



Recommendations Report

Prepared for:
Clayton County
Department of Transportation and
Development

Prepared by:

URS

In association with:
MPH and Associates, Inc.
Turner Associates Inc.
Joel F. Stone, Inc.
D. Clark Harris, Inc.

October 2008



Acknowledgments

Stakeholder Advisory Committee

Mr. David Jury
Apolistic Tabernacle

Mr. Subash Razdan
Asian American Chamber of
Commerce

Dr. Connie Jee
Asian American Resource
Center

Ms. Rebecca Serna
Atlanta Bicycle Campaign

Ms. Laura Keyes
Atlanta Regional Commission

Ms. Chaiwon Kim
Center for Pan Asian Community
Services

Hon. Jack P. Longino
Mayor, City of College Park

Hon. Corine Deyton
Mayor, City of Forest Park

Mr. John Parker
City of Forest Park

Hon. Joy Day
Mayor, City of Jonesboro

Mr. Gerald Garr
City of Lake City

Hon. Willie Oswalt
Mayor, City of Lake City

Hon. Joseph L. Murphy
Mayor, City of Lovejoy

Mr. John Lampl
City of Morrow

Hon. Jim Millirons
Mayor, City of Morrow

Hon. Phaedra Graham
Mayor, City of Riverdale

Ms. Iris Jessie
City of Riverdale

Ms. Robin Roberts
Clayton County Economic
Development

Ms. Mimi Arjomand
Clayton County Aging Program

Ms. Brenda Hall
Clayton County Aging Program

Chairman Eldrin Bell
Clayton County Board of
Commissioners

Commissioner Michael
Edmondson
District 4, Clayton County Board
of Commissioners

Commissioner Virginia Gray
District 2, Clayton County Board
of Commissioners

Commissioner Wole Ralph
District 3, Clayton County Board
of Commissioners

Commissioner Sonna Singleton
District 1, Clayton County Board
of Commissioners

Mr. Pat Will
Clayton County Chamber of
Commerce

Mr. Patrick Duncan
Clayton County Convention &
Visitor's Bureau

Mr. Alex Cohilas
Clayton County Fire Department

Mr. Detrick Stanford
Clayton County Parks and
Recreation

Mr. Jeffrey Turner
Clayton County Police
Department

Dr. Duncan Gloria
Clayton County Public Schools

Ms. Anne Weber
Clayton County Senior Advisory
Council

Mr. Jeff Metarko
Clayton County Transportation &
Development

Ms. Synamon Baldwin
Clayton County Wide
Homeowners Association

Ms. Artansa Snell
Clayton County Zoning
Committee

Mr. Thomas Harden
Clayton State University

Ms. Hannah Bowles
Clean Air Campaign

Ms. Remedios Gomez Arnau
Consulate General of Mexico

Mr. Jonathan Morton
Environmental Protection
Division

Ms. Sandra Font
Georgia Hispanic Chamber of
Commerce

Ms. Shelley Lamar
Hartsfield-Jackson International
Airport

Mr. Krishna Rama-Murthy
Hartsfield-Jackson International
Airport

Mr. Ron Sherwood
Hartsfield-Jackson International
Airport

Ms. Roberta Abdul-Salaam
District 74 Representative
House of Representatives

Mr. Darryl Jordan
District 77 Representative
House of Representatives

Ms. Edie Yongue
Keep Clayton County Beautiful

Mr. Chris Knight
Knight Development

Mr. Jerry Kopp
Koppar Corporation

Ms. Patricia Hoyos
Latin American Association

Mr. John Maximuk
Livable Communities Coalition

Ms. Ann Raymer
Metro South Association of
Realtors

Ms. Beatriz Gasiba
Mexican American Business
Chamber

Pastor Harry Riley
Ministerial Alliance of Clayton
County

Mr. Dexter Matthews
NAACP - Clayton

Mr. Hugh Morton
Peachtree Homes

Mr. Max Oliver
Realty Development Partners

Mr. Ed Bonn
Southern Regional Medical
Center

Mr. James Crissey
Southern Regional Medical
Center

Ms. Judy Pritchett
Southlake Mall

Mr. Deryl Belser
Transit Advisory Board

Mr. Joseph Gabriel
Gabriel Enterprises

Ms. Shawanna Bowles
DeKalb County

Ms. Sara Swinaj
Atlanta Bike

Mr. Tom Williams
Fayette County Planning and
Zoning

Mr. Tim Robinson
Clayton County Police
Department

Mr. James Maloy
Clayton County Fire Department

Ms. Lorraine Dye
Waterford Downs HOA

Ms. Diane Marshall
Whispering Hollow HOA

Ms. Cheri Hobson-Matthews
Henry County

Mr. Terry McMickle
Henry County Public Works

Mr. Carl Rhodenizer
Clayton County Chamber of
Commerce

Reverend Gary Anderson
New Macedonia

Reverend Arthur Powell
Travelers Rest

Mr. Shi Shailendra
Shailendra Group

Ms. Sherry Mallory
Serve and Save Our World
Foundation

Technical Steering Committee

Ms. Laura Keyes
Atlanta Regional Commission

Mr. Bill Johnston
City of College Park, Strategic
Planning Initiatives, LLC

Mr. Jackson Myers
City of College Park

Mr. Stephen Pearson
City of Forest Park Planning &
Zoning

Mr. Mike Tuttle
City of Forest Park Planning &
Zoning

Mr. Mark Whitley
City of Lovejoy

Mr. Shawn Nguyen
City of Morrow

Mr. Jeffrey Eady
City of Morrow

Mr. Doug Manning
City of Riverdale

Mr. Dervin Spell
Clayton County Planning and
Zoning

Ms. Beverly Ramsey
Clayton County Planning and
Zoning

Mr. Donnie Hood
Clayton County Community
Development

Mr. Paul Hardy
Clayton County Community
Development

Mr. Terry Legvold
Clayton County SPLOST
Program

Mr. Keith Rohling
Clayton County SPLOST
Program

Mr. Andrew Adams
Clayton County Transportation &
Development

Mr. Jeff Metarko
Clayton County Transportation &
Development

Mr. Richard Bray
C-Tran Public Transit System

Mr. Ted Crabtree
District Seven, Georgia DOT

Mr. Steve Walker
Georgia DOT

Mr. Viktor Amaechi
Georgia DOT, Intermodal

Ms. Cindy Van Dyke
Planning, Georgia DOT

Mr. David Cassell
Georgia Regional Transportation
Authority

Mr. Frank Beauford
MARTA

Mr. Mike Gippert
City of Forest Park

Mr. Joe Nettleton
City of Jonesboro

Mr. Ikwut-Ukwa Henry
MARTA

Mr. Dexter White
City of College Park

Mr. Terry Anderson
College Park Power

Ms. Gale Higgs
City of Riverdale

Mr. Bill Andrews
Clayton County Transportation &
Development

Mr. Michael Kay
Atlanta Regional Commission

Mr. Bradley Jay Klinger
Clayton County Department of
Transportation and Development

Ms. Michelle Outlaw
Clayton County Community
Development

Mr. Frank Smith
Special Assistant, Clayton
County Board of Commissioners

Recommendations Report

Table of Contents

<u>Section</u>	<u>Page</u>
Executive Summary	ES-1
1.0 Introduction	1
1.1 Purpose	1
1.2 Relationship with Regional Plans and Programs	3
1.3 Study Documentation	3
1.4 Report Organization	4
2.0 Plan Development	5
2.1 Planning Process Overview	5
2.2 Community Involvement and Outreach	6
2.2.1 Public Involvement Plan	6
2.2.2 Local and Regional Coordination	6
2.2.3 Technical Study Committee	7
2.2.4 Stakeholder Advisory Committee	7
2.2.5 Stakeholder Interviews	8
2.2.6 Public Meetings	8
2.2.7 Additional Public Outreach Activities	9
2.2.8 Focus Group Meetings	9
2.2.9 Study Website	10
2.3 Technical Approach.....	11
2.3.1 Data Collection and Inventory	11
2.3.2 Analysis Tools	12
2.3.3 Travel Demand Model Assessment.....	13
3.0 CTP Purpose/Transportation Vision and Goals	15
3.1 Purpose Statement.....	15
3.2 Goals and Objectives	15
3.3 Themes	17
3.3.1 Safety	17
3.3.2 Mobility	18
3.3.3 Accessibility	18
3.3.4 Connectivity	18
3.3.5 Efficiency	18
3.3.6 Preservation	18

4.0	Multimodal Needs	19
4.1	Demographic Trends.....	19
4.2	Summary of Multimodal Needs	20
4.2.1	Safety	20
4.2.2	Mobility	20
4.2.3	Accessibility	21
4.2.4	Connectivity.....	21
4.2.5	Efficiency	22
4.2.6	Preservation	22
5.0	Alternatives Identification and Assessment.....	23
5.1	Project Identification and Review	23
5.2	Development of Alternative Scenarios	25
5.2.1	Alternative Land Use/Transportation Scenarios	31
5.2.2	Level of Service Analysis	33
5.2.3	Prioritization Measures	41
5.2.4	Transit Demand Analysis	45
5.3	Bicycle/Pedestrian Prioritization Measures	47
5.4	Preferred Alternative	48
6.0	Recommendations	55
6.1	Roadways and Bridges	55
6.1.1	Roadway Capacity	55
6.1.2	Roadway Accessibility and Connectivity	59
6.1.3	Roadway Policy Recommendations	59
6.1.4	Bridges	60
6.1.5	Traffic Operations and Safety.....	60
6.1.6	Traffic Count Database	68
6.1.7	Maintenance Policies and Strategies	68
6.1.8	Access Management Policies and Strategies	69
6.2	Freight.....	72
6.2.1	Over-the-Road Freight	72
6.2.2	Rail and Air Freight.....	82
6.2.3	Safety and Operations.....	83
6.3	Aviation.....	84
6.4	Transit	84
6.5	Pedestrian and Bicycle Facilities.....	91
6.5.1	Pedestrian Facilities	91
6.5.2	Bicycle Facilities	95
6.5.3	Pedestrian and Bicycle Policies and Strategies	95
6.6	Transportation Demand Management Strategies	97
6.7	Emergency Evacuation Preparedness.....	99

6.8	Supportive Land Use Policies and Strategies	99
6.8.1	Outstanding Policy Issues Impacting Land Use and Transportation Decision Making.....	109
7.0	Implementation Program.....	110
7.1	Available Funding and Funding Considerations.....	110
7.1.1	Local Funding.....	110
7.1.2	State Funding.....	111
7.1.3	Federal Funding	112
7.2	Existing Programmed and Planned Projects.....	113
7.3	CTP Implementation Program.....	114
7.3.1	Project Costs	114
7.4	CTP Project Implementation Schedule	115
7.5	Capital Improvement Plan	119
7.6	Alternative Funding Scenarios	123
7.6.1	Unlimited Funding	123
7.6.2	Limited – One Additional SPLOST Funding Period after Current SPLOST	123
7.6.3	Limited Scenario– No Additional SPLOST Funding Period after 2008 SPLOST	126
7.7	Other Program Costs	129
7.8	CTP Implementation Process.....	129
7.8.1	Local and Regional Planning Coordination	129
7.8.2	Overall Program Monitoring	130

List of Figures

Figure 1-1: CTP Study Area.....	2
Figure 5-1: Project Identification Process	24
Figure 5-2: Project Prioritization Process.....	24
Figure 5-3: Redevelopment Nodes	32
Figure 5-4: 2020 Critical Scenario Peak Hour Level of Service.....	34
Figure 5-5: 2030 Long Range No Build Scenario Peak Hour Level of Service.....	35
Figure 5-6: 2030 Moderate Scenario Peak Hour Level of Service.....	36
Figure 5-7: 2030 Long Range Scenario Peak Hour Level of Service	37
Figure 5-8: 2030 Critical with Redevelopment Scenario Peak Hour Level of Service	38
Figure 5-9: 2030 Long Range with Redevelopment Scenario Peak Hour Level of Service.....	39
Figure 5-10: Priority Sidewalk Areas for Schools and Educational Centers	52
Figure 5-11: Priority Sidewalk Areas for Transit Routes	53
Figure 5-12: Priority Sidewalk Areas for Parks, Recreation Centers, and Heritage and Preservation Tourism Sites.....	54
Figure 6-1: Recommended Roadway Capacity Projects	58
Figure 6-2: Recommended Operational Improvement Projects.....	61
Figure 6-3: Proposed ITS Devices and Infrastructure.....	67
Figure 6-4: Clayton County Access Management Priorities	74
Figure 6-5: Designated and Recommended Truck Routes.....	80
Figure 6-6: Recommended Routes for Transit Expansion.....	86
Figure 6-7: Recommended Priority Sidewalk Improvement Corridors	93
Figure 6-8: Recommended Blueways/Greenways.....	96
Figure 7-1: Capital Improvement Plan – Critical Projects by Funding Source	121
Figure 7-2: Capital Improvement Plan – Moderate Projects by Funding Source	121
Figure 7-3: Capital Improvement Plan – Long Range Projects by Funding Source.....	122

List of Tables

Table 2-1: CTP Technical Study Committee Meetings	7
Table 2-2: CTP Stakeholder Advisory Committee Meetings.....	7
Table 2-3: Clayton County CTP Public Meetings.....	8
Table 2-4: Clayton County Public Outreach Activities	9
Table 2-5: Data Sources	12
Table 3-1: Clayton County CTP Goals and Objectives.....	16
Table 5-1: Travel Demand Model <i>Envision6</i> Project Assessment Scenario Assumptions	26
Table 5-2: Travel Demand Model Roadway CTP Project Assessment Scenario Assumptions..	27
Table 5-3: Travel Demand Model Transit Project Assessment Scenario Assumptions	28
Table 5-4: Project Assessment - Intensity (Peak Period Hours of Delay).....	42
Table 5-5: Project Assessment - Duration (Hours of Congestion)	43
Table 5-6: Project Assessment - Extent (Total Hours of Delay)	44

Table 5-7: Transit Ridership Levels by CTP Route.....	46
Table 5-8: Priority Sidewalk Areas for Schools and Educational Centers	49
Table 5-9: Priority Sidewalk Areas for Transit Routes	50
Table 5-10: Priority Sidewalk Areas for Parks, Recreation Centers, and Heritage and Preservation Tourism Sites.....	51
Table 6-1: Bridge Repair/Replacement Priorities.....	60
Table 6-2: Arterial Roadway Access Management Priorities.....	73
Table 6-3: Truck Restricted Routes	76
Table 6-4: Recommended Priority Sidewalk Improvement Corridors	94
Table 6-5: Recommended Transit Supportive Densities	103
Table 6-6: Example of Minimum Right-of-Way Requirements.....	108
Table 7-1: Project Summary by Sponsor in the <i>Envision6 RTP</i>	114
Table 7-2: Project Summary by Type in the <i>Envision6 RTP</i>	114
Table 7-3: Critical Projects – Five-Year Action Plan (FY 2009-2013).....	116
Table 7-4: Moderate Range Plan (FY 2014-2018).....	117
Table 7-5: Long-Range Plan (FY 2019-2030).....	118
Table 7-6: Project Summary by Type for New Projects in the CTP	119
Table 7-7: Project Capital Costs by CTP Milestone Period	120
Table 7-8: Capital Funding by Source Type	120
Table 7-9: Limited Funding Scenario Projects – SPLOST through 2020.....	124
Table 7-10: Limited Funding Scenario Projects – Critical Phase Supplemental SPLOST Projects.....	125
Table 7-11: Limited Funding Scenario Projects – Other Non-SPLOST CTP Projects.....	127
Table 7-12: Limited Funding Scenario Projects – No Additional SPLOST after 2014	128

Executive Summary

To address long-range transportation needs, the Clayton County Board of Commissioners initiated development of a Comprehensive Transportation Plan (CTP) in July 2007. The primary purpose of the Clayton County CTP has been to identify long-range transportation strategies, projects, and programs to address anticipated multimodal needs and issues through the year 2030. By developing a locally-driven and supported CTP, Clayton County can strategically plan for the future and be well positioned within the context of regional and statewide transportation planning and implementation programs.

The CTP planning process included documentation for major task milestones, and collectively all documents are a part of the CTP. The Recommendations Report serves as final documentation for the study and includes the long-range multimodal recommendations for Clayton County. Other supporting documentation includes a *Public Involvement Plan*, *Stakeholder Interview Summary*, *Existing Conditions Assessment*, *Needs Assessment Report*, and *Model Modification Documentation*. All documentation is available in electronic format from the Clayton County Department of Transportation and Development.

Clayton County is one of numerous counties affected by transportation decisions in the growing Atlanta region. The Atlanta Regional Commission (ARC) is the federally recognized Metropolitan Planning Organization (MPO) for all or parts of eighteen (18) counties in the Atlanta urbanized area. This CTP is developed with regional support from the ARC's County Comprehensive Transportation Plan Assistance Program. Through this program, ARC expects the CTP to identify County-level priorities which form the basis for future local government funding submittals in the ARC Transportation Improvement Program (TIP). Covering six fiscal years, the TIP is a near-term subset of the long-range Regional Transportation Plan (RTP), which is updated every four years and must be financially constrained while demonstrating conformity with federal air quality standards.

ARC's evaluation of future requests for transportation funding through the RTP and TIP will include assessments of consistency between proposed projects, the adopted CTP, and local city and county comprehensive plans. Goals and proposed initiatives identified as part of these comprehensive plans pertaining to transportation, land use, and economic development were key factors in the identification of existing conditions and the assessment of community needs. Similar to the comprehensive plans, the CTP is based on commonly shared community-level visions and goals expressed by citizens and leaders in both unincorporated and incorporated parts of the County.

The recommended strategies and policies contained within this CTP are to address the interrelationship between land use and transportation decisions at the community and regional levels. The ARC intends for the CTP to consider the ability of recommended projects to support local and regional land use plans, including the ARC's Unified Growth Policies map, implementation plans from numerous ARC-sponsored Livable Centers Initiatives (LCIs), and policies and initiatives identified through the various city and county comprehensive plans. A critical element of the CTP is the identification of land use policies and actions which are supportive of recommended CTP transportation strategies. Continuous coordination between county and city leaders and staff is crucial to the effectiveness of the implementation of the CTP.

The study area includes Clayton County and its seven incorporated municipalities (Jonesboro - the County seat, College Park, Forest Park, Lake City, Lovejoy, Morrow, and Riverdale) as well as an area five miles outside the County boundary in order to identify potential spill-over impacts from adjacent counties. The study team coordinated with adjacent jurisdictions and the ARC to understand and incorporate transportation projects and development changes that could impact Clayton County.

The purpose statement and goals developed for the CTP reflect the desire for a more robust transportation system within the County that includes multimodal alternatives such as public transportation, multi-use trails, sidewalks, and bicycle lanes in addition to the roadway network. The purpose statement is intended to define the core direction for plan implementation as well as what the plan should accomplish. The CTP purpose statement is as follows:

The Clayton County Comprehensive Transportation Plan will guide the development of a multimodal transportation system that ensures safe and efficient movement of people and goods, supports mobility and accessibility for all citizens, protects natural, historic and cultural resources, and has community and regional support. The system will support quality of life and economic development by providing improved public transportation, an expanded network of sidewalk and bicycle facilities as well as roadway improvements that reduce congestion and provide access to employment, schools, and other destinations. System management and operations will be strengthened through strategic investments that emphasize system preservation and maintenance, provide improvements within financial constraints, and are planned and coordinated with land use planning at the municipal, county, and regional levels.

The Clayton County CTP goals are:

- Enhance and maintain the transportation system to meet existing and future needs
- Ensure the transportation system promotes and supports appropriate land use and development
- Encourage and promote safety and security
- Improve connectivity and accessibility
- Enhance mobility for all users of the transportation system
- Promote and support economic development and redevelopment
- Improve quality of life, preserve the environment, and protect neighborhood integrity

The Clayton County CTP followed an integrated planning process combining both technical analysis and qualitative input into a series of tasks designed to provide a comprehensive assessment of existing and future needs as well as identify long range strategies and projects to address needs. Long-range needs and issues were identified through engaging Clayton County staff, stakeholders and the general public through a public involvement program. Specific activities conducted to elicit input from the community during the plan development process include meetings with the Technical Study Committee, Stakeholder Advisory Committee, and public. Technical analysis tools used during the CTP development included the ARC regional travel demand model, spatial analysis using Geographic Information System (GIS) processing and statistical analysis. The travel demand model was used primarily to assess long-term roadway system capacity and future needs. Spatial analysis was used to perform much of the

multimodal transportation assessment, particularly bicycle facility, pedestrian facility, transit, freight, and connectivity analyses.

Needs Summary

According to the U.S. Census, between 1990 and 2006, the County's population increased by nearly 90,000 persons or 49 percent. The total population in 2006 was 271,240, compared to 235,520 in 2000, reflecting a 14.7 percent increase in just six years. The City of Riverdale has seen the most growth between 2000 and 2006, adding over 3,000 new residents for a total population of 15,500, an increase of 24 percent. From 2000 to 2030, the County's population is projected by the Atlanta Regional Commission (ARC) to increase by 24 percent, with employment increasing by 30 percent between 2005 and 2030. The anticipated growth and development will require ongoing transportation investment to meet the needs of residents, employers, and the community at large. Recent trends impacting future transportation needs in Clayton County include:

- **Clayton County has a greater population in a smaller area as compared to other counties in the region.** Clayton County ranks 17 of 18 counties in the Atlanta Region Metropolitan Planning area for land area but ranks fifth in population. The population density in 2006 for the County was 2.97 persons per acre. This compares to an average population density of 1.4 persons per acre in the region.
- **Clayton County is 98 percent built-out.** The County is entering into a redevelopment approach for its future development, which involves preserving vital greenspace, historically and archaeologically significant resources, and environmentally sensitive land, while promoting redevelopment and infill development supported by a sustainable, well-connected transportation network.
- **Total employment within the County has not kept pace with the increase in the number of workers.** The employment to labor force ratio has declined between 1990 and 2005 from 0.82 jobs per worker to 0.78 jobs per worker. This indicates more residents are traveling out of the County for work. In fact, in 2000, 62 percent of the working population left the County to work each day.
- **Average commute times are on the increase.** In 2005, the average commute time for a Clayton County commuter was 31.7 minutes, compared to a statewide average of 27.2 minutes. The percent of commuters who experience travel times 45 or more minutes increased by 11 percentage points between 1990 and 2005, while the proportion of commuters traveling 30 minutes or less declined by 12 percentage points.
- **More commuters in Clayton County use public transportation or share rides than is found statewide.** The percent of drivers who drove alone to work decreased nearly three percent between 1990 and 2005, while taking public transportation to work has increased. Nearly 18 percent of Clayton County commuters used transit or participated in a carpool or vanpool on their way to and from work in 2005.

Input on County needs and issues received from the public outreach process revealed common themes including:

- Linking transportation infrastructure to land use development;
- Identifying various means to fund improvements;
- Providing an integrated multimodal transportation system which considers public transportation, bicycles, pedestrians, and vehicles;
- Addressing roadway congestion and traffic operations on the major roadway network, particularly in the northern half of Clayton County; and
- Increasing roadway connectivity

Anticipated changes will place demands on the entire transportation network for mobility, connectivity, and accessibility. On the whole, the supply of major roadway infrastructure will not meet expected demand. A large portion of the state route and interstate roadway system will face daily congestion, particularly in the northern half of the county. Recurrent roadway congestion will impact both those living and working in the county as well as those moving freight within and through the county. The anticipated growth and development will require ongoing transportation investment to meet the needs of residents, employers, and the community at large.

Project Identification and Prioritization

Given highly defined needs for transportation improvements and limited funding availability for immediate and long-term implementation, priorities were established to phase recommended investments in a manner that addresses Clayton County's transportation goals and needs and best reflects local and regional interests. The CTP vision and goals provided the framework for identifying potential projects and strategies to address current and future transportation needs for Clayton County and its municipalities. The *Existing Conditions Inventory* and the *Needs Assessment Report* provided the supporting information and technical analysis for project identification and evaluation of alternatives. Extensive community input from county and city staff, local stakeholders and the general public was received and reviewed. Projects listed in existing regional and local plans were also incorporated. The screening factors utilized for prioritizing projects for the final CTP and Implementation Program included:

- Concurrence with the County's transportation vision, goals, and objectives
- Providing increased mobility, accessibility, connectivity and safety and access for the greatest population and employment growth areas
- Supports the preservation and efficiency of existing infrastructure
- Ease of implementation
- Potential environmental constraints

The result of this process is an Implementation Program with a prioritized set of recommended CTP projects and a Capital Improvement Program that is feasible, publicly-supported, fundable, and sustainable through the course of the planning horizon.

However, full project implementation is constrained by two key respects. The first constraint relates to capacity expansion via right-of-way acquisition in a county with a virtual absence of

developable land. Community emphasis on infill development, community cohesion, and greenspace preservation must be incorporated into the set of selected CTP strategies and emboldened by CTP-recommended policies. The second constraint involves limited available financial resources, at all levels of government, for financing capital-intensive projects. Strategies and policies supporting the efficient management of assets and cost-effective, sustainable operations will minimize the financial impacts of recommended CTP capital investments on state and municipal governments.

In recognition of these constraints, a two-tiered scenario development process first assesses the impacts of alternative transportation and land use policies on congestion and mobility. The process then assesses, as part of the implementation plan development, the effect of funding constraints using assumptions of Special Purpose Local Option Sales Tax (SPLOST) funding availability to support estimated project costs.

In the first tier of the scenario development process, the ARC regional travel demand model was used as the main analysis tool for assessing major roadway capacity adding projects while providing information for the transit system performance evaluation. The assessment used several different performance measures to test the relative success of each project's ability to reduce congestion. The primary measures used were:

- Level of Service
- Prioritization Measures
- Transit Demand Analysis

These measurements were assessed through the evaluation of six different scenarios, unique to the alternative's assessment. The scenarios tested were based on different conceptualizations of planned and recommended projects and their relative priority which were separated into three main categories: critical, moderate, and long-range. This prioritization was based on the needs assessment analysis, stakeholder concerns, and local knowledge and should not be confused with ARC's actual project prioritization as already determined through the *Envision6* process. The scenarios evaluated are the following:

- 2005 Baseline
- 2020 Critical
- 2030 No-Build
- 2030 Moderate
- 2030 Long Range

Two redevelopment scenarios were introduced to reflect the considerable effort to redevelop critical areas of Clayton County to support "live/work/play" activity while minimizing the growth of population and employment in other areas. Specifically, these redevelopment scenarios assume all new population and employment added within the County between the baseline Year 2005 and Year 2030 are wholly distributed among TAZs within a reasonable driving distance of commuter rail station sites, and within reasonable walking distance of all other major redevelopment areas. Such redistribution would necessitate the provision of transit services commensurate with redevelopment strategies within each redevelopment zone. The following redevelopment cluster areas were identified:

- Livable Center Initiative (LCI) areas:
 - Northwest Clayton
 - Forest Park/Farmers Market
 - Morrow/CSU
 - Riverdale
- Fort Gillem Local Redevelopment Area
- Villages of Ellenwood Tax Allocation District
- Commuter Rail Station areas:
 - Southern Crescent Transportation Services Center (SCTSC)
 - Forest Park
 - Morrow/CSU
 - Jonesboro
 - Lovejoy

The CTP alternatives analysis suggested that there are significant and attainable mobility gains from pursuing a long range transportation improvement strategy that is well integrated with policy-driven redevelopment projects. As a result, the 2030 Long Range Redevelopment scenario revealed improvements in corridor-level traffic congestion and a significant rise in transit trips, and represents the preferred land use/transportation alternative. Specific recommendations were phased into an implementation program which considers the effect of funding constraints using assumptions of SPLOST funding availability to support estimated project costs.

CTP Recommendations

The Clayton County CTP recommendations include specific projects and broad strategies or policies for future implementation through the study's horizon year of 2030. Projects include existing projects in the ARC *Envision6 RTP and Clayton County SPLOST*, and newly identified projects generated through the CTP needs assessment and project identification process. The total cost of the CTP program is approximately \$1,660,291,447 (174 projects) through 2030. Projects were grouped into an Implementation schedule as follows:

- Critical Projects (Five-Year Action Plan): FY 2009 – 2013 - \$595,315,151 investments (103 projects)
- Moderate Range Projects: FY 2014 – 2018 - \$599,092,179 (61 projects)
- Long-Range Projects: FY 2019-2030 - \$465,884,117 (10 projects)

Capital Projects Implementation Schedule

Tables ES-1 through ES-3 provide a summary of the implementation program for critical, mid-range, and long-range implementation.

Table ES-1: Critical Projects

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
SPLOST 24	SPLOST Program Management Fee		Transportation Program Management	N/A	\$6,000,000
SPLOST 25	Clark Howell Highway at SR 85 (Sullivan Road)		Roadway Operational Upgrades	N/A	\$7,700,000
SPLOST 27	Old Rex-Morrow Road/Maddox Road/Rex Road		Roadway Operational Upgrades	N/A	\$2,765,500
SPLOST 28	Road improvements to support other SPLOST Capital Projects		Roadway Operational Upgrades	N/A	\$1,000,000
SPLOST 29	Traffic Signal, Signing and Pavement marking-related improvement in unincorporated areas		Roadway Operational Upgrades	N/A	\$5,500,000
SPLOST 30	Countywide sidewalk construction		Pedestrian Facility	N/A	\$5,500,000
SPLOST 31	C-Tran Buses, paratransit vehicles and bus shelters		Transit	N/A	\$7,000,000
SPLOST 32	Miscellaneous safety improvements in unincorporated areas		Roadway Operational Upgrades/Safety	N/A	\$2,000,000
SPLOST 33	Bridge/culvert upgrades and replacements in unincorporated areas		Bridge Upgrade	N/A	\$4,000,000
SPLOST 34	CEI Services for projects			N/A	\$1,000,000
SPLOST 35	Street Resurfacing in unincorporated areas		Maintenance	N/A	\$60,000,000
SPLOST 37	Intersection improvement Jodeco Road at Carnes Road		Roadway Operational Upgrades	N/A	\$600,000
SPLOST 38	Widen and resurface Woolsey Road		General Purpose Roadway Capacity	N/A	\$1,565,500
SPLOST 39	Intersection improvement North McDonough Street at SR 138		Roadway Operational Upgrades	N/A	\$650,000
SPLOST 40	Realignment of Noah's Ark Road at South Main Street realignment and S. Main Street at Tara Boulevard		Roadway Operational Upgrades	N/A	\$2,500,000
SPLOST 41	Widening of West Lee's Mill Road		General Purpose Roadway Capacity	N/A	\$2,500,000
SPLOST 42	Intersection improvement Fielder Road at Conkle Road		Roadway Operational Upgrades	N/A	\$500,000
SPLOST 43	Intersection improvement Elliot Road at Conkle Road		Roadway Operational Upgrades	N/A	\$700,000

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-IT-01	Ash Street and Morrow Road - Install Fiber-Optic Trunk Line with Signal Communication Equipment and Closed-Circuit Television (CCTV) Cameras	Ash Street between Morrow Road and Forest Parkway; Morrow Road between Old Dixie Highway and Ash Street	ITS	3	\$773,963
CTP-IT-02	Huie Road/Harper Drive/Rex Road - Install Fiber-Optic Trunk Line with Signal Communication Equipment and Closed-Circuit Television (CCTV) Cameras	From Jonesboro Road to US 23/SR 42	ITS	3	\$770,307
CTP-IT-03	Stagecoach Road - Install Fiber-Optic Trunk Line with Signal Communication Equipment and Closed-Circuit Television (CCTV) Cameras	From West Panola Road to Rex Road	ITS	1.5	\$224,042
CTP-IT-04	South Main Street - Install Fiber-Optic Trunk Line with Signal Communication Equipment and Closed-Circuit Television (CCTV) Cameras	From US 19/41-SR 3 (Tara Boulevard) to College Street	ITS	3	\$515,975
CTP-PN-01	SR 54 (Jonesboro Road) -5-Foot Sidewalks and Accessible Crossings along ARC Regionally Significant Transportation System (RSTS) Routes	Southlake Parkway to SR 138	Pedestrian Facility	1.2	\$248,065
CTP-PN-02	Stockbridge Road - 5-Foot Sidewalks and Accessible Crossings along ARC Regionally Significant Transportation System (RSTS) Routes	North McDonough Street to Walt Stephens Road	Pedestrian Facility	0.5	\$99,266
CTP-PN-03	US 19/41-SR 3 (Tara Boulevard) - 5-Foot Sidewalks and Accessible Crossings along ARC Regionally Significant Transportation System (RSTS) Routes	SR 138 to SR 54 (Fayetteville Road)	Pedestrian Facility	0.5	\$99,266
CTP-PN-04	Rock Cut Road - Huie Elementary pedestrian facility improvements	From SR 160 (Thurman Road) to Simpson Road	Pedestrian Facility	1	\$1,029,461
CTP-PN-05	Mt. Zion Road - Mt. Zion Elementary pedestrian facility improvements	From E. of I-75 Crossing to SR 138	Pedestrian Facility	2.1	\$412,633
CTP-PN-06	Mt. Zion Parkway - Mt. Zion Elementary pedestrian facility improvements	From Mt. Zion Road to Fielder Road	Pedestrian Facility	1.1	\$218,453
CTP-PN-07	Fielder Road - Mt. Zion Elementary pedestrian facility improvements	From Medina Drive to Mount Zion Parkway	Pedestrian Facility	0.5	\$97,090

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-PN-08	SR 138 - Swint Elementary pedestrian facility improvements	From Devonshire Drive to US 19/41 - SR 3 (Tara Boulevard)	Pedestrian Facility	1.3	\$194,078
CTP-PN-09	SR 138 - Swint Elementary pedestrian facility improvements	From West Entrance to East Entrance	Pedestrian Facility		\$180,383
CTP-PN-10	SR 138 - Swint Elementary pedestrian facility improvements	From Kendrick Road/Old Rountree Road to Devonshire Drive	Pedestrian Facility	0.6	\$121,363
CTP-PN-11	SR 138 Spur - Swint Elementary pedestrian facility improvements	From SR 138 to US 19/41 - SR 3 (Tara Boulevard)	Pedestrian Facility	0.4	\$72,818
CTP-PN-12	SR 42 (Macon Highway) - Smith Elementary pedestrian facility improvements	From Chippewa Drive to Evans Drive	Pedestrian Facility	0.5	\$641,313
CTP-PN-13	SR 42 (Macon Highway) - Smith Elementary pedestrian facility improvements	From Rex Road to Chippewa Drive	Pedestrian Facility	0.5	\$99,226
CTP-PN-14	Evans Drive - Smith Elementary pedestrian facility improvements	From SR 42 (Macon Highway) to Rex Road	Pedestrian Facility	1	\$198,452
CTP-PN-15	McDonough Road - Lovejoy High pedestrian facility improvements	From Chelsea Drive to Wildcat Way	Pedestrian Facility	0.3	\$58,243
CTP-PN-16	Wildcat Way - Lovejoy High pedestrian facility improvements	From McDonough Road to South Entrance	Pedestrian Facility	0.3	\$58,243
CTP-PN-17	Wildcat Way - Lovejoy High pedestrian facility improvements	From North Entrance to South Entrance	Pedestrian Facility		\$2,028
CTP-PN-18	Garden Walk Boulevard - Pedestrian improvements for transit corridor	From SR 139 (Riverdale Road) to SR 85	Pedestrian Facility	1.2	\$248,065
CTP-PN-19	C.W. Grant Parkway (Aviation Boulevard) - Pedestrian improvements for transit corridor	From International Parkway to US 19/41-SR 3 (Old Dixie Highway)	Pedestrian Facility	0.7	\$152,113
CTP-PN-20	US 19/41-SR 3 (Old Dixie Highway/Main Street) - Pedestrian improvements for transit corridor	From Fulton County Line to SR 331 (Forest Parkway)	Pedestrian Facility	2.5	\$507,045
CTP-PN-21	US 19/41-SR 3 (Tara Boulevard) - Pedestrian improvements for transit corridor	From Battle Creek Road to SR 138 / North Avenue	Pedestrian Facility	1.7	\$362,740
CTP-PN-22	US 19/41-SR 3 - Pedestrian improvements for transit corridor	From SR 54 (Fayetteville Road) to Poston Road	Pedestrian Facility	0.5	\$99,226
CTP-PN-23	SR 85 - Pedestrian improvements for transit corridor	From SR 138 to Flint River Road	Pedestrian Facility	2	\$396,904
CTP-PN-24	Flint River Road - Pedestrian improvements for transit corridor	From Taylor Road to Flint River Crossing	Pedestrian Facility	0.6	\$124,032

