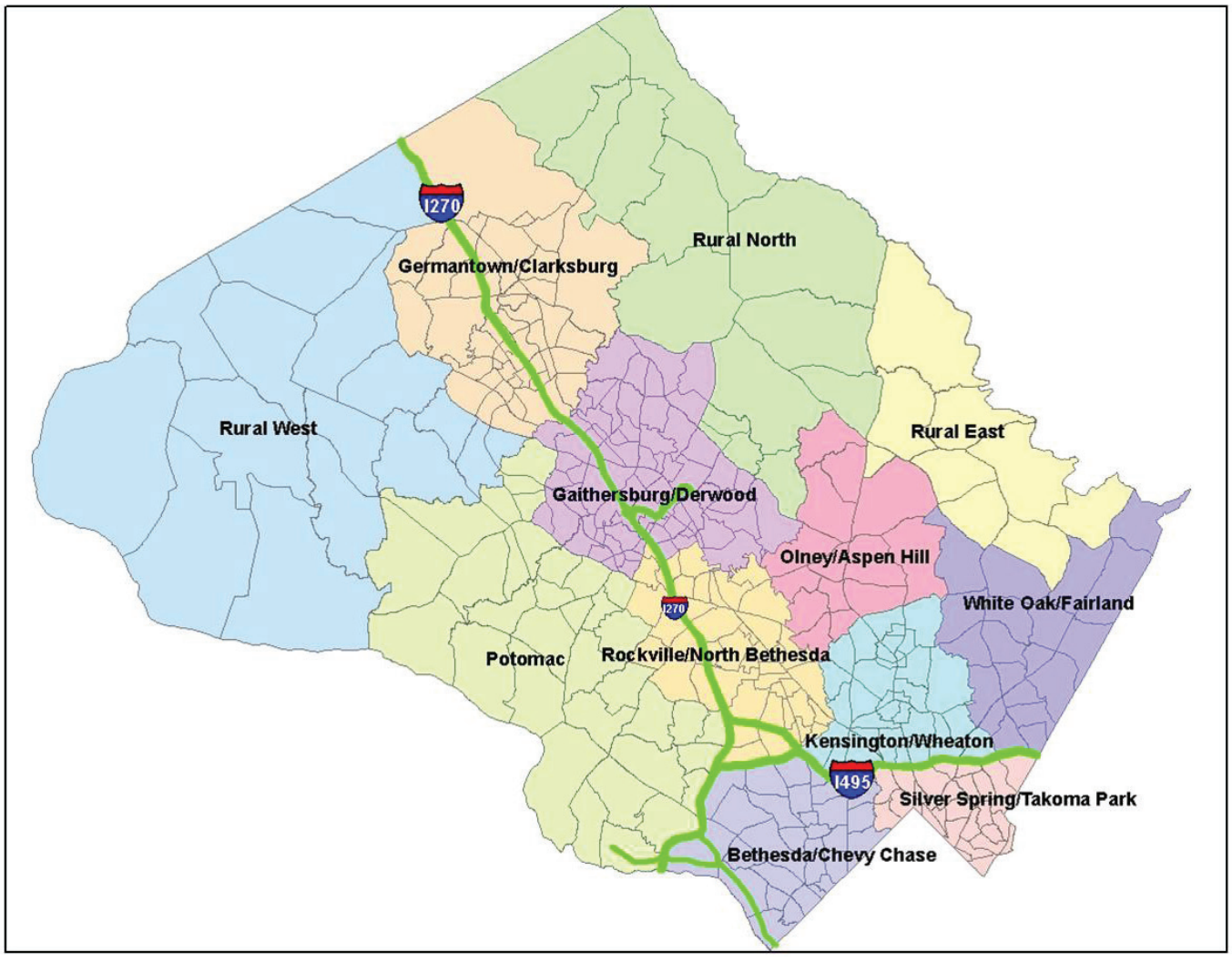


Table I-4: Transit Share of All Trips by District of Origin

TRIP ORIGIN	2000	2030
Bethesda/Chevy Chase	5.5%	6.7%
Gaithersburg/Derwood	3.3%	4.2%
Germantown/Clarksburg	3.0%	3.0%
Kensington/Wheaton	6.4%	7.2%
Olney/Aspen Hill	4.7%	5.5%
Potomac	1.6%	2.2%
Rockville/N. Bethesda	5.2%	6.1%
Rural East	1.3%	1.9%
Rural North	1.1%	1.4%
Rural West	1.7%	2.3%
Silver Spring/Takoma Park	10.0%	10.5%
White Oak/Fairland	3.9%	4.8%
District of Columbia	15.0%	14.9%
Frederick County	0.3%	0.8%
Remainder of Maryland	1.9%	2.2%
Virginia	3.2%	3.8%
Total – Metropolitan Washington Region	3.9%	4.2%