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-PN-25	Taylor Road - Pedestrian improvements for transit corridor	From Kylie Court to Flint River Road	Pedestrian Facility	1.1	\$233,190
CTP-PN-26	Southlake Parkway - Pedestrian improvements for transit corridor	From Mt. Zion Road to Mt. Zion Boulevard	Pedestrian Facility	2.5	\$507,045
CTP-PN-27	SR 54 (Jonesboro Road) - Pedestrian improvements for transit corridor	From Kenyon Road to Reynolds Road	Pedestrian Facility	1.5	\$304,227
CTP-PN-28	Lake Drive - Pedestrian improvements for recreational/tourism corridor	From West Street to SR 331 (Forest Parkway)	Pedestrian Facility	0.5	\$103,640
CTP-PN-29	North Lake Drive - Pedestrian improvements for recreational/tourism corridor	From SR 331 (Forest Parkway) to SR 54 (Jonesboro Road)	Pedestrian Facility	1.5	\$310,920
CTP-PN-30	SR 54 - Pedestrian improvements for recreational/tourism corridor	From South Lake Plaza Drive to S. of I-75 Off-Ramp	Pedestrian Facility	0.3	\$51,820
CTP-PN-31	Morrow Road - Pedestrian improvements for recreational/tourism corridor	From Hammack Drive to SR 54 (Jonesboro Road)	Pedestrian Facility	0.3	\$51,820
CTP-PN-32	Flat Shoals Road - Pedestrian improvements for recreational/tourism corridor	From Fulton County Line to SR 314 (West Fayetteville Road)	Pedestrian Facility	0.5	\$103,640
CTP-PN-33	East Fayetteville Road - Pedestrian improvements for recreational/tourism corridor	From SR 314 (West Fayetteville Road) to SR 139 (Riverdale Road)	Pedestrian Facility	1.7	\$362,740
CTP-PN-34	Church Street - Pedestrian improvements for recreational/tourism corridor	From Bethsaida Road to SR 85	Pedestrian Facility	0.5	\$103,640
CTP-PN-35	Church Street - Pedestrian improvements for recreational/tourism corridor	From Main Street to Bethsaida Road	Pedestrian Facility	1.3	\$259,100
CTP-PN-36	SR 85 - Pedestrian improvements for recreational/tourism corridor	From Bethsaida Road to SR 138	Pedestrian Facility	1	\$207,280
CTP-PN-37	SR 314 (West Fayetteville Road) - Pedestrian improvements for recreational/tourism corridor	From Creel Road to Westley Drive/Laurenceae Way	Pedestrian Facility	1	\$211,840
CTP-PN-38	SR 139 (Riverdale Road) - Pedestrian improvements to fill gaps in system	From Fulton County Line to Flat Shoals Road	Pedestrian Facility	1.3	\$259,100
CTP-PN-39	Godby Road - Pedestrian improvements to fill gaps in system	From Southampton Road to Phoenix Parkway	Pedestrian Facility	0.8	\$155,460
CTP-PN-40	Southampton Road - Pedestrian improvements to fill gaps in system	From Godby Road to SR 314 (West Fayetteville Road)	Pedestrian Facility	0.5	\$103,640
CTP-PN-41	Phoenix Boulevard - Pedestrian improvements to fill gaps in system	From SR 314 (West Fayetteville Road) to Phoenix Parkway	Pedestrian Facility	0.5	\$103,640
CTP-PN-42	SR 54 - Pedestrian improvements to fill gaps in system	From Hood Avenue to Flankers Road	Pedestrian Facility	0.1	\$21,184

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-PN-43	SR 54 - Pedestrian improvements to fill gaps in system	From Dixie Industrial Boulevard to Clayton State Boulevard	Pedestrian Facility	1.5	\$317,760
CTP-PN-44	Spring Street - Pedestrian improvements to fill gaps in system	From West Avenue to North Main Street	Pedestrian Facility	1	\$211,840
CTP-PN-45	SR 139 (Church Street) - Pedestrian improvements to fill gaps in system	From Howard Street to Main Street	Pedestrian Facility	0.1	\$21,184
CTP-PN-46	SR 139 (Riverdale Road) - Pedestrian improvements to fill gaps in system	From Flat Shoals Road to Howard Street	Pedestrian Facility	3	\$635,520
CTP-PN-47	SR 85 - Pedestrian improvements to fill gaps in system	From Garden Walk Boulevard to Howard Street	Pedestrian Facility	2	\$423,680
CTP-PN-48	Taylor Road - Pedestrian improvements to fill gaps in system	From Rountree Road to SR 138	Pedestrian Facility	1	\$211,840
CTP-TR-01	C-TRAN Enhanced Marketing, Outreach and Partnerships	Countywide	Transit	N/A	\$20,000
CTP-TR-02	C-TRAN Comprehensive Operations Analysis (COA)	Countywide	Transit	N/A	\$100,000
CTP-TR-03	Clayton County-Wide Transit Development Plan (TDP)	Countywide	Transit	N/A	\$300,000
CTP-TR-04	Transit-Oriented Development Coordination	Countywide	Transit	N/A	\$50,000
CTP-TR-07	Regional Commuter Rail Service Atlanta to Lovejoy		Transit	N/A	\$102,265,428
CTP-TR-22	MARTA Heavy Rail Extension -- Corridor Study (Alternatives Analysis/Environmental Impact Statement)	East Point to Southern Crescent Transportation Service Center	Transit	N/A	\$3,600,000
AR-511A	I-75/ Aviation Boulevard/ I-285 Interchange Reconstruction (includes managed lane ramps) – Phase 1		Interchange Capacity	N/A	\$80,700,000
AR-268B	Commuter Rail Service along Norfolk Southern RR - Atlanta/Griffin/Macon (Stations and Park and Ride Lots for Atlanta-Lovejoy Section)	City of Atlanta to City of Lovejoy	Fixed Guideway Transit Capital	28.2	\$9,090,000
AR-5307-CL	FTA Section 5307 (Urbanized Area Formula) Program Funds Allocation for Clayton County		Transit Facilities		\$13,823,518
AR-510	C.W. Grant Parkway Grade Rail Separation	At Norfolk Southern RR Line - Includes realignment of Conley Road and US 19/41 in vicinity	Interchange Capacity	N/A	\$36,781,418
AR-607	Park and Ride Facilities for Xpress Bus Service	In the vicinity of the Clayton Justice Center	Transit Facilities	N/A	\$5,600,000

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CL-014	SR 85 - Widen from 4 to 6 lanes	From Adams Drive to I-75 South, includes interchange at Forest Parkway	General Purpose Roadway Capacity	2.7	\$28,179,720
CL-017 (SPLOST 19)	Battle Creek Road - Widen from 2 to 4 lanes	From Valley Hill Road to Southlake Parkway	General Purpose Roadway Capacity	2	\$18,116,849
CL-019 (SPLOST 20)	Mount Zion Boulevard - Widen from 2 to 4 lanes	From Southlake Parkway to Lake Harbin Road	General Purpose Roadway Capacity	3.9	\$36,885,636
CL-020A	Flint River Road Upgrade	From Glenwoods Drive to Kendrick Road	Roadway Operational Upgrades	1.1	\$6,959,000
CL-041	SR 54 (Fayetteville Road/Jonesboro Road) - Widen from 2 to 4 lanes	From McDonough Road in Fayette County to US 19/41 (Tara Boulevard) in Clayton County	General Purpose Roadway Capacity	5.5	\$51,010,000
CL-063 (SPLOST 36)	Mount Zion Road - Widen from 2 to 4 lanes	From Richardson Parkway to SR 138	General Purpose Roadway Capacity	2.1	\$9,100,000
CL-162A	Downtown Jonesboro Pedestrian Improvements, Phase 1		Pedestrian Facility	1.5	\$3,170,695
CL-162B	Downtown Jonesboro Pedestrian Improvements, Phase 2		Pedestrian Facility	0.6	\$1,446,200
CL-162C	Downtown Jonesboro Pedestrian Improvements, Phase 3		Pedestrian Facility	0.8	\$768,000
CL-230A (SPLOST 21)	Anvil Block Road - Widen from 2 to 4 lanes	From Lunsford Drive to Bouldercrest Road	General Purpose Roadway Capacity	0.4	\$3,408,504
CL-230B (SPLOST 22)	Anvil Block Road - Widen from 2 to 4 lanes	From Bouldercrest Road to Allen Drive	Roadway Operational Upgrades	1.3	\$4,085,000
CL-231	Conley Road	From SR 54 (Jonesboro Road) to Cherokee Trail	Roadway Operational Upgrades	1.5	\$10,839,000
CL-237B	Clayton County ATMS/ITS Enhancements and Implementation		ITS-Other	N/A	\$4,950,000
CL-254	SR 138 Traffic Signal Upgrades	At 12 locations	Roadway Operational Upgrades	N/A	\$1,049,760
CL-255	SR 42 Traffic Signal Upgrades	At 5 locations	Roadway Operational Upgrades	N/A	\$524,880
CL-AR-245	Forest Park Downtown Pedestrian Improvements		Pedestrian Facility	0.3	\$1,825,000
CL-AR-247	US 19/41 (Tara Boulevard) - Widen from 4 to 6 lanes	From SR 81 (Upper Woolsey Road) in Henry County to Flint River Road in City of Jonesboro	General Purpose Roadway Capacity	7.9	\$28,590,000
CL-AR-BP093	Transit-Oriented Pedestrian Improvements on Multiple Streets		Pedestrian Facility	2	\$1,130,000

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CL-AR-BP094	SR 54 (Jonesboro Road) Bicycle/Pedestrian Underpass and Crosswalks	At Clayton State Boulevard	Bicycle/ Pedestrian Facility	0.1	\$2,750,000
CL-AR-BP239	Forest Park Sidewalks to Schools – Phase I		Pedestrian Facility	5.6	\$1,875,000
CL-AR-BP240	Forest Park Sidewalks to Schools – Phase II		Pedestrian Facility	N/A	\$1,038,000
CL-AR-BP241	Forest Park Sidewalks to Schools – Phase III		Pedestrian Facility	1	\$522,000
Total					\$595,315,151

Table ES-2: Mid-Range Projects

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-BP-01	College Street - Forest Park Bicycle Facilities: Apply Sharrows (Shared-Use Arrow) Pavement Marking Treatments		Bicycle/ Pedestrian Facility	N/A	\$5,951
CTP-BP-02	Spring Street and West Avenue - Jonesboro Bicycle Facilities: Apply Sharrows (Shared-Use Arrow) Pavement Marking Treatments		Bicycle/ Pedestrian Facility	N/A	\$11,902
CTP-BP-03	Phillips Drive - Lake City/Morrow Bicycle Facilities: Apply Sharrows (Shared-Use Arrow) Pavement Marking Treatments		Bicycle/ Pedestrian Facility	N/A	\$5,951
CTP-BP-04	Lovejoy Road - Lovejoy Bicycle Facilities: Apply Sharrows (Shared-Use Arrow) Pavement Marking Treatments		Bicycle/ Pedestrian Facility	N/A	\$5,951
CTP-BP-05	King Road - Riverdale Bicycle Facilities: Apply Sharrows (Shared-Use Arrow) Pavement Marking Treatments		Bicycle/ Pedestrian Facility	N/A	\$5,951
CTP-BP-06	Jesters Creek Greenway Extension - Design and Construct Blueways and Greenway Trails		Bicycle/ Pedestrian Facility	5	\$892,624
CTP-BP-07	Flint River Trail - Design and Construct Blueways and Greenway Trails	From HJIAA to Spalding County	Bicycle/ Pedestrian Facility	24	\$4,165,577
CTP-BP-08	Hurricane Creek Trail - Design and Construct Blueways and Greenway Trails		Bicycle/ Pedestrian Facility	4	\$714,099
CTP-BP-09	Panther Creek Trail - Design and Construct Blueways and Greenway Trails		Bicycle/ Pedestrian Facility	6	\$1,071,148
CTP-BU-01	Upper Riverdale Road over Flint River		Bridge Upgrade	N/A	\$4,483,351

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-BU-02	Battle Creek Road over Jesters Creek		Bridge Upgrade	N/A	\$4,483,351
CTP-BU-03	Huie Road over Jesters Creek Tributary		Bridge Upgrade	N/A	\$4,483,351
CTP-IT-05	SR 314 (West Fayetteville Road) - Install Fiber-Optic Trunk Line with Signal Communication Equipment and Closed-Circuit Television (CCTV) Cameras	From Riverdale Road to SR 138	ITS	5	\$1,531,742
CTP-RC-01	SR 314 (West Fayetteville Road) and I-85 new interchange - Include connections to existing I-85/I-285 interchange		Interchange Capacity	N/A	\$22,851,168
CTP-RC-02	SR 314 (West Fayetteville Road) - Widen from 2 to 4 lanes	From East Fayetteville Road to Fayette County line	General Purpose Roadway Capacity	2.8	\$35,823,966
CTP-RC-03	SR 54 (Fayetteville Road/Jonesboro Road) Extension - Design and Construct Extension around Jonesboro Road to the South	From US 19/41-SR 3 (Tara Boulevard) to SR 138	General Purpose Roadway Capacity	2.3	\$59,508,249
CTP-RO-01	US 19/41-SR 3 (Tara Boulevard) at North Avenue - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$66,649
CTP-RO-02	US 19/41-SR 3 (Tara Boulevard) at Sherwood Drive - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$59,984
CTP-RO-03	SR 139 (Riverdale Road) at Flat Shoals Road - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$59,556
CTP-RO-04	SR 331 (Forest Parkway) at SR 54 (Jonesboro Road) - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$66,649
CTP-RO-05	US 19/41-SR 3 (Tara Boulevard) at Upper Riverdale Road - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$66,649
CTP-RO-06	Upper Riverdale Road at Old Dixie Highway - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$59,984
CTP-RO-07	Conkle Road at Mount Zion Road/Mount Zion Boulevard - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$59,984
CTP-RO-08	SR 138 at I-675 South - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$66,649
CTP-RO-09	SR 138 at I-675 North - Safety Intersection Improvement		Roadway Operational Upgrades	N/A	\$66,649

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-RO-10	Forest Park Signal Upgrades (Phillips Drive at Reynolds Road and at South Avenue, Springdale Road at Whatley Drive) - Advanced Traffic Management System (ATMS) Signal Equipment Upgrades		Roadway Operational Upgrades	N/A	\$267,787
CTP-RO-11	Morrow Signal Upgrades (Morrow Road at Skylark Drive/Phillips Drive) - Advanced Traffic Management System (ATMS) Signal Equipment Upgrades		Roadway Operational Upgrades	N/A	\$89,262
CTP-RO-12	Mount Zion Road at Mount Zion Parkway - Intersection improvement		Roadway Operational Upgrades	N/A	\$66,649
CTP-RO-13	Upper Riverdale Road at Lamar Hutcheson Parkway - Intersection improvement		Roadway Operational Upgrades	N/A	\$66,649
CTP-RO-14	Mount Zion Road at South Lake Parkway - Intersection improvement		Roadway Operational Upgrades	N/A	\$66,649
CTP-RO-15	Aviation Boulevard at South Loop Road - Intersection improvement		Roadway Operational Upgrades	N/A	\$17,852
CTP-RO-16	Roberts Drive at Lamar Hutcheson Parkway - Intersection improvement		Roadway Operational Upgrades	N/A	\$59,984
CTP-RO-17	Upper Riverdale Road at Lees Mill Road - Intersection improvement		Roadway Operational Upgrades	N/A	\$17,852
CTP-RO-18	Mount Zion Boulevard at Maddox Road - Intersection improvement		Roadway Operational Upgrades	N/A	\$66,649
CTP-RO-19	Mount Zion Road at Mount Zion Circle - Intersection improvement		Roadway Operational Upgrades	N/A	\$59,984
CTP-TR-05	C-TRAN Administrative/Maintenance Facility	Central Clayton	Transit	N/A	\$5,950,825
CTP-TR-06	C-TRAN Paratransit Expansion	Countywide	Transit	N/A	\$357,049
CTP-TR-08	New C-TRAN Bus Service	Between Tradeport and Clayton County Justice Center via US 19/41-SR 3 (Tara Boulevard)	Transit	N/A	\$1,547,214
CTP-TR-09	C-TRAN Passenger Transfer Center		Transit	N/A	\$3,570,495
CTP-TR-10	New C-TRAN Shuttle Service	Between HJAlA and Riverdale via SR 314, Bethsaida Road	Transit	N/A	\$892,624

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-TR-11	New C-TRAN Shuttle Service	Between Southlake and Lovejoy via Jonesboro Road, US 19/41-SR 3 (Tara Boulevard)	Transit	N/A	\$892,624
CTP-TR-12	New C-TRAN Shuttle Service	Between Clayton State University and Southlake via Harper Drive/Rex Road, Mount Zion Boulevard	Transit	N/A	\$892,624
CTP-TR-13	C-TRAN Superstops	Farmers Market, Phoenix Boulevard/Sullivan Road, Mount Zion Road/Mount Zion Parkway, and SR 54 in Lake City	Transit	N/A	\$238,033
CTP-TR-16	SR 85 Queue Jumper Lanes for Arterial Bus Services at 2 Intersections	Install Queue Jumper Lanes for Congestion bypass	Transit	N/A	\$142,820
CTP-TR-17	Southern Crescent Transportation Service Center (SCTSC)	In Mountain View	Transit	N/A	\$10,711,485
CTP-TR-18	US 19/41-SR 3 (Tara Boulevard) Queue Jumper Lanes for Arterial Bus Services at 3 Intersections		Transit	N/A	\$214,230
CTP-TR-19	Transit Planning Board (TPB) Concept 3 Proposed Regional Transit Services - Arterial Rapid Bus Route Concepts	SCTSC to Newnan, Fayetteville, and Griffin	Transit	N/A	\$4,165,577
CTP-TR-20	Transit Planning Board (TPB) Concept 3 Proposed Regional Transit Services - Interstate Bus Rapid Transit (BRT) Concepts	I-75, I-675, I-285 (East to South Fulton and DeKalb Counties)	Transit	N/A	\$4,165,577
AR-H-050	I-75 South Managed Lanes - 4 lanes	From Aviation Boulevard to SR 54 (Jonesboro Road)	Managed Lanes (Auto/Bus)	6.4	\$149,337,000
AR-H-051	I-75 South Managed Lanes -4 lanes	From SR 54 (Jonesboro Road) in Clayton County to Eagles Landing Parkway in Henry County	Managed Lanes (Auto/Bus)	8.2	\$108,045,000
CL-004	Conley Road - Widen from 2 to 4 lanes	At I-285 South	Bridge Capacity	N/A	\$1,958,000
CL-005	SR 314 (West Fayetteville Road) - Widen from 2 to 4 lanes	From East Fayetteville Road to SR 139 (Riverdale Road)	General Purpose Roadway Capacity	1.9	\$34,509,400
CL-015	SR 85 - Widen from 4 to 6 lanes	From SR 279 (Old National Highway) in Fayette County to Roberts Drive in City of Riverdale	General Purpose Roadway Capacity	4.1	\$23,520,000

ARC or CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CL-064	US 23 - Widen from 2 to 4 lanes	From SR 138 (North Henry Boulevard/ Stockbridge Road) to I-675 in Clayton County	General Purpose Roadway Capacity	2.3	\$9,251,000
CL-074 (SPLOST 26)	Conley Road/Aviation Boulevard Extension - Widen from 2 to 4 lanes	From I-285 South to SR 54 (Jonesboro Road)	General Purpose Roadway Capacity	0.9	\$9,478,000
CL-101	Metro Arterial Connector – SR 920 (McDonough Road) - Widen from 2 to 4 lanes	From SR 54 (Jonesboro Road) in Fayette County to US 19/41 (Tara Boulevard) in Clayton County	General Purpose Roadway Capacity	5.8	\$45,573,400
CL-238	Godby Road - Widen from 2 to 4 lanes	From Southampton Road to SR 314 (West Fayetteville Road)	General Purpose Roadway Capacity	0.6	\$5,650,000
CL-239	Panola Road - Widen from 2 to 4 lanes	From Bouldercrest Road to Bailey Drive	General Purpose Roadway Capacity	1.2	\$10,000,000
CL-243	Valley Hill Road - Widen from 2 to 4 lanes	From Upper Riverdale Road to Battle Creek Road	General Purpose Roadway Capacity	2.3	\$17,460,800
CL-252	Valley Hill Road Bridge Replacement	At Flint River	Bridge Upgrade	0.04	\$4,250,000
CL-AR-179	I-285 Eastbound to I-75 Southbound Ramp Improvements		Interchange Upgrade	N/A	\$4,922,000
TOTAL					\$599,092,179

Table ES-3: Long-Range Projects

ARC/CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-RC-04	I-675 - Widen from 4 to 6 lanes, include modification of I-75/I-675 interchange in Henry County	From Panola Road in DeKalb County to I-75	General Purpose Roadway Capacity	5.6	\$67,460,747
CTP-RC-05	US 19/41-SR 3 (Tara Boulevard) - Develop 4-Lane, Grade-Separated Super Arterial, including Parallel Two-Lane Directional Access Roads with Sidewalks and Bicycle Lanes	From I-75 to SR 54	General Purpose Roadway Capacity	5.4	\$187,037,092
CTP-TR-14	New C-TRAN Shuttle Service	Between Riverdale and The Beach via SR 138	Transit	N/A	\$1,085,742
CTP-TR-15	New C-TRAN Shuttle Service	Between Tradeport and Ellenwood via SR 331, SR 42, Anvil Block Road	Transit	N/A	\$1,085,742

ARC/CTP Project Number	Description/Location	Endpoints	Project Type	Length (miles)	Estimated Total Cost
CTP-TR-21	Transit Planning Board (TPB) Concept 3 Proposed Regional Transit Services - Inter-County Suburban Route Concepts	Union City to Southlake (via Riverdale) Newnan to Stockbridge (via SR 138) Jonesboro to McDonough (via Lake Jodeco Road)	Transit	N/A	\$5,066,794
AR-506	North Airport Parkway - Widen from 4 to 6 lanes	From Riverdale Road to I-85 South	General Purpose Roadway Capacity	2.2	\$21,560,000
AR-511B	I-75/ Aviation Boulevard/ I-285 Interchange Reconstruction (includes managed lane ramps) – Phase 2		Interchange Capacity	N/A	\$60,000,000
AR-511C	I-75/ Aviation Boulevard/ I-285 Interchange Reconstruction (includes managed lane ramps) – Phase 3		Interchange Capacity	N/A	\$84,000,000
CL-012A	US 23 (Moreland Avenue) - Widen from 2 to 4 lanes	From Lake Harbin Road to Anvil Block Road	General Purpose Roadway Capacity	3.5	\$37,951,000
CL-012B	US 23 (Moreland Avenue) – Widen from 2 to 4 lanes	At Upton Creek	Bridge Capacity	N/A	\$637,000
Total					\$465,884,117

In addition to specific projects, the following recommended policies and programs have been identified for Clayton County.

Roadway Accessibility and Connectivity

As Clayton County implements development and redevelopment plans, local traffic needs in redevelopment areas, particularly around proposed commuter rail stations, will have to be addressed. Many of these development/redevelopment plans include proposals to address traffic impacts and ensure accessibility and connectivity. Traffic studies should be conducted to examine access issues around commuter rail stations, particularly in Jonesboro where there are already serious traffic problems in the downtown area. Redevelopment nodes, like Fort Gillem will require appropriate roadway infrastructure to support increased density. The future roadway accessibility and connectivity needs due to growth in the Panhandle must also be addressed. Traffic impact studies and/or DRI studies will be necessary to determine the transportation impacts and mitigation measures associated with future redevelopment.

Roadway Policy Recommendations

In addition to roadway capacity and connectivity project recommendations, suggested policy recommendations include:

- Ensure all projects incorporate the latest Intelligent Transportation Systems (ITS) technology infrastructure

- Require access management plans be developed as part of each arterial or major collector roadway widening or upgrade project concept development process
- Incorporate the concept of complete streets into planning, design and construction of all future roadways to ensure bicycle and pedestrian accommodation are included as appropriate. A complete street is designed to consider the array of potential modes and how each mode would use the street, with a balance struck between motorized and non-motorized modes.
- Incorporate guidelines or standards that recommend appropriate crossing facilities to include signage and striping for pathways as they cross at uncontrolled locations.
- Implement roadway guidelines to provide uniform specifications for local and residential roadways throughout the County.
- Implement a traffic calming policy for residential public streets to encourage and maintain lower vehicular speeds in residential areas.

Maintenance Policies and Strategies

An important element of a strong transportation system includes sustaining the existing network of roads. A more effective pavement management program will improve both pavement performance and the life-cycle costing of roadway resurfacing projects.

It is recommended that the County establish a pavement preservation and management program that emphasizes ongoing pavement maintenance, rather than allowing pavement to degrade to such an extent that it requires rehabilitation. As part of the CTP development process, Maintenance Guidelines have been proposed that outline current practices, evaluation and maintenance methods as well as maintenance goals and strategies to provide a basis for the establishment of a comprehensive asset management program.

Access Management Policies and Strategies

Clayton County is experiencing dynamic land development and it is essential to pursue access controls that achieve a balance between property access and the functional integrity, safety and capacity of the corridor. The goals are to increase safety, reduce delays and conflicts created by vehicles slowing, turning, merging and stopping to enter and exit major corridors. It is recommended that Clayton County develop access management standards and determine which facilities in the County are subject to those standards.

Freight

Recommendations for freight movement include both policies and programs and include:

- Develop a countywide truck network
- Preserve rail ROW for future expansion opportunities
- Develop access control along major corridors serving major commercial centers for delivery
- Conduct a comprehensive review of key intersections throughout the freight-intensive areas in the County to address issues ranging from signal timing to turning radii to stopping distance
- Preserve bridge system to maintain freight movement; and

- Improve at-grade rail crossings and intersections to facilitate truck freight movement and the implementation of commuter rail.

Transportation Demand Management (TDM)

TDM programs are targeted at reducing traffic congestion and air pollution through eliminating single occupancy vehicle trips or decreasing the length of these trips by providing commute options. Primary elements of a TDM program include carpooling, vanpooling, transit, biking and walking, teleworking, and flexible work schedules. Feedback from stakeholders and the general public suggests a need for more publicity of existing commuter support services and a broader application of transportation demand management (TDM) strategies for travelers in Clayton County. As part of the Atlanta air quality nonattainment area, Clayton County should continue to support and expand employer and resident participation in regional TDM programs to reduce traffic congestion and air pollution.

Aviation Planning

Tara Field can become an important facility to the County by encouraging businesses to locate close by and providing an alternate to HJAIA for the business travelers. Any future improvements should focus on positioning Tara Field as an economic development engine for the County and the surrounding area.

Transit Planning and Policy Recommendations

As the cost of fuel continues to increase and Clayton County continues to experience population growth and increased density, the need for transit service will become more prominent. The availability of viable transportation options will forge personal independence and make it possible for all citizens to thrive. The senior community, low-income and minority populations, and choice riders will all benefit from the increased availability of public transit. CTP transit recommendations include the following:

- Countywide paratransit expansion
- C-TRAN Passenger Transfer Center Site Plan
- C-TRAN Superstop Site Plan
- C-TRAN Administrative/Maintenance Facility Site Plan
- Queue Jumper Lane Suitability Analyses
- Local public/private partnerships to establish town center circulators and connectors
- Transit-Oriented Development (TOD) Coordination
- C-TRAN Enhanced Marketing, Outreach, and Partnerships

Bicycle/Pedestrian Policy Recommendations

As Clayton County transitions from suburban to urban development, more non-motorized mode transportation facilities are both desired and needed. A number of policies were identified to underscore the importance of pedestrian and bicycle facilities in planning for development. To meet the need for pedestrian infrastructure, the plan recommends adopting a pedestrian facility improvement program with a focus on priority areas and implementation of the following policies and practices are recommended to support a multimodal, complete streets transportation system within the County:

- Adopt design standards for pedestrian and bicycle facilities within the development regulations to complement roadway classification designations.
- Establish standards for pedestrian and bicycle-friendly crosswalks, detection and signals, signing, and other amenities such as seating, lighting, or trash receptacles, where applicable.
- Require that new developments and subdivisions address pedestrian and bicycle circulation needs as they would vehicular traffic impacts.
- Eliminate barriers to non-motorized travel by encouraging direct, off-street pedestrian and bicycle connections between residential developments and local community destinations such as schools, playgrounds, parks, shopping centers, transportation facilities, or other community facilities.
- Encourage development of street networks that have shorter block lengths (500 to 700 feet) and minimize use of cul-de-sacs to support pedestrian connectivity.
- At activity centers and along development corridors, require development of secondary internal street network.
- Establish intra- and inter-departmental coordination procedures with the parks and recreation department and Clayton County Public School system to review pedestrian and bicycle sidewalk projects.

Emergency Evacuation Preparedness

In order to prepare adequately for emergency evacuation, a comprehensive hazard risk assessment should be undertaken. The risk assessment can be used to identify potential manmade and natural hazards and identify relative risks related to each. In that way, a more specific evacuation plan can be developed for the high risk areas of Clayton County.

Land Use Policies and Strategies

Clayton County's projected growth will require continuous investment in transportation facilities to meet the needs of the community, particularly if the County is seeking to encourage economic development and broaden its tax base through a proportional mix of residential, commercial, and industrial land uses. The following land use strategies and policies are recommended to enable Clayton County to begin to coordinate land use development with transportation system preservation while promoting economic development and redevelopment opportunities inside its borders.

- Continue partnerships with development community to enhance infrastructure
- Continue to direct new population and employment into designated redevelopment zones and promote density-intensive mixed-use developments
- Designate key strategic corridors as "redevelopment corridors"
- Create a joint cities-county review committee
- Implement an aggressive sidewalk plan and establish special pedestrian districts
- Establish an ordinance for transfer of development rights
- Preserve ROW for future transportation improvements
- Pursue transportation impact fee program

Plan Implementation

One-half of the implementation equation is funding. The other half is timing or phasing of projects. Public funding generally comes from three sources: federal, state and local. To achieve implementation, the local, state and federal governments must possess the financial capacity to pay for these projects. The Capital Improvement Plan (CIP) is provided to help ensure that funds are adequately budgeted for strategically phased improvements. Additionally, the CIP can position Clayton County to actively pursue limited transportation funding currently available in the Atlanta region by having a prioritized list ready for submission to regional and state agencies such as ARC and GDOT.

An array of possible funding sources for capital projects are identified in the CIP. Assessments regarding feasibility for project-level financing were based on historical trends in overall revenues and intergovernmental allocations. Both the CTP Implementation Plan and the CIP present capital cost estimates as inflated costs based on the estimated year of expenditure, as SPLOST and RTP costs are already produced in this manner.

A total of approximately \$1.6 billion is estimated in the Capital Improvement Plan as summarized in Tables ES-4 and ES-5. A total of \$552 million in CTP-recommended projects are represented within the \$1.6 billion figure. Figures ES-1 through ES-3 illustrate the breakdown of costs by funding source and priority.

**Table ES - 4:
Project Capital Costs by CTP Milestone Period**

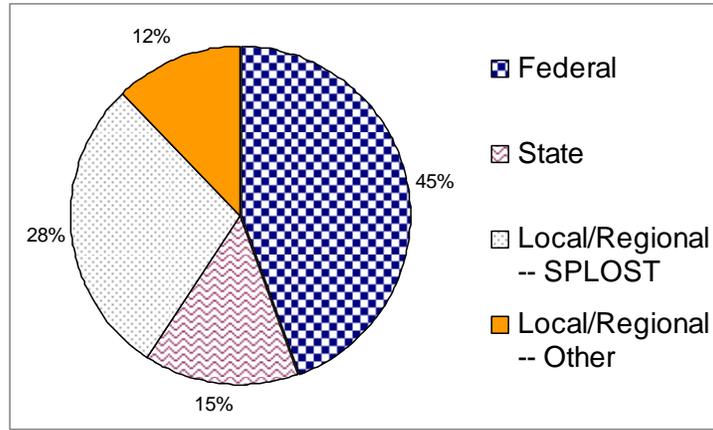
CTP Milestone Period (Year of Expenditure)	Total Costs
Critical (2009-2013)	\$476,950,429
Moderate (2014-2018)	\$569,969,315
Long Range (2019-2030)	\$601,200,517
TOTAL Capital Costs	\$1,648,120,260

**Table ES-5:
Capital Funding by Source Type**

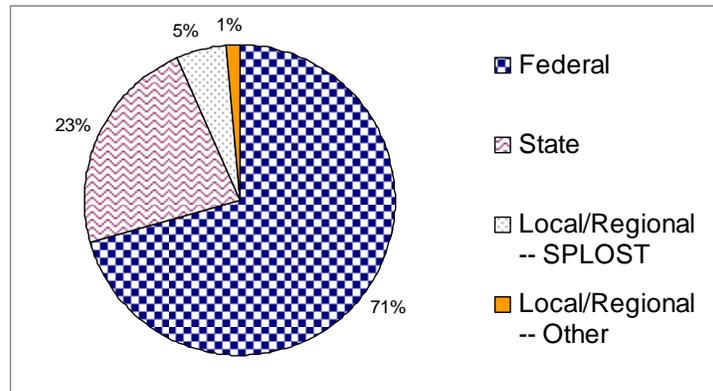
	Federal	State	Local/Regional	Total Revenues
RTP/TIP Projects	\$519,027,594	\$233,238,145	\$237,955,041	\$ 990,220,780
SPLOST 2008 Projects*	\$0	\$0	\$105,481,000	\$ 105,481,000
CTP Projects	\$412,888,135	\$68,009,841	\$34,241,442	\$ 552,418,480
TOTAL Capital Costs	\$931,915,729	\$301,247,986	\$377,677,483	\$1,648,120,260

* not including SPLOST Program Management fees, or SPLOST funds matching RTP-TIP projects

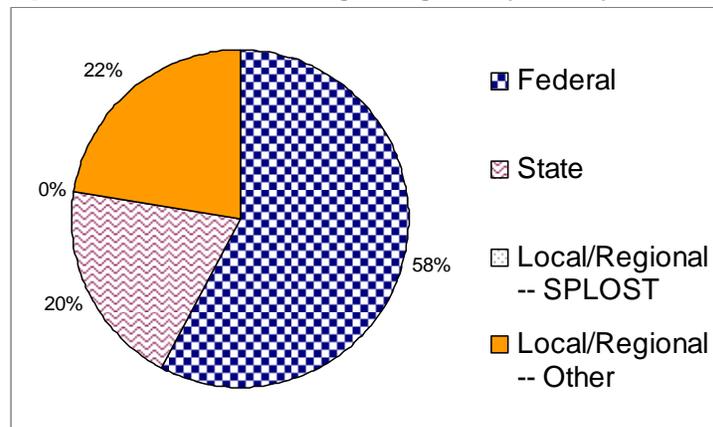
**Figure ES-1:
Capital Improvement Plan – Critical Projects by Funding Source**



**Figure ES-2:
Capital Improvement Plan – Moderate Projects by Funding Source**



**Figure ES- 3:
Capital Improvement Plan – Long Range Projects by Funding Source**



The critical phase of the CIP reflects the expenditure of local dollars to accelerate projects of significant community interest. In particular, the inclusion of 48 CTP-recommended pedestrian projects (approximately \$11.0 million) to serve multiple community needs and the addressing of demand for commuter rail service in this phase results in a need for supplemental SPLOST support (estimated at \$9.7 million) or the alternative application of General Fund or other revenues at the city, county, and regional levels.

The moderate phase of the CIP employs more significant levels of federal as well as state assistance, leveraging the use of new and traditional federal funding streams and state financing via bonds and State Transportation Infrastructure Bank (STIB) loans to support projects of local, regional, state and national significance. More than 94 percent of project funding needs during this phase are to be supported with Federal and State financing, as compared with 60 percent of projects to be financed during the preceding phase. The level of Federal funding support during this period will depend heavily upon the provisions of upcoming surface transportation reauthorization legislation and the results of regional project prioritization during the metropolitan planning process. This phase includes \$394.8 million in project funds already programmed in the *Envision6* TIP for expenditure between FY 2009 and FY 2014.

There are a relatively small number of CTP-recommended projects in the long range phase of the CIP, which is typified by higher-expenditure regional roadway, bridge and interchange capacity improvements and several transit expansion projects. About \$339.5 million of these funds are currently supporting projects in the financially-constrained *Envision6* RTP. Assuming there is no SPLOST as a funding source during the long-range phase, a greater variety of state and local funding sources will be necessary to support implementation of CTP-recommended projects.

Three additional funding scenarios were considered to provide insight on what may be completed based on available funds to the County.

- The unlimited funding scenario reflects the inclusion of all recommended strategies and policies, including roadway capacity and transit expansion projects assumed under the recommended 2030 High Growth redevelopment scenario.
- The limited funding scenario with one additional SPLOST funding period after the current SPLOST allows for the identification of projects which could be supported with one additional six-year SPLOST (FY 2015-2020), subject to approval by Clayton County voters in 2014.
- The limited funding scenario with no additional SPLOST funding period after the current SPLOST reflects the need to identify additional revenue sources for non-SPLOST and mid-term and long-term projects, upon the completion of financing for projects supported under the SPLOST approved via Clayton County referendum in 2008 (FY 2009-2014). No CTP recommended projects requiring SPLOST support could be funded under this scenario, unless revenues from alternative sources are identified during project development.



As demonstrated by the quickly changing needs of this ever growing county as well as responding to regional, state, and national trends, periodic review and update of the CTP will be needed to ensure the plan continues to meet the County's needs. The actions undertaken to implement the CTP in the near future will guide Clayton County to its 2030 vision and also affect future updates to the plan.

Ongoing plan activities include:

- Coordinating with ARC, GDOT, and GRTA to advance projects in future RTP updates;
- Ensuring projects are implemented in a logical sequence to maximize benefits and utilize scarce resources efficiently;
- Continuing intergovernmental coordination activities to ensure transportation projects, policies, and programs are compatible;
- Jointly reviewing county and municipal transportation needs periodically (every three to five years) to ensure projects are addressing needs; and
- Monitoring transportation program development to provide feedback to refine future improvements

1.0 Introduction

According to the U.S. Census Bureau, the year 2000 population of Clayton County was 236,517. The Census Bureau's estimate for 2006 was 271,240, reflecting a 14.7 percent increase in just six years. From 2000 to 2030, the County's population is projected by the Atlanta Regional Commission (ARC) to increase by 24 percent, with employment increasing by 30 percent between 2005 and 2030. The anticipated growth and development will require ongoing transportation investment to meet the needs of residents, employers, and the community at large.

To address long range transportation needs, the Clayton County Board of Commissioners, initiated a Comprehensive Transportation Plan (CTP) process in June 2007. The final Clayton County CTP was completed in September 2008 and adopted by the Clayton County Board of Commissioners in November 2008. The primary purpose of the Clayton County CTP has been to identify long-range transportation strategies, projects and programs to address anticipated multimodal needs and issues through the year 2030. By developing a locally-driven and supported CTP, Clayton County can strategically plan for the future and be well positioned within the context of larger regional and statewide planning and implementation programs.

The Clayton County CTP supplements and builds upon previous community planning studies. The *Clayton County Comprehensive Plan 2005-2025* addresses and coordinates, at a high level, all the essential functions of the County, including population, housing, economic development, community facilities, and services, natural and cultural resources, transportation, land use and intergovernmental coordination. In addition to the *Comprehensive Plan*, several community initiatives have been conducted, are planned or are underway in Clayton County. These initiatives include municipal comprehensive plans, Livable Centers Initiative (LCI) studies and redevelopment plans as well as regional or corridor transportation plans and projects. In order to ensure a comprehensive examination of Clayton County's current conditions and future needs, these initiatives were all considered as part of the CTP development process.

The Clayton County Department of Transportation and Development has managed development of the CTP. A consultant team, led by the consulting firm of URS Corporation was retained to provide technical guidance, support, and documentation of the process, with assistance from MPH and Associates, Inc., Turner Associates Inc., Joel F. Stone, Inc., D. Clark Harris, Inc.

1.1 Purpose

For the purposes of the study, the CTP study area encompasses Clayton County and its seven municipalities: Jonesboro (the County seat), College Park, Forest Park, Lake City, Lovejoy, Morrow, and Riverdale. The CTP study area extends beyond the County and includes an area five miles outside the County boundary in order to identify potential spill-over impacts from adjacent counties, as shown in Figure 1-1. The study team coordinated with adjacent jurisdictions and the regional planning body, ARC, to understand and incorporate transportation projects and development changes that could impact Clayton County. Potential projects and strategies identified in this documentation are intended to help address issues and needs identified during the CTP development process.



Figure 1-1:
CTP Study Area

The Clayton County CTP *Recommendations Report* presents a summary of activities and findings of long-range, multimodal transportation needs for the County. The *Recommendations Report* is the third of several technical documents for the CTP. The *Needs Assessment Report* preceded this document in January, 2008. The *Needs Assessment* was preceded by an *Inventory of Existing Conditions* prepared in September, 2007. Findings from these previous documents as well as feedback from community stakeholders and the general public guided and informed the process for strategy evaluation and recommendation.

1.2 Relationship with Regional Plans and Programs

Clayton County is one of numerous counties affected by transportation decisions in the growing Atlanta region. The Atlanta Regional Commission (ARC) is the federally recognized Metropolitan Planning Organization (MPO) for all or parts of eighteen (18) counties in the Atlanta urbanized area. This CTP is developed with regional support from the ARC's County Comprehensive Transportation Plan Assistance Program. Through this program, ARC expects the CTP to identify county-level priorities which form the basis for future local government funding submittals in the ARC Transportation Improvement Program (TIP). Covering six fiscal years, the TIP is a near-term subset of the long-range Regional Transportation Plan (RTP), which is updated every four years and must be financially constrained while demonstrating conformity with federal air quality standards. Information regarding the current RTP, called the *Envision 6* plan, and the *Envision 6* TIP is available from the ARC's website at <http://www.atlantaregional.com>.

ARC's evaluation of future requests for transportation funding through the RTP and TIP will include assessments of consistency between proposed projects, the adopted CTP, and local city and county comprehensive plans. Goals and proposed initiatives identified as part of these comprehensive plans pertaining to transportation, land use and economic development were key factors in the identification of existing conditions and the assessment of community needs. Similar to the comprehensive plans, the CTP is based on commonly shared community-level visions and goals expressed by citizens and leaders in both unincorporated and incorporated parts of the County.

The recommended strategies and policies contained within this CTP are to address the interrelationship between land use and transportation decisions at the community and regional levels. The ARC intends for the CTP to consider the ability of recommended projects to support local and regional land use plans, including the ARC's Unified Growth Policies map, implementation plans from numerous ARC-sponsored Livable Centers Initiatives (LCIs) and policies and initiatives identified through the various city and county comprehensive plans. A critical element of the CTP is the identification of land use policies and actions which are supportive of recommended CTP transportation strategies. Continuous coordination between county and city leaders and staff is crucial to the effectiveness of the implementation of the CTP.

1.3 Study Documentation

The CTP planning process included documentation for major task milestones, and collectively, all documents are a part of the CTP. This report serves as final documentation for the study and includes the long-range multimodal recommendations for Clayton County. The recommendations include specific transportation projects, a project implementation program

and policy statements to direct future transportation improvements. Other technical memoranda and project documentation that are included by reference for the CTP include the following.

- **Public Involvement Plan** – The *Public Involvement Plan* identified and directed the community outreach activities and meetings for the duration of the CTP planning process.
- **Stakeholder Interview Summary** – The *Stakeholder Interview Summary* provided the compilation of comments received through one-on-one stakeholder interviews conducted for the CTP. Twenty-six Clayton County stakeholders, including appointed and elected officials, agency representatives, and community leaders were interviewed about transportation related needs and issues facing Clayton County.
- **Existing Conditions Inventory** – The *Existing Conditions Inventory* provided a thorough inventory of baseline conditions in Clayton County. All transportation modes were reviewed and documented as were land use, development, and environmental conditions. Existing programs and plans were identified and summarized.
- **Needs Assessment Report** – The *Needs Assessment Report* documented existing and long-range multimodal transportation needs for Clayton County. Assessment areas included roadway mobility, connectivity, safety, and system preservation and maintenance; rail and over-the-road freight needs; bicycle and pedestrian facility needs as well as aviation and transit needs. This report included detailed findings of future travel needs identified using the ARC regional travel demand model.
- **Model Modification Documentation** – The *Model Modification Documentation* provided an overview of how the ARC travel demand model was adapted for use in the CTP process. This report discusses model refinement, validation, and output results.

1.4 Report Organization

The Clayton County CTP final report is organized as follows. Section 2.0 presents an overview of activities conducted to complete the plan. Section 3.0 outlines the evaluation framework for plan development including a purpose statement, transportation vision, goals and objectives. Section 4.0 discusses major needs and issues identified through the needs assessment phase and potential improvement strategies. Section 5.0 summarizes how projects were identified, screened and selected. Section 6.0 presents project and policy recommendations. Finally, Section 7.0 contains the phased implementation program, which includes a schedule of projects and financial plan. The supplementary plan documentation with all appendices has been developed in an electronic format. This documentation is available upon request from the Clayton County Department of Transportation and Development.

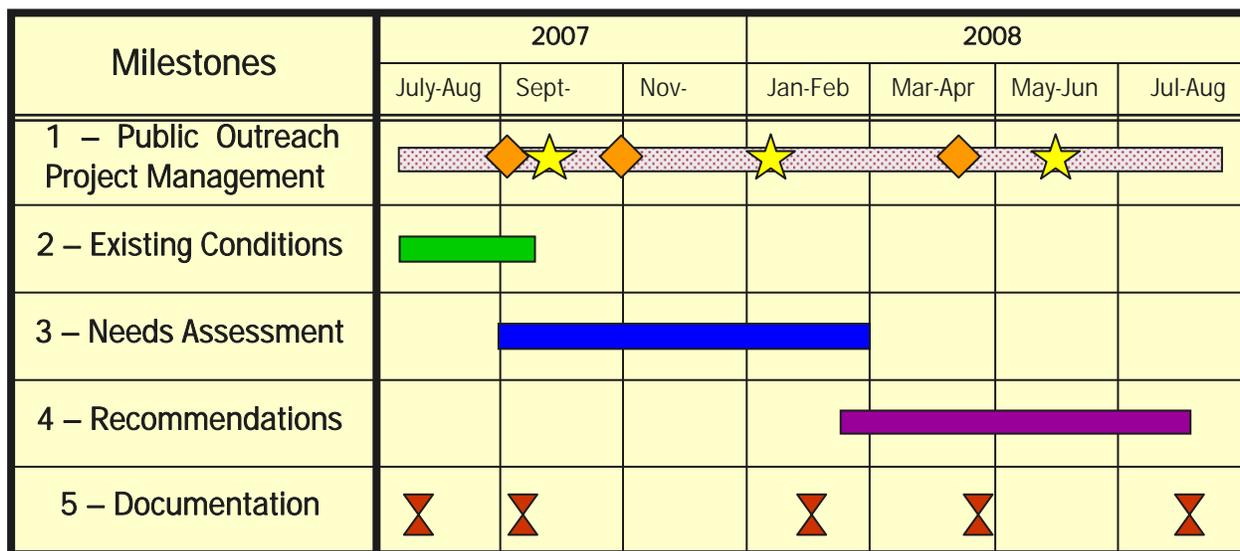
2.0 Plan Development

The Clayton County CTP followed an integrated planning process combining both technical analysis and qualitative input into a series of tasks designed to provide a comprehensive assessment of existing and future needs. The process resulted in the development of long range strategies and projects to address identified needs. This section provides an overview of major plan activities, including data collection and system inventory, community involvement and travel demand model development.

2.1 Planning Process Overview

The Clayton County CTP study process was divided into five major tasks: project management and stakeholder/public outreach, existing conditions inventory, needs assessment, recommendations, and final plan documentation. The study schedule was approximately 14 months, extending from June 2007 through August 2008. Major tasks and milestones are illustrated in Figure 2-1.

**Figure 2-1:
CTP Tasks and Schedule**



Legend



- Major Deliverable



- Public Outreach



- TSC/SAC Meeting

As shown in the schedule, public outreach activities occurred throughout the study, while the technical tasks are divided by activity. A thoroughly integrated planning process resulted in a technical assessment producing information for community review and community input, which guided the direction of the process. The primary benefit of a dynamic planning process, informed by community input, is that the final recommendations address community needs and are prioritized accordingly. The specific activities and approach for community involvement and technical assessment are described in this section.

2.2 Community Involvement and Outreach

MPH and Associates, Inc. directed the CTP outreach process, which was guided by a Stakeholder and Public Involvement Plan (SPIP). The SPIP identified strategies for engaging community-wide input into the process as well as a schedule of specific outreach activities. Community involvement activities utilized during the CTP included development of a Technical Study Committee (TSC) and a Stakeholder Advisory Committee (SAC), stakeholder interviews, community outreach events, and general public information meetings. Information regarding the CTP was disseminated through a project website hosted on the County's website and through the periodic distribution of a continuously updated project fact sheet. A description and summary of public outreach activities undertaken throughout the CTP development process is provided in the following sections. Additional detailed documentation of public outreach activities and documentation is included in Appendix A.

2.2.1 Public Involvement Plan

Stakeholder and public involvement is an essential component of any successful planning process and was actively utilized throughout the development of the Clayton County CTP. A *Stakeholder and Public Involvement Plan* (SPIP) was developed and followed throughout the process to ensure a continuing, comprehensive and cooperative planning process. The effort was designed to involve stakeholder agencies and the public as participants to enable them to provide meaningful input to the CTP development. The plan strived to establish new forums for information exchange while also taking advantage of existing groups and organizations. Outreach efforts were aimed to educate, inform and involve the stakeholders and general public by providing findings and soliciting input regarding local issues, technical considerations, and potential impacts of improvements to the transportation system. The plan provided tools for both disseminating study-related information and gathering public input that reflects community concerns and interests. Generating public awareness and creating partnerships with residents, elected officials, local agencies, businesses, educational organizations and civic associations was critical to the successful development of the CTP.

The goals outlined in the Clayton County SPIP are to:

- Consult with community stakeholders and gather their ideas for solutions to transportation problems.
- Inform and involve the public throughout the process.
- Respond to the public's request for information and ongoing involvement.

2.2.2 Local and Regional Coordination

Several jurisdictions and departments were involved in the development of the CTP, including the Clayton County Board of Commissioners, C-TRAN, local municipalities, the ARC, Georgia Department of Transportation (GDOT) and the Planning and Zoning and Engineering Departments for local jurisdictions and agencies. To ensure effective local and regional coordination throughout the process, two key groups were established: a Technical Study Committee and a Stakeholder Advisory Committee.

2.2.3 Technical Study Committee

Development of the Clayton County CTP involved a number of federal, state, and local agencies responsible for the formulation of policies and implementation with respect to transportation projects. In order to ensure technical coordination, the Technical Study Committee (TSC) was convened to provide overall direction and guidance throughout the planning process. Coordination efforts with these various agencies included reviewing technical materials, identifying key needs and opportunities, reviewing potential solutions to transportation system needs, and providing input regarding measures necessary for successful implementation of the plan’s recommendations. Table 2-1 outlines each TSC meeting held throughout the process.

**Table 2-1:
CTP Technical Study Committee Meetings**

Purpose	Date	Location
Kickoff Meeting; Review Existing Conditions/Needs/Deficiencies	August 29, 2007	Jim Huie Recreation Center
Review Preliminary Needs, Goals, and Objectives	October 23, 2007	International Park
Review Assessment of Current and Future Needs	February 13, 2008	Jim Huie Recreation Center
Review Methodology for Development of Improvement Alternatives and Strategies to be Evaluated	April 1, 2008	Clayton County Police Department
Review Study Recommendations	July 30, 2008	Jim Huie Recreation Center

2.2.4 Stakeholder Advisory Committee

An essential component of the planning process was the development of a Stakeholder Advisory Committee (SAC) comprised of elected officials, transportation, environmental, civic, and business organizations, residents and property owners, transportation providers, environmental justice organizations, and other interested groups and individuals as identified through the outreach process or as interest was shown during plan development. The SAC met regularly throughout the study and was helpful in disseminating information about the study. Table 2-2 outlines the date and purpose of each SAC meeting held throughout the process.

**Table 2-2:
CTP Stakeholder Advisory Committee Meetings**

Purpose	Date	Location
Kickoff Meeting; Review Existing Conditions/Needs/Deficiencies	September 6, 2007	Jim Huie Recreation Center
Review Preliminary Needs, Goals, and Objectives	October 30, 2007	International Park
Review Methodology for Development of Improvement Alternatives and Strategies to be Evaluated	April 1, 2008	Clayton County Police Department
Review Study Recommendations	July 30, 2008	Jim Huie Recreation Center

2.2.5 Stakeholder Interviews

Stakeholders were selected for one-on-one interviews by the study team to gain information in the areas of government coordination, roadway needs, multimodal needs, and land use. The interviewees included County elected officials, area agency staff, municipal staff and elected officials, business leaders, chambers of commerce representatives, and civic organization representatives. The format for interviews varied, depending on the availability of interviewees. Where face-to-face interviews were not feasible, other interview methods included an email/fax back survey or telephone interviews. Interviews with key stakeholders were conducted at the onset of the study. Information gathered was utilized during the development of the existing conditions and needs assessment elements of the study.

2.2.6 Public Meetings

Two rounds of public meetings were scheduled during the plan development process. The public meetings were conducted in four locations during each round with one meeting held in each commission district. A Powerpoint Presentation was given at each meeting and display boards with study data were available for public review. Informational materials and comment forms were utilized to educate the public and to solicit feedback on plan development. The first round of meetings included a review of existing conditions, needs, and deficiencies and was held in the fall of 2007 and the second round of meetings focused on draft improvement recommendations was conducted in spring 2008. Table 2-3 outlines details of the two rounds of public meetings.

**Table 2-3:
Clayton County CTP Public Meetings**

Purpose	Date	Location	Attendees
Existing Conditions Review and Identification of Needs and Deficiencies	September 27, 2007	Virginia Burton Gray Center; Riverdale	5
Existing Conditions Review and Identification of Needs and Deficiencies	September 24, 2007	Jonesboro High School; Jonesboro	3
Existing Conditions Review and Identification of Needs and Deficiencies	October 1, 2007	Carl Rhodenizer Recreation Center; Rex	13
Existing Conditions Review and Identification of Needs and Deficiencies	October 2, 2007	Lovejoy Middle School; Lovejoy	9
Review of Draft Improvement Recommendations	May 15, 2008	Virginia Burton Gray Center; Riverdale	7
Review of Draft Improvement Recommendations	May 19, 2008	Carl Rhodenizer Recreation Center; Rex	8
Review of Draft Improvement Recommendations	May 20, 2008	Lovejoy Middle School; Lovejoy	6
Review of Draft Improvement Recommendations	May 22, 2008	Jim Huie Recreation Center, Jonesboro	11

2.2.7 Additional Public Outreach Activities

In addition to the two rounds of public meetings, the study team conducted additional outreach by holding public events, distributing study information, and delivering presentations to civic organizations in Clayton County. The purpose of these various events was to provide additional opportunities for Clayton County citizens to learn about the study process and provide input. Table 2-4 lists the additional outreach activities held throughout Clayton County.

The public involvement approach also took advantage of governmental organizational processes already in place, including the ARC’s Public Involvement Advisory Group (PIAG), to disseminate information and encourage public participation.

**Table 2-4:
Clayton County Public Outreach Activities**

Event	Date	Location	Attendees
Clayton Countywide Homeowners Associating Meeting Presentation	October 23, 2007	Archives Building, Morrow	Over 100
Connecting Clayton Day	November 17, 2007	Atlanta State Farmers Market, Forest Park	75
Connecting Clayton Day	December 8, 2007	Wal-Mart in Lovejoy and Morrow	450
Chamber of Commerce Early Bird Breakfast Presentation	January 24, 2008	Clayton State University, Morrow	60
Carl Rhodenizer Recreation Center Open House	April 12, 2008	Carl Rhodenizer Recreation Center, Rex	75
Forest Park Business Coalition Meeting	April 15, 2008	Forest Park	50
Clean Air Campaign Transportation Meeting	April 17, 2008	Tradeport, Morrow	40
Clayton State University Earth Day Celebration	April 22, 2008	Clayton State University, Morrow	30
May Fest for Clayton County Senior Citizens	May 16, 2008	International Park, Jonesboro	25

2.2.8 Focus Group Meetings

Minority and underserved populations are not usually well represented at traditional public outreach meetings. Gathering these citizens together to learn about their needs is very desirable in the development of a truly comprehensive plan. In order to reach the diverse citizen population in Clayton County, two focus groups comprised of citizens of Clayton County were conducted. The first focus group was targeted toward traditionally underserved community members and the second focus group was targeted to reach the Hispanic population.

The first focus group meeting was conducted on Saturday, December 8, 2007 from 10:00 a.m. to 12:00 p.m. at the Jim Huie Recreational Center and Steve Lundquist Aquatic Center, 9045 Tara Boulevard in Jonesboro, GA. A total of 19 people attended the focus group meeting.

A stipend of \$20 was offered as an incentive to encourage participation and focus group participants were sought from throughout the County with target representation from the following groups:

- Senior Citizens
- High School Students
- Clayton County School employees
- College Students
- Apartment Complex Residents
- C-TRAN Riders
- Low Income citizens
- Minority groups
- Southern Regional Medical Center employees
- Southlake Mall employees
- Other large employers
- Civic Associations representing underserved populations
- Other groups as identified

The project team made efforts to recruit 15-20 participants for the focus group through the following advertising/recruitment mechanisms:

- Telephone calls to local churches
- Telephone call to DFCS
- Telephone call to Clayton County School Board
- E-mail to TSC members
- E-mail to SAC members
- E-mail to Clayton County Homeowner Association members
- E-mail to public meeting participants to date
- Flyers posted at libraries
- Telephone calls to Clayton State University
- Telephone call to Southern Regional Medical Center
- Telephone calls to other major employers
- Telephone calls to senior centers

The project team conducted a Hispanic Focus Group session on Saturday, May 17, 2008 from 10:00 a.m. to 12:00 p.m. at the Saint Philip Benizi Catholic Church, 591 Flint River Road, in Jonesboro, GA. A total of seven people participated in this small group meeting. A stipend of \$20 was also offered as an incentive to encourage participation and focus group participants were recruited through announcements and the distribution of flyers at churches with large Hispanic populations.

2.2.9 Study Website

The CTP website located at <http://www.co.clayton.ga.us/tnd/ctp> included information about the CTP development process and provided up to date information regarding stakeholder and public involvement opportunities. A count of visitors to the webpage at the end of the study process in September 2008 totaled 2,526 visitors.

2.3 Technical Approach

2.3.1 Data Collection and Inventory

Current, reliable, and accurate information and data provide the cornerstone for developing any plan. A thorough data collection effort was conducted to identify transportation system characteristics, travel patterns, planned projects, and issues. Data collected includes: roadway attributes, geometry, operations, and features; pedestrian and bicycle facilities; railroad information; transit services and utilization; land use; aerial photography; population and employment characteristics; and environmental conditions. Existing plans and studies from jurisdictions within the study area were also collected. Field surveys and reviews supplemented data and information collection. Existing data, studies and plans were reviewed and documented in the *Existing Conditions Inventory* to provide a basis for the study needs assessment, alternatives identification, and recommendations development. As much as possible, the inventory of data was incorporated into a Geographic Information System (GIS) database to support spatial analysis and feature mapping. Local information and insight was obtained through public and stakeholder involvement.

Transportation data collected included roadway characteristics, traffic control infrastructure, traffic volumes, bridge inventory, public transportation services, bicycle facilities, pedestrian facilities, rail and roadway freight data, and airport information. Socioeconomic and demographic data, existing and future land use and development data, planned developments of regional impact (DRIs) and other information framed the planning context. Existing data, studies and plans were reviewed and documented in the *Existing Conditions Inventory* to provide a basis for the study needs assessment, alternatives identification, and recommendations development.

One caveat should be noted. A majority of data collected for the CTP is from existing sources; so the reliability and accuracy of data is maintained by those sources. Field verification of specific data was limited. Therefore, recommendations within this document are supported with planning-level data. Table 2-5 summarizes the data collected along with data sources.

**Table 2-5:
Data Sources**

Category	Data/Information	Source
Roadway	ARC 20-County travel demand model	<ul style="list-style-type: none"> Atlanta Regional Commission (ARC)
	Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) Project Lists	<ul style="list-style-type: none"> Atlanta Regional Commission (ARC)
	Traffic Counts	<ul style="list-style-type: none"> Georgia Department of Transportation (GDOT) Clayton County
	Roadway Characteristics	<ul style="list-style-type: none"> GDOT Field Survey Clayton County
Safety	Historic Crash Data (2002-2005)	<ul style="list-style-type: none"> GDOT Clayton County
Transit	Utilization and Operations	<ul style="list-style-type: none"> Clayton County Transit (C-TRAN) GRTA
	Demographic and Socioeconomic Characteristics	<ul style="list-style-type: none"> U.S. Census (2000) ARC
Freight	Railroad Safety	<ul style="list-style-type: none"> Federal Railroad Administration
	Rail Usage and Volumes	<ul style="list-style-type: none"> CSX Transportation and Norfolk-Southern Corporation
Pedestrian/Bicycle	Facilities	<ul style="list-style-type: none"> Field Survey GDOT Jurisdictions (County, Cities)
Land Use/Development	Zoning and Land Use	<ul style="list-style-type: none"> Jurisdictions (County, Cities)
	New Developments	<ul style="list-style-type: none"> ARC Jurisdictions (County, Cities)
Market Characteristics	Socioeconomic and Demographic Characteristics	<ul style="list-style-type: none"> U.S. Census ARC
Environmental	Natural, Cultural, and Historic Features	<ul style="list-style-type: none"> U.S. Department of the Interior U.S. Environmental Protection Agency U.S. Fish and Wildlife Service Georgia Department of Natural Resources Jurisdictions (County, Cities)

2.3.2 Analysis Tools

Technical analysis tools used during the CTP development included the travel demand model, spatial analysis using GIS processing and statistical analysis. The travel demand model was used primarily to assess long-term roadway system capacity and future needs. Spatial analysis was used to perform much of the multimodal transportation assessment, particularly bicycle facility, pedestrian facility, transit, freight, and connectivity analyses. Statistical analysis was used to evaluate travel trends and conduct the safety assessment. Statistical methods are integrated into GIS analysis as well. One of the most important tools utilized was the ARC regional travel demand model. The following provides an overview of how the model was developed and utilized for the CTP study.

2.3.3 Travel Demand Model Assessment

The ARC travel demand model was used to determine existing and future transportation travel demands and establish future year transportation needs for Clayton County. The model used for this analysis represents the most accepted approach of projecting future transportation demand and evaluating investment strategies to serve projected demand and is required by ARC as part of the CTP process.

To better predict travel within Clayton County, ARC model inputs were modified to better reflect conditions within Clayton County. The primary modifications were increasing the number of traffic analysis zones (TAZs) and incorporating additional roadway network. The original model contained 62 TAZs; a number of TAZs were split into smaller geographic units, resulting in 107 TAZs. In addition, more roadway network was added to the model and the functional classification was reviewed and modified as necessary to reflect the appropriate conditions.

Overall, the model modifications resulted in a better performance of the model's predictive capabilities, measured by comparing model traffic predictions to actual traffic counts for the year 2005. The modified model resulted in traffic volume predictions that were overall within 0.1 percent of actual traffic volumes whereas the original model resulted in traffic predictions that were only within 1.7 percent of actual volumes. Likewise, model volumes were compared to traffic counts at several strategic crossing points, known as screenlines. In this analysis, the modified model's deviation was only 0.07 percent compared to 5.5 percent in the original model.

One of the strengths of a travel demand model is that it provides the capability to test alternative future scenarios. By changing the assumptions or inputs to the model, one can examine how the changes impact future travel demand and trip characteristics. For the needs assessment, several scenarios were tested focusing on funding allocation and subsequent ability to construct projects and different scenario years. Taken as a whole, these analyses indicated that the planned *Envision6* major capacity adding projects would improve transportation conditions in Clayton County, especially when compared to scenarios with limited project investment. A year 2030 *Envision6* project implementation scenario indicated that only major regional corridors passing through Clayton County (such as SR 85, I-75, I-675, I-285) would have conditions considered as degraded and even these corridors indicated some level of benefit (for instance, a planned HOV system on I-75 would benefit HOV users tremendously along that corridor).

With this in mind, the model based alternatives and recommendations were prepared and tested in a way that considered other funding and growth scenarios. From the funding side, all currently planned transportation projects, as well as project recommendations specifically developed in the CTP process were assigned a general prioritization. This prioritization was based not just on the model data observed in the needs assessment, but also considered stakeholder concerns and other forms of local knowledge. Although not necessarily intended to be an implementation prioritization, these prioritizations were listed as critical, moderate and long-range and formed the basis for scenario testing. Additionally, a land use driven scenario was developed in which future growth in Clayton County would be concentrated in strategic cluster areas. This 'redevelopment' scenario was also developed to include aggressive transit investment that would compliment the type of densities implied by the cluster areas.

As a result of these conceptualizations, a total of six additional model runs form the basis of the alternative recommendations:

- Year 2020 Critical Projects Only
- Year 2030 No-Build (developed so that all projects can be compared a 'no-build' scenario)
- Year 2030 Critical and Moderate Projects
- Year 2030 Critical, Moderate, and Long-Range Projects
- Year 2030 Critical Projects Only with Redevelopment Scenario
- Year 2030 Critical, Moderate, and Long-Range Projects with Redevelopment Scenario

A detailed description of the results and project assumptions for these scenarios is discussed in Section 5.2 of this report. Overall, the results of the analysis indicate that the combination of recommended projects would maintain and/or improve roadway and congestion conditions in Clayton County through the year 2030. The redevelopment scenario indicates some additional benefit, although limited and subtle, to the transportation system resulting from the additional transit and land use clustering assumed in that scenario.

3.0 CTP Purpose/Transportation Vision and Goals

An important step in the CTP process is the development of an evaluation framework. The evaluation framework provides the measures or thresholds by which to perform the needs assessment as well as assess potential improvements and prioritize program recommendations. The framework is based on the study purpose statement, overall transportation vision, and goals developed for the Clayton County CTP. The study purpose statement, vision and goals and objectives were established through coordination with the project's Technical Study Committee, Stakeholder Advisory Committee, County staff, and community. Goals established through previous planning processes were also reviewed.

3.1 Purpose Statement

The purpose statement is intended to define the core direction for plan implementation as well as the County's overall vision for the transportation system (what the plan should accomplish). The CTP purpose statement is as follows:

The Clayton County Comprehensive Transportation Plan will guide the development of a multimodal transportation system that ensures safe and efficient movement of people and goods, supports mobility and accessibility for all citizens, protects natural, historic and cultural resources, and has community and regional support. The system will support quality of life and economic development by providing improved public transportation, an expanded network of sidewalk and bicycle facilities as well as roadway improvements that reduce congestion and provide access to employment, schools, and other destinations. System management and operations will be strengthened through strategic investments that emphasize system preservation and maintenance, provide improvements within financial constraints, and are planned and coordinated with land use planning at the municipal, County, and regional levels.

3.2 Goals and Objectives

Goals and objectives direct actions to meet the long-range transportation needs of the community. They serve as the building blocks for crafting various alternatives as well as establishing the study's policy framework. Finally, they help to define the community's priorities and resources towards implementable and community-supported projects. Goals are intended to be broad and categorical. Objectives provide greater detail for each goal and generally contain statements of action. Seven overarching multimodal transportation goals have been identified for the CTP. Complementary objectives establish specific actions for each goal. The CTP goals and supporting objectives are summarized in Table 3-1.

**Table 3-1:
Clayton County CTP Goals and Objectives**

Goal	Objectives
Enhance and maintain transportation system to meet existing and future needs	<ul style="list-style-type: none"> • Develop a plan for transportation improvements that is affordable and implementable considering financial constraints • Ensure that structurally deficient bridges are improved and maintained • Implement operational improvements such as ITS, intersection improvements, striping, and signalization to improve system performance and safety • Provide for the proper maintenance of the existing system • Ensure that needs for all modes appropriate to a corridor are incorporated during improvement (complete streets) • Expand transit system to include Bus Rapid Transit (BRT)
Ensure the transportation system promotes and supports appropriate land use and development	<ul style="list-style-type: none"> • Maintain consistency with local comprehensive land use plans • Preserve right of way for future transportation facilities • Encourage more transit-oriented development • Provide transportation alternatives that are suited to, and supported by, existing and future land uses
Encourage and promote safety and security	<ul style="list-style-type: none"> • Identify safety concerns and improvements at intersections, railroad crossings, transit stops, for pedestrians and bicyclists, and along major roadways • Improve intersections that have the high crash rate history • Provide safe access from residential subdivisions to major roadways serving the subdivisions • Incorporate multimodal facilities into transportation planning • Increase public awareness on safety issues, and bring about changes in behavior that lead to a safer transportation system • Provide dedicated truck only lanes on the interstate system
Improve connectivity and accessibility	<ul style="list-style-type: none"> • Ensure that planned improvements incorporate reasonable access to downtown Atlanta, major employment centers, public land uses and recreation sites • Expand regional transit options to connect to areas outside of Clayton County • Expand transit routes to serve more of the County's population. • Improve access to Hartsfield-Jackson Atlanta International Airport • Improve amenities for alternative transportation • Improve system connectivity (sidewalks to bikeways to transit to roadways) to create a seamless intermodal network • Develop a partnership to establish and maintain a seamless integrated regional transit network • Ensure that planned improvements incorporate reasonable access to schools • Limit access on major corridors (limit driveway cuts, provide frontage roads, etc.) • Provide additional grade separations where major corridors intersect • Provide additional park and ride lots in strategic locations (connected to transit system)

Goal	Objectives
Enhance mobility for all users of the transportation system	<ul style="list-style-type: none"> • Designate routes to serve commuters while maintaining routes to serve local trips • Implement efficient routes to reduce travel time for work commutes • Identify freight movement corridors and develop improvements to accommodate freight movement • Relieve congestion for vehicles on the surface transportation system • Transportation programs and projects will serve the population equitably per geographic area, racially, and by serving the needs of all income levels.
Promote and support economic development and redevelopment	<ul style="list-style-type: none"> • Build transportation facilities near potential economic development areas • Provide a transportation system that supports economic development/redevelopment potential of disadvantaged communities • Support development of commuter rail through Clayton County and the region • Improve intermodal freight connectivity (roadways to railroads) to enhance freight movement • Protect the economic health in the downtown areas by ensuring that transportation improvements enhance, not harm, the character
Improve quality of life, preserve the environment, and protect neighborhood integrity	<ul style="list-style-type: none"> • Identify priority environmental resources and ensure their protection • Incorporate alternative modes that reduce negative air quality impacts • Minimize adverse community, historical, and environmental impacts during the planning and construction of transportation programs and projects • Preserve existing neighborhoods characteristics and aesthetics • Promote energy conservation in the future transportation system

3.3 Themes

During the CTP development process, key themes emerged that formed the basis for the approach to evaluate local and regional needs pertinent to the County’s transportation network. The six predominant themes are discussed below.

3.3.1 Safety

The presence of safety concerns within the transportation system can pose unforeseen risks to individual travelers, and result in negative impacts affecting multiple travelers in matters extending beyond merely transportation. Safety improvements seek to minimize and eliminate, where possible, the risks and impacts within a multimodal network where interactions among people and across modes are inevitable. Safety improvements also help to support the systemwide movement of evacuating people in the event of natural disasters.

3.3.2 Mobility

Supporting mobility involves the provision of transportation options, which are safe and efficient for people and goods to reach both essential and desirable locations. In Clayton County, mobility enhancements involve new infrastructure, operations and strategies relieving major points of traffic congestion, separating traffic streams for people and freight, and improving the quality and levels of service for all modes of travel.

3.3.3 Accessibility

An accessible transportation network promotes the ability of its users to depart from a point of origin and arrive conveniently and safely at a desired destination. In conjunction with safety, accessibility is one of the strongest determinants affecting the traveler's decision as to whether a particular trip will be taken.

To achieve accessibility, the path to a destination, supporting facilities along a journey, and the destination itself must be free of burdensome impediments to travel. Public investments can improve accessibility along paths of travel, at supporting facilities and at public venues, while public policies and regulations can guide private-sector accommodations for multimodal accessibility in development and redevelopment projects.

3.3.4 Connectivity

Connectivity improvements support mobility, accessibility and efficiency, through the provision of linkages to and between places of interest and through the improvement of system users' capacities to transfer between modes of travel. A well-connected system can effectively minimize travel times and distances, reducing the need for inefficient travel using motorized modes and producing localized benefits to air and water quality.

3.3.5 Efficiency

Pertaining to transportation at the system user level, measures of efficiency involve a determination of whether the expenditure of time, money, energy and resources is justifiable for the objective of completing a trip. Efficiency concerns extend to the countywide level when overall time savings and cost effectiveness factors are considered.

3.3.6 Preservation

Preservation is an integral factor in the provision of a sustainable transportation network. Decisions regarding investment in new transportation infrastructure over maintenance of existing infrastructure affect the cost effectiveness of the system. Decision making must also consider ways to move both people and goods in a manner while avoiding and minimizing impacts to the natural and built environments. Preservation concerns are critical in a county where developable land is as limited as ever before, set within a region where concerns related to air quality, water quality, and the availability of natural and financial resources are paramount.

4.0 Multimodal Needs

As previously stated, Clayton County's anticipated growth and development changes will impact future needs. The plan horizon for this CTP effort is 2030, and it is expected that Clayton County will continue to face significant challenges through 2030 due to the volume and type of growth occurring in the County. An overview of identified needs is provided in this section. A more detailed account of countywide needs is included in the *Needs Assessment Report*.

4.1 Demographic Trends

Changes in population and employment characteristics impact transportation needs. As noted in the *Inventory of Existing Conditions*, recent trends related to population, employment and commuting include the following:

- **Clayton County has experienced significant population growth.** According to the Census, between 1990 and 2006, the County's population increased by nearly 90,000 persons or 49 percent. The total population in 2006 was 271,240, compared to 235,520 in 2000 and 181,440 in 1990. The city of Riverdale grew the most between 2000 and 2006, adding over 3,000 new residents for a total population of 15,500, an increase of 24 percent.
- **Clayton County has a greater population in a smaller area as compared to other counties in the region.** Clayton County ranks 17 of 18 counties in the Atlanta Region Metropolitan Planning area for land area but ranks fifth in population. The population density in 2006 for the County was 2.97 persons per acre. This compares to an average population density of 1.4 persons per acre in the region.
- **Employment growth has remained steady.** According to the Georgia Department of Labor, total employment in the County increased from 84,900 in 1990 to 108,750 in 2005, a rate of 28 percent.
- **Total employment within the County has not kept pace with the increase in the number of workers.** The employment to labor force ratio has declined between 1990 and 2005 from 0.82 jobs per worker to 0.78 jobs per worker. This indicates more residents are traveling out of the County for work. In fact, in 2000, 62 percent of the working population left the County to work each day. This was a considerable increase over 1990, when just over half of workers commuted outside of the County. The greatest work destination for Clayton County commuters is Fulton County, followed by DeKalb and Cobb Counties.
- **Average commute times are on the increase.** In 2005, the average commute time for a Clayton County commuter was 31.7 minutes, compared to a statewide average of 27.2 minutes. This represents an increase of 7.7 minutes since 1990, when the average commute time was 24 minutes. The percent of commuters who experience travel times 45 or more minutes increased by 11 percentage points between 1990 and 2005, while the proportion of commuters traveling 30 minutes or less declined by 12 percentage points.

- **More commuters in Clayton County use public transportation or share rides than is found statewide.** The percent of drivers who drove alone to work decreased nearly three percent between 1990 and 2005, while taking public transportation to work has increased. Nearly 18 percent of Clayton County commuters used transit or participated in a carpool or vanpool on their way to and from work in 2005.

4.2 Summary of Multimodal Needs

Public outreach efforts during the CTP development process produced an extensive range of input from a diverse array of citizens, students, employees, and employers in Clayton County and from other stakeholders in the Atlanta region. Information gathered through this process and from numerous technical analyses has helped articulate specific needs for improvements to the coordinated transportation system. Detailed descriptions of these needs are provided as part of the *Needs Assessment Report*. A summary of these needs are provided below.

4.2.1 Safety

Essential safety needs identified through the CTP development process include the following:

- Identify effective and flexible approaches to relocate or evacuate people during manmade or natural hazard events.
- Mitigate the number of rear-end vehicular collisions as well as incidents at mid-block locations.
- Improve visibility and mitigate safety impacts during nighttime and dark conditions.
- Assess the adequacy and appropriateness of accommodations for left-turning traffic, particularly at mid-block locations, on high-speed arterial and collector roads.
- Provide pedestrian-supportive infrastructure and driver alert signage and signals along arterial locations with high likelihood of mid-block crossing pedestrian activity.
- Continue providing driver alert signage in the vicinity of recreational facilities and schools, and flashing signals during peak pedestrian travel periods.
- Improve bicycle safety and awareness for adolescents and teenagers, which represent a significant portion of the individuals involved in bicycle-related collisions in Clayton County.