Table I-5: Transit Share of All Trips by Destination District

TRIP DESTINATION	2000	2030
Bethesda/Chevy Chase	7.9%	8.9%
Gaithersburg/Derwood	2.3%	3.0%
Germantown/Clarksburg	1.2%	1.6%
Kensington/Wheaton	4.0%	4.2%
Olney/Aspen Hill	1.1%	1.3%
Potomac	1.2%	1.3%
Rockville/N. Bethesda	5.8%	6.8%
Rural East	0.4%	0.5%
Rural North	0.2%	0.2%
Rural West	0.2%	0.4%
Silver Spring/Takoma Park	7.5%	8.2%
White Oak/Fairland	0.4%	1.9%
District of Columbia	18.4%	19.1%
Frederick County	0.1%	0.3%
Remainder of Maryland	0.8%	1.2%
Virginia	2.4%	3.1%
Total – Metropolitan Washington Region	3.9%	4.2%

Clarksburg; Frederick to Germantown/Clarksburg and Gaithersburg/Derwood; and reverse commuting between Washington, DC to Gaithersburg/Derwood and Germantown/Clarksburg.

Similarly, commuter transit market shares vary by district within Montgomery County. **Table I-6** and **Table I-7** show estimated 2000 and projected 2030 commuter transit shares for trips by district.

- Commuter transit share in Montgomery County tends to be the highest in the inner suburban districts like Bethesda/Chevy Chase and Silver Spring/Takoma Park with nearly one-third of commuter trips traveling to or from these districts by transit in 2000. The middle I-270 corridor districts, Germantown/Clarksburg and Gaithersburg/Derwood, were lower with 11 percent and 16 percent transit shares for residents, respectively.
- Commuter transit shares tend to be the highest for destinations at major activity centers such as the District of Columbia (37 percent), Silver Spring/Takoma Park (29 percent), Bethesda/Chevy Chase (28 percent), and Rockville/North Bethesda (19 percent). These areas also have high levels of transit service as well as high parking

costs. More than one-third of commuter trips from the study area to DC used transit in 2000.

- Reverse commuting was estimated to have a high transit share, 24 percent for commuter trips from DC to Gaithersburg/Derwood and 21 to 23 percent for trips from Bethesda/Chevy Chase to Germantown/Clarksburg and Gaithersburg/Derwood districts.
- Commuter transit markets are projected to continue the existing patterns in 2030 without the CCT, with a slight increase in the share of trips made by transit.

Transit Trip Growth by District

Transit market growth, shown in **Table I-8**, reflects the overall growth of the study area in terms of population, households, employment, and associated travel needs.

- Daily transit trips from Montgomery County are projected to grow by 105,000 trips or 66 percent, accounting for nearly six percent of the county's motorized person-trip growth. Regional transit trips are projected to grow by 72 percent, making up nearly five percent of the region's motorized person-trip growth.

Table I-6: Transit Share of Commuter Trips by District of Origin

TRIP ORIGIN	2000	2030
Bethesda/Chevy Chase	34.1%	28.4%
Gaithersburg/Derwood	16.4%	17.2%
Germantown/Clarksburg	11.1%	12.0%
Kensington/Wheaton	28.4%	26.5%
Olney/Aspen Hill	22.9%	21.9%
Potomac	15.5%	12.6%
Rockville/N. Bethesda	29.8%	27.9%
Rural East	11.3%	12.4%
Rural North	9.6%	9.8%
Rural West	9.8%	10.8%
Silver Spring/Takoma Park	30.1%	30.5%
White Oak/Fairland	19.0%	20.4%
District of Columbia	40.2%	40.8%
Frederick County	1.5%	4.2%
Remainder of Maryland	9.1%	9.7%
Virginia	13.6%	14.8%
Total – Metropolitan Washington Region	15.7%	15.8%

Table I-7: Transit Share of Commuter Trips by Destination

TRIP DESTINATION	2000	2030
Bethesda/Chevy Chase	28.2%	30.7%
Gaithersburg/Derwood	9.6%	11.6%
Germantown/Clarksburg	5.8%	9.0%
Kensington/Wheaton	23.7%	21.5%
Olney/Aspen Hill	10.6%	10.3%
Potomac	9.3%	7.5%
Rockville/N. Bethesda	19.2%	21.0%
Rural East	2.2%	2.6%
Rural North	1.8%	1.7%
Rural West	1.0%	2.5%
Silver Spring/Takoma Park	29.3%	29.9%
White Oak/Fairland	9.2%	10.1%
District of Columbia	36.9%	37.5%
Frederick County	0.2%	1.0%
Remainder of Maryland	3.2%	4.7%
Virginia	10.8%	12.7%
Total – Metropolitan Washington Region	15.7%	15.8%

Reverse Commuting

The I-270 corridor is home to thousands of jobs in Montgomery and Frederick Counties, and there are a large number of residents located south of the study corridor in southern Montgomery County and the District of Columbia. Employment in Montgomery County, currently (2005) more than 500,000 jobs, is expected to grow by 34 percent by 2030, adding more than 170,000 jobs, increasing the attractiveness of the area for reverse-commuting.

The travel demand model used to support the 2009 AA/EA indicates that in 2030 without the proposed CCT approximately 9,400 people will commute daily to businesses and government offices in the CCT corridor from residential areas adjacent to Red Line Metrorail stations in southern Montgomery County and Washington, DC. The current transit share of this market (reverse-commute trips to destinations along the CCT) is assumed to be low compared to potential latent demand in view of the fact that there is no MARC service in the reverse-commute direction and all bus service travels in shared lanes, offering no travel time advantage over private auto travel.

While Metrorail stations (such as those at Shady Grove and Rockville) are served well by Ride On bus routes, many destinations in the study area are served by just one bus route. Some of the system's bus routes run infrequently, further limiting opportunities for

Table I-8: Transit Share of All Trips by Origin District

TRIP ORIGIN	PERSON-TRIPS (ALL MODES)		TRANSIT TRIPS	
	GROWTH IN PERSON-TRIPS 2000-2030	PERCENT GROWTH	GROWTH IN TRANSIT TRIPS 2000-2030	PERCENT GROWTH
Bethesda/Chevy Chase	165,222	44%	15,402	73%
Gaithersburg/Derwood	352,727	54%	21,341	99%
Germantown/Clarksburg	284,440	109%	8,507	110%
Kensington/Wheaton	93,006	28%	9,319	44%
Olney/Aspen Hill	47,029	18%	4,760	39%
Potomac	165,848	82%	5,014	159%
Rockville/N. Bethesda	241,395	52%	19,156	80%
Rural East	46,479	59%	1,312	127%
Rural North	68,541	58%	1,455	117%
Rural West	46,275	76%	1,401	134%
Silver Spring/Takoma Park	90,636	27%	11,130	33%
White Oak/Fairland	74,052	26%	6,296	57%
District of Columbia	577,527	34%	85,103	34%
Frederick County	548,774	76%	8,410	451%
Remainder of Maryland	2,828,514	43%	85,118	68%
Virginia	6,312,213	81%	285,881	115%
Total – Metropolitan Washington Region	11,942,678	59%	569,605	72%

commuting by transit, particularly for long-distance commuters who need to make connections.

Transit improvements on the CCT corridor could increase the share of reverse-commute trips made by transit, in addition to improving mode share for traditional commuters. The planned CCT would connect to the Shady Grove Metrorail station, and stop in the vicinity of a number of major employment centers in Montgomery County, making it ideal for reverse-commute use, as well as supporting traditional commute patterns and non-work trips.

Intermodal Connectivity and Land Use

The existing transportation system includes many intermodal connections, linking roads, pedestrian and bicycle paths, local bus service, and MARC and Metrorail stations. The proposed CCT improvements from COMSAT to Shady Grove, including the modified alignments described in this SEA document, would add numerous stations, provide park-and-ride lots, as well as pedestrian and transit linkages. The CCT may also provide for the development of a bicycle path that will provide safe and efficient non-motorized connections between communities along the CCT corridor, as well as direct access to the proposed stations.

Transit Connectivity

There are 16 park-and-ride lots in the I-270 corridor between Frederick and Shady Grove Metrorail station including one transit center, one Metrorail station, and six MARC stations.

Buses serving the corridor in both Montgomery and Frederick counties are routed to stop at transit centers, MARC stations and Metrorail stations, many of which include bus bays for safe and convenient transfers. MARC and Metrorail intersect outside of the corridor, with Rockville and Silver Spring being the nearest MARC stations offering transfers.

The CCT would integrate with the Shady Grove Metrorail station, Metropolitan Grove MARC station and Germantown Transit Center, and stations will be designed to be served by feeder buses operating throughout Montgomery County.