4.2.2 Mobility

Key mobility needs identified during the CTP development process include the following:

- Address congested conditions along interstate highways during peak travel periods.
- Alleviate congestion along north-south arterials, particularly SR 85, Jonesboro Road south of I-75 through Main Street in Jonesboro, SR 54/Fayetteville Road, Fiedler Road, West Fayetteville Road, and the Tara Boulevard/US 19/41 corridor.
- Provide capacity enhancements and multimodal facility improvements along arterial corridors and at highway interchanges.
- Expand the limited range of options for east-west travel, particularly for cross-county mobility, particularly along thoroughfares such as SR 138, the SR 138 Spur, Flint River Road, McDonough Road, Valley Hill Road and Forest Parkway.

- Improve roadway and intersection levels of service in areas of high retail/commercial activity, such as the Atlanta State Farmers Market, Southlake Mall, big-box retail centers, automobile dealership corridors, and hospitality districts.
- Provide greater focus on mobility improvements addressing the vastly growing projected need for internal trips, particularly home-based work trips and internal freight movements.
- Stem the projected growth in single-occupant vehicle (SOV) travel by providing improved and practical options for non-SOV and non-motorized travel.
- Identify appropriate routes for over-the-road freight on County roads. Within this network of roads, address concerns regarding turning radii, roadway surface quality, lane widths, signage and traffic signal operations.
- Along key regional arterials such as Tara Boulevard/US 19/41, improve the balance among competing needs for regional throughput and local service delivery.
- Increase the degree of separation for freight vehicles from mixed-flow passenger traffic.
- Minimize total delay for roadway and rail traffic at at-grade crossings.

4.2.3 Accessibility

Key accessibility needs identified through the CTP development process include the following:

- Improve accessibility to allow residents, employees and visitors to reach common places of interest, particularly public schools, transit stops, city centers, and local recreational facilities.
- Remove impediments to both vehicular and pedestrian accessibility along major roadways with residential subdivisions, such as SR 85, and near activity centers such as the Southern Regional Medical Center on Garden Walk Boulevard, or the Clayton County Performing Arts Center on Mount Zion Parkway.
- Orient proposed subdivision street layouts in ways that minimize walking distances to pedestrian destinations and enhance inter-community connectivity.
- Improve the percentage of County population with access to transit services, including the existing C-TRAN and GRTA Xpress bus network, the C-TRAN paratransit service area, and proposed commuter rail stations.
- Enhance the abilities of residents requiring pedestrian and bicycle modes to reach transit services.
- Improve accessibility to transit and paratransit services for persons with disabilities.
- Orient buildings, pathways and on-site amenities at proposed developments to better connect with the bicycle/pedestrian network and nearby transit services.
- Improve the availability of information about the growing array of C-TRAN services, and improve information regarding parking availability in municipal centers.
- Improve access for traffic at current and proposed industrial centers to reach interstate highways, Hartsfield-Jackson Atlanta International Airport (HJIA), and regional rail freight centers.

4.2.4 Connectivity

Critical connectivity needs identified through the CTP development process include the following:

- Address demand for improved east-west travel options across the County.

- Improve multimodal options for inter-county connectivity.
- Improve the integration of C-TRAN and GRTA Xpress bus service operations, the future commuter rail service, and town-center parking.
- Improve connectivity among compatible adjacent uses.
- Fill in gaps where inter-community and inter-city connectivity is currently hampered by an incomplete or highly-congested multimodal roadway network.
- Better illustrate the suitability of existing roadways for bicycling, and the array of connections for bicycling to recreational facilities and other points of interest.
- Provide supportive facilities for bicycling (bicycle storage, restrooms).
- Improve connectivity and swift and efficient transitions for goods, between industrial centers, rail freight facilities and HJAIA cargo facilities.

4.2.5 Efficiency

Efficiency improvement needs identified through the CTP development process include the following:

- Expand capacity and efficiency of public transit services.
- Provide adequate pedestrian and bicycle facilities in the vicinity of local schools (within at least ¼ mile), improving service efficiencies for long-distance school bus routes by reducing the need for pickups at close ranges.
- Identify technology improvements to improve efficient freight movement, particularly for manufacturing, construction and the wholesale and retail industries.

4.2.6 Preservation

Needs relating to preservation identified through the CTP development process include the following:

- Reduce the life-cycle costs and frequencies of roadway maintenance and repair.
- Monitor and sustain bridge crossings over water features, and introduce life-cycle costing and financing measures for all bridge structures receiving serious, fair or satisfactory ratings from GDOT.
- Improve the coordination and balance between land use and transportation decision making practices.
- Orient development to support non-motorized travel needs while minimizing trip lengths for other motorized vehicle users.
- Offer transit services at scales commensurate with ridership demand generated as a result of commitments to more transit-oriented development practices.
- Guide street layouts for conservation subdivision and traditional neighborhood developments,
- Require adequate accommodations of right-of-way as part of redevelopment policies to support future multimodal corridor expansion.
- Improve the array of mobility options to access the County's various heritage and preservation tourism areas.
- Identify new greenway opportunities that integrate needs for pedestrian and bicycle travel with those for preservation of natural resources.

5.0 Alternatives Identification and Assessment

Following the assessment of current and future needs, multimodal improvement strategies and policies were identified for the Clayton County CTP. This section describes the process by which projects were assigned to various scenarios for screening and ultimately selected for inclusion in the recommended plan and implementation program (Sections 6.0 and 7.0). The model evaluation of various capacity-adding projects is discussed.

5.1 Project Identification and Review

Given highly defined needs for transportation improvements and limited funding availability for immediate and long-term implementation, priorities must be established that phase recommended investments in a manner that address the goals, themes, and needs relating to transportation in Clayton County and best reflects local and regional interests.

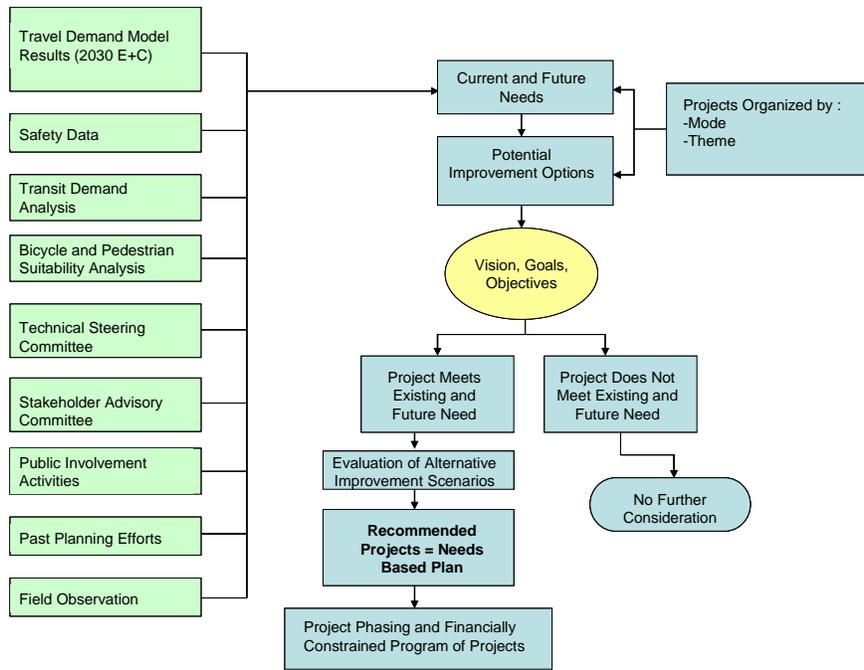
The CTP vision and goals provided the framework for identifying potential projects and strategies to address current and future transportation needs for Clayton County and its municipalities. The *Existing Conditions Inventory* and the *Needs Assessment Report* provided the supporting information and technical analysis for project identification and evaluation of alternatives. Extensive community input from county and city staff, local stakeholders and the general public was received and reviewed. Projects listed in existing regional and local plans were also incorporated. The screening factors utilized for prioritizing projects for the final CTP and Implementation Program included:

- Concurrence with the County's transportation vision, goals, and objectives
- Providing increased mobility, accessibility, connectivity and safety and access for the greatest population and employment growth areas
- Supports the preservation and efficiency of existing infrastructure
- Ease of implementation
- Potential environmental constraints

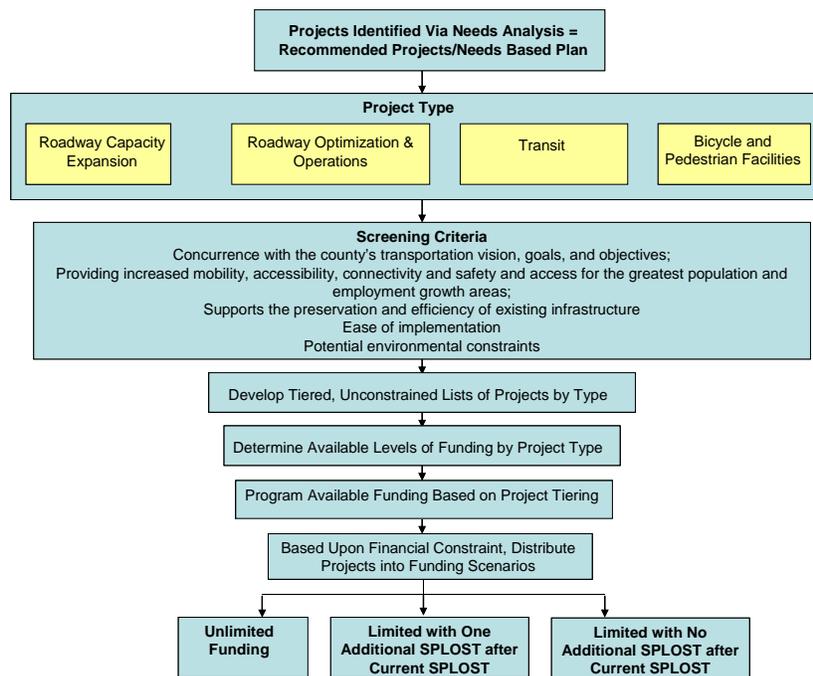
The process employed to develop the initial list of recommended improvement projects and policies is summarized in Figure 5-1.

Figure 5-2 describes the more refined project evaluation process. The result of this process is an Implementation Program with a prioritized set of recommended CTP projects and a Capital Improvement Program that is feasible, publicly-supported, fundable, and sustainable through the course of the planning horizon.

**Figure 5-1:
Project Identification Process**



**Figure 5-2:
Project Prioritization Process**



5.2 Development of Alternative Scenarios

Through the implementation of the CTP technical approach and the public and stakeholder involvement process, an array of strategies have been identified to help address the goals, themes, and needs relating to transportation in Clayton County and the Atlanta region.

However, full project implementation is constrained in two key respects. The first constraint relates to capacity expansion via right-of-way acquisition in a county with a virtual absence of developable land. Community emphasis on infill development, community cohesion and greenspace preservation must be incorporated into the set of selected CTP strategies and emboldened by CTP-recommended policies. The second constraint involves limited available financial resources, at all levels of government, for financing capital-intensive projects. Strategies and policies supporting the efficient management of assets and cost-effective, sustainable operations will minimize the financial impacts of recommended CTP capital investments on state and municipal governments.

In recognition of these constraints, a two-tiered scenario development process first assesses the impacts of alternative transportation and land use policies on congestion and mobility. The process then assesses, as part of the implementation plan development, the effect of funding constraints using assumptions of SPLOST funding availability to support estimated project costs.

In the first tier of the scenario development process, the ARC regional travel demand model was used as the main analysis tool for assessing major roadway capacity adding projects while providing information for the transit system performance evaluation. The assessment used several different performance measures to test the relative success of each project's ability to reduce congestion. The primary measures used were:

- Level of Service
- Prioritization Measures
- Transit Demand Analysis

These measurements were assessed through the evaluation of six different scenarios, unique to the alternative's assessment. The scenarios tested were based on different conceptualizations of proposed projects and their relative priority which were separated into three main categories: critical, moderate, and long-range. This prioritization was based on the needs assessment analysis, stakeholder concerns, and local knowledge and should not be confused with ARC's actual project prioritization as already determined through the *Envision6* process. The project assumptions for each scenario are provided in Tables 5-1 through 5-3. Projects beginning with the prefix "CTP" were identified through this planning process. The other projects are currently included in the ARC *Envision6 RTP*. More detailed descriptions of the project assumptions, project limits, and recommendations are provided in Section 6.1.

The **2005 Baseline** scenario reflects the existing transportation system and is based on currently available data regarding travel patterns and traffic counts.

Table 5-1:
Travel Demand Model *Envision6* Project Assessment Scenario Assumptions

[Table 5-2:](#)
[Travel Demand Model Roadway CTP Project Assessment Scenario Assumptions](#)

[Table 5-3:](#)
[Travel Demand Model Transit Project Assessment Scenario Assumptions](#)

The **2020 Critical** scenario adds to the Baseline scenario roadway capacity projects currently included in the *Envision 6* TIP, roadway capacity projects in the *Envision 6* RTP with committed funding through Year 2020, and additional roadway capacity projects in the RTP deemed critical for implementation based on community input. Existing and committed projects in this scenario include:

- SR 85 (CL-014), widening from 4 to 6 lanes from Adams Drive to I-75 including interchange at Forest Parkway
- SR 85 (CL-015), widening from 4 to 6 lanes from SR 279 (old National Highway) in Fayette County to Roberts Drive in the City of Riverdale
- Battlecreek Road (CL-017), widening from 2 to 4 lanes between Valley Hill Road and Southlake Parkway
- Mount Zion Boulevard (CL-019), widening from 2 to 4 lanes between Southlake Parkway and Lake Harbin Road
- SR 54 (CL-041), widening from 2 to 4 lanes between US 19/41 – SR 3 and McDonough Road in Fayette County
- Lee Street (CL-059), new 2-lane overpass bridge over I-75
- Mount Zion Road (CL-063), widening from 2 to 4 lanes between Richardson Parkway and SR 138
- Anvil Block Road (CL-230A), widening from 2 to 4 lanes between Lunsford Drive and Bouldercrest Road
- Godby Road (CL-238), widening from 2 to 4 lanes between Southampton Road and SR 314
- Panola Road (CL-239), widening from 2 to 4 lanes between Bouldercrest Road and Bailey Drive
- I-75/SR 54 Interchange (CL-AR-031), interchange modification between US 19/41 – SR 3 and Mount Zion Boulevard

The two critical projects assumed within this scenario are:

- SR 85 (CL-014), widening from 4 to 6 lanes between Adams Drive in Riverdale and I-75
- SR 279 (CL-015), widening from Fayette County line to Roberts Drive in Riverdale.

The sole CTP transit expansion project involves the new C-TRAN route between the Tradeport area and the Clayton County Justice Center park-and-ride, filling gaps in service along US 19/41 - SR3 and the Frontage Road industrial district south of SR 331.

The **2030 No-Build** scenario assumes no capacity adding projects to be implemented from the 2005 Baseline scenario.

The **2030 Moderate** scenario builds from the 2020 Critical scenario by adding the critical SR 85 widening and C-TRAN projects and three *Envision6* RTP projects with less-than-critical implementation priority, and introduces a number of proposed CTP strategies for major roadway capacity and transit expansion. The three RTP moderate-priority projects include:

- SR 314 (CL-005), widening from 2 to 4 lanes between East Fayetteville Road and Riverdale Road
- Conley Road (CL-0754), widening from 2 to 4 lanes between I-285 and SR 54
- Valley Hill Road (CL-243), widening from 2 to 4 lanes between Upper Riverdale Road and Battlecreek Road

CTP recommended roadway capacity projects within this 2030 Moderate scenario include:

- widening of SR 314 from 2 to 4 lanes, the new interchange connecting SR 314 with I-85 and I-285
- a new bypass extending SR 54 (Fayetteville Road) on the southern end of the City of Jonesboro.

Supportive functional classification revisions are applied in this scenario to the Reynolds Road/Rex Road/Harper Drive corridor (upgrade to minor arterial) and SR 314, SR 54, and SR 331 (upgrades to principal arterials). Three additional CTP transit projects within this 2030 Moderate scenario include C-TRAN shuttle routes from the Airport to Riverdale (via SR 314) and from the Southlake area to Clayton State University (via Mount Zion Road, Mount Zion Boulevard and the Reynolds/Rex/Harper corridor).

The **2030 Long Range** scenario includes all projects from the 2030 Moderate scenario, and adds a number of *Envision 6* RTP and proposed CTP projects. RTP projects include the commuter rail line between Atlanta and Lovejoy, with intermediate stops in East Point (Fulton County), the proposed Southern Crescent Transportation Service Center (SCTSC), Forest Park, Morrow (Clayton State University), and Jonesboro. Other RTP projects in this scenario include:

- North Airport Parkway (AR-506), widening from 4 to 6 lanes between Riverdale Road and I-85
- I-75/I-285/Aviation Boulevard Interchange (AR-511A), interchange modification
- I-75 South (AR-H-050), managed lanes from Aviation Boulevard to SR 54
- I-75 South (AR-H-051), managed lanes from SR 54 to Eagles Landing Parkway in Henry County
- US 23 (CL-012A), widening from 2 to 4 lanes between Lake Harbin Road and Anvil Block Road
- US 23 (CL-064), widening from 2 to 4 lanes between SR 138 and I-675
- McDonough Road (CL-101), widening from from 2 to 4 lanes between SR 54 and US 19/41 – SR 3
- US 19/41 – SR 3 (CL-AR-247), widening from 4 to 6 lanes between Flint River Road and SR 81 in Henry County
- Bouldercrest Road (DK-162), widening from 2 to 4 lanes between Anvil Block Road and I-285 in DeKalb County
- McDonough Road (HE-920B), widening from 2 to 4 lanes between US 19/41 – SR 3 and I-75 in Henry County

Proposed CTP roadway capacity projects within this 2030 Long Range scenario include the widening of I-675 from 4 to 6 lanes between Panola Road and I-75 and an accompanying modification of the I-75/I-675 interchange. Also proposed is the implementation of roadway improvement recommendations from the ARC *Tara Corridor Study* (2007), specifically the

introduction of a four-lane grade-separated, limited-access super arterial highway flanked by two-lane parallel service roads. An additional functional classification revision is included in this scenario for McDonough Road (upgrade to principal arterial).

Proposed CTP transit projects include C-TRAN shuttle services between Riverdale and the Clayton County International Park via SR 138, between the Southlake area and Lovejoy via SR 54 (Jonesboro Road) and US 19/41 – SR 3, and between the SCTSC/Tradeport area and the Villages of Ellenwood via SR 331 and Anvil Block Road. Interstate BRT routes conceptualized in the Transit Planning Board’s (TPB) regional transit vision plan are also included in this scenario, along I-75, I-285, and I-675.

5.2.1 Alternative Land Use/Transportation Scenarios

Two redevelopment scenarios are introduced to reflect the considerable effort to redevelop critical areas of Clayton County to support “live/work/play” activity while minimizing the growth of population and employment in other areas. Specifically, these redevelopment scenarios assume all new population and employment added within the County between the baseline Year 2005 and Year 2030 are wholly distributed among TAZs within a reasonable driving distance of commuter rail station sites, and within reasonable walking distance of all other major redevelopment areas. Such redistribution would necessitate the provision of transit services commensurate with redevelopment strategies within each redevelopment zone. The following cluster areas are illustrated in Figure 5-3:

- Livable Center Initiative (LCI) areas:
 - Northwest Clayton
 - Forest Park/Farmers Market
 - Morrow/CSU
 - Riverdale
- Fort Gillem Local Redevelopment Area
- Villages of Ellenwood Tax Allocation District
- Commuter Rail Station areas:
 - SCTSC
 - Forest Park
 - Morrow/CSU
 - Jonesboro
 - Lovejoy

Relative to the 2020 Critical scenario, the **2030 Critical Redevelopment** scenario applies all C-TRAN shuttle services and the Atlanta-Lovejoy commuter rail service. Building from this scenario, the **2030 Long Range Redevelopment** scenario adds all previously noted transit services, and includes TPB inter-county suburban routes (Union City to Southlake, Newnan to Stockbridge, Jonesboro to McDonough) as well as arterial rapid bus routes feeding into the SCTSC from Newnan, Fayetteville and Griffin. In this long-range high-growth scenario, the SCTSC would also include a MARTA heavy rail connection from the East Point Station in Fulton County.

Figure 5-3:
Redevelopment Nodes

5.2.2 Level of Service Analysis

A level of service (LOS) analysis was prepared to assess the cumulative project impact and the ability to reduce congestion in Clayton County. Generally, LOS is an assessment of roadway congestion during times of peak usage. The analysis was conducted within the travel demand model as the calculated ratio of traffic volume to roadway capacity. The following ratios were assumed to correlate to LOS:

- LOS A/B: less than 0.5
- LOS C: 0.5 through 0.7
- LOS D: 0.7 through 0.84
- LOS E: 0.84 through 1.0
- LOS F: greater than 1.0

The results of the LOS analysis organized by scenario are discussed below and LOS is depicted graphically in Figures 5-4 through 5-9.

2020 Critical

In the 2020 Critical scenario, only those projects listed with critical status (or are in the current 2008-2013 TIP) were included. This scenario shows a Clayton County with pockets of congestion along its major corridors (I-75, Tara Boulevard, I-285, etc.) particularly along SR 85/Riverdale Road which despite widening projects (which have been upgraded to critical for the purpose of this analysis) still operates at LOS E from I-75 through SR 138. This phenomenon, observed during the needs assessment and in the other scenarios tested here, indicates the sheer amount of demand for north-south movements in this part of the County, due to local development in the Riverdale region and regional traffic moving to/from the Fayetteville area. Despite the LOS E/F observations, this scenario shows that Clayton County, in the year 2020, has been able to largely maintain the service of its roadway transportation system despite increases in local and regional growth.

2030 No-Build

In the 2030 No-Build scenario (a theoretical scenario where none of the planned projects – including those in the TIP – are built), the model analysis indicates widespread traffic congestion, most easily illustrated by the deteriorating projected level of service (LOS). In this scenario, all of the major corridors experience consistent (as opposed to geographically sporadic) LOS E and F indicating conditions that are at or exceeding capacity:

- Tara Boulevard (through the entire County)
- I-75
- I-675
- I-285
- SR 85/Riverdale Road
- Fielder Road
- Panola Road
- US 41 (in the area east of the airport)
- Valley Hill Road
- Flint River Road
- McDonough Road
- SR 138 (in the area surrounding Jonesboro to the north)

Figure 5-4:
2020 Critical Scenario Peak Hour Level of Service

Figure 5-5:
2030 Long Range No Build Scenario Peak Hour Level of Service

Figure 5-6:
2030 Moderate Scenario Peak Hour Level of Service

Figure 5-7:
2030 Long Range Scenario Peak Hour Level of Service

Figure 5-8:
2030 Critical with Redevelopment Scenario Peak Hour Level of Service

Figure 5-9:
2030 Long Range with Redevelopment Scenario Peak Hour Level of Service

- Upper Riverdale Road
- Mt. Zion Boulevard (around the I-75 interchange)
- SR 54 (through Morrow and around the I-75 interchange)
- Conley Road

Additionally, sporadic instances of LOS E and/or F conditions occur along parts of SR 314, in the downtown Jonesboro area, Anvil Block Road, in the center of Riverdale, and Bouldercrest Road.

2030 Moderate

The 2030 moderate scenario appears similar to the 2020 critical scenario in that most major corridors (I-75, Tara Boulevard, SR 85, etc.) experience LOS E or F along major parts of the corridor. However, like the 2020 critical scenario, the 2030 moderate scenario also shows a Clayton County that, at the least, has been able to maintain the functional ability of its transportation system.

2030 Long Range

In the 2030 Long Range scenario (which includes all previously planned major capacity adding projects as well as the 6 major capacity CTP projects), the majority of the LOS E and F conditions are limited to the following major corridors

- Tara Boulevard (only from I-75 to Jonesboro)
- I-75
- I-285
- SR 85/Riverdale Road

Even though these facilities indicate LOS E and/or F conditions, this does not necessarily indicate some form of improvement is warranted. For instance, along Tara Boulevard the entire corridor through the County experiences LOS E and F in the No-Build while it is constrained to the area between I-75 and Jonesboro in the 2030 Long Range scenario. In that segment, there is still improvement due to the use of a super-arterial concept (as recommended in the Tara Boulevard Corridor Study) that shows reduction in other performance measures such as the 'extent' duration which attempts to quantify how many transportation system users are affected by congestion along a corridor. In general, these corridors are major through-routes in the County and their LOS E/F performance is not indicative of a lack of improvement, but rather confirms the attractiveness of these facilities. In a sense, these facilities continue to attract traffic even when congested as they serve major regional and in the case of the interstate system – national – connections and improvements to these systems only encourage additional traffic (a concept commonly referred to as latent demand).

Although sporadic instances of LOS E and/or F conditions are observed in other parts of the County (and along those roads where consistent LOS E/F conditions were observed in the No-Build) they tend to be sporadic or reduced (LOS F condition in the No-Build compared to a LOS E condition in the Long Range scenario).

2030 Critical with Redevelopment

This scenario assumes that only the critical and TIP projects are constructed through the year 2030 but the emphasis for future growth in Clayton County is concentrated in the redevelopment cluster areas. As with all other scenarios, LOS E/F concentrations are most prevalent on the major corridors (I-75, Tara Boulevard, etc.) with sporadic LOS E/F observations throughout other parts of the County. In terms of general observations of LOS E/F throughout Clayton County, this scenario looks similar to a 2030 moderate scenario indicating that the clustering of growth as a strategic policy may have as large a positive impact as the construction of the 'moderate' projects.

2030 Long-Range with Redevelopment

The 2030 Long Range with Redevelopment scenario includes all the project assumptions as the 2030 Long Range scenario but also assumes a land use approach that concentrates the majority of future development in cluster areas supported by a more robust transit system. As with the 2030 Long Range scenario, this scenario shows a major improvement over the No-Build scenario with consistent LOS E and F conditions limited to major regional corridors:

- Tara Boulevard (only from I-75 to Jonesboro)
- I-75
- I-285
- SR 85/Riverdale Road

However, this scenario also shows general congestion reductions in other locations. For instance, in the 2030 Long Range scenario Flint River Road is observed to have a few sporadic LOS E and F locations, where as in the Long Range with Redevelopment scenario, this corridor only has one location which operates at LOS E. The most noticeable improvement is along the SR 85 corridor, which operates at LOS E/F from I-75 to SR 138 in the Long Range scenario despite widening projects. In the Long Range with Redevelopment scenario LOS congestion is reduced along this corridor to LOS E, with some locations not showing any congestion.

5.2.3 Prioritization Measures

This section focuses on performance measures that indicate the relative performance of each major transportation improvement project. For roadway projects, this analysis uses the prioritization measures used by ARC for project prioritization purposes and as such is used to indicate not just the relative success of each project, but each project's likely success if applied within the current regional prioritization process. These measures, all measured in hours, are:

- *Intensity* – Indicates the cumulative amount of driver delay in hours experienced during the most congested peak period. In effect, it estimates how 'intense' the congestion is.
- *Duration* – Refers to the number of hours of congestion.
- *Extent* – Represents the total amount of delay experienced by all vehicles in hours. As such, it indicates how many people are affected by the congestion.

These measures were applied to the main 2030 scenarios (No-Build, Long-Range, and Long-Range with Redevelopment) that include all roadway projects and indicate that the majority of the projects have some benefit in reducing congestion. One of the exceptions is the AR-511

project, which is an interchange modification, a type of project that transportation demand models are typically not sensitive to as their benefits tend to be more operational. Despite several analyses from the LOS perspective indicating that the *Envision6* projects take care of most of the transportation problems in Clayton County, the benefit of the new CTP projects is visible with this analysis, with all six projects indicating dramatic reductions in intensity, duration, and extent. The results of this analysis are presented in Tables 5-4 through 5-6.

**Table 5-4:
Project Assessment - Intensity (Peak Period Hours of Delay)**

Transportation Project	Scenario			Percent Change	
	No-Build	Long Range	Long Range Redevelop	No-Build to Long Range	No-Build to Long Range Redevelop
AR-506: North Airport Parkway (Widen from 4 to 6)	28	25	26	11%	7%
AR-511A: I-75/I-285/Aviation Boulevard Interchange Reconstruction	51	49	53	4%	-4%
AR-H-050: I-75 Managed Lanes	71	48	52	32%	27%
CL-005: SR 314/West Fayetteville Road (Widen from 2 to 4)	23	11	10	52%	57%
CL-012A: US 23/Moreland Avenue (Widen from 2 to 4)	17	9	9	47%	47%
CL-014: SR 85 (Widen from 4 to 6)	34	22	23	35%	32%
CL-015: SR 85 (Widen from 4 to 6)	28	19	15	32%	46%
CL-017: Battlecreek Road (Widen from 2 to 4)	8	9	8	-13%	0%
CL-019: Mount Zion Boulevard (Widen from 2 to 4)	17	11	11	35%	35%
CL-041: SR 54 (Widen from 2 to 4)	47	28	24	40%	49%
CL-059: Lee Street (New 2 lane)	9	9	9	0%	0%
CL-063: Mount Zion Road (Widen from 2 to 4)	21	12	11	43%	48%
CL-064: US 23 (Widen 2 to 4)	17	9	8	47%	53%
CL-074: Conley Road (Widen from 2 to 4)	16	9	10	44%	38%
CL 101: McDonough Road (Widen 2 to 4)	18	9	8	50%	56%
CL-230A: Anvil Block Road (Widen from 2 to 4)	10	3	3	70%	70%
CL-238: Godby Road (Widen from 2 to 4)	13	10	9	23%	31%
CL-239: Panola Road (Widen from 2 to 4)	13	9	8	31%	38%
CL-243: Valley Hill Road (Widen from 2 to 4)	22	17	15	23%	32%
CL-AR-031: I-75/SR 54 Interchange	13	9	9	31%	31%
CL-AR-247: Tara Boulevard (Widen from 4 to 6)	42	24	26	43%	38%
CTP1: West Fayetteville Road/SR 314 & I-85 connection	20	15	14	25%	30%
CTP2: West Fayetteville Road (Widen from 2 to 4)	30	16	14	47%	53%
CTP3: Fayetteville Road extension around Jonesboro Road	32	23	22	28%	31%
CTP 4: I-675 (Widen from 4 to 6)	31	18	17	42%	45%
CTP 5: Tara Blvd Study Recommendations	57	38	38	33%	33%

**Table 5-5:
Project Assessment - Duration (Hours of Congestion)**

Transportation Project	Scenario			Percent Change	
	No-Build	Long Range	Long Range Redevelop	No-Build to Long Range	No-Build to Long Range Redevelop
AR-506: North Airport Parkway (Widen from 4 to 6)	0.96	0.84	0.85	13%	11%
AR-511A: I-75/I-285/Aviation Boulevard Interchange Reconstruction	1.48	1.01	1.04	32%	30%
AR-H-050: I-75 Managed Lanes	1.57	0.87	0.95	45%	39%
CL-005: SR 314/West Fayetteville Road (Widen from 2 to 4)	0.85	0.18	0.16	79%	81%
CL-012A: US 23/Moreland Avenue (Widen from 2 to 4)	0.68	0.03	0.03	96%	96%
CL-014: SR 85 (Widen from 4 to 6)	2.11	1.12	1.06	47%	50%
CL-015: SR 85 (Widen from 4 to 6)	1.22	0.70	0.57	43%	53%
CL-017: Battlecreek Road (Widen from 2 to 4)	0.81	0.51	0.54	37%	33%
CL-019: Mount Zion Boulevard (Widen from 2 to 4)	0.82	0.44	0.38	46%	54%
CL-041: SR 54 (Widen from 2 to 4)	2.88	0.90	0.65	69%	77%
CL-059: Lee Street (New 2 lane)	1.41	0.78	0.79	45%	44%
CL-063: Mount Zion Road (Widen from 2 to 4)	1.11	0.60	0.54	46%	51%
CL-064: US 23 (Widen 2 to 4)	1.33	0.48	0.57	64%	57%
CL-074: Conley Road (Widen from 2 to 4)	1.23	0.83	0.78	33%	37%
CL 101: McDonough Road (Widen 2 to 4)	1.50	0.22	0.31	85%	79%
CL-230A: Anvil Block Road (Widen from 2 to 4)	0.23	0.00	0.00	100%	100%
CL-238: Godby Road (Widen from 2 to 4)	0.92	0.40	0.38	57%	59%
CL-239: Panola Road (Widen from 2 to 4)	0.74	0.24	0.20	68%	73%
CL-243: Valley Hill Road (Widen from 2 to 4)	1.79	1.03	0.98	42%	45%
CL-AR-031: I-75/SR 54 Interchange	1.02	0.67	0.68	34%	33%
CL-AR-247: Tara Boulevard (Widen from 4 to 6)	1.02	0.31	0.38	70%	63%
CTP 1: West Fayetteville Road/SR 314 & I-85 connection	0.63	0.30	0.29	52%	54%
CTP 2: West Fayetteville Road (Widen from 2 to 4)	0.36	0.17	0.13	53%	64%
CTP 3: Fayetteville Road extension around Jonesboro Road	1.66	0.95	0.80	43%	52%
CTP 4: I-675 (Widen from 4 to 6)	1.16	0.53	0.53	54%	54%
CTP 5: Tara Blvd Study Recommendations	0.85	0.18	0.16	79%	81%

**Table 5-6:
Project Assessment - Extent (Total Hours of Delay)**

Transportation Project	Scenario			Percent Change	
	No-Build	Long Range	Long Range Redevelop	No-Build to Long Range	No-Build to Long Range Redevelop
AR-506: North Airport Parkway (Widen from 4 to 6)	6,124	5,218	5,569	15%	9%
AR-511A: I-75/I-285/Aviation Boulevard Interchange Reconstruction	13,059	12,402	13,755	5%	-5%
AR-H-050: I-75 Managed Lanes	20,605	13,909	15,191	32%	26%
CL-005: SR 314/West Fayetteville Road (Widen from 2 to 4)	1,792	1,075	975	40%	46%
CL-012A: US 23/Moreland Avenue (Widen from 2 to 4)	2,322	1,232	1,166	47%	50%
CL-014: SR 85 (Widen from 4 to 6)	8,441	5,061	5,442	40%	36%
CL-015: SR 85 (Widen from 4 to 6)	3,199	2,130	1,687	33%	47%
CL-017: Battlecreek Road (Widen from 2 to 4)	1,027	797	760	22%	26%
CL-019: Mount Zion Boulevard (Widen from 2 to 4)	3,570	2,960	2,889	17%	19%
CL-041: SR 54 (Widen from 2 to 4)	3,448	2,136	1,783	38%	48%
CL-059: Lee Street (New 2 lane)	3,188	2,832	2,912	11%	9%
CL-063: Mount Zion Road (Widen from 2 to 4)	3,639	2,619	2,506	28%	31%
CL-064: US 23 (Widen 2 to 4)	2,776	1,323	1,313	52%	53%
CL-074: Conley Road (Widen from 2 to 4)	2,171	1,747	1,850	20%	15%
CL-101: McDonough Road (Widen 2 to 4)	1,316	693	808	47%	39%
CL-230A: Anvil Block Road (Widen from 2 to 4)	292	131	146	55%	50%
CL-238: Godby Road (Widen from 2 to 4)	1,939	1,722	1,597	11%	18%
CL-239: Panola Road (Widen from 2 to 4)	531	423	379	20%	29%
CL-243: Valley Hill Road (Widen from 2 to 4)	2,587	1,949	1,737	25%	33%
CL-AR-031: I-75/SR 54 Interchange	3,407	2,846	2,930	16%	14%
CL-AR-247: Tara Boulevard (Widen from 4 to 6)	3,464	1,979	2,339	43%	32%
CTP 1: West Fayetteville Road/SR 314 & I-85 connection	3,190	2,694	2,548	16%	20%
CTP 2: West Fayetteville Road (Widen from 2 to 4)	1,603	1,054	905	34%	44%
CTP 3: Fayetteville Road extension around Jonesboro Road	2,296	1,740	1,584	24%	31%
CTP 4: I-675 (Widen from 4 to 6)	5,066	3,274	3,126	35%	38%
CTP 5: Tara Blvd Study Recommendations	8,400	5,208	5,286	38%	37%

5.2.4 Transit Demand Analysis

While there were some shortcomings associated with the ability of the model to assess ridership for certain routes, on a countywide scale ridership levels increase substantially from the No-Build scenario with the introduction of an array of transit mobility options. Not including prospective trips on the MARTA heavy rail lines from the Airport to Doraville and North Springs, transit trips in the 2030 Long Range scenario increase nearly 78 percent from the 2030 No-Build scenario. The impact of clustering development into high growth areas or redevelopment nodes on transit lines is particularly noteworthy. Additional transit service introduced under the 2030 Long Range Redevelopment scenario results in a 67 percent increase in projected transit trips from the 2030 Long Range scenario. Annual growth rates compared to the 2005 baseline are 0.9 percent (2030 No-Build), 3.2 percent (2030 Long Range and 2030 Critical Redevelopment), and 5.4 percent (2030 Long Range Redevelopment). Table 5-7 presents the CTP transit ridership levels by route, as produced by the travel demand model.

The redevelopment scenarios for 2030 Critical and 2030 Long Range assume a reasonably even distribution of population and employment densities within commuter rail zones and, similarly, among LCI areas. In reality, land use, zoning and redevelopment policies will vary among communities within each redevelopment node, although the effective redistribution on a countywide scale would remain the same. Applying supportive land use recommendations in the CTP will bolster the projected countywide benefits of increased transit use, although the distribution among competing transit modes will depend strongly on relative costs, facility access and eventual service phasing. Future refinement of the model's predictive capabilities will accommodate a more detailed definition of access among traffic analysis zones, which was assumed in many cases for the conceptual C-TRAN and TPB Concept 3 routes.

The nature of the model does not allow for an identification of transit passenger trips along short loop routes such as the existing C-TRAN Route 500. However, the route remains significant in its ability to connect opposite sides of the HJAIA while connecting commercial and industrial centers along Loop Road. Improved service headways and a more direct connection with the Tradeport area will enhance the viability of the service as an important connector route, particularly as the SCTSC develops in the Tradeport area.

Strong fluctuations in ridership occurred between the 2030 Moderate and Long Range scenarios, and between the 2030 Critical Redevelopment and 2030 Long Range Redevelopment scenarios, for current C-TRAN Routes 501 and 502, GRTA Route 440, the proposed C-TRAN Airport-Riverdale shuttle route, and the Atlanta-Lovejoy commuter rail line. The advent of competing north-south services in the Long Range scenarios (specifically, the TPB arterial rapid bus, inter-county suburban bus and interstate Bus Rapid Transit (BRT) routes) lessens the demand for long-distance trips along the C-TRAN and GRTA routes. The provision of ITS measures such as transit signal priority and/or queue jumper lanes, in conjunction with access management measures, will sustain the viability of these services by improving travel-time competitiveness. As commuter rail planning extends the service from Lovejoy to Griffin and eventually Macon, the phased introduction of competing modes will reduce the need to expand capacity to accommodate demand from beyond Atlanta regional counties.

**Table 5-7:
Transit Ridership Levels by CTP Route**

Route	2005	2020 Critical	2030 No-Build	2030 Moderate	2030 Long Range	2030 Critical Redevelop	2030 Long Range Redevelop
C-Tran 500	2	6	2	7	0	6	0
C-Tran 501	633	540	574	559	106	695	166
C-Tran 502	402	449	438	579	393	537	499
C-Tran 503	1,733	1,806	1,834	2,237	2,020	2,125	1,217
C-Tran 504	1,236	1,442	1,514	1,633	1,841	1,594	1,051
C-Tran 505	-	401	-	424	64	682	84
C-Tran Shuttle 1	-	-	-	315	542	534	445
C-Tran Shuttle 2	-	-	-	-	312	299	166
C-Tran Shuttle 3	-	-	-	-	491	556	668
C-Tran Shuttle 4	-	-	-	-	276	147	276
C-Tran Shuttle 5	-	-	-	548	622	631	606
TPB S-A	-	-	-	-	-	-	682
TPB S-B	-	-	-	-	-	-	1,480
TPB S-C	-	-	-	-	-	-	150
GRTA 440	396	1,350	1,078	1,384	1,056	1,353	1,199
I-75 BRT	-	-	-	-	1,010	-	1,362
I-285 BRT	-	-	-	-	495	-	523
I-675 BRT	-	-	-	-	115	-	112
TPB A-A	-	-	-	-	-	-	3,309
TPB A-B	-	-	-	-	-	-	876
TPB A-C	-	-	-	-	-	-	866
Lovejoy	-	-	-	-	337	629	474
MARTA NL	66,541	72,154	77,656	79,016	80,124	78,111	79,722
MARTA NEL	63,746	69,653	75,440	77,073	77,807	76,149	77,700
Total	134,689	147,801	158,536	163,775	167,611	164,048	173,633
Total w/o MARTA	4,402	5,994	5,440	7,686	9,680	9,788	16,211

Note: Blackened out cell indicates service not provided in scenario

Based on the model results, CTP transit expansion projects with the highest long-term demand include the TPB SCTSC-Newnan arterial rapid bus route, I-75 BRT and Newnan-Stockbridge suburban bus route.

CTP transit expansion projects with a relatively low level of ridership predicted by the model include the I-675 BRT, the TPB Jonesboro-McDonough suburban route and the C-TRAN Riverdale-Beach and Tradeport-Ellenwood shuttles. These routes should receive the lowest priority for implementation unless future redevelopment such as the Fort Gillem, SCTSC and Ellenwood areas introduces significant levels of unforeseen demand.

Transit priorities within a five-year planning horizon emphasize a need to maintain and improve the efficiency of bus transit operations, expand the reach of paratransit operations, implement commuter rail while contributing to station-area development practices, and provide supportive infrastructure to meet expanded operations and intermodal activity.

Within a ten-year planning horizon, prioritized transit services will begin to meet the needs of underserved markets, first by filling gaps in arterial-based bus services, and then by phasing shuttle services commensurate with redevelopment activity. As “transit-oriented development” serves people and workers near commuter rail sites, these “development-oriented transit” services will benefit other redevelopment nodes by providing levels of accessible transit service that are proportionate with the projected expansion in transit demand.

Beyond the ten-year horizon, transit service priorities will reflect the need for greater cross-county mobility for commuters and other travelers across the Southern Crescent of the Atlanta region. Institutional partnerships analyzed during the previous planning horizons will help establish the structure of governance and oversight for ongoing operations and maintenance.

5.3 Bicycle/Pedestrian Prioritization Measures

Investments in safe and accessible pedestrian and multi-use paths can be strategically prioritized based on funding availability by focusing on segments near community facilities which are situated throughout the County. These facilities include public schools, transit stations and stops as well as parks, recreational venues, and heritage and preservation tourism sites. Quarter-mile-radius zones will identify segments within reasonable walking and short bicycling distances of these facilities. The community orientation of these facilities supports the demand for short trips which do not necessarily require using motorized transportation options.

Priorities through target years of 2013, 2018 and 2030 will upgrade sidewalk availability near schools based on a ratio of cumulative lengths of pedestrian facilities and multi-use trail facilities (existing, or under design or construction) to total roadway length, within a quarter-mile buffer of each community facility. Within each priority grouping of schools in particular, a higher hierarchy is granted to schools with pedestrian projects recommended through Clayton County Traffic and Pedestrian Access Studies. Priority zoning is derived from a ratio factor, dividing the estimated cumulative length of pedestrian facilities by the estimated cumulative length of roadway facilities. Zones with the lowest ratios receive the highest priority ratings. Implementation costs are based on Critical (1.25), Moderate (1.50), and Long Range (1.75) goals where specific ratios are to be achieved.

The prioritization tools established in the CTP will assist in identifying priorities for County-level investment in new or expanded pedestrian facilities at the segment level. Each segment will contain data on the following:

- Presence within the Regional Strategic Transportation System (RSTS) network and Pedestrian Level of Service 'E' or lower, as per the ARC *Bicycle Transportation and Pedestrian Walkways Plan*;
- Presence within a first, second, or third-tier priority zone, within ¼-mile of Clayton County Public Schools (CCPS) educational facilities;
- Recommendations for pedestrian access improvements within a Clayton County *Traffic and Pedestrian Access Study*
- Presence within a first, second, or third-tier priority zone, within ¼-mile of transit stops and stations;
- Presence within a first, second, or third-tier priority zone, within ¼-mile of Clayton County parks and recreation facilities, and/or heritage and preservation tourism areas;
- Greenway Suitability score (as analyzed within the CTP *Needs Assessment Report*).

The tools allow for an objective countywide assessment of the locations most ideally suited for new construction and reconstruction. Facility construction should be supplemented with crosswalks, signage and signals where appropriate.

Tables 5-8 through 5-10 identify the prioritization results among CCPS schools, among C-TRAN and GRTA transit stops and proposed commuter rail stations, and among parks, recreation centers, and heritage and preservation tourism sites. Priority zones are displayed graphically in Figures 5-10 through 5-12.

5.4 Preferred Alternative

The CTP alternatives analysis suggests that there are significant and attainable mobility gains from pursuing a long range transportation improvement strategy that is well integrated with policy-driven redevelopment projects. These redevelopment projects cluster growth into “live-work-play” mixed-use communities, while preserving greenspace and residential communities outside of these redevelopment zones. The 2030 Long Range Redevelopment scenario revealed improvements in corridor-level traffic congestion and a significant rise in transit trips, and represents the preferred land use/transportation alternative. Specific recommendations, which follow in Section 6.0, will be phased into an implementation program which considers the effect of funding constraints using assumptions of SPLOST funding availability to support estimated project costs.

Table 5-8:
Priority Sidewalk Areas for Schools and Educational Centers

Table 5-9:
Priority Sidewalk Areas for Transit Routes

Table 5-10:
Priority Sidewalk Areas for Parks, Recreation Centers, and Heritage and Preservation
Tourism Sites

[Figure 5-10:
Priority Sidewalk Areas for Schools and Educational Centers](#)

Figure 5-11:
Priority Sidewalk Areas for Transit Routes

Figure 5-12:
Priority Sidewalk Areas for Parks, Recreation Centers, and Heritage and Preservation
Tourism Sites

6.0 Recommendations

Recommended projects are based on the adoption of the 2030 Long Range Redevelopment scenario for strategic investments in roadway capacity and transit expansion, coupled with supportive land use measures.

The Clayton County CTP recommendations include specific projects and broad strategies or policies for future implementation through the study's horizon year of 2030. Projects presented in this section include newly identified projects generated through the CTP needs assessment and project identification process. The types of transportation projects fall into the following categories: roadways and bridges, freight, aviation, transit, and bicycle and pedestrian facilities. Factors considered during recommendations development include:

- Jurisdictional plans;
- Study goals and objectives;
- Data analysis and technical considerations;
- Input and guidance from the participating county, municipalities, and planning partners;
- ARC regional plans and policies;
- Public and community input; and
- Balance of needs and resources.

Coordination and outreach with planning partners, stakeholders, and the general public were undertaken in the plan development process. Community input is critical to develop recommendations that are comprehensive and reflect local and regional needs. Based on technical analysis and input received through the community outreach process, proposed transportation alternatives were refined into recommendations. The following presents the recommended projects, programs, and policies for the Clayton County CTP by mode. Detailed project descriptions are included as Appendix B.

6.1 Roadways and Bridges

Clayton County's continued growth and development have led to identification of specific projects to address roadway mobility needs. The life-cycle of pavement and bridges also leads to ongoing system preservation and maintenance needs. In addition, the transportation planning process draws attention to other transportation needs which are not necessarily project or program-oriented, but rather policy or strategy-oriented. The following provides recommended policies and strategies designed to address ongoing roadway network needs.

6.1.1 Roadway Capacity

The CTP process afforded an opportunity to review previously identified projects and determine whether the projects will continue to meet the County's future needs. Existing roadway and bridge projects were identified from local, regional, and statewide plans and program, including:

- *Clayton County SPLOST Program*
- *GDOT Statewide Transportation Improvement Program*
- *ARC Regional Transportation Plan (Envision6 RTP)*

- ARC Transportation Improvement Program (FY 2008-2013)
- Southern Regional Accessibility Study
- Tara Boulevard Multimodal Corridor Study

The following recommended projects and concepts reflect new projects—not previously included in any plan—as well as some projects that had been identified in prior plans but have not progressed beyond the planning phase. Section 7 - Implementation Program outlines all recommended projects for inclusion in the regional long range transportation planning process and integrates them into a long-range implementation schedule. The CTP recommends the following new capacity projects and concepts for consideration. Projects along these roadways are intended to alleviate congestion on these thoroughfares as well as parallel and connecting roads in their vicinity. An illustration showing CTP recommended project locations is shown in Figure 6-1.

CTP 1 - West Fayetteville Road/SR 314 & I-85 connection

The purpose of this project is to provide interchange access to/from north on I-85 and to/from west access on I-285 to SR 314 and would likely tie into the existing I-85/I-285 interchange. Along with planned widening projects, this project supports the emergence of West Fayetteville Road/SR 314 as a major north-south corridor to compete with Riverdale Road/SR85 by providing interstate access directly to the corridor.

CTP 2 - Widen West Fayetteville Road/SR 314 to four lanes from East Fayetteville Road to SR 138

This project, in coordination with the previously planned CL-005 widening project on SR 314, would create a consistent four lane section along SR 314 from I-285 to SR 138.

Along with the interchange project recommended in CTP 1 and CL-005, this project supports the emergence of West Fayetteville Road/SR 314 as a major north-south corridor to compete with Riverdale Road/SR85 by providing interstate access directly to the corridor. Potential issues with this project include the significant amount of residential land use along the corridor, the cost of providing flyover interchange ramps, and the general issue of whether the improvements will provide a sufficient alternative to SR 85 for long-distance through movements. These projects are to be coordinated with the recommended revision of the SR 314 functional classification to “principal arterial.”

CTP 3 - Fayetteville Road extension around Jonesboro

This project would create a by-pass type project around the southern edge of Jonesboro extending from Fayetteville Road/SR 54 and Flint River Road on the west end and connecting to SR 138 on the east end. This concept will likely require grade separation in the Main Street/Norfolk Southern Railroad/McDonough Street area, with access provided through a small interchange.

This project is intended to decrease east-west congestion inside the traditional downtown area of Jonesboro by providing a direct through connection on the south side of Jonesboro, but the

project may have significant environmental constraints. This project could also support LCI activities in downtown Jonesboro by decreasing through movements within the downtown area.

CTP 4 - Widen I-675 to six lanes from Panola Road to I-75

This project would create a consistent six lane I-675 for its entire corridor (extending into DeKalb County) to decrease congestion along this corridor. This project would likely require some interchange modifications at the I-675/I-75 interchange to ensure a consistent number of lanes.

CTP 5 - Create a super arterial concept along Tara Boulevard from I-75 to Fayetteville Road/SR 54

The roadway capacity enhancement recommendation or “super arterial concept” found in the *Tara Boulevard Multimodal Corridor Study* includes the provision of a four-lane, grade-separated, limited-access highway flanked by parallel service roads between I-75 and SR 54. Accompanying the roadway capacity enhancements, intersection safety improvements are also recommended for the US 19/41 – SR 3 corridor at SR 138, Battle Creek Road, Mount Zion Road, and North Avenue. This project would reduce congestion along the Tara Boulevard corridor and provide a limited access system for through vehicles.

Upgrading the functional classifications for several roadways in Clayton County will help to reinforce the roadway hierarchy while establishing a framework for possible preferred truck routing schemes. Possible locations for functional classification revision include:

- SR 314 (West Fayetteville Road, between Riverdale Road and SR 138) – Upgrade to Principal Arterial, in coordination with proposed roadway capacity enhancements in *Envision 6* and the CTP
- SR 54 (between I-285 and SR 138) – Upgrade to Principal Arterial
- Forest Parkway (between I-75 and I-675) – Upgrade to Principal Arterial
- McDonough Road (between Fayette County line and Henry County line) – Upgrade to Principal Arterial, in coordination with proposed roadway capacity enhancements in *Envision 6*
- Reynolds Road/Rex Road/Harper Drive (between Old Dixie Road and US 23) – Upgrade to Minor Arterial

Figure 6-1:
Recommended Roadway Capacity Projects

6.1.2 Roadway Accessibility and Connectivity

As Clayton County implements development and redevelopment plans local traffic needs in redevelopment areas, particularly around commuter rail stations, will have to be addressed. Many of these development/redevelopment plans include proposals to address traffic impacts and ensure accessibility and connectivity. Traffic studies should be conducted to examine access issues around commuter rail stations, particularly in Jonesboro where there are already serious traffic problems in the downtown area. The Fort Gillem redevelopment needs to be supported by roadway infrastructure that connects Anvil Block Road in a continuous connection to US 23 and Forest Parkway to North Parkway to access the Clayton State University (CSU) area. Other redevelopment nodes will require appropriate roadway infrastructure to support increased density. Traffic impact studies and/or DRI studies will be necessary to determine the transportation impacts and mitigation measures associated with future redevelopment.

The future roadway accessibility and connectivity needs due to growth in the Panhandle must also be addressed. The Panhandle area already has limited roadway options (both east-west and north-south) and traffic is heavily influenced by flow from neighboring counties. Future options to improve accessibility include:

- Extension of Panhandle Road north to Irongate or Freeman Road
- Extension of SR 20 as recommended by the Southern Regional Accessibility Study (SRAS)
- Extension of Panhandle Road to Fitzgerald Road
- Extension of Thomas Road from SR 54/Fayetteville Road to Fitzgerald Road
- Extension of English Road and Brown Road to construct a connector road between Mundy's Mill Road and Tara Road

6.1.3 Roadway Policy Recommendations

In addition to roadway capacity and connectivity project recommendations, suggested policy recommendations include:

- Ensure all projects incorporate the latest Intelligent Transportation Systems (ITS) technology infrastructure. All ITS strategies and polices should be consistent with the Regional ITS Architecture and Strategies Plan.
- Require access management plans be developed as part of each arterial or major collector roadway widening or upgrade project concept development process (see Section 6.1.8)
- Incorporate the concept of complete streets into planning, design and construction of all future roadways to ensure bicycle and pedestrian accommodation are included as appropriate. A complete street is designed to consider the array of potential modes and how each mode would use the street, with a balance struck between motorized and non-motorized modes.
- Incorporate guidelines or standards that recommend appropriate crossing facilities to include signage and striping for pathways as they cross at uncontrolled locations.
- Implement roadway guidelines included as Appendix C to provide uniform specifications for local and residential roadways throughout the County.
- Implement a traffic calming policy, included as Appendix D, for residential public streets to encourage and maintain lower vehicular speeds in residential areas.

6.1.4 Bridges

As witnessed by the catastrophic collapse of the Interstate 35W bridge last year in Minneapolis, MN, the nation’s roadway infrastructure is aging. It is vital that federal, state, and local officials maintain aggressive inspection cycles for vital pieces of the roadway infrastructure such as bridges. GDOT is currently responsible for inspecting bridges in Clayton County every other year.

As noted in the *Needs Assessment Report*, 22 of nearly 70 bridges require some level of attention as their condition has been rated as satisfactory or worse, or require some sort of restriction posting to ensure safe travel. The County is implementing an aggressive bridge rehabilitation program by issuing bid requests to repair 34 bridges in 2008 and address issues of structural and stream flow integrity and implement preventative measures to inhibit the need for future maintenance. For the eight bridges identified for weight limit posting in the *Needs Assessment*, repairs are planned for five bridge structures. The bridges listed in Table 6-1 require additional attention in the short term.

**Table 6-1:
Bridge Repair/Replacement Priorities**

Structure ID	Location ID	Location	Issue
063-0077-0	063-09100M-001.00ES	Upper Riverdale Road (CR 392) over Flint River	Insufficient shear capacity of concrete superstructure
063-0081-0	063-09108M-000.83E	Battlecreek Road (CR 1342) over Jesters Creek	Insufficient shear capacity of concrete superstructure
063-5025-0	063-00800X-000.14E	Huie Road (CS 80) over Jesters Creek Tributary	Insufficient flexural capacity of steel superstructure

It is important to note this list does not imply that any of the above bridges, or any countywide, are in danger of collapse or failure. This means steps need to be taken soon to upgrade, repair, or replace certain bridges as soon as funding can be secured. Delaying action could cause additional weight restrictions to be put into place on the bridges which could impact transit bus routes, school bus routes, or truck delivery routes.

6.1.5 Traffic Operations and Safety

Traffic and safety conditions along the roadway network affect pedestrians, bicyclists, and motorists in Clayton County. Traffic operational improvements or safety improvements include actions to facilitate traffic but do not include adding general purpose capacity or roadway widening projects. The types of improvement may include the following:

- Turning lanes at intersections;
- Curb, gutter and drainage;
- Expanded lane or shoulder widths;
- Sidewalks or bicycle lanes;
- Horizontal or vertical alignment revisions to improve sight distances;
- Upgrade of traffic control devices at certain intersections, including signalization; and
- Intersection geometric improvements

The operational or safety improvements outlined in this section are numbered and illustrated in Figure 6-2.

Figure 6-2:
Recommended Operational Improvement Projects

Through the safety screening using crash data obtained from the Georgia Department of Motor Vehicle Safety (DMVS) and field visits conducted for the Existing Conditions and Needs Assessment reports, several locations were identified as needing corrective measures. Crashes at intersections were compiled to identify high frequency crash intersections throughout the County. One hundred high crash intersection locations were identified. Of the 100 high crash intersection locations, a large number have planned or future projects that will provide intersection upgrades and/or operational improvements at those locations via a County SPLOST project, a GDOT project, or long range project as identified in the ARC 2030 Regional Transportation Plan listing. The 17 highest crash intersection locations without planned projects include:

- Tara Boulevard (SR 3) at North Avenue (SR 138 Spur) - **(1)**
- Tara Boulevard (SR 3) at Sherwood Avenue (CR 342) – **(2)**
- Riverdale Road (SR 139) at Flat Shoals Road (CR 1345) – **(3)**
- Forest Parkway (SR 331) at Jonesboro Road (SR 54) – **(4)**
- Tara Boulevard (SR 3) at Upper Riverdale Road (CR 392) – **(5)**
- Upper Riverdale (CR 392) at Old Dixie Highway (SR 3) – **(6)**
- Conkle Road (CR 1340) at Mount Zion Road (CR 1343) – **(7)**
- SR 138 at I-675 NB Ramp – **(8)**
- SR 138 at I-675 SB Ramp – **(9)**
- Upper Riverdale Road (CR 392) at Lamar Hutchinson Parkway (CR 412) – **(10)**
- Mount Zion Road (CR 1340) at Southlake Parkway (CR 1550) – **(11)**
- Aviation Boulevard (CR 1516) at South Loop Road (CR 1568) – **(12)**
- Roberts Drive (CR 288) at Lamar Hutchinson Parkway (CR 290) – **(13)**
- Upper Riverdale Road (CR 392) at Lee’s Mill Road (CR 829) – **(14)**
- Mount Zion Road (CR 1343) at Mount Zion Parkway (CR 2287) – **(15)**
- Mount Zion Boulevard (CR 28) at Maddox Road (CR 38) – **(16)**
- Mount Zion Circle (CR 19) at Mount Zion Road (CR 1340) – **(17)**

Within the context of the CTP, which is a high-level, long range transportation plan, detailed traffic assessments have not been conducted for the identification of operational improvement projects. However, for each of the intersections identified, potential improvement strategies are suggested below. Additional detailed study is required to review potential safety problems and determine detailed corrective measures.

The strategies/policies identified to address the rear-end collisions include:

- Improve Signal Head Visibility – There are a number of signal heads installed with no back plates attached. Installing back plates on these signals will improve their visibility by enhancing the contrast between the traffic signal and its immediate surroundings. Adding high density prismatic reflective sheeting around the signal face provides an additional safety measure by providing high visibility of the signal heads, particularly at night. Intersections with signal heads that are missing back plates include: Riverdale Road at Flat Shoals Road, Mount Zion Road at Mount Zion Parkway, and Mount Zion Road at Mount Zion Circle.

- Review/Adjust Signal Timing – As driving patterns and the number of motorists increase on County roadways, signal timing plans that have been implemented in the past may require review and adjustment based on the data obtained at the intersection. Some of the signals may require an adjustment to the red or yellow interval. In particular, the high crash locations may benefit from a review and adjustment of splits based on traffic patterns. Intersections that may benefit from a signal timing review include Conkle Road at Mount Zion Road, Upper Riverdale Road at Lamar Hutcheson Parkway, Mount Zion Road at Southlake Parkway and Roberts Drive at Lamar Hutcheson Parkway.

The strategies/policies identified to address improving pedestrian safety and mobility include:

- Provide ADA Compliant Pedestrian Ramps – The American with Disabilities Act (ADA) provides specific guidelines as to the design of pedestrian ramps to provide safe access to crosswalks for all pedestrians. Ramps are designed with a detectable warning surface (truncated dome) and when located at crosswalks, they are wholly contained within the crosswalk and do not project into the vehicular travel lanes. Intersections that currently are not equipped with ADA compliant ramps include Upper Riverdale Road at Old Dixie Highway, Mount Zion Road at Mount Zion Parkway, Mount Zion Boulevard at Maddox Road, Upper Riverdale Road at Lee's Mill Road and Riverdale Road at Flat Shoals Road.
- Provide Raised Refuge Islands in place of Striped Channelization – A number of intersections utilize channelization islands that are paved, flush with the road, and delineated with pavement markings as refuge islands for pedestrians. These islands do not provide a safe haven for pedestrians as they are flush with the roadway. Installing raised refuge islands with curb cuts that are level with the street and in line with the pedestrian crosswalks would provide pedestrians with an additional safety measure. Intersections that could benefit from these changes include Tara Boulevard at North Avenue, Tara Boulevard at Upper Riverdale Road, Conkle Road at Mount Zion Road, and Aviation Boulevard at South Loop Road.
- Shorten Signalized Crosswalk Lengths – In conjunction with refurbishing/relocating/installing new pavement striping (see below), providing shorter and straighter crosswalks across the roadway will minimize the time pedestrians spend in the travel lanes of the roadway. Intersections that require shorter crosswalks include Forest Parkway at Jonesboro Road and SR 138 at I-675 N.

The strategies/policies identified to address improving safety features for motorists include:

- Refurbish/Relocate/Install new pavement striping – Pavement striping provides clear safety measures by directing motorists and pedestrians to facilities to their respective facilities in the roadway network. The benefit to motorists includes organizing vehicles into lanes and clearly delineating travel lane edges and stopping points. There are multiple intersections in the County that require new, refurbished, and or/ relocated pavement striping to enhance the safety benefits to motorists and pedestrians. Improved delineation can be achieved by incorporating stop bars, lane use pavement markings and crosswalks. Intersections that fall in this category include Forest Parkway at Jonesboro Road (stop bars and crosswalks), Roberts Drive at Lamar Hutcheson

Parkway (crosswalks), SR 138 at I-675 North and South (lane use pavement markings) and Tara Boulevard at Sherwood Drive (stop bars and lane use pavement markings).

- Roadway Signage Review/Upgrade – There are some locations in the County that have roadway signs that need to be relocated to provide clearer direction to motorists regarding the function of a travel lane or to prevent illegal/prohibited turning movements. Intersections that require signage review and/or upgrades include Tara Boulevard at Upper Riverdale Road, Upper Riverdale Road at Old Dixie Highway, and Upper Riverdale Road at Lamar Hutcheson Parkway.
- Add/Enhance Nighttime Visibility – In conjunction with the strategies implemented to address rear-end collisions, streetlights at high-crash locations, such as Forest Parkway at Jonesboro Road, will benefit motorists and pedestrians by enhancing the visibility of the intersection during the evening hours.

There are also a number of intersections in Clayton County that do not necessarily fall into the high crash locations category but could potentially benefit from operational improvements to provide for more efficient and safer traffic flow. These improvements may include the addition of dedicated turn lanes, increased lane storage, capacity improvements, roadway realignments, signal retiming and optimization, etc. It should be noted that before these improvements can be implemented, a Traffic Engineering (TE) study should be undertaken to review existing operational problems and determine detailed corrective measures. Many of these roadways are residential corridors which serve as default collectors due to high traffic volumes and could benefit from a left or right turn lane to ease movement. Based on the results from additional traffic engineering analysis, the County may want to consider implementing a more holistic approach by including turn lanes as part of the design at high volume intersections, in addition to a traffic signal. Locations recommended for further investigation and study include:

- South Lee Street at Lake Harbin Road **(18)** – Bridge capacity improvement
- Lee Street/Barton Road at South Lake Parkway **(19)** – Lee Street realignment
- Betty Talmadge Avenue at Noah’s Ark Road **(20)** – realignment
- Tara Boulevard at Tara Road **(21)** – signal timing
- Tara Road at Panhandle Road **(22)** – signalization
- Tara Boulevard at Flint River Road/Fayetteville Road **(23)** – additional storage or left turn lane
- Tara Boulevard at South Main Street **(24)** - additional storage or left turn lane
- Tara Boulevard at SR 138 **(25)** – dual turn lanes
- Jodeco Road at Carnes Road **(26)** – turn lane
- Riverdale Road at Flat Shoals Road **(3)** – WB right turn lane
- Riverdale Road at King Street **(27)** – EB right turn lane
- Upper Riverdale Road at Tara Boulevard **(5)** – Additional EB left turn lane
- Mount Zion Road at Conkle Road **(7)** – realignment
- Clayton State Boulevard at N. Lee Street **(28)** – intersection design

All intersections of Tara Boulevard need to be considered for improvement. Although the preferred improvement is the limited access highway, this is a long term option and short term options need to be considered in the meantime.

A widening study conducted in 2005 along Mount Zion Boulevard from Battle Creek Road to Lake Harbin Road and along Battle Creek Road from Valley Hill Road to Mount Zion Boulevard also looked at improvements (lane usage and signalization upgrades) to intersections within those corridors to accommodate the widening project. A few of the proposed improvement intersections listed in the widening project were also identified as intersections that will require operational and safety improvements (Conkle Road at Mount Zion Road and Mount Zion Road at Mount Zion Parkway). Other intersections listed in the study include:

- Mount Zion Road at I-75N **(29)**
- Mount Zion Road at I-75S **(30)**
- Mount Zion Boulevard at Mount Zion Parkway **(31)**
- Mount Zion Boulevard at Mount Zion Road **(32)**
- Mount Zion Boulevard at Home Depot **(33)**
- Mount Zion Boulevard at Battle Creek Road **(34)**
- Battle Creek Road at Jonesboro Road **(35)**
- Battle Creek Road at Tara Boulevard **(36)**
- Battle Creek Road at Tara Road **(37)**
- Battle Creek Road at Valley Hill Road **(38)**
- Battle Creek Road at Southlake Parkway **(39)**

Also, during the model assessment, additional corridors were identified with observations of borderline congestion. Although these corridors could benefit from improvements, the LOS results do not necessarily indicate an overwhelming need to increase capacity by providing additional through lanes. As a result, these corridors are recommended for general upgrade and operations projects that will offer moderate increases in service capacity. These improvements are intended to provide increased access and safety and can include the construction of a two-way-left-lane, dedicated turn lanes, widened shoulders, and “complete streets” approach which provide accessibility to several modes of travel. The recommended limits for these considerations are as follows:

- Flint River Road, between SR 85 and Tara Boulevard **(A)**
- Roberts Drive/Taylor Road, between SR 85 and SR 138 **(B)**
- Upper Riverdale Road, between SR 85 and Tara Boulevard **(C)**
- Rex Road, between US 23 and Henry County line **(D)**
- Walt Stephens Road, between SR 138 and Camp Avenue **(E)**
- Conkle Road, between Mt. Zion Boulevard and Fielder Road **(F)**
- Fielder Road, between SR 138 and US 23 **(G)**

ITS technology, coordinated as part of a regional system architecture, is a key component to improving system responsiveness and efficiency. ITS is critically important in urbanizing counties like Clayton County because, as the County’s population and congestion increase, land and funding for new roads decrease. The use of integrated systems can improve vehicle mobility throughout the network more efficiently, as well as improve safety. The current communications system in Clayton County is installed along major corridors (Tara Boulevard, Highway 85, Mount Zion Parkway, etc) and facilitates transmitting/receiving information to/from the Clayton County Traffic Control Center (TCC) to Ethernet field devices. As the County grows and more motorists utilize its roadway network, the communications system will need to expand

to other travel corridors to minimize the impacts on the major East-West (Mount Zion Road, Highway 138) and North-South corridors (Tara Boulevard, Highway 85).

The County has a number of projects (under construction, under design, planned, programmed) that will provide both enhancements to the existing County infrastructure via upgrading of old equipment; and improvements to the County infrastructure by expanding the various systems and fiber optic communications cabling throughout the County. While these projects are being programmed, planned, designed and/or constructed, there are other areas/corridors within Clayton County, based on the CTP *Needs Assessment Report* and shown in Figure 6-3, that are recommended for improvements /upgrades.

Corridors that can potentially serve as alternate routes include:

- West Fayetteville Road between Fayette County Line and Riverdale Road – installation of fiber optic communications cabling to provide a communications link on the west most arterial in the County. Also facilitates connections to existing fiber on Riverdale Road (north) and proposed fiber on Jonesboro Road (south).
- Huie Road/Harper Drive/Rex Road between Reynolds Road and US 23 – installation of fiber optic communications cabling to provide an east-west link between Hwy. 54 and US23 that parallels the east-west routes along Lake Harbin Road to the South and Forest Parkway to the North.
- Ash Street between Morrow Road and Forest Parkway – installation of fiber optic communications cabling, along with improvements along Morrow Road (see below), will provide an alternate north-south route between I-75 and Forest Parkway.
- Morrow Road between Old Dixie Road and Ash Street – installation of fiber optic communications cabling, along with improvements along Ash Street (see above), will provide an alternate north-south route between I-75 and Forest Parkway.

Communication upgrades at these locations can also include the installation of Ethernet field switches at intersections that may require upgrades. Additionally, new communications links along the following corridors could improve the Clayton County communications network by providing a redundant communications path.

- Stagecoach Road between Rex Road and West Panola Road – provides a missing fiber optic Ethernet communications link, which in turn provides a redundant communications path in NE Clayton County, once other proposed fiber optic projects are completed.
- South Main Street between Tara Boulevard and College Street – provides a redundant communications path for communications on the South side of the County in case there are problems along Tara Boulevard.

Closed Circuit Television (CCTV) cameras installed at key intersections along corridors that are part of the new communications links listed above, will further enhance the capabilities of the ITS communications system by providing real time traffic condition images to County personnel.

Figure 6-3:
Proposed ITS Devices and Infrastructure

There are number of intersections in the City of Forest Park (in the area bordered by I-75 to the West and South, Forest Parkway to the North and Jonesboro Road to the East) that have not had any recent upgrades (signal controllers, cabinet, detection devices, pedestrian phasing, UPS backup, etc.). Providing intersection upgrades at these locations would improve monitoring as these locations are brought online and tied into the Ethernet system. Intersections requiring upgrades include:

- Morrow Road and Skylark Drive/Phillips Drive
- Phillips Drive at Reynolds Road
- Phillips Drive at South Avenue
- Morrow Road at Hammack Drive
- Springdale Road at Whatley Drive

As more ITS system components are deployed throughout the County, maintaining them to ensure proper operation and minimize down time becomes very important. The County needs to develop a plan to better schedule and track the maintenance of system components, including CCTVs, the uninterruptible power supplies (UPS), traffic signal controllers, Ethernet field switches, radar detectors, Changeable Message Signs (CMS) and the communications medium (fiber).

Clayton County's continued close coordination with state and regional efforts is a primary CTP recommendation for this element of the transportation system. ARC has adopted the Atlanta Regional ITS Architecture, which details the long term vision and system integration requirements for ITS deployment throughout the region. Needs identified for Clayton County must be met with improvements consistent with the Atlanta Regional ITS Architecture which is integrated with the Georgia Regional ITS Architecture (GRITS). GRITS is the statewide architecture that also includes emergency management, commercial vehicle operations, the NaviGator system, and Georgia State Patrol operations.

6.1.6 Traffic Count Database

To efficiently catalogue, store, and use existing and future traffic count data from traffic impact studies, GDOT and other sources, a Traffic Count Database has been developed in Microsoft Access format for Clayton County. The database provides a tool for maintaining an up-to-date inventory of traffic counts as they are collected. Existing traffic counts from GDOT as well as intersection and turning movement counts from the County were input into the database. Appendix E provides guidelines for maintaining and updating the database.

6.1.7 Maintenance Policies and Strategies

An important element of a strong transportation system includes sustaining the existing network of roads. A more effective pavement management program will improve both pavement performance and the life-cycle costing of roadway resurfacing projects.

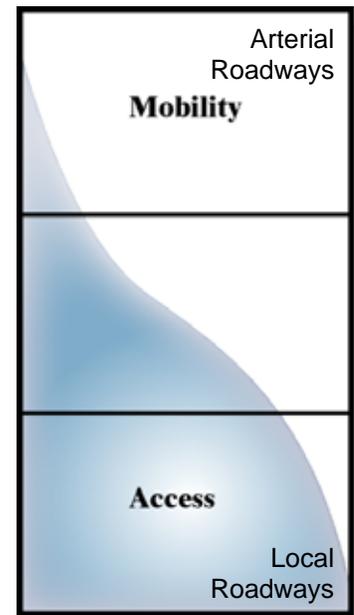
Clayton County currently uses the Pavement Surface Evaluation and Rating (PASER) Manual to evaluate pavement condition (roughness, surface distress, surface skid characteristics and structure). Upon evaluation, roadways are assigned a rating from 10 (excellent) to 1 (failed). Based on the PASER rating, roadways that need resurfacing are submitted in priority for funding assistance under GDOT's LARP program or the County's SPLOST program. With the current

SPLOST, the County is resurfacing between 70 - 160 miles (90 miles on average over the last 2 years) depending on funding for that year. This is a significant improvement over the years prior to the 2003 SPLOST when the County was only able to resurface between 15-20 miles annually.

Despite these improvements, the preservation and protection of existing and future roadway infrastructure will continue to be a long-term consideration for Clayton County because the County lacks an effective pavement management program. Recent trends in asset management indicate that ongoing preventative treatments for pavement can be less costly and can extend the pavement service life, thus avoiding rehabilitation or reconstruction. It is recommended that the County establish a pavement preservation and management program that emphasizes ongoing pavement maintenance, rather than allowing pavement to degrade to such an extent that it requires rehabilitation. As part of the CTP development process, Maintenance Guidelines, included as Appendix F, have been proposed that outline current practices, evaluation and maintenance methods as well as maintenance goals and strategies to provide a basis for the establishment of a comprehensive asset management program.

6.1.8 Access Management Policies and Strategies

It has become increasingly evident across the Atlanta Region and within Clayton County that the arterial roadway network, designed to provide the greatest vehicular throughput, has suffered loss in utility both through heavy traffic volumes and from development impacts. In theory, the arterial roadway network is to provide the greatest mobility but the least land access, while local roads provide the greatest access to land but with the least mobility (see inset). Development type, density, design and access impacts can significantly degrade roadway capacity and throughput. Examples are numerous, particularly in high-volume corridors where commercial development stretches along the corridor such as Tara Boulevard-US 19/41-SR 3, SR 85, SR 54, SR 139, US23/SR 42, Mt. Zion Road, and SR 138. **To preserve the public investment in the roadway system, land use and development decision-making should be linked directly to the transportation system.**



The safety and efficiency of roads are affected by the number and character of intersecting streets and driveways. The key is to balance the interests of property owners along a roadway with those of the traveling public. This is accomplished through controlling where and how vehicles are allowed access to a road from the adjacent land parcels. Best control practices include:

- **Traffic Signal Spacing:** Greater distance between traffic signals improves the traffic flow, reduces congestion, and improves air quality.
- **Driveway Spacing:** Fewer driveways spaced further apart presents fewer conflict points allowing smoother merging of traffic.
- **Safe Turning Lanes:** Dedicated right and left turn lanes into developments provide space for safe deceleration without impact to the following through traffic, vastly reducing the potential for rear end type crashes.