Pedestrian/Bicycle Connectivity

The MTA conducted a study of the existing and planned trail network for the project corridor to develop a better understanding of the planning issues associated with including a parallel trail along the proposed transitway. The study investigated issues, opportunities and potential costs for constructing the trail. Specific tasks included the following:

- Establish the baseline planning assumptions including local plans and existing environmental conditions
- Determine the right-of-way availability for the transitway, including the trail
- Coordinate with local agency representatives on previous planning efforts, identify issues and potential alternative alignments
- Identify existing facilities that could serve as alternatives to constructing a new path
- Identify potential alternatives to avoid areas of engineering challenge
- Identify costs associated with construction of the trail

Construction of the parallel trail would make it easier for surrounding neighborhoods to connect to the transitway. Access to stations using the trail is the primary objective. In addition, it is anticipated that local jurisdictions would plan and, as appropriate, implement trail construction to provide connections to the transitway from neighborhoods not directly adjacent to the transitway.

Montgomery County encourages the development and use of bicycle and pedestrian facilities. The Maryland-National Capital Park and Planning Commission, which covers Montgomery and Prince George's Counties, requires developers to continue sidewalks and bike paths that are adjacent to their properties. Montgomery County Commuter Services promotes bicycling as part of its *Better Ways to Work!* program. Both the State of Maryland and Montgomery County have policies that encourage bicycle facilities to be included as part of all appropriate roadway projects.

Montgomery County's 2005 *Countywide Bikeways Functional Master Plan* calls for bikeways to be built in conjunction with roadway and sidewalk improvements. Higher priority is given to paths that connect major activity centers, including transit centers, central business districts, major employment centers, and existing park trails. The Master Plan assumes that a shared-use path will be built along the entire length of the proposed CCT. Identified as SP 66 in the Master Plan, the path is listed as a high priority project because it could serve pedestrians, as well as bicyclists as an important connection to major employment centers in the I-270 corridor. Proposed CCT stations are included in the bikeway mapping with the Master Plan encouraging additional bikeways to connect to these stations.

Pedestrian and bicycle connections to transit already exist in the CCT corridor. Bike racks are included on all Ride On buses, all WMATA Metrobuses, and most TransIT buses, and bike parking is available at all MARC and Metrorail stations. According to the 2004 Montgomery County *Countywide Bikeways Functional Master Plan,* all MARC stations in the corridor have one or two bike parking racks. Metrorail stations generally have more racks, with Shady Grove station providing 60 bike lockers and rack space for 32 bikes. The Master Plan noted that Shady Grove's bicycle facilities were about one-third utilized, although demand was expected to increase with the redevelopment of the station area and the planned bikeway improvements along Shady Grove Road, Redland Road, Crabbs Branch Way, and the proposed CCT alignment on King Farm Boulevard.

Transit-Supportive Land Use

Transit functions most effectively where densities are highest. A station or stop that is within walking distance of a few thousand homes or employees, for example, will be more heavily used than one that is within walking distance of only a few hundred. Transit systems also do well when stations are positioned close to major employment centers or other attractions such as shopping centers or sports arenas. Transit-oriented developments are areas where development densities – whether residential, office, shopping or a mix of these – are clustered around transit stations or corridors and designed to accommodate and complement transit use through pedestrian-friendly urban design.

There are a number of employment centers along or near the CCT corridor, including COMSAT, National Institute of Standards and Technology (NIST), the Montgomery County Correctional Facility, Montgomery College Germantown Campus, the Department of Energy Headquarters, Kentlands, and the MedImmune headquarters. Some developments have constructed or planned higher residential densities along the proposed CCT corridor in expectation of future construction of a BRT or LRT line. The King Farm property, for example, is a large development in Rockville. Started in 1997, much of the property has been built and includes both residential and commercial structures. King Farm Boulevard, the main thoroughfare for this property, has a wide landscaped median designed to support a future CCT busway or rail line. Residential densities are highest along this boulevard, and a commercial center is being developed around the proposed West Gaither station.

Advanced plans for new mixed-use employment, commercial and residential centers in the Gaithersburg area of the corridor are driving the need to analyze three potential modifications to the original CCT alignment to include direct service to these locations. The proposed developments include the Shady Grove Life Sciences Center, a mixed-use biotechnology park to be developed on property principally owned by Johns Hopkins University to include up to 9,000 homes, 52,500 jobs and 17,000,000 square feet of commercial development. Another planned development is the Crown Farm, annexed into the City of Gaithersburg and located west of I-270 and Shady Grove Road. This development is planning high-rise residential structures that would include ground-level retail to be developed adjacent to the proposed CCT Crown Farm Station. The third proposed development is the proposed redevelopment of the Kentlands Commercial District, adjacent to the southwest side of Great Seneca Highway. The City of Gaithersburg is in the final stages of modifying its master plan to include a mixed-use vision for this commercial area to be more consistent with the adjacent Kentlands Village community that it serves.