- **Median Treatments:** Medians are very effective means to regulate access, reduce conflict points and reduce crashes, especially head-on and right angle type crashes.
- **Right-of-Way Management:** Preserves the functional classification of the road, reserves the right-of-ways for future widening and maintains satisfactory sight distance.

The number and spacing of traffic signals can produce an adverse affect on progressive traffic flow. The Federal Highway Administration (FHWA) reports the ideal spacing would be two traffic signals per mile as travel time increases 16 percent with four signals per mile and 39 percent with eight signals per mile above the two traffic signal per mile spacing. The one-half mile spacing for signals also produces lower crash rates and lower fuel consumption. For example in a year, a ten mile four-lane arterial with one-half mile signal spacing reduced fuel consumption by 240,000 gallons from increased speed and 335,000 gallons from reduced delay, compared to quarter-mile signal spacing.

The impact of excessive driveways can reduce roadway speeds an average of 2.5 miles per hour for every 10 access points per mile, up to a maximum of 10 miles per hour reduction (at 40 access points per mile). Vehicle crash rates also increase as the numbers of driveways per mile increases.

Exclusive turning lanes for vehicles remove stopped vehicles from through traffic lanes. Left- and right-turn lanes at driveways can reduce rear-end crashes between 18 to 77 percent and reduce rear-end collisions between 60 and 88 percent. Left-turn lanes also substantially increase the capacity of many roadways. A shared left/through lane has about 40 to 60 percent the capacity of a standard through lane. An exclusive left turn lane can increase capacity by 25 percent on average.

The benefits of medians are well documented and can be expected to reduce crashes by up to 40 percent while providing a safe refuge for pedestrians. Raised medians can be expected to reduce crashes by over 40 percent in urban areas and over 60 percent in rural areas. A study of median treatments in Georgia found that raised medians reduced pedestrian-involved crashes by 45 percent and fatalities by 78 percent, compared to two-way left-turn lanes. However there are serious concerns within the business community that local businesses depending upon pass-by traffic will be adversely affected by medians. These concerns must be addressed by educating business owners regarding the overall benefits of medians.

ARC, in its support of countywide transportation planning, is encouraging adoption of access management policies and strategies to preserve and maintain the transportation system. Although access management policies are not the panacea for resolving conflicts between throughput and access, such policies do provide an additional tool to manage the transportation system.

“Access management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway...The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system.”¹

¹ Transportation Research Board, *Access Management Manual* (Washington, D.C.: National Academy of Sciences, 2003), Page 3.

Georgia guidelines for access onto state facilities are specified in GDOT's *Regulations for Driveway and Encroachment Control*. For county facilities, *Clayton County's Land Disturbance and Right-of-way Construction Guidelines* identifies standards for commercial driveways, indicating that "driveway locations are evaluated on a case-by-case basis."² The *Guidelines* provide minimum driveway spacing requirements, based on posted speed and recommends joint use driveways for commercial and industrial uses. *Clayton County's Zoning Ordinance* includes access management standards and identifies how many access points a development requires based on the number of residential units or the number of parking spaces included in the development. The Zoning Ordinance also provides standards for access easements and inter-parcel access, specifying:

- Cross-access drives and sidewalk access between parcels located on collector or arterial roadways; and
- Joint driveways along collector or arterial roadways.³

Clayton County is experiencing dynamic land development and it is essential to pursue access controls that achieve a balance between property access and the functional integrity and capacity of the corridor. The goals are to reduce delays and conflicts created by vehicles slowing, turning, merging and stopping to enter and exit major corridors. In addition to the access management standards currently in place, other access management tools that should be considered to preserve corridors within Clayton County include:

- Multijurisdictional access management programs and plans along identified corridors;
- Incorporation of design elements such as increasing spacing between signals and interchanges and exclusive turning lanes; and
- Use of landscaped or raised medians, including converting type "A" median openings to type "B" median openings.

Implementing access management or corridor preservation is generally easier in undeveloped areas because new development would be subject to access management requirements. Many of Clayton County's corridors are already developed. However, a number of nodes have been identified as future redevelopment areas, and implementing access management should be a priority in redeveloping corridors.

Application of specific access management tools and strategies should be employed based on the desired characteristics of a roadway and its adjacent development. To determine access management suitability for corridors in Clayton County, the following characteristics were considered: roadway functional classification as a principal or urban minor arterial, Clayton County future land use identified adjacent to corridor and location of potential redevelopment nodes. Future land use categories were selected based on anticipated higher intensity development and need for transportation access including: High Density Residential, General Commercial, Neighborhood Commercial, Office/Business, and Mixed Use.

² *Clayton County's Land Disturbance and Right-of-way Construction Guidelines*, Approved July 5, 2007, Resolution No. 2007-93, page 18.

³ *Clayton County's Zoning Ordinance*, Adopted May 22, 2008 and Amended July 24, 2008, page 104.

Table 6-2 lists the arterial roadways in the corridor along with future land use and development characteristics. A qualitative review of the future land use adjacent to the corridors was undertaken using GIS, and corridors were ranked in priority for access management as high, moderate, or low, depending on the intensity of future land use. A map depicting land use overlaid with the arterial network is shown in Figure 6-4. Another factor considered was location of redevelopment nodes on major corridors.

6.2 Freight

Understanding and planning for freight movement is an integral part of transportation systems and has been required for metropolitan and statewide transportation planning since ISTEA was adopted in 1991. Freight movements have a significant impact on the operation of the transportation system, particularly in counties like Clayton County where local and through truck traffic commingles with local and regional automobile traffic. To continue to enhance County economic development efforts, the roadway system must accommodate a growing need to move freight as well as people.

Freight delivered by truck serves a vital role in the national, regional and local economy. The U.S. Department of Transportation (USDOT) estimates that approximately 310 pounds of freight is transported per person per day in the United States.⁴ In this region, the majority of raw and finished goods movement is via truck. Due to the changes in the economy, transporting goods and commodities over rails and particularly over-the-road has increased. Within Clayton County, the recently completed ARC *Atlanta Regional Freight Mobility Plan* reported that in 2005 that 21.3 million tons were transported in and through Clayton County. By 2030, ARC estimates that the volume to increase by 68 percent to 35.9 million tons. To meet the growing demand for freight movement the following series of recommendations are proposed to address freight mobility while preserving (or improving) level-of-service on Clayton County roadways, ensuring access to HJAI and ensuring safe and efficient rail connections.

6.2.1 Over-the-Road Freight

GDOT administers the Surface Transportation Assistance Act of 1982 (STAA), a federal highway program that designates routes for oversized trucks to move freight. Highways designated as STAA routes in Clayton County are I-75, I-85, I-285, I-675, US 19/41 and SR 85 from Fayetteville to I-75. As noted in the *Needs Assessment Report*, I-75, I-285 and I-675 serve as the primary routes for freight movement through Clayton County, and provide vital links from Savannah and other Atlantic and Gulf seaports to the north and northeastern parts of the country. Several other secondary routes also support the truck route network; SR 85, from its interchange at I-75 to Fayetteville in Fayette County; Tara Boulevard/US 19/41/SR 3, connecting to Griffin in Spalding County; SR 54 from I-75 through Morrow and Jonesboro; SR 138, a main east-west link between I-85 and I-675; and SR 331 (Forest Parkway) are multilane corridors that carry a significant amount of truck traffic. It should be noted that truck trailers up to 53 feet in length and twin trailers are permitted on any state route, unless the route is signed and posted restricting such use.

⁴ U.S. Department of Transportation, Federal Highway Administration, "Freight Transportation Today," http://www.ops.fhwa.dot.gov/freight/freight_analysis/freight_story/today.htm.

Table 6-2:
Arterial Roadway Access Management Priorities



Figure 6-4:
Clayton County Access Management Priorities

On a county level, planning for freight transportation is focused primarily on roadways and railways. Intra-county and inter-county freight movement via trucks is inhibited by congested roadways. Roadway design, operational characteristics, roadway safety, and pavement condition also impact freight movement. In addition, land use characteristics and development patterns impact freight movement.

Aside from the federally designated routes, Clayton County has not developed or adopted a formal Truck Route Plan. In order to mitigate the impact trucks will have on congestion throughout the County, it is important to identify a series of truck routes that are capable of handling large vehicle travel. The added benefit will be the ability to clearly identify those corridors while ensuring trucks are not using residential or other smaller roadway corridors for connections. The designation of truck routes also offers economic development incentives as industrial sites important to the economic well-being of a community are served by appropriate roadways designed, constructed, and designated for truck use. The goal is to provide enough alternates for trucks to accommodate freight movement to major industrial destinations such as HJAIA, Ellenwood/Rex, and the industrial district on SR 54 south of I-75.

GDOT requires all federal and state routes must be open for use by all vehicles and the county has no authority to restrict truck movement on those roadways. While there are exceptions, the desire to restrict truck movement on state or Federal routes has to be thoroughly justified. However, the County can look to prohibit or restrict access on certain non-state routes that are designed well enough to accommodate larger vehicles but may need some sort of restriction due to the presence of schools, large amount of pedestrian or bicycle traffic, topographical issues, or congestion among a variety of other things. Several counties in the Atlanta region, including Cobb, DeKalb, Fulton and Gwinnett, have adopted ordinances to restrict vehicles over a certain weight (usually a minimum of 36,000 pounds) or a certain length (usually a minimum of 30 feet) from operating on County streets other than those designated as truck routes.

Although Clayton County does not have a truck prohibition ordinance, there are several roadways that are restricted to truck traffic based on requests from the community. The restricted routes are primarily classified as collector roads, first, and minor arterials, second. Several local roadways are also identified as “no truck routes”. Existing truck restricted routes are listed in Table 6-3.

**Table 6-3:
Truck Restricted Routes**

Route	From	To
Amherst Drive	Roy Huie Road	Dead End
Anvil Block Road	South Park Boulevard	DeKalb County Line
Battle Creek Road	Southlake Parkway	Mt. Zion Boulevard
Bouldercrest Road	Panola Road	DeKalb County Line
Cardinal Road	Tara Blvd (US 19/41)	Panhandle Road
Carribbean Drive	Nassau Street	Holiday Boulevard
Castlegate Drive	Pleasant Hill Road	Flat Shoals Road
Clemmons Drive	Old Toney Road	Dead End
Clemons Road	Walt Stephens Road	Henry County Line
Conkle Road	Mt. Zion Road	Fielder Road
Conley Road	Thurman Street	Fulton County Line
Crane Road	SR 138	Walt Stephens Road
Dale Road	Bell Dr.	US 23/SR 43
Dixie Avenue	Main Street	Southway Drive
Dixon Industrial boulevard	Noah's Ark Road	Freeman Road
Dixon Road	Magnolia Drive	West Avenue
Dorsey Road	Flint River Road	Fairway Court
Dunmoor Drive	North Main Street	Morrow Industrial Road
East Fayetteville Road	West Fayetteville Road	Riverdale Road (SR 139)
East Lovejoy Road	Hastings Bridge Road	McDonough Road
Edward Road	US 23/SR 43	Old Macon Highway
Fayetteville Road	Tara Blvd (US 19/41)	North Main Street
Flat Shoals Road	West Fayetteville Road	Rock Hill Drive/Airport South Parkway
Flicker Road	Tara Blvd (US 19/41)	Panhandle Road
Flint Trail	River Road	Tara Blvd (US 19/41)
Floyd Road	Lake Jodeco Road	Noah's Ark Road
Garden Walk Boulevard	Upper Riverdale Road	Dead End
Gilbert Road	Fulton County Line	Conley Road
Holiday Boulevard	SR 3	Morrow Road
Homestead Road	US 23/SR 43	Rex Road
Jonesboro Road/South Main Street	SR 138	Winding Way Lane
Lake Jodeco Road	Turner Road	Henry County Line
Maddox Road	Lake Harbin Road	Mt. Zion Boulevard
Main St.	SR 138	Jonesboro Road (SR 54)
McDonough Road	Hastings Bridge Road	Henry County Line
Meadowview Road	Rex Road	Dead End
Mt. Zion Boulevard	Southlake Parkway	Mt. Zion Road
Mt. Zion Boulevard	Rex Road	Lake Harbin Road
Mt. Zion Circle	Mt. Zion Road	Mt. Zion Boulevard
Mt. Zion Road	Conkle Road	SR 138
Noah's Ark Road	South Main Street	Henry County Line
North Avenue	Tara Blvd (US 19/41)	Jonesboro Road (SR 54)
North Lake Drive	Forest Parkway	Harper Drive
Old Conley Road	Thurman Street	Conley Road

**Table 6-3:
Truck Restricted Routes**

Route	From	To
Old Grant Road	Ellenwood Road	Campbell Boulevard
Old Macon Highway	US 23/SR 43	Homestead Road
Old Toney Road	Clemmons Drive	US 23/SR 43
Panola Road	Bouldercrest Road	DeKalb County Line
Pine Ridge Drive	SR 85	Lake View Terrace
Rex Road	Mt. Zion Boulevard	Henry County Line
Rivercrest Drive	Valley Hill Road	Riverhill Drive
Riverhill Drive	Valley Hill Road	Rivercrest Drive
Rock Cut Place	Rock Cut Road	US 23/SR 43
Rock Cut Road	Rock Cut Place	US 23/SR 43
Ronnie Drive	Rex Road	US 23/SR 43
Rosedale Drive	Mt. Zion Boulevard	Mocha Drive
Roy Huie Road	Camille Street	Upper Riverdale Road
Sherwood Drive	Tara Blvd (US 19/41)	Nottingham Road
Smith Street	Tara Blvd (US 19/41)	South Main Street
South Avenue	Tara Blvd (US 19/41)	South Main Street
South McDonough	SR 138	Lake Jodeco Road
Southlake Parkway	Mt. Zion Road	Mt. Zion Boulevard
Stockbridge Road	SR 138	South McDonough
Talmadge Road	Tara Blvd (US 19/41)	Steele Road
Taylor Road	SR 138	Flint River Road
Turner Road	Lake Jodeco Road	Noah's Ark Road
Victory Boulevard	Rex Road	Joy Lake Road
Walt Stephens Road	SR 138	Henry County Line
Winding Way Lane	Tara Blvd (US 19/41)	Briar Ridge Lane

The *Southern Regional Accessibility Study (SRAS)* identified the need for truck-only facilities and identified potential truck routes. The *Georgia Statewide Truck Lanes Needs Identification Study* concluded that stand-alone truck only lane network is not financially feasible. In addition to recently completed plans and studies, a mapping exercise was undertaken to identify potential routes for development of a County truck route network. This effort relied upon data depicting the locations of commercial and industrial land uses, existing truck restricted areas, roadway capability (functional classification), and the ARC's Strategic Freight Highway System. In addition, the fact that the County benefits from many north-south facilities (SR 85, US 19/41/Tara Boulevard, SR 54, I-75, and I-675) to accommodate freight movement, but lacks east-west facilities, was also a consideration. As a result, it is recommended that the following roadways be considered for the development of a countywide Truck Route Plan to ensure freight movement has connectivity and local streets do not become corridors for through truck movement. These recommended truck routes will require review and consultation with State, Regional, County, and City representatives to gain their concurrence for designation. If approved, these newly designated truck routes will be eligible for special funding sources that can be used to improve the operations and safety of the routes.

SR 331/Forest Parkway

This four-lane facility skirting along the northern border of the County connects HJAIA and the State Farmer's Market to the industrial areas between I-75 and I-675. By providing connections to these major freeways, freight haulers have the ability to connect to points all over the eastern seaboard of the United States. In most cases, the roadway has the ability to accommodate trucks; however, there may be a few locations where driveway access or intersections may need to be reviewed to ensure the level-of-service is not impeded by truck movement.

SR 138 (including South Jonesboro Bypass)

This facility serves as a good connection for trucks wishing to travel between I-75 and I-85 and connects to the industrial areas near HJAIA and Forest Park. Provided the suggested bypass to the south of Jonesboro is constructed (see Roadway recommendations), this roadway could act as a signature truck route with a variety of features designed for trucks including wider curb lanes, improved sight distances, extended signal timing, limited driveway access points, and rider turning radii at certain locations.

SR 20 Extension

Born out of the recently completed SRAS, an extension of SR 20 starting west of Hampton and connecting to SR 54 near Peachtree City would provide connection to I-85 South as well as other industrial districts in Fayette and Coweta Counties. The proposed route would enter Clayton County in the "panhandle" area near Lovejoy. By providing this additional connection, trucks would no longer have to rely on other congested facilities to make east to west connections.

SR 314 – length of the County

This facility parallel to SR 85 is proposed to be widened in the CTP recommendations and includes an interchange modification at I-285 immediately south of the HJAIA property. This improved connection would relieve truck movement pressure currently felt in and around the SR 54, US 19-41, and SR 331/Forest Parkway interchanges with I-75 south.

Airport Loop Road – adjacent to HJAIA

By providing alternate access to directly to I-285, Loop Road provides drivers and dispatchers with an alternate to Aviation Boulevard/I-75/I-285 interchange when entering/exiting HJAIA Air Cargo. Loop Road also connects with industrial districts along SR 6/Camp Creek Parkway in College Park, and the State Farmers Market along SR 331/Forest Parkway.

Sullivan Road – from SR 331/Forest Parkway to US 29

The western segment of this facility connects the southwestern industrial sites along I-85 to Air Cargo and the industrial sites south of HJAIA via Loop Road. The eastern segment connects HJAIA to industrial destinations in the northeastern segment of the County.

Conley Road – from Old Dixie Highway to SR 54

Making the connection between the industrial areas in north central Clayton County to HJAIA, Conley Road provides a connection to Air Cargo without using I-285 or I-75. This roadway segment will become more vital as the projects to improve the I-75 South/Grant Parkway interchange are completed.

Riverdale Road/Church Street – from I-85 to Valley Hill Road

This roadway corridor provides an alternate route to I-285 west relieving some congestion on Tara Boulevard and I-75. This facility also provides another connection to the HJAIA Loop Road.

Valley Hill Road – from Church Street to Tara Boulevard

This facility will provide a parallel east-west facility to SR 138. By connecting to SR 139/Riverdale Road, the opportunity also exists to connect to I-285 and HJAIA.

Lake Harbin Road/Morrow Road – from the Henry County line to Frontage Road

This facility provides a vital east-west connection across the majority of the County. This additional facility can relieve congestion on more prominent facilities such as SR 138 and SR 331/Forest Parkway.

Morrow Industrial Boulevard/Mt. Zion Road/Mt. Zion Boulevard – from Tara Boulevard to I-75

This facility will provide a parallel alternate to I-75 for trips destined for the Southlake Mall area. Additionally, this facility provides additional east-west travel options to allow for more trip dispersion.

SR 16

While not in Clayton County, this important east-west facility passing through Griffin can act as an excellent capture route for through trucks wishing to bypass the urban area near HJAIA.

Figure 6-5 depicts federally designated truck routes, ARC's Strategic Freight Highway System and CTP recommended County Truck Routes. Together, these routes can serve as the foundation for development of a Truck Route System for approval and adoption by state, regional and local governments. Other truck routes (not included in the current CTP recommendations) for future consideration include, Bouldercrest Road from the DeKalb County line to Anvil Block Road, Anvil Block Road from Bouldercrest to US 23 and Panola Road from Bouldercrest to US 23/Forest Parkway. Once adopted, appropriate signing and enforcement of these routes should be implemented to reduce cut-through truck traffic and maintain good levels-of-services on other County roadways.

Figure 6-5:
Designated and Recommended Truck Routes

Going forward, the County should continue to monitor and review all non-state route roadways for addition to the truck route system based on established screening criteria. Established screening criteria will assist in determining where trucks should travel based on land use compatibility, system maintenance, and economic development purposes. In this way, the County can emphasize the importance of freight to the community while maintaining the aesthetic value of neighborhoods and the safety of County motorists.

Some general considerations for designating roadway freight routes are as follows:

Issues and needs related to freight movement include freight volumes, intermodal connectivity with railroad operations, compatibility with people movement, economic development, roadway design, and system preservation. Freight routes should be established where there are heavy freight volumes. Connections to intermodal facilities and the rail system for intermodal transfers should be considered. At-grade rail crossings are also a concern when roadway freight movement is inhibited by rail usage.

The compatibility of moving freight and people on the same roadways should be considered, both from a usage and development perspective. The size and mass differences between passenger cars and some freight vehicles can be accommodated better on some roadways than others. The noise generated by freight movement is generally more acceptable in commercial and industrial districts than in residential areas. Access to local businesses by freight vehicles is a concern for local economic development interests. Ease of access to industrial areas, freight transfer facilities, and manufacturers is often a major determinant on new business location decisions. Roadway design and system preservation are additional considerations in identifying roadway freight routes. Roadways must be designed to accommodate the turning movements of large freight vehicles, and the roadway pavement and bridge capacities need to accommodate the mass of large freight vehicles.

Another option is the downgrading of certain roadway facilities to lower functional classifications (such as arterial to collector) to maintain more local control of the roadway as development or redevelopment occurs. Specifically, the County could request additional right-of-way as part of a rezoning to allow for wider lanes or separate bicycle or pedestrian facilities to ensure all modes can use the facility safely.

Another solution is for the creation of signage to show preferred routes coupled with the review of design standards for these corridors will ensure freight can move smoothly to and from major roadways such as I-75 without impacting the surrounding local street system. Dispatchers and drivers are going to locate and use the easiest facilities to reach their destinations. The County can assist with this by providing clearly marked facilities to and from major roadways and destinations, or perhaps provide a GIS-based map showing preferred truck routes on the Clayton website.

Finally, the County can identify future corridors for designated freight routes that would allow plans to be developed as the corridor's land use changes. Once the freight route is formally in place, the issues of safety and congestion would already be mitigated with the forethought of future development.

While the primary focus for truck movement should be on the County's roadways, it is important to note that these same roads do not end at the County line. Decisions made by Clayton County along certain facilities such as Bouldercrest Road may have negative effects in DeKalb County for example. Comprehensive Plans, CIPs, and other sources of information from the local governments surrounding Clayton County were reviewed in an attempt to understand which shared roadways have been designated as truck routes so any recommendations made in this study do not have negative consequences elsewhere. Unfortunately, only two neighboring counties address trucks and their movement specifically in their plans: Henry and DeKalb Counties.

The *Joint Henry County/Cities Transportation Plan* lists five truck routes serving Henry County: I-75, I-675, US 23/SR 42, SR 20, and SR 155. The interstates and US 23 all connect to Clayton County and are included in the County's existing truck route system. It is important to note that the recommendations in the Clayton CTP suggest the addition of several roadways to the County's truck route system that connect to Henry County along the southeastern quadrant of the County. Currently, there is no companion designation in Henry County along these roadways. Therefore, an inconsistency between the two jurisdictions could prohibit through truck movement.

The *DeKalb County Comprehensive Transportation Plan* has a comprehensive list of truck routes throughout DeKalb County. The only route that connects to Clayton County is Bouldercrest Road which is currently on the Clayton County "truck restriction" list. Given the connection to I-675 via Panola Road, there may be a need to review the restrictions along this roadway segment and possibly open the roadway up to limited truck movement such as during the daytime hours or make certain truck weight restrictions.

6.2.2 Rail and Air Freight

Due to the exclusivity of these modes and the little or no impact the County could make on these modes in terms of their growth or expansion, there are no aggressive recommendations related to air or rail freight. However, the County should approach and include rail and air freight providers to ensure good lines of communication stay open. Specifically, the County could work with rail freight providers to identify possible ROW preservation along certain key corridors to allow for future expansion of rail facilities.

It is important to note that the planned implementation of the Atlanta-to-Macon commuter rail service will have a major impact on existing railroad crossings throughout the County. The *Macon Line Grade Crossing Safety Recommendations Report* prepared by the Georgia Rail Consultants in October 2003 estimates almost 25 crossings along the western Norfolk-Southern line through Clayton County that could be potentially impacted. Candidate crossings would either be provided with upgraded warning systems or further analyzed for complete grade separation. Potentially impacted crossings include several high-volume crossing locations such as the Norfolk Southern crossings at SR 54 (Jonesboro Road), Jonesboro Bypass, Clayton State Boulevard, Mt. Zion Road and SR 331 (Forest Parkway), which are the top five at-grade rail crossings in Clayton County based on annual average daily traffic (AADT) according to the ARC's *Regional Freight Mobility Study*.

It is recommended that any crossings that are not located along the proposed commuter rail line be reviewed for upgrades based on traffic volumes and the incidence of accidents at the railroad crossing. Over the past 15 years, there have been several accidents where the highway and rail meet. High priority at-grade crossing for grade separation where there has been a high incidence of accidents include the Norfolk Southern crossings at Bouldercrest Road and Kennedy Road; the CSX crossing at Bell St. West; and the CGA crossing at Mirror Lake Road.

Additionally, the recent passage of House Bill 426 (HB 426), which requires each local school district to survey its established school bus routes and to submit to GDOT a list of roadway-railroad crossings that do not have active warning devices⁵ on an established route, may identify other priority crossings for upgrade to active warning devices.

6.2.3 Safety and Operations

As outlined in the *Needs Assessment Report*, several roadway intersections in the County experience additional delay due to truck movement, especially during the peak periods. Many of these intersections are located along major corridors such as Tara Boulevard, Forest Parkway, Jonesboro Road and Riversdale Road and projects have been identified in Section 6.1.5 to address some identified deficiencies. However, it is recommended that a comprehensive review of key intersections throughout the freight-intensive areas in the County be undertaken to address issues ranging from signal timing to turning radii to stopping distance.

Many of the bottleneck locations are located near interstate off-ramp locations, near the State Farmer's Market, and the area east of HJIA moving north out of County. A variety of improvements could be implemented including wider turning radii, dedicated lanes for ingress/egress into industrial parks or the Farmers Market, longer turn lane storage, and additional green/green arrow time at signals to accommodate the slower movements of large trucks. Coupled with intersection improvements, additional enforcement of truck speeds along certain surface streets (such as Old Dixie Highway) will ensure the roadways used by trucks are safer for use by all travelers.

An additional improvement that can address congestion hotspot areas is the reorientation of loading/unloading zones to the back of certain businesses via the use of access roads or alleys. By centralizing entrances/exits for delivery trucks, accommodations can be made for trucks to move more freely by removing the need to wait until a lane clears before making a wide turn.

Finally, it is important to address all modes when reviewing candidate intersections for upgrades or improvements. For example, as more citizens ride transit, it is important to provide sidewalks near transit stops and where necessary, provide appropriate crosswalks and signal timing for those traveling on foot. In areas where trucks are the predominant vehicle, the importance of providing safe facilities and crossings for pedestrians intensifies.

5

Defines the term "active warning devices" to mean automated control gates, lights, and warning bells, used singly or in any combination.

6.3 Aviation

The *Needs Assessment Report* outlined a series of improvements to Tara Field including expansion of the runway and taxiways, the widening of the runway, installation of weather equipment and other improvements. Any additional improvements should focus on positioning Tara Field as an economic development engine for the County and the surrounding area.

During Stakeholder outreach, citizens stated they would like to see the County use Tara Field as a driver for economic development in the future. Similar examples of general purpose airports becoming economic generators are common along the northern side of the Atlanta region, especially in Cobb and Gwinnett Counties. Tara Field can become an important facility to the County by encouraging businesses to locate close by and providing an alternate to HJIAA for the business travelers.

6.4 Transit

As the cost of fuel continues to increase and Clayton County continues to experience population growth and increased density, the need for transit service will become more prominent. The availability of viable transportation options will forge personal independence and make it possible for all citizens to thrive. The senior community, low-income and minority populations, and choice riders will all benefit from the availability of public transit.

There is wide recognition of the need for various transportation solutions in the County and there are a number of available potential transit programs that can assist in providing lower cost services. Ultimately, through making use of available funds, implementing and supporting transit services in Clayton County will be an affirmative step toward the County's goal to seek and support additional transportation alternatives and funding opportunities.

The transit recommendations are based on results provided from the needs assessment and input from a broad cross-section of the community including key stakeholders and public meeting participants. Travel demand modeling of population density, growth, and economic growth trends provided support for expansion of transit service. Based on the transit needs assessment, the public transit recommendations include the following:

Transit Development Plan (TDP)

A countywide TDP can integrate operations data, ridership figures and projections, community-level demographic data, peer system information, and feedback from customers, citizens and employees to analyze service productivity and identify needed improvements. The scope of a county-level TDP can encompass the C-TRAN fixed-route and paratransit services, GRTA Xpress bus services, and future commuter rail services. The TDP can assess immediate needs and help anticipate near-term adjustments as new services (new local and express routes, commuter rail) become operable. As such, the TDP will refine and establish the phasing of bus, paratransit, and rail services consistent with funding existing and potential resources and redevelopment plans. As part of the TDP, effective transit service frequencies should be identified and adjusted commensurate with density levels resulting from redevelopment within redevelopment areas. TDP planning will also refine the sites most suitable for supportive infrastructure.

Through the TDP process, an assessment of financing options for transit improvements and long term operations within the County should be conducted, resulting in a comprehensive financial plan to sustain and build the array of services. Clayton County, like many other local jurisdictions across the country, faces major challenges in funding transit operations and maintenance. The TDP process can examine the potential for other funding sources such as Congestion Mitigation and Air Quality (CMAQ) and New Freedom federal funds, public-private partnerships, local taxes (property taxes, rental car fees, lodging fees), special benefit assessment districts, and advertising/concession revenues.

Comprehensive Operations Analysis (COA)

Development of a COA for C-TRAN local bus and paratransit services will provide C-TRAN staff standards and measures to routinely analyze route-level and systemwide productivity while identifying immediate, short-range and long-range needs for its operations. A countywide COA will identify initial priorities in transit investment to expand the reach of the paratransit service and improve efficiencies in the provision of existing services, commensurate with strategic improvements in accessibility to transit stops. As the current operator of C-TRAN services, the Metropolitan Atlanta Rapid Transit Authority (MARTA) is highly experienced in COA development. Data derived from the COA can contribute to the development of the countywide TDP.

C-TRAN Fixed-Route Expansion

While a TDP can better define the optimal alignment for new routes, the expanded route network proposed through the CTP and shown in Figure 6-6 can help extend more direct service to underserved travel markets while enhancing accessibility for transportation disadvantaged populations and other potential transit commuters. Where multiple routes share a corridor or stop and are well-coordinated, the expanded services can increase the effective frequencies of transit at key locations and generate new riders.

- ***Transit Service Expansion 1 - Central Clayton County, Forest Park, Jonesboro Tradeport – Justice Center Bus Route (via SR 3 - Old Dixie Road, Tara Boulevard)***

This route can fill gaps in direct transit service along the Old Dixie Road/Tara Boulevard corridor (US 19/41 – SR 3). While improving access to office and industrial employment in the Atlanta Tradeport area, the route will provide connections with the Airport loop route (C-TRAN Route 500), and MARTA Route 72 to Hapeville, East Point and College Park. The route can also diverge from the corridor to provide access to the industrial zone west of Frontage Road. In the long-term, this route will terminate at the proposed Southern Crescent Transportation Service Center (SCTSC), in the Mountain View redevelopment area.

Figure 6-6:
Recommended Routes for Transit Expansion

Transit Service Expansion 2 - Northwest Clayton County, Riverdale HJAIA – Riverdale Shuttle Route (via West Fayetteville Road, Bethsaida Road)

In lieu of conventional 40-foot vehicles, smaller buses are proposed during peak travel periods to address various mobility needs in areas which are actively maturing to transit-supportive levels of development. While allowing for simpler access and maneuverability, smaller vehicles are also intended to lessen the level of wear on local roads until roadway surface conditions can be improved. A shuttle route between C-TRAN's HJAIA terminus and the GRTA park-and-ride at Lamar Hutcheson Parkway via West Fayetteville Road and Bethsaida Road can improve mobility options for residents in western unincorporated Clayton County. The route can also alleviate peak-period demand on existing C-TRAN Routes 503 and 504. In the long-term, the eastern terminus point can be modified to reach the Riverdale Town Center development.

- ***Transit Service Expansion 3 - Central Clayton County, Riverdale, Jonesboro Riverdale – The Beach Shuttle Route (via SR 138)***

Traversing primarily along SR 138, this shuttle route can enhance cross-county travel at the center of the County while improving accessibility to recreational opportunities. Similar to the Airport-Riverdale shuttle concept, this route's western terminus point can be modified in the long-term to reach the Riverdale Town Center development.

- ***Transit Service Expansion 4 - South Clayton County, Jonesboro, Lovejoy Southlake – Lovejoy Shuttle Route (via Jonesboro Road, US 19/41-SR3)***

This route would emanate from the Southlake area and offer connections to transit and County destinations for persons in southern Clayton County. The route also fills a gap in transit service along Jonesboro Road, north of the City of Jonesboro, and may diverge to reach the Lake Tara area along Tara Road. The southern terminus for this route will be the Lovejoy commuter rail station. The northern terminus will be modified in the future to the eventual C-TRAN passenger transfer center, tentatively planned for the Southlake commercial/industrial area.

- ***Transit Service Expansion 5 - Northeast Clayton County, Forest Park Tradeport – Ellenwood Shuttle Route (via SR 331, SR 42, Anvil Block Road)***

This shuttle route would traverse the Forest Park area via industrial employment districts along Clark Howell Highway. The route would provide service along a portion of US 23/SR 42 and Anvil Block Road to the Villages of Ellenwood development. Future population and employment growth at the Fort Gillem redevelopment and in the vicinity of the Forest Park commuter rail station will allow for realignment of the route.

- ***Transit Service Expansion 6 - Northeast Clayton County, Lake City, Morrow Clayton State University – Southlake Shuttle Route (via Harper Drive/Rex Road, Mount Zion Boulevard)***

This route would circulate primarily to the east of these key employment generators, improving mobility and accessibility options along the Rex Road/Harper Drive corridor and along Mount Zion Boulevard. The future northern terminus will be the planned Gateway development and commuter rail station at CSU, while the C-TRAN passenger transfer center, tentatively planned for the Southlake commercial/industrial area.

Commuter Rail Services: Atlanta to Lovejoy

The alignment along the Norfolk Southern railroad from downtown Atlanta through Clayton County remains a priority for implementation among lines identified in the Commuter Rail Plan by GDOT. Proposed stops along the NS corridor include the SCTSC, Forest Park, Morrow, Jonesboro and Lovejoy (shown in Figure 6-6) and would generate thousands of peak-period riders. Detailed station-area planning and design for the proposed commuter rail stations in Clayton and Fulton Counties should be pursued at a regional level as soon as possible. Multimodal access to the stations and nearby town centers and developments will maximize ridership.

Transit Planning Board (TPB) Concept 3 Proposed Regional Transit Services

The TPB is a regional partnership collaborating to establish and maintain a seamless and integrated transit network within the Atlanta region. The vision for regional transit as defined by the TPB includes multiple inter-county routes linking Clayton County with other counties in the Southern Crescent portion of the region. These routes will help to address east-west mobility, accessibility and connectivity needs along communities in the Southern Crescent area. Route concepts (shown in Figure 6-6) include:

- TPB Inter-County Suburban Route Concept: Union City to Southlake (via Riverdale)
- TPB Inter-County Suburban Route Concept: Newnan to Stockbridge (via SR 138)
- TPB Inter-County Suburban Route Concept: Jonesboro to McDonough (via Lake Jodeco Road)
- TPB Arterial Rapid Bus Route Concepts: SCTSC to Newnan, Fayetteville, and Griffin
- TPB Interstate Bus Rapid Transit (BRT) Concepts: I-75, I-675, I-285 (East to South Fulton and DeKalb Counties)

The Clayton County Commission Chair served as Chair of the TPB and was instrumental in reaching a regional consensus for Concept 3. Clayton County will support Concept 3 recommendations within the county through the regional planning process.

MARTA Southeast Corridor Alternatives Analysis (AA)

An alternatives analysis study consistent with FTA guidelines should be conducted for the Southeast Corridor extending from East Point via Hapeville to Forest Park. The AA study will help to define a “purpose and need” to improve travel options between South Fulton and North Clayton Counties. The AA culminates in the development of a “locally preferred alternative”

(LPA) for future consideration of federal funding. High-capacity transit alternatives may include the extension of MARTA heavy rail to the SCTSC.

Southern Crescent Transportation Service Center

Situated within the planned Mountain View redevelopment area, the Southern Crescent Transportation Service Center would provide a central location for multimodal travel across and through the southern Atlanta metropolitan area. Featured services to be accommodated within the center are C-TRAN local transit and inter-county bus transit, and commuter rail, and a high-capacity transit alternative connecting to MARTA heavy rail, resulting from the MARTA Southeast Corridor Alternatives Analysis. The Mountain View Redevelopment Plan update (2007) supports the establishment of a tax allocation district to finance infrastructure improvements.

Countywide Paratransit Expansion

Due to funding constraints, geographical access to C-TRAN paratransit vehicles is presently limited to the minimum $\frac{3}{4}$ -mile distance from the C-TRAN fixed route alignment required under the Americans with Disabilities Act (ADA). Providing new fixed routes would expand the required paratransit service area, but would only incrementally address immediate needs. New Freedom program funding from the Federal Transit Administration and local matching funds may help to support countywide expansion of service operations above and beyond the required minimum by ADA. Eligibility for these funds, administered at the urbanized area level, requires consistency with the regionally coordinated public transit-human services coordination plan, developed by ARC. The expansion of ADA-compliant sidewalks will not preclude expansion of C-TRAN paratransit service. The goal of the CTP is to provide as many transportation options as feasible, given the limited resources at the county and regional level.

C-TRAN Passenger Transfer Center Site Plan

A location for a passenger transfer center will provide a coordinated destination for multiple C-TRAN, GRTA and TPB routes, providing high-quality services and amenities while minimizing transfer waiting times for passengers. A centrally-sited facility is recommended, primarily in the vicinity of Southlake Mall, to support local and inter-county bus passenger transfer activities.

C-TRAN Superstop Site Plan

Superstops provide customer amenities and travel information at locations where high volumes of boarding are likely to occur. While highly functional with higher seating capacities than conventional bus stops, the superstops are typically designed with community input in a manner which showcases its presence in high-profile locations, increasing the appeal of the transit service. Technology enhancements can provide real-time transit arrival and traveler information, as well as advanced fare payment options. Prospective sites for superstops can include locations served by two or more routes outside of the central passenger transfer center, bus bays, town centers, or stops near intersections aided by queue jumper lanes. Current examples of superstop concepts are in Athens, Georgia and in Central Florida. Potential sites include the Atlanta State Farmers Market, Northwest Clayton hospitality district, SR 85 in Riverdale, Mount Zion Parkway, and SR 54 in Lake City.

C-TRAN Administrative/Maintenance Facility Site Plan

As the C-TRAN system prepares to expand, locations for a facility best suited to meet future operational needs must be surveyed. An ideal location would involve a central location within a reasonable distance of C-TRAN routes to minimize non-revenue travel and sufficient land to support vehicle storage, fueling and on-site circulation.

Queue Jumper Lane Suitability Analyses

Providing priority for transit at congested intersections, the intent of queue jumper lanes is to improve person-throughput (rather than merely vehicle-throughput) along congested travel corridors, enhancing the effectiveness and appeal of arterial bus operations. At an intersection, a queue jumper lane provides a means to bypass traffic held at a traffic signal within its own lane, thereby improving travel times and schedule adherence. Queue jumpers typically include a shared lane with right-turn traffic (or an exclusive approach lane), vehicle detection and traffic signal priority technology, and a designated stopping area for transit boarding and alighting. Queue jumper lanes are most feasible where there are effective transit frequencies of 4 vehicles per hour or more, an intersection level of service rating of 'D' or worse, peak-hour traffic flows of 250 vehicles per hour or more in the approaching curb lane, and limited costs for right-of-way acquisition and capital investment. Candidate corridors for queue jumper lanes currently include SR 85 and Tara Boulevard (US 19/41 – SR 3).

Town Center Circulators and Connectors

Local government partnerships with private coalitions may help support the establishment and operation of circulators which can improve connectivity to and within town center areas.

Transit-Oriented Development (TOD) Coordination

Transit improvements can be strategically synchronized with the completion of active and planned redevelopment projects. Transit can be integrated into proposed and town-center environments at adequate service levels based on projected densities in employment and population. Transit staff can continue to contribute to the identification of supportive revisions to land use policies and zoning and subdivision regulations.

C-TRAN Enhanced Marketing, Outreach and Partnerships

Ongoing policy improvements include enhancing the C-TRAN website and marketing tools; increasing coordination with local governments; establishing new partnerships with businesses, civic groups and local business coalitions such as the Hartsfield Area Transportation Management Association (HATMA) to expand awareness of the service; and incorporating transit route alignments and contact information into maps and materials produced for heritage and preservation tourism purposes.

Some needs relating to preservation involve protecting the impacts of expanded transportation needs on historic community resources. Enhanced partnerships among C-TRAN, the Clayton County Chamber of Commerce and Clayton County Transportation and Development staff, working with representatives of Clayton County's representatives of heritage and preservation

tourism sites, will address accessibility, connectivity and information demands through the provision of new alternatives to automobile travel, lessening dependence on the need for land and dimensional space to support automobile parking near these sites. One cost-effective approach involves displaying information regarding transit routes and contact information as well as bicycle facility locations on maps produced to display Clayton County locales for tourism purposes.

6.5 Pedestrian and Bicycle Facilities

Few pedestrian facilities are provided in the County outside of the cities of College Park, Forest Park, Jonesboro, Morrow, Lake City, and Riverdale. Input received from the public and stakeholders indicated more pedestrian and bicycle facility infrastructure is needed at existing and new developments, schools, recreational and transit facilities, and employment centers. Safer bicycle and pedestrian facilities are needed to minimize bicycle and pedestrian conflicts with motor vehicle traffic. Bicycle and pedestrian trips between residential areas and activity centers are hindered by the lack of sidewalks and bicycle routes. Existing facilities often do not meet the Americans with Disabilities Act (ADA) requirements at ramps and driveways/access points.

6.5.1 Pedestrian Facilities

To support CTP goals to broaden the multimodal transportation system, strengthen access to transportation alternatives and provide transportation infrastructure to complement land use and development, it is recommended that the County and its municipalities implement a pedestrian facility improvement program. Program elements include constructing sidewalks, pedestrian crossings, and pedestrian signals where warranted. The program should focus on access to schools, transit and recreational facilities and connecting mixed land uses and development for the shorter pedestrian trip, typically one-quarter to one-half mile in length.

Where sidewalks are presently provided, gaps within the existing sidewalk network should be closed to eliminate safety and connectivity issues associated with discontinuity. Gap-closure projects situated along the Regional Strategic Transportation System (RSTS)⁶ network where low pedestrian levels of service exist are advanced for top priority due to their heightened likelihood of implementation using funds acquired at the state and regional levels. Such projects also reduce the risk of vehicle-pedestrian incidents in high-volume areas by enhancing pedestrian service levels. Approximately 4.5 miles of these projects are recommended in the CTP and are situated in the vicinity of the City of Jonesboro, along SR 54 (Jonesboro Road), Stockbridge Road, and US 19/41 – SR 3 (Tara Boulevard).

Consisting of approximately 28 miles, other noted areas of priority for sidewalk gap closure are presently found in Northwest Clayton (SR 139 - Riverdale Road), Central Clayton (Flint River Road), College Park (Southampton Road, Phoenix Road, Godby Road), Forest Park (SR 54), Jonesboro (Spring Street), and Riverdale (Church Street, SR 139, Roberts Drive, SR 85, Taylor Road).

⁶ The RSTS is made up of Interstate freeways and highways, transit corridors, and important principal arterials and other facilities that operate on a regional scale and are essential in meeting mobility and accessibility goals. These regional systems will be given priority for limited transportation funding.

Among schools within high-priority implementation zones, eight schools presently have a complete Traffic and Pedestrian Access Study. The schools are:

- Huie Elementary
- Lovejoy High
- Marshall Elementary
- Morrow Middle
- Morrow High
- Mt. Zion Elementary
- Smith Elementary
- Swint Elementary

A total of 15 pedestrian access projects recommended by the studies are included within the CTP, along with supplemental projects intended to help each top-tier zone achieve the phased pedestrian-to-roadway ratio goals. Future projects intended to improve the walk zones near schools should be based on the completion of Traffic and Pedestrian Access studies. The sidewalk priority-zone process can be used to highlight other schools in greatest need of such analyses.

In prioritizing pedestrian needs for schools, priority should be given to elementary and middle schools as they generally serve smaller geographic areas. In addition, national and statewide efforts to support *Safe Routes to School* (SRTS) concentrate on providing safe, alternative transportation means to travel to school for school-aged children in Kindergarten through eighth grade. Roadways identified for potential sidewalk connections will require additional safety and traffic engineering review to determine suitability for sidewalks and pedestrian facilities. The SRTS program specifically focuses on five areas which are critical to the program's success: engineering, enforcement, education, encouragement, and evaluation. Engineering factors include evaluating the infrastructure of the existing transportation system as well as system characteristics such as travel patterns and traffic volumes. In general, local or collector roads with lower posted speeds, fewer travel lanes, and lower traffic volumes are better candidates for pedestrian improvements.

Due to the close proximity of bus transit stops, it was possible to group transit pedestrian-access projects within corridors, highlighting emphasis areas for pedestrian improvements along primarily arterial and collector roads. Eleven high-priority transit corridors were recommended for implementation within the CTP.

Similar to the transit analysis, connectivity among recreational facilities and heritage and preservation tourism areas can be achieved by illustrating corridors where sidewalk improvements can link together high-priority leisure sites. Twelve high-priority recreation-tourism corridors were highlighted in the CTP and recommended for implementation.

Figure 6-7 illustrates the priority pedestrian corridors for "critical" phase implementation, based on the Greenway Suitability Analysis and priority zoning tools. Table 6-4 provides a description of each project by priority category. Secondary and tertiary priorities have been identified through this process. However, these tools will help discern the value of any future pedestrian improvement projects on County roads and city streets.

Figure 6-7:
Recommended Priority Sidewalk Improvement Corridors

[Table 6-4:](#)
[Recommended Priority Sidewalk Improvement Corridors](#)

Within the first five years, assessments of mid-block crossing needs along arterials and collectors exceeding 1000 feet between signalized intersections, 600 feet between any two intersections, and 300 feet between any two intersections in central business districts should be completed. The GDOT Pedestrian and Streetscape Guide (2003) and resources from the Center for Urban Transportation Research (CUTR) provide sufficient technical assistance to complete the assessments.

6.5.2 Bicycle Facilities

Similar to the process established for pedestrian facilities, bicycle path priorities can be assigned using the greenway suitability rating and the priority categories of nearby schools, transit stops, parks and recreation centers, and tourism areas.

Sharrows should be designed and located along low-traffic roads with posted speeds at or below 35 miles per hour, where capacity constraints limit the feasibility for widening the thoroughfare to accommodate striped bicycle lanes or bikeable paved shoulders. A sharrow is an arrow-like design painted on a roadway to designate a bicycling route. Candidates for consideration of sharrow pavement markings include College Street in Forest Park, Spring Street/West Avenue in Jonesboro, Phillips Drive in Lake City/Morrow, Lovejoy Road in Lovejoy, and King Road in Riverdale.

Over the next twenty years, recommended multi-use trails along waterways should be developed as “blueways” integrated with stream improvement projects and feeding into nearby parks as “greenways”. Building on the successful implementation of the existing Jesters Creek Greenway trail, recommended blueway/greenway corridors include and extension along East Jesters Creek, Hurricane Creek, Panther Creek, and Flint River. These corridors are illustrated in Figure 6-8. The Flint River trail will provide an opportunity for north-south non-motorized travel across the western side of Clayton County. Close coordination with the Clayton County Water Authority, the Clayton County Parks and Recreation Department, local neighborhoods, and neighboring counties is essential to implementing the blueway/greenway concept.

In order to advance construction of multi-use trails and greenways identified in the *Parks and Recreation Master Plan*, opportunities for combining trails development with roadway upgrades should be identified. The GDOT *Pedestrian and Streetscape Guide* recommends that an optimal multi-use path width is 14 feet. For on-street bicycle lanes, GDOT follows the AASHTO Guide for the Development of Bicycle Facilities which indicates a desired width of five feet.

6.5.3 Pedestrian and Bicycle Policies and Strategies

The greenway suitability findings and inventory established as part of the CTP should be used to produce a County bicycle map featuring suitable paths and roads, as well as employment, shopping and recreation destinations with bicycle-supportive facilities and services. The map can build from the data collected and prepared by ARC for the 2003 Clayton County bicycle suitability map.

Given the community orientation of pedestrian and bicycle travel in residential communities, a sound traffic calming policy can help mitigate the impacts of excessive-speed travel within and through these areas in a manner which ensures mobility for bicyclists and emergency services.

Figure 6-8:
Recommended Blueways/Greenways

Appendix D provides the traffic calming policy and associated tools for community-level consideration and implementation.

To develop a balanced transportation system supporting viable alternative transportation modes such as walking, pedestrian facilities should be integrated into the planning and development process. As recent development trends have illustrated, it is more difficult and costly to implement pedestrian and bicycle infrastructure after developments are constructed than to consider pedestrian and bicyclist circulation needs from the outset.

As developers construct new sidewalks per subdivision requirements, priorities can be established by the County and city governments to identify and aid in the filling of sidewalk gaps along these thoroughfares, specifically where sidewalks were not previously required. The municipal governments can also identify where sidewalks and crossings may have been installed prior to the establishment of ADA accessibility guidelines and program improvements to upgrade the facilities to current standards. Particular consideration can be given to the realignment of utility poles, fixed signage and street furniture, the smooth transition between gutters and curb ramps, the provision of detectable warning materials at curb ramps, the accessibility of pedestrian features such as signal actuation buttons, and the addition of passing spaces for wheelchair mobility where narrow sidewalks are frequently used.

In addition, the following policies and practices are recommended to support a multimodal, complete streets transportation system within the County.

- Adopt design standards for pedestrian and bicycle facilities within the development regulations to complement roadway classification designations.
- Establish standards for pedestrian and bicycle-friendly crosswalks, detection and signals, signing, and other amenities such as seating, lighting or trash receptacles, where applicable.
- Require that new developments and subdivisions address pedestrian and bicycle circulation needs as they would vehicular traffic impacts.
- Eliminate barriers to non-motorized travel by encouraging direct, off-street pedestrian and bicycle connections between residential developments and local community destinations such as schools, playgrounds, parks, shopping centers, transportation facilities or other community facilities.
- Encourage development of street networks that have shorter block lengths (500 to 700 feet) and minimize use of cul-de-sacs to support pedestrian connectivity.
- At activity centers and along development corridors, require development of secondary internal street network.
- Establish intra- and inter-departmental coordination procedures with the parks and recreation department and Clayton County Public School system to review pedestrian and bicycle sidewalk projects.

6.6 Transportation Demand Management Strategies

Feedback from stakeholders and the general public suggests a need for more publicity of existing commuter support services and a broader application of transportation demand management (TDM) strategies for travelers in Clayton County. TDM strategies for implementation include:

- Increased marketing of existing regional programs;
- Broadened public awareness and increased participation in carpooling and vanpooling;
- Greater promotion of park and ride lots and regional express bus service;
- Better promotion and marketing of support services;
- Increased transit frequency and service-area coverage;
- Increased outreach to large employers in the region, particularly to encourage teleworking or flexible scheduling.

Two major regional commuter initiatives are available to travelers in metro Atlanta: the Atlanta Regional Commission's RideSmart Program and The Clean Air Campaign (CAC). The former is a confidential ridematch service provided by ARC's Transportation Demand Management (TDM) Division that matches commuters who live or work in the Atlanta region with potential carpool partners and/or vanpools with open seats. Individuals can obtain immediate ridematch results by using the On-Line RideMatching (OLRM) system or by calling a toll-free hotline, 1-877-433-3463. The RideSmart service helps individual commuters as well as Employer Services Organizations, such as Transportation Management Associations (TMAs) and the Clean Air Campaign.

The CAC is a 20-county not-for-profit organization whose mission is to educate the public and encourage voluntary efforts to improve air quality. The CAC offers programs and services to employers, employees, schools, and individuals, and serves as a central clearinghouse for information and educational resources. The free, employer-based outreach services available to public and private businesses through the CAC include the establishment of worksite-based TDM strategies such as: carpooling, vanpooling, transit-pass sales, pre-tax or subsidy programs for commuters, walking and bicycling promotions, flexible work-hour programs, rideshare financial-incentive programs, and teleworking initiatives.

Presently, there are more than 20 employers and associations located in Clayton County who are currently partnered with the CAC. Partnership offers employers and their employees access to the following services:

- Commute options and other smog-reduction programs, including car and vanpooling, teleworking and transit pass programs;
- Marketing the RideSmart regional rideshare database to employees;
- Financial incentive programs to encourage alternative commute options;
- Access to a regional toll-free call center (1-877-CLEANAIR) staffed to answer questions, provide tools and resources;
- Distribution of Smog Alerts on behalf of the Georgia Environmental Protection Division;
- Access to a web site that offers downloadable tools such as vanpool sign-up forms, teleworking fact sheets, and RideSmart and Guaranteed Ride Home sign up forms; and
- A public information campaign that includes mass advertising, public relations, speaker's bureau and community outreach.

In 1999, a group of local businesses and stakeholders created a task force to address transportation, mobility, economic development and air quality challenges in the Hartsfield Airport area. Their concern for these issues resulted in a successful union of forces. As a result, the Hartsfield Area Transportation Management Association (HATMA) was created as a subsidiary of Clayton County Chamber of Commerce to coordinate and promote programs for

carpooling, vanpooling, transit use, teleworking, walking and biking to work. HATMA membership now includes over 27 businesses, agencies and municipalities representing more than 45,000 employees.

6.7 Emergency Evacuation Preparedness

A high-level assessment of transportation system needs related to natural hazards was undertaken for Clayton County. To identify potential areas of concern for evacuation in the case of a natural disaster, the County was divided into subareas. Each subarea was reviewed to determine adequacy of the transportation system should a subarea require evacuation in the case of a natural disaster. The greatest needs were identified in the most populous areas of the County, particularly within the north-central portion. In order to prepare adequately for evacuation, a comprehensive hazard risk assessment should be undertaken. The risk assessment can be used to identify potential manmade and natural hazards and identify relative risks related to each. In that way, a more specific evacuation plan can be developed for the high risk areas of Clayton County. A countywide hazard risk assessment should include coordination with local jurisdictions and HJAIA as well as regional and statewide partners. The Federal Emergency Management Agency (FEMA) has a pre-disaster mitigation grant program to assist in development of local multi-hazard mitigation plans. The federal program is administered in Georgia by the Georgia Emergency Management Agency (GEMA).

The assessment focused on the most commonly occurring natural disaster, flooding, to examine the ability to leave a flood-prone area in case of flooding. Related to flooding and transportation facilities, the greatest concern for the County is found in locations downstream from new development, where older culverts or bridges may not have adequate capacity to accommodate additional stormwater runoff generated by new developments' impervious surface. Through a review of the Clayton County 100-year flood plain map, it appears the greatest risk for flooding, which could impact transportation facilities is along the Flint River, particularly within the County's panhandle.

Flooding on the local roadway network can also occur due to clogged storm drains and pipes. Overall, there is a need for continued ongoing maintenance and monitoring of the stormwater management system to prevent episodic flooding due to clogged storm drains and pipes. The Clayton County Water Authority (CCWA) oversees the county's stormwater management program. The CCWA stormwater utility includes preventative maintenance and repairs for all stormwater structures within the right-of-way and all pipes directly connected to the right-of-way. Under the CCWA, existing stormwater management devices have been inventoried. In addition, policies to reduce impervious surfaces should be developed as well.

6.8 Supportive Land Use Policies and Strategies

Transportation infrastructure and land use policies create the framework for community evolution. Their interrelationship affects economic prosperity, environmental quality, and social equity—all vital components of development. Their disassociation can lead to the inefficient use of resources, adverse environmental and community effects, and inability to take advantage of mobility synergies that result from integrating land use and transportation planning.

At over 98 percent build out, there is general consensus among stakeholders and the general public that Clayton County is entering into a redevelopment approach for its future development.

This approach involves preserving vital greenspace, historically and archaeologically significant resources, and environmentally sensitive land, while promoting redevelopment and infill development supported by a sustainable, well-connected transportation network in other areas. This community consensus emphasizes the demand for social, economic, and environmental benefits to be generated by the transportation infrastructure investments in this CTP.

Clayton County's projected growth will require continuous investment in transportation facilities to meet the needs of the community, particularly if the County is seeking to encourage economic development and broaden its tax base through a proportional mix of residential, commercial and industrial land uses. By focusing on the goals, objectives and themes previously outlined in Section 3.2 Clayton County can begin to strategize ways to minimize transportation infrastructure investment costs while also minimizing impacts and constraints on the development and redevelopment of land which promotes economic development.

The newly approved Clayton County Zoning and Subdivision Ordinances begin to form the foundation for future growth and development as it transitions from a low-density suburban design to a higher density urban community. The ordinances establish policies and practices, regulation/codes, and standards that favor alternative transportation modes and urban design. The revision of the County's zoning ordinance and development regulations is intended to promote consistency with the comprehensive land use plan and to better protect resources, maintain community character and promote sustainable economic development while balancing public and private needs. Zoning changes will allow for higher densities along key transit corridors, provide for the creation of transit-oriented developments and other mixed used zoning classification, and require the installation of sidewalks in all new developments. These changes will also assist to improve transportation connectivity and transitional buffers between different land uses.

The Clayton County Code of Ordinances empowers the Redevelopment Authority to designate redevelopment areas and regulate how land is used in these areas. The Authority has the power to create tax allocation districts and other zones for implementation planning, and issue and administer tax allocation bonds. Within designated redevelopment areas, the Authority can develop minimum acceptable standards for transportation and land use interaction. These minimum standards may include, but are not limited to:

- Placing density requirements for developments along principal and minor arterials, especially along existing and future transit corridors
- Setting minimum standards and regulations on ingress and egress locations along principal and minor principal arterials
- Encouraging the creation of a safe and accessible bicycle and pedestrian network focusing on segments near community-oriented facilities; public schools, transit stations and stops as well as parks, recreational venues, and heritage and preservation tourism sites.
- Encouraging and promoting multi-modal supportive developments
- Minimum right-of-way preservation requirement standards along all roadway types
- The use of transfer of development rights to preserve greenspace and minimize development in environmentally sensitive areas
- Requiring that street systems of major developments have compatibility to existing major thoroughfare plan and planned improvements
- Requiring minimum roadway performance standards are maintained

The CTP recommends the pursuit of the 2030 Long Range Growth scenario (defined in Section 5.2.1), which channels new population and employment into designated redevelopment zones, as a preferred long-term growth strategy. These redevelopment zones include the following:

- Livable Centers Initiative (LCI) areas:
 - Northwest Clayton
 - Forest Park/Farmers Market
 - Morrow/CSU
 - Riverdale
- Fort Gillem Local Redevelopment Area
- Villages of Ellenwood Tax Allocation District
- Commuter Rail Station areas:
 - SCTSC
 - Forest Park
 - Morrow/CSU
 - Jonesboro
 - Lovejoy

To reinforce its implementation, the CTP recommends the formal delineation of redevelopment zone boundaries by the Redevelopment Authority inclusive, at a minimum, of traffic analysis zones identified within this scenario. Formal zonal designation is bound by the statutory terms of redevelopment powers granted by the State of Georgia (O.C.G.A. Section 36-44-3(7)). Where anticipated redevelopment involves industrial, commercial, or mixed-use activities, the Redevelopment Authority should facilitate the establishment of tax allocation districts to support objectives in each redevelopment area. The roadway guidelines and access management guidelines contained in this CTP are tools which should be applied to achieve minimum performance standards.

With this focus on redevelopment and in-fill development moving forward, the County's ability to create a transportation network with seamless connection of alternative transportation modes between communities, employment centers and activities centers becomes key to maintaining and enhancing its performance levels. During CTP development the following corridors were identified as key strategic corridors to the network's overall performance. They include:

- Tara Boulevard (US-19/41)
- SR 54
- West Fayetteville Road (SR 314)
- Mount Zion Boulevard/Road
- Riverdale Road
- Moreland Avenue (US 23)
- Forest Parkway
- Upper Riverdale Road
- Jonesboro Road
- SR 138

These corridors are vital in connecting redevelopment areas in Clayton County, and in providing connections to the interstate highways, HJAIA and other transportation facilities for other

communities in Clayton and other Southern Crescent counties. It is recommended that these corridors be designated as redevelopment corridors (or corridor overlays). This designation creates the opportunity to direct, guide and mandate how redevelopment will occur to increase mobility options for all.

The following strategies are also recommended to enable Clayton County to begin to coordinate land use development with transportation system preservation while promoting economic development and redevelopment opportunities inside its borders.

Create a Joint Cities-County Review Committee

With urbanization, Clayton County has grown to be a large, diverse, and complex community. To promote and support economic development, a balance of housing and employment while reducing commuter trip times for its citizens, the County needs an array of good, accessible jobs within its boundaries. Both incorporated and unincorporated areas need strong, profitable companies to locate and remain within their redevelopment areas. A significant new, coordinated and balanced emphasis on businesses and jobs to complement the existing commercial base and strong residential presence in the County is needed.

A majority of the CTP-designated redevelopment areas are located dually in incorporated and unincorporated portions of the County. The creation of this joint committee would begin to formulate a strategic alliance between the County and its municipalities for the benefit of these areas by identifying locations where specific development types would be sustainable through existing and planned infrastructure. It supports the need for coordination or review and cultivates smart and sustainable future growth and redevelopment.

This committee can also assist in ensuring that Clayton County's future development and redevelopment efforts occur in compliance with the implementation of the ARC's Unified Growth Policies recently approved as part of *Envision6*. Proactive coordination will be critical to achieving common economic goals, avoiding overburdened infrastructure, and maintaining transportation system functionality.

The Clayton County Redevelopment Authority and Clayton County Economic Development Department can serve as the catalyst to develop a joint City-County review process of major developments to determine if existing or emerging redevelopment areas will provide adequate facilities for various development types. This becomes an important factor when seeking economic development opportunities; it is in the best interest of the County to begin to direct its growth through a coordinated review of locations within its boundaries that best facilitate the proposed development. This committee would include representation from the municipal departments already involved in site development review and representatives of the cities, the school board, the water authority, and regional planning partners.

In Georgia, one example of a successful joint city-county effort is the City of Rome and Floyd County who maintain a Joint City/County Development Oversight Committee. The committee is inclusive of City and County commissioners and managers of municipal planning, building inspection, and environmental services departments.

Promote Density-Intensive Mixed-Use Developments

Through the implementation of increased density levels along strategic roadways and within designated redevelopment areas, Clayton County can begin to develop a network where various modes of transportation co-exist creating a greater level of mobility for residents, businesses and visitors to and from these activity centers. A sample of recommended transit-supportive residential and/or non-residential densities, by transit mode, is provided in Table 6-5 to support land use policy implementation.

Suburban land use and development practices in recent years have favored automobile use/reliance, focusing primarily on low-density, single-family subdivisions located in areas distant from centers of activity. Clayton County and its municipalities need to carefully manage remaining developable land and redevelopment efforts to attract the kinds of high-end housing, diverse retail, and high-paying jobs that the County currently lacks. Future growth and development needs to be directed into areas with existing and planned infrastructure. The future expansion of C-TRAN, programmed expansion of the regional transit system, and the proposed implementation of commuter rail elevate the County’s need to concentrate on promoting and encouraging mixed use developments along transit corridors.

**Table 6-5:
Recommended Transit Supportive Densities**

Transit Mode and Service	Recommended Minimum Transit Supportive Densities	
	Residential <i>(dwelling units per gross acre)</i>	Non-Residential <i>(million square feet of commercial and/or office floor space)</i>
Commuter Rail, 20 trains/day	1*	100*
Local Bus Service, 60-minute headway	3	5**
Express Bus Service	3***	35***
Local Bus Service, 30-minute headway	7	8
Bus Rapid Transit	9	35
Light Rail Transit, 5-minute	9	35
Heavy Rail Transit, 5-minute	12	50****
Local Bus Service, 10-minute	15	20

* Assumes connection via existing track between stations near residential areas and at least one non-residential center with 100 million square feet of floor space or above (usually major urban central business districts)

** Alternatively, minimum 4 jobs per acre

*** Assumes connection between existing park-and-ride lots or stops near residential areas and at least one non-residential center with 35 million square feet of floor space or above

**** Alternatively, minimum 20 jobs per acre

Sources: Institute of Transportation Engineers (ITE) (1989). *A Toolbox for Alleviating Congestion*. Washington, D.C.: ITE Pub. No. IR-054A, pp. 92-93
 Georgia Regional Transportation Authority (GRTA) (2003). *Regional Transit Action Plan, Draft Concept Plan*. Atlanta, GA: GRTA, 30 June, ch. 3, pp.6
 Transit Cooperative Research Program (TCRP) (1996). *Transit and Urban Form*. Washington, D.C.: National Academy Press, TDRP Rpt. 16, pp. 11-17

Transit oriented developments (TODs) can provide the stimulus for walkable neighborhoods and create the density levels necessary to warrant expansion of fixed route transit service. TODs,

combined with the implementation of overlay districts can introduce new quality residential, retail, and even office uses to the County, thus supporting many of the CTP's economic and quality of life goals. Encouraging TODs can also support the expansion of bike/pedestrian networks which complement dense developments. Thus, land use policies can begin to have a major impact on the satisfaction of mobility needs. Conversely, successful transit-oriented development necessitates transit that is itself development-oriented and readily accessible. Transit service level policies should be adjusted over time, specifically service hours and headways, commensurate with phased redevelopment in the vicinity of transit stops.

The formal inclusion of a "Statement of Need for TOD" and clear policy of support in the Comprehensive Plan, TOD-specific ordinances, and minimum acceptable design standards are regulatory techniques which will further promote the County's aspiration to utilize this development strategy in future development and redevelopment. Sample TOD ordinances supporting redevelopment strategies are included in Appendix G. The ordinances are from:

- Atlanta, Georgia
- Phoenix, Arizona
- Austin, Texas

Implement an Aggressive Sidewalk Plan and Establish Special Pedestrian Districts

There are currently very few locations within Clayton County where there are well-connected sidewalks available to local residents or transit users. The lack of sidewalks greatly impacts the safety of pedestrians, especially those who access transit along major roadways. The CTP begins to offer connectivity options between centers of activity and helps to develop an implementation plan to increase the safety and security of pedestrians.

Policies and projects that provide mobility options to driving must be incorporated to help alleviate the strain on the current transportation network. The completion of an approved joint sidewalk plan for Clayton County and its cities should be undertaken to improve pedestrian mobility and safety.

The CTP recommendations and the associated capital improvement program include prioritized areas and segments worthy of strategic pedestrian improvements. CTP pedestrian projects of critical priority are significantly higher in number than long-range projects, due in part to community demand and in light of the likely increasing cost of facility construction in latter years. This prioritized approach, coupled with recommended safety improvements, will assist in formalizing the sidewalk plan and addresses pedestrian needs in the following areas:

- Gap-closure projects situated along the Regional Strategic Transportation System
- Existing needs around schools (to create safe pedestrian routes for children),
- Existing needs around current and future transit stops,
- Enhancing the recreational and tourist experience with connections to recreation facilities and heritage and preservation tourism sites,
- Risk-reduction for vehicle-pedestrian incidents in high-volume areas, and
- Connections between activity centers, employment centers, and their surrounding communities.

The creation of a sidewalk plan also provides another record of planned transportation improvements to be considered in the review and designation of development and redevelopment areas. Any development projects which occur in these areas should be required to meet a set of minimum standards for sidewalks as set forth in the plan.

Clayton County has a large number of historic and tourist attractions as well as retail and commercial areas that could be designated as “Special Pedestrian Districts”. The addition of an ordinance enabling the establishment of pedestrian districts to the County’s newly adopted zoning codes and regulations can identify areas where there are significant opportunities to replace vehicle trips with pedestrian or bicycle trips and to improve pedestrian and bicycle safety. Pedestrian district ordinances such as the City of Decatur’s “Downtown Decatur Special Pedestrian Area Regulations” are designed to improve the downtown Decatur environment in the following ways:

- Encourage, protect and enhance the pedestrian environment
- Improve the aesthetics of downtown area
- Provide for parking in a way that does not diminish the pedestrian environment
- Encourage additional street level activity, and
- Promote opportunities for residential and commercial development

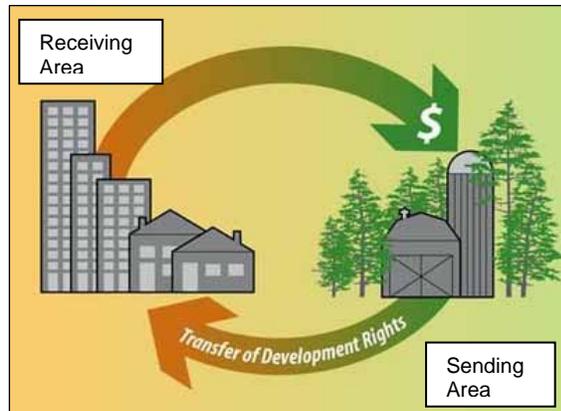
This land use strategy would be well suited to downtown areas like Riverdale and Jonesboro where initial plans for streetscape improvements and building design standards for mixed use developments have already been proposed through Livable Centers Initiatives. This strategy could also be applied to areas surrounding commuter rail stations and future transit transfer hubs. The ordinance would set the boundaries for pedestrian districts and outline guidelines for how these areas will be developed. The Downtown Decatur Streetscape Design Guidelines would be a useful tool for planning streetscape and site improvements to enhance the pedestrian experience and promote mixed use development.

Implement Access Management Polices and/or Ordinances

Section 6.16 outlines access management policies and strategies for high-volume corridors where commercial development stretches along the corridor such as Tara Boulevard-US 19/41-SR 3, SR 85, SR 54, SR 139, US23/SR 42, Mt. Zion Road, and SR 138. These strategies support the interrelationship between land use decisions and transportation management. For Clayton County to achieve effective management of vehicular access consistent with adjacent land uses, development design, travel needs and corridor specific vehicular access, the application of the CTP access management guidelines is recommended for these roadway types throughout the County.

As a first step towards implementation, the County can require access management plans be developed as part of each principal and minor arterial or major collector roadway widening or upgrade project concept development process. In the long term, the development of access management policies for all roadways types in the County’s strategic transportation network should be implemented in order to maintain and enhance the overall operations of the corridor. It is important to note that coordination with planning partners is very important due to the number of U.S. and State Routes which traverse Clayton County which are also key strategic corridors in its transportation network.

Establish an Ordinance for the Transfer of Development Rights (TDR)



Transfer of Development Rights (TDR) is a mechanism that promotes responsible growth while conserving areas such as prime agricultural areas and environmentally sensitive lands. A key tool in support of the recommended growth scenario in the CTP, TDR is designed to steer growth -- not to limit or stop development.

TDR allows landowners in sensitive development areas to receive compensation for giving up their right to develop while developers in redevelopment areas pay for the right to a bonus in the redevelopment area such as additional height or

density than would otherwise be allowed. When development rights are removed from a parcel, a conservation easement is placed on the sending site.

The Georgia Code (O.C.G.A. Section 36-66A) outlines the requirements for the development and implementation of local TDR ordinances. In 2008, the Governor signed legislation that would make it easier to preserve green space by allowing developers to buy and agree to protect undisturbed land in exchange for rights to develop more dense pieces of land, an application of transfer of development rights. Prior to implementing this strategy, the County should conduct a feasibility study to identify specific areas for preservation and determine whether market demand for land in Clayton County will support a TDR program. During stakeholder interviews and public involvement activities, the Panhandle and Ellenwood/Rex areas were frequently mentioned as both development areas and environmentally sensitive areas where future growth should be allowed at lower density levels. A feasibility study would determine whether or not these would be prime areas for a TDR program.

The key to successful TDR programs, such as the program in Montgomery County, Maryland, is in maintaining demand for TDRs by gradually introducing receiving areas where higher density transfer rates are allowed while lowering the density or “downzoning” agricultural areas. The demand issue is controlled through regular reviews of market needs. TDR programs fail when:

- (1) Developers are satisfied with development densities allowed by the existing zoning code and therefore have had little motivation to use the TDR program;
- (2) Rezoning allowing greater density are easily granted by the local zoning body, making the use of TDRs unnecessary, and
- (3) Developers use other methods for achieving density, such as clustering/conservation subdivisions, rather than TDRs.

In addition to TDRs, the County may also want to consider other acquisition methods such as conservation easements, historic reservation easements, purchase of development rights all of which are detailed in ARC’s Greenspace Toolkit available on their website at http://www.atlantaregional.com/documents/Greenspace_toolkit.pdf.

Preserve Right-of-Way for Future Transportation Improvements

Right-of way preservation is an issue of major concern to Clayton County stakeholders. In the face of shrinking revenue sources, Clayton County is struggling to keep pace with growing demand for transportation improvements and the rising cost of right-of way acquisition. Right-of-way costs often represent the single largest expenditure of a transportation project and exceed construction costs in many instances. The implementation of right-of-way preservation strategies to obtain control of or protect the right-of-way for planned transportation improvements will be critical to achieving CTP goals and objectives.

Fundamentally, right-of way preservation strategies fall into three universal categories: (1) acquisition of property rights, (2) regulation of land use, and (3) negotiation with the landowner for preservation of land in an unimproved condition. Many governments use all of these strategies in the construction of transportation facilities.

Acquisition of property rights is the most extreme and expensive form of preservation because it involves actually purchasing the property. This is not used much by local governments because of the gray-area in Federal Highway legislation which does not insure reimbursement for the expense.

Regulation of land use is the most commonly used strategy by local governments. Strategies for regulating land use require little capital investment, and attribute some of the cost to the developer. These strategies are tailored to restricting development, but require legal justification beyond cost savings. The six methods generally used include: access management regulations, setback regulations, ordinances and zoning regulations, site plan review and subdivision controls, conditional use /interim use permits, and dedications and extractions.

Negotiation with the landowner for preservation of land in an unimproved condition is another strategy. This strategy is intended to minimize the impact of highway development on property owners and includes: transfer of development rights; density transfers; impact fee credits; and tax abatement. These strategies may be used together or individually to mitigate consequences to landowners.

Although the newly approved Clayton County Zoning and Subdivision Ordinances begin to build a framework for the County's future growth and development, they do not address measures to monitor development along key corridors nor do they address right-of-way needs from the standpoint of transportation management and future construction costs. The new ordinances do reference the County's *Land Disturbance and Right-of-Way Guidelines* which does provide guidance in these areas. As such, these guidelines should be incorporated into the County's Code of Ordinances to ensure that construction projects are designed and built in a manner to:

- enhance public transportation safety;
- enhance traffic flow patterns;
- minimize environmental impacts such as erosion; and
- provide high quality construction within the County rights-of-way which minimizes future maintenance needs

As an enhancement to the document, the development of a "Street Classification and Right-of-Way Width Requirement Chart" is recommended as a component of its Code of Ordinances. DeKalb County, for example, includes a street classification and right-of-way width requirement

chart in its subdivision ordinance to ensure right-of-way preservation by specifying the minimum construction standards for all street types. The minimum standards adopted by DeKalb County are outlined in Table 6-6.

**Table 6-6:
Example of Minimum Right-of-Way Requirements**

Type of Road	Travel Lanes	Bike Lanes	Planting Strips	Sidewalks	Utility Strips	Property ROW	Under-ground Utilities	Street Lights	Other
Parkway, 4 lane divided	4 @ 11'	2 @ 4'	2 @ 6'	2 @ 5'	2 @ 15'	120	Y	Y	20' landscaped median
Major Arterial	4 @ 11'	2 @ 4'	2 @ 6'	2 @ 5'	2 @ 15'	100	Y	Y	
Minor Arterial	2 @ 11'	2 @ 4'	2 @ 6'	2 @ 5'	2 @ 15'	80	Y	Y	
Residential Arterial	2 or 4 @ 11'	2 @ 4'	2 @ 6'	2 @ 5'	2 @ 15'		Y	Y	
Collector	2 @ 11'	2 @ 4'	2 @ 5'	2 @ 5'	2 @ 15'	70	Y	Y	
Res. Pkwy (min. 100 homes)	2 @ 11'		2 @ 5'	2 @ 5'	2 @ 15'		Y	Y	16' landscaped median
Local Residential	2 @ 12'	0	2 @ 5'	2 @ 5'	2 @ 14'		Y	Y	
Local Office & Institutional	2 @ 12'	0	2 @ 5'	2 @ 5'	2 @ 15'		Y	Y	
Local Industrial	2 @ 14'	0	2 @ 5'	1 @ 5'	2 @ 15'		Y	Y	
Alley, Private	1 @ 12'	0	0	0	0	0	Y	O	2' shoulder on each side
Alley, Public	1 @ 16'	0	0	0	0	20	Y	Y	

Note: Paving Width = travel lanes + bike lanes; and Property Right-of-way = paving width + curb & gutter width + utility strip + bike lanes + other (median or shoulder)

The roadway guidelines established as a part of the CTP will also assist in the development of these standards. These standards do not preclude the various municipal review processes, but allow the County to mandate to developers acceptable minimum requirements.

Pursue Transportation Impact Fees

To meet the growing demand for transportation infrastructure improvement, many of the larger counties and municipalities in Georgia have implemented transportation impact fees as a strategy for controlling development and funding infrastructure improvements associated with new development. Clayton County is exploring the implementation of a Transportation Impact Fee program. Such a program would require developers to pay a transportation impact fee for off-site transportation improvements not yet constructed and for those jointly-funded

improvements to enhance or maintain the performance levels of the existing transportation network.

If it is determined that the County wishes to implement a program, it will define and describe the formula or method for calculating the amount of the transportation impact fees to be imposed on a new development within an area. Impact fees have a more focused application to fund certain infrastructure improvements. Their purpose is to have the developer absorb some of the cost of transportation infrastructure improvements needed to adequately serve new development and maintain system performance levels.

As is the case in other counties where impact fees are used, most of the revenue generated from impact fees is used to fund the development-specific improvements that are needed to mitigate the impact of additional growth within the vicinity of the project site. It is not clear whether such an investment focus would naturally coincide with the location of needed projects identified in the CTP. This funding source, however, could be useful for relatively small transportation improvement projects, such as intersection improvements, adding turn lanes on arterials, improved signal systems, and other similar projects.

6.8.1 Outstanding Policy Issues Impacting Land Use and Transportation Decision Making

In February 2008, the Georgia Supreme Court ruled that the City of Atlanta Tax Allocation Bonds, used to finance the Atlanta Beltline Redevelopment Plan, was in violation of the Georgia Revenue Bond Law, specifically the Educational Purpose Clause. Since then, Governor Purdue has signed legislation allowing Gwinnett County voters to take a second pass at establishing tax allocation districts (TADs) in unincorporated areas. The action means voters will get another chance some time this year to consider TADs. TADs channel local tax revenues, generated by rising property values, into a special fund used to pay for public improvements that accompany redevelopment projects. There is also legislation pending that would allow voters to reverse the decision of the Supreme Court with an amendment to the State Constitution.

The outstanding issue regarding tax allocation districts is of great importance to Clayton County because its current redevelopment projects are in locations identified by the Redevelopment Authority as Tax Allocation Districts. Should the legitimacy of this practice be found unconstitutional, it will impact the existing and future redevelopment efforts in Clayton County. Should this become the case, Clayton County will have to explore additional options to obtain funding. One consideration would be to change the area designation from tax allocation district to 'community improvement district'.

Community Improvement Districts (CIDs) are used throughout metro-Atlanta as an alternative funding mechanism to fund transportation infrastructure improvements in a specific area. In general, it is a public-private partnership in which businesses in a defined area elect to pay an additional tax in order to fund infrastructure improvements. CIDs work well when there is a good mix of employment, commercial/retail and residential developments clustered together. Through the Redevelopment Authority, Clayton County could explore community support for the creation of CIDs with the CTP recommended redevelopment areas.

7.0 Implementation Program

Given highly defined needs for transportation improvements and limited funding availability for immediate and long-term implementation, priorities must be established that phase recommended investments in a manner that best reflects local and regional interests.

The project prioritization process is multifaceted and incorporates the following considerations:

- Input received through the CTP public outreach process from local and regional stakeholders as well as the general public;
- Technical analyses of multimodal needs and results from travel demand modeling; and
- Input and guidance by Technical Steering Committee, Stakeholder Advisory Committee, and department-level staff from Clayton County and its municipalities.

The result of this process is an Implementation Program with a prioritized set of recommended CTP projects and a Capital Improvement Program that is feasible, publicly-supported, fundable, and sustainable through the course of the planning horizon. The Implementation Program was developed to identify resources and actions necessary to implement recommended CTP projects. The Implementation Program includes project costs, funding sources, agency responsibilities, and recommended time periods.

7.1 Available Funding and Funding Considerations

One-half of the implementation equation is funding. The other half is timing or phasing of projects. Public funding generally comes from three sources: federal, state and local. Available funding includes formula and dedicated funding at the federal and state levels, such as Surface Transportation Program allocations (STP) from the Federal Highway Administration (FHWA) and Urbanized Area Formula Program allocations from the Federal Transit Administration (FTA). Funding also includes general fund and SPLOST revenue from Clayton County governments. The amount of local funding available can impact how much state and federal aid is available in that local funds can be used to leverage state and federal funds.

7.1.1 Local Funding

Clayton County currently has two major sources of funding for transportation, the County General Fund and a Special Purpose Local Option Sales Tax (SPLOST). The County General Fund is comprised of local dedicated sales taxes and property taxes and can support local capital development programs while sustaining the operations of certain services at a local level. Sales taxes are collected at the County and City level. Of the General Fund, approximately \$ 200,000 is available each year for transportation capital improvements. City governments within Clayton County also maintain separate General Fund programs.

SPLOSTs can be levied by Georgia counties to support capital investments in public infrastructure, which can include roads, sewers, parks, schools, libraries, as well as capital investments for public transportation. SPLOST funding cannot be used for operating costs.

Clayton County voters approved a SPLOST in 2003 which began on January 1, 2004 and will end on either December 31, 2008 or when the \$240 million approved during the SPLOST is collected. Of the entire SPLOST receipts, \$196 million was set aside for County and City roadway improvements through 2008. In February 2008, voters extended the SPLOST, which over the six-year life of the tax is expected to generate \$305 million. Of this total amount, \$125 million has been dedicated to transportation enhancements through 2014.

From all local funding sources up to FY 2014, an estimated \$126.2 million is available to fund roadway capital projects through 2014. In 2008 dollars, if the existing local funding streams were to continue at current levels, an estimated \$ 473 million would be available to the County for transportation projects from 2009 through 2030. It is recognized that changes in local, state, national, or global economy could impact future funding; however, the means used to project funding follows accepted regional planning procedures.

7.1.2 State Funding

The State of Georgia collects motor fuel taxes to fund transportation investments. Georgia motor fuel taxes come from two sources: 7.5 cents per gallon tax and a four percent retail tax (three percent is earmarked for transportation and one percent is allocated to the State General Fund). In 2005, the State of Georgia spent about \$730 million in motor fuel tax revenues to build, maintain, and operate interstates, highways, and surface streets throughout the state. As required by the Georgia Constitution, state gas tax revenues can only be spent on roads and bridges. Any state revenues spent on transit must be allocated from the State General Fund. The State of Georgia has developed some alternative funding programs to implement transportation investments as follows.

Fast Forward Program - In April 2004, Governor Sonny Perdue introduced the “Fast Forward Congestion Relief Program” to leverage future state and federal transportation funds and accelerate the construction of key projects throughout the state. The Fast Forward Program is a six-year, \$15.5 billion transportation bond program designed to relieve congestion and spur economic growth through the acceleration of existing projects. The Fast Forward Program is funded through Grant Anticipation Revenue Vehicle (GARVEE) bonds, Guaranteed Revenue Bonds (GRB), General Obligation (GO) bonds, and federal funds.

Public Private Initiatives - Solicited partnerships under the Public Private Initiative (PPI) by GDOT encourage the accelerated advancement of projects using the design-build method of project delivery. A PPI arrangement can help to leverage financing via federal Congestion Management Air Quality (CMAQ) and STP programs for capital or operating costs. One current PPI includes managed lanes and bus rapid transit along the I-75/I-575 corridor in the northwest metropolitan Atlanta area.

GARVEE Bonds - GDOT implemented federally-authorized GARVEE bond issues in 2006. Eighty percent of the debt service comes from FHWA reimbursements, using grants authorized via Highway Trust Fund (HTF) programs. The remaining 20 percent match is derived from GDOT. The GARVEE bonds have been issued under the Governor’s Fast Forward Program. The State Road and Toll Authority (SRTA) administers the GARVEE bond program. In Georgia, the GARVEE program can be used only to support National Highway System (NHS) and Interstate Maintenance (IM) projects.

State Transportation Infrastructure Bank (STIB) - Georgia General Assembly House Bill 1019 was signed by the Governor in April 2008 to create the Georgia State Transportation Infrastructure Bank (STIB). The STIB provides a bank to assist local governments in financing highway and transportation facilities. The STIB will be administered by SRTA and provide low-interest loans to local governments to fund eligible transportation project investments. The fund is set up as a revolving loan fund so as money is paid into the fund, it will be available for new transportation projects. The STIB was capitalized at \$28.1 million from the FY 2009 budget.

Additional initiatives were advanced in the 2008 General Assembly to expand the funding options for transportation investments throughout the state. Though the bills did not pass, they may be considered in future legislative cycles. House Bill 1139 proposes to change the current 7.5 cents per gallon or 3% sales tax on fuel to a statewide one percent (1%) sales tax on all retail goods. Should this bill be enacted, it is expected to raise an additional \$1.2 to \$1.4 billion per year, although it is not clear how these additional funds would be allocated statewide or whether all of the revenues raised would indeed go for transportation purposes.

A second proposal, Senate Bill 845, addresses the Metro Atlanta region's transportation funding situation allowing two or more counties in Georgia to vote a one percent (1%) sales tax dedicated to transportation, where these funds are retained in the counties that generate them as well as the municipalities that are part of the voting jurisdictions. The proposal is aimed at developing a dedicated source of funds for transportation projects. The level of funding associated with this proposal will differ depending on the number of counties that opt into the plan, but the estimate for the region, assuming all counties join, is about \$1.5 billion per year. Again, it is not clear how these funds would be distributed. Although it is not known which, if any, strategy will be adopted, some form of transportation revenue enhancement could occur during the next two years, prior to the next state election cycle.

7.1.3 Federal Funding

All current federal funding programs for surface transportation (specifically roadways, transit, and bicycle/pedestrian improvements) are authorized by Congress through FY 2009. Extending these programs beyond this period will require continuing resolution provisions, or a new reauthorization bill to be developed during FY 2009 that will have to be signed into law.

The principal generator of revenue for federal transportation programs is the Highway Trust Fund (HTF), which allocates receipts primarily from motor fuel taxes and other highway-user excise taxes into a Highway Account and a Mass Transit Account. Revenues for the Highway Account of the HTF are projected to fall short of obligations during FY 2009, while a revenue shortfall for the Mass Transit Account is expected by FY 2012. In the event of HTF insolvency, only incoming tax revenues can be annually distributed among the states for federal transportation funding. Congressional leaders are working to resolve the HTF shortfall via pending legislation and through the upcoming reauthorization.

Numerous federal programs have been created under the Highway Account and Mass Transit Account for funding transportation investments. In general, GDOT administers nearly all FHWA programs related to roads and bridges; however, ARC does administer the STP-Urban Program. For the FTA transit programs, Metropolitan Atlanta Rapid Transit Authority (MARTA) is the designated recipient of the Section 5307 urbanized area transit program, but ARC

administers many of the other transit funding programs. ARC completed a coordinated Human Services Transportation (HST) Plan in February 2007 for the Atlanta 18-County region. The plan identifies projects available for FTA Section 5310 Elderly Individuals and Individuals with Disabilities Program, Section 5316 Job Access Reverse Commute Program, and 5317 New Freedom Program funds. Specific FHWA and FTA funding program descriptions are included in Appendix H.

7.2 Existing Programmed and Planned Projects

Existing planned and programmed projects for Clayton County are identified in the ARC *Envision6* RTP and the Clayton County SPLOST Program. Programmed projects are listed in the *Transportation Improvement Program (TIP)*, while the remaining projects in the RTP are long-range. The RTP includes planned and programmed projects for Clayton County along with local, state, and federal funding allocations. The following provides a summary of total investments currently included in the RTP and FY 2008-2013 TIP as of June 19, 2008.

Within Clayton County, 48 projects are included in the current ARC *Envision6* RTP and TIP. Project sponsors include Clayton County, HJAIA, ARC, GDOT, GRTA, and the Cities of Morrow, Jonesboro, and Forest Park. The total program cost for all currently identified projects is over \$981 million, of which \$498 million is identified for TIP projects and \$483 million is identified for long-range projects. Tables 7-1 and 7-2 show a breakdown of projects by sponsor and project type, respectively. Of all projects identified within Clayton County, a majority are sponsored by GDOT (58 percent), followed by HJAIA (25 percent), and Clayton County (12 percent). The total cost of projects sponsored by Clayton County, Forest Park, Jonesboro, or Morrow is \$136 million, a majority of which will be paid for by local funds (67 percent). Ninety-six percent of all project investments are targeted for roadway and bridge projects, with the remaining four percent allocated for transit facilities (three percent) and bicycle and pedestrian facilities (one percent).

**Table 7-1:
Project Summary by Sponsor in the *Envision6* RTP**

Sponsor	Total	Percent of Total	Local Share	Local Share of Total Cost
ARC	\$13,823,518	1%	\$2,764,704	20%
City of Forest Park	\$6,390,000	1%	\$3,608,400	56%
City of Jonesboro	\$5,384,895	1%	\$3,371,295	63%
City of Morrow	\$2,750,000	0%	\$550,000	20%
Clayton County	\$121,780,285	12%	\$83,886,720	69%
GDOT	\$570,929,578	58%	\$2,486,418	0%
GRTA	\$22,902,504	2%	\$3,332,504	15%
HJAIA	\$246,260,000	25%	\$133,560,000	54%
Total	\$990,220,780	100%	\$233,560,041	24%

Source: *Envision6* RTP and FY 2008-2013 TIP project list dated June 19, 2008.

**Table 7-2:
Project Summary by Type in the *Envision6* RTP**

Project Type	Total	Percent of Total
Bicycle/Pedestrian Facilities	\$14,524,895	1%
Bridge	\$6,845,000	1%
General Purpose Roadway Capacity	\$390,244,309	39%
Interchange	\$266,403,418	27%
ITS-Other	\$4,950,000	0%
Managed Lanes	\$257,382,000	26%
Roadway Operational Upgrades	\$23,457,640	2%
Transit Facilities	\$17,323,518	2%
Fixed Guideway Transit Capital	\$9,090,000	1%
Total	\$990,220,780	100%

Source: *Envision6* RTP and FY 2008-2013 TIP project list dated June 19, 2008.

The Clayton County 2008 SPLOST Transportation Project Funding List identifies 26 priority projects for implementation totaling over \$159 million. The SPLOST list is split into two priority levels, and the top priority projects comprise 79 percent of the total. A handful of projects contained in the SPLOST list are also identified in the ARC *Envision6* RTP.

7.3 CTP Implementation Program

The Clayton County Implementation Program includes the existing and new projects identified for the life of the plan. The following identifies cost considerations for each project and groups projects for critical, moderate and long-range implementation.

7.3.1 Project Costs

Estimated project costs for new CTP projects were developed using general per mile costs from the ARC cost estimating tool. The costs do not include utility fees, but do contain estimated

design and engineering costs. Right-of-way costs for roadway capacity projects were assumed at \$750,000 per acre urban residential and \$1 million per acre for urban commercial. Cost estimates for existing projects reflect those contained in the originating plan and have not been revised. The estimated cost and funding for CTP projects have been escalated based on year of expenditure.

7.4 CTP Project Implementation Schedule

The project implementation schedule groups existing and new projects for critical, moderate, and long-range priority. The critical projects comprise a five-year fiscally constrained project action plan, as required by ARC. The moderate and long-range projects reflect priorities beyond the project action plan. The breakdown by time period is as follows:

- Critical Projects (Five-Year Action Plan): FY 2009 - 2013
- Moderate Range Projects: FY 2014 - 2018
- Long-Range Projects: FY 2019-2030

Each project priority table provides the project number, project description, endpoints, project type, sponsor, length, and estimated cost. Table 7-3 presents critical projects included in the five-year project action plan, Table 7-4 contains moderate range projects, and Table 7-5 contains long-range projects. The current implementation program contains \$595,315,151 investments (103 projects) for the financially constrained five-year project action plan, \$599,092,179 (61 projects) for the moderate range plan, and \$465,884,117 (10 projects) for the long-range plan, for a grand total of \$1,660,291,447 (174 projects) through the plan's horizon year of 2030. Implementation phasing is based on the estimated year for initiation of capital activity and not the completion date or network year as required for air quality conformity modeling.

As compared to the projects currently included in the *Envision6* RTP, the new projects identified for the CTP provide broader multimodal investment over the life of the plan. The summary of investments by project type is shown in Table 7-6.



Table 7-3:
Critical Projects – Five-Year Action Plan (FY 2009-2013)



[Table 7-4:](#)
[Moderate Range Plan \(FY 2014-2018\)](#)



Table 7-5:
Long-Range Plan (FY 2019-2030)

**Table 7-6:
Project Summary by Type for New Projects in the CTP**

Project Type	Total	Percent of Total
Bicycle	\$6,879,154	1.25%
Bridge Upgrade	\$13,448,864	2.43%
Intelligent Transportation Systems	\$3,816,029	0.69%
Pedestrian	\$10,996,254	1.99%
Roadway Capacity	\$372,681,221	67.46%
Roadway Operations	\$1,352,075	0.24%
Transit	\$143,244,883	25.93%
TOTAL (FY 2009-2030)	\$552,418,480	100%

7.5 Capital Improvement Plan

Capital improvements represent a series of projects requiring the significant expenditure of public funds, above and beyond annual operating expenses, for the purchase, construction, and/or replacement of key physical assets. In the CTP, these projects include preliminary engineering and final design, right-of-way acquisition, construction or other related physical costs. Upon implementation, capital projects typically have a minimum life cycle of ten years.

To achieve implementation, the local, state and federal governments must possess the financial capacity to pay for these projects. The Capital Improvement Plan (CIP) is provided to help ensure that funds are adequately budgeted for these strategically phased improvements. Additionally, the CIP can position Clayton County to actively pursue limited transportation funding currently available in the Atlanta region by having a prioritized list ready for submission to regional and state agencies such as ARC and GDOT.

An array of possible funding sources for capital projects are identified in the CIP. Assessments regarding feasibility for project-level financing were based on historical trends in overall revenues and intergovernmental allocations. Both the CTP Implementation Plan and the CIP present capital cost estimates as inflated costs based on the estimated year of expenditure, as SPLOST and RTP costs are already produced in this manner.

In February 2007, the US Department of Transportation published rules governing the use of year of expenditure (YOE) dollars when MPOs are developing anticipated revenues and implementation costs in regional transportation plans. In the Atlanta region, the ARC met this requirement with the most recently adopted regional transportation plan, *Envision6*, and its associated transportation improvement program covering fiscal years 2008-2013.

In the *Envision6* RTP, ARC reviewed two construction rate indexes – the FHWA's road construction cost index (CCI) and the McGraw Hill Engineering CCI. Based on the *Envision6* documentation, the FHWA CCI includes a composite index based on bid prices across the country for six common construction items: excavation, surface bid prices (Portland cement and Bituminous cement), and structural bid prices (reinforcing steel, structural steel, and structural concrete). The McGraw Hill CCI indexes are specific to the Atlanta area. After analysis and

compilation of both indexes, ARC determined that the long range annual average inflation rate of 2.2% would be used⁷.

Recommended capital projects are separated into phases covering years zero through five (FY 2009-2013), years six through ten (FY 2014-2018), and a long-range period extending beyond year ten (FY 2019-2030). This phased approach improves the accuracy of projected revenue amounts based upon financial assumptions and better aligns the CIP to the regional RTP and TIP. For critical phase (FY 2009-2013) projects, the inflation rate was applied and compounded to the expected year of expenditure, resulting in inflation factors of 1.022, 1.044, 1.067, 1.091, and 1.115 for each respective year. Similar to the RTP, projects in the CTP moderate (FY 2014-2018) and long range (FY 2019-2030) phases, lacking date-certain expenditure and project completion dates, had project costs compounded using mid-point years of 2016 and 2025 respectively. Resultant inflation factors were 1.190 for moderate phase projects and 1.448 for long range projects.

A total of approximately \$1.6 billion is estimated in the Capital Improvement Plan as summarized in Tables 7-7 and 7-8. A total of \$552 million in CTP-recommended projects are represented within the \$1.6 billion figure. Figures 7-1 through 7-3 illustrate the breakdown of costs by funding source and priority

**Table 7-7:
Project Capital Costs by CTP Milestone Period**

CTP Milestone Period (Year of Expenditure)	Total Costs
Critical (2009-2013)	\$476,950,429
Moderate (2014-2018)	\$569,969,315
Long Range (2019-2030)	\$601,200,517
TOTAL Capital Costs	\$1,648,120,260

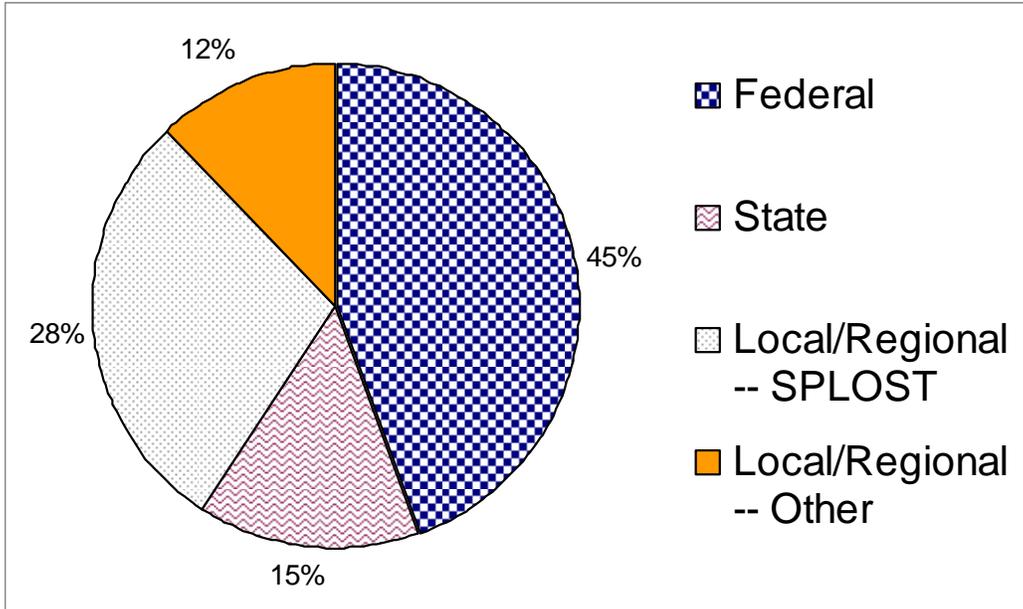
**Table 7-8:
Capital Funding by Source Type**

	Federal	State	Local/Regional	Total Revenues
RTP/TIP Projects	\$519,027,594	\$233,238,145	\$237,955,041	\$ 990,220,780
SPLOST 2008 Projects*	\$0	\$0	\$105,481,000	\$ 105,481,000
CTP Projects	\$412,888,135	\$68,009,841	\$34,241,442	\$ 552,418,480
TOTAL Capital Costs	\$931,915,729	\$301,247,986	\$377,677,483	\$1,648,120,260

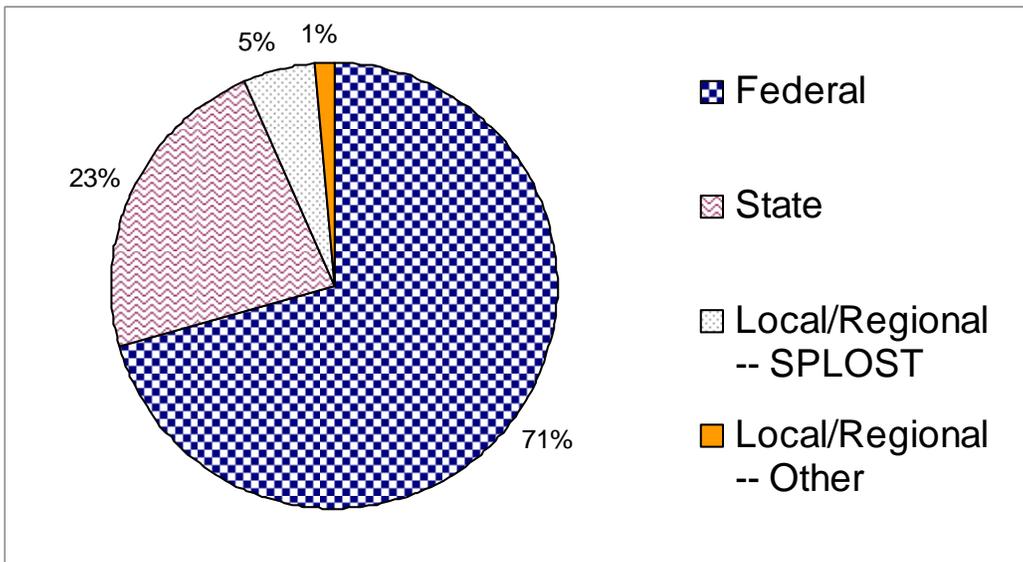
* not including SPLOST Program Management fees, or SPLOST funds matching RTP-TIP projects

⁷ Atlanta Regional Commission, *Envision6 Regional Transportation Plan*, p. 96

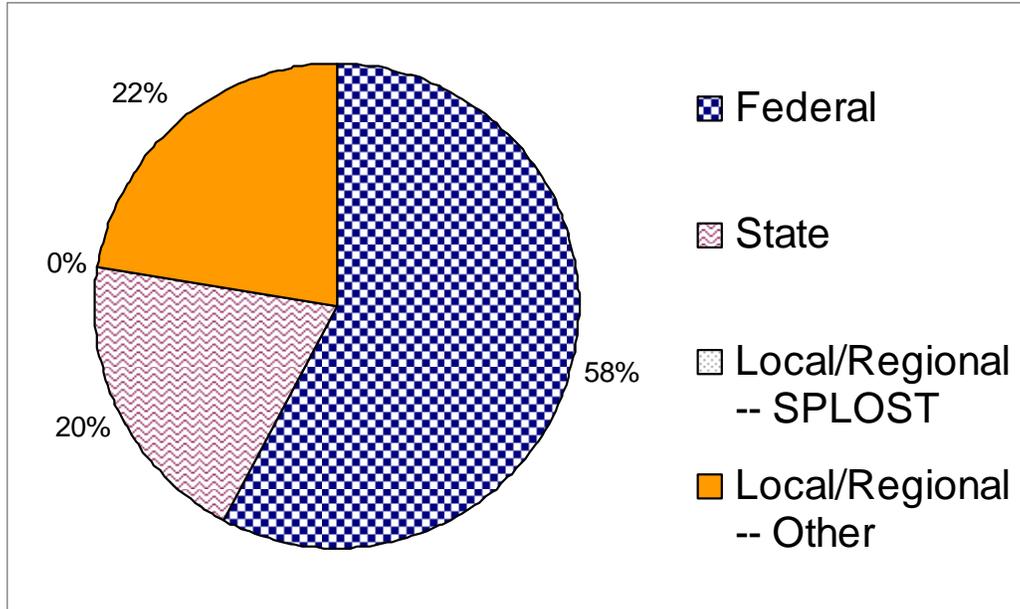
**Figure 7-1:
Capital Improvement Plan – Critical Projects by Funding Source**



**Figure 7-2:
Capital Improvement Plan – Moderate Projects by Funding Source**



**Figure 7-3:
Capital Improvement Plan – Long Range Projects by Funding Source**



The critical phase of the CIP reflects the expenditure of local dollars to accelerate projects of significant community interest. In particular, the inclusion of 48 CTP-recommended pedestrian projects (approximately \$11.0 million) to serve multiple community needs and the addressing of demand for commuter rail service in this phase results in a need for supplemental SPLOST support (estimated at \$9.7 million) or the alternative application of General Fund or other revenues at the city, county, and regional levels.

The moderate phase of the CIP employs more significant levels of federal as well as state assistance, leveraging the use of new and traditional federal funding streams and state financing via bonds and SIB loans to support projects of local, regional, state and national significance. More than 94 percent of project funding needs during this phase are to be supported with Federal and State financing, as compared with 60 percent of projects to be financed during the preceding phase. The level of Federal funding support during this period will depend heavily upon the provisions of upcoming surface transportation reauthorization legislation and the results of regional project prioritization during the metropolitan planning process. This phase includes \$394.8 million in project funds already programmed in the *Envision6* TIP for expenditure between FY 2009 and FY 2014.

There are a relatively small number of CTP-recommended projects in the long range phase of the CIP, which is typified by higher-expenditure regional roadway, bridge and interchange capacity improvements and several transit expansion projects. About \$339.5 million of these funds are currently supporting projects in the financially-constrained *Envision6* RTP. Assuming there is no SPLOST as a funding source during the long-range phase, a greater variety of state and local funding sources will be necessary to support implementation of CTP-recommended projects. Detailed capital allocations for planned (*Envision6* and SPLOST) and CTP recommended projects are presented in YOE dollars in Appendix I.

7.6 Alternative Funding Scenarios

The CTP Project implementation schedule identified in Section 7.4 includes a five-year financially constrained plan, followed by a two-tiered long-range plan. Three additional funding scenarios were considered to provide insight on what may be completed based on available funds to the County. It should be noted that GDOT has determined it has a \$1 billion deficit and may be unable to fund projects it has promised to complete. Clayton County has a number of state routes crucial to its transportation network that may be impacted by this deficit.

7.6.1 Unlimited Funding

This scenario reflects the inclusion of all recommended strategies and policies, including roadway capacity and transit expansion projects assumed under the recommended 2030 High Growth redevelopment scenario.

7.6.2 Limited – One Additional SPLOST Funding Period after Current SPLOST

This constrained funding scenario allows for the identification of projects which could be supported with one additional six-year SPLOST (FY 2015-2020), subject to approval by Clayton County voters in 2014.

An estimated \$34.2 million in funding from local or regional sources will be needed to implement capital investments recommended through this CTP, either to implement locally-funded projects or to leverage Federal and State contributions. In the unlimited funding scenario, \$17.4 million from this amount are projected for expenditure via SPLOST revenues. With the SPLOST funding to support projects beyond 2014, an estimated \$45.8 million in CTP-recommended projects can be implemented during the moderate phase. Representing over 40 percent of the total number of recommended CTP capital projects, these projects are identified in Table 7-9 and include:

- All nine bicycle facility projects totaling \$6.9 million;
- All three bridge upgrade projects totaling \$13.4 million;
- One Intelligent Transportation Systems (ITS) project at \$1.5 million;
- All 19 roadway operational upgrade projects totaling \$1.3 million; and
- Ten transit projects totaling \$22.7 million.

The CTP assumes the expenditure of \$11.0 million in pedestrian-oriented capital improvements during the critical implementation phase. A total of 35 of these 48 CTP-recommended projects would require \$1.5 million in supplemental SPLOST funding during the critical phase. The advent of commuter rail facility construction during this phase may also necessitate as much as \$8.2 million in supplemental SPLOST funding, supporting shared revenue requirements among jurisdictions served directly by the Atlanta-Lovejoy starter line. These projects are listed in Table 7-10.



Table 7-9:
Limited Funding Scenario Projects – SPLOST through 2020



[Table 7-10:](#)
[Limited Funding Scenario Projects – Critical Phase Supplemental SPLOST Projects](#)

Further, there will remain a need to secure additional local revenue sources to implement non-SPLOST projects during all CTP phases. Among the remaining CTP recommendations, there are four ITS projects, eleven pedestrian improvement projects, and five transit projects which are proposed to be supported in part by local funding sources other than the SPLOST. The primary alternative local funding source for these projects, shown in Table 7-11, would be the County General Fund, supporting \$1.0 million in project funding needs. Other sources include tax allocation districts, revenues from tourism-oriented and recreation-oriented taxes and fees, and funding partnerships among Clayton County municipalities, neighboring counties, and/or regional transportation providers.

During the long range phase, a total of \$1.4 million in local/regional funding will be needed to support capital requirements for three recommended CTP transit projects. Due to the regional orientation of the transit services in this phase, a stronger balance of funding support among multiple counties will be necessary to ensure successful implementation. The four HJAIA-area projects currently in the *Envision6* RTP during the CTP long range phase are expected to derive their local funding support via HJAIA.

7.6.3 Limited Scenario– No Additional SPLOST Funding Period after 2008 SPLOST

This constrained funding scenario reflects the need to identify additional revenue sources for non-SPLOST and mid-term and long-term projects, upon the completion of financing for projects supported under the SPLOST approved via Clayton County referendum in 2008 (FY 2009-2014).

No CTP recommended projects requiring SPLOST support could be funded under this scenario, unless revenues from alternative sources are identified during project development. There are likely to be additional projects not specified within this CTP, particularly freight mobility improvements and additional pedestrian/bicycle and transit enhancement projects, which will be identified through more intensive local and regional analyses during the critical implementation phase. These projects will similarly require local funding support during the critical and moderate implementation periods.

Absent the SPLOST, alternative measures of funding support for CTP projects in this scenario would include General Fund expenditures from city and county governments, other tax revenues such as HJAIA sales taxes and hotel-motel sales taxes, activity fees from sources such as parks-recreational programs, expanded funding support from regional partners, and growth-area measures such as tax increment financing, developer contributions, and tax allocation districts.

A handful of CTP recommended projects could proceed in this scenario if non-local revenues are sufficiently available for implementation. Presented in Table 7-12, these include two pedestrian mobility projects, all five roadway capacity projects, and the Southern Crescent Transportation Service Center project.



Table 7-11:
Limited Funding Scenario Projects – Other Non-SPLOST CTP Projects



Table 7-12:
Limited Funding Scenario Projects – No Additional SPLOST after 2014

7.7 Other Program Costs

In addition to specific project costs, operating and program costs complete the overall cost of providing transportation infrastructure and services within Clayton County. Operating and maintenance costs for recommended projects as well as costs associated with the implementation of recommended access management, freight, transit oriented development, roadway design and maintenance strategies and policies have not been included as part of the CTP implementation program. Continued consideration of costs and funding sources for these activities is necessary throughout the course of the implementation period.

7.8 CTP Implementation Process

The CTP provides a platform for ongoing transportation planning in Clayton County. The planning process; however, is only the beginning of the project development process. The following provides an overview of future activities related to CTP implementation.

7.8.1 Local and Regional Planning Coordination

Clayton County is currently included in the ARC Metropolitan Planning Organization (MPO) 18-County planning area. As such, Clayton County is represented on the Transportation Air Quality Committee (TAQC) and the Transportation Coordination Committee (TCC) and policy board. As part of the Atlanta Region MPO area, Clayton County will be involved in ongoing coordination with regional planning processes. The responsibility of the MPO is to conduct metropolitan transportation planning and develop a long range transportation plan (LRTP) and short range TIP, governed by federal legislation and regulation. The legislative origin of metropolitan transportation planning was the Federal-Aid Highway Act of 1962, which required federally funded highway projects be the result of a "continuing, comprehensive, and cooperative planning process." The federal legislation and regulations have evolved over time. The most recent transportation bill, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (Public Law 109-59), continues to direct metropolitan transportation planning processes through federal regulations promulgated by the Federal Highway Administration in Title 23 of the Code of Federal Regulations (CFR), Part 450.300, Subpart C, "Metropolitan Transportation Planning and Programming."

The current ARC LRTP is the *Envision6 RTP*. Since the Atlanta MPO area is in air quality nonattainment for ozone and particulate matter, the LRTP is subject to an air quality conformity determination in accordance with the Clean Air Act and Environmental Protection Agency regulations under 40 CFR, part 51. An additional metropolitan transportation planning requirement is establishment of a Congestion Management Process (CMP). The intent of a CMP is to identify congested facilities and ways to manage congestion and improve system performance. ARC is responsible for monitoring and identifying congested locations within metropolitan Atlanta.

Each project advanced through the regional planning process from the Clayton County CTP will require scrutiny on whether the project is subject to air quality conformity. In general, roadway capacity projects are subject to air quality conformity, but transit, bicycle, and pedestrian facilities, and operational upgrades are not.

Additional regional transportation studies that address regional transportation needs include the *Atlanta Regional Freight Mobility Plan*, *Atlanta Region Bicycle Transportation & Pedestrian Walkways Plan*, *Coordinated Human Services Transportation (HST) Plan*, and *Atlanta Regional ITS Architecture*. Each of these plans has some level of application for Clayton County. In addition, the Regional Development Plan (RDP) identifies regional land use policies and the Unified Growth Policy Map (UGPM) provides regional land use and development patterns.

7.8.2 Overall Program Monitoring

The CTP provides a guide for future transportation improvements and includes a program of projects to 2030. An important ongoing task is to ensure the plan and program continues to meet the needs of the County and its municipalities. This is especially critical considering the pace at which the County is redeveloping.

Ongoing plan activities include:

- Coordinating with ARC, GDOT, and GRTA to advance projects in future RTP updates;
- Ensuring projects are implemented in a logical sequence to maximize benefits and utilize scarce resources efficiently;
- Continuing intergovernmental coordination activities to ensure transportation projects, policies, and programs are compatible;
- Jointly reviewing County and municipal transportation needs periodically to ensure projects are addressing needs. A recommended update cycle for a CTP is every three to five years; and
- Monitoring program development to provide feedback to refine future improvements