

Multi-Modal Transportation Study for Effingham County



FINAL REPORT

July 2008

Prepared for:



by





Table of Contents

- 1. Introduction.....1-1**
 - Overview of Planning Area.....1-1**
 - Guyton 1-2
 - Rincon 1-2
 - Springfield 1-3
 - Relationship of Effingham County to the Coastal Region* 1-3
 - Plans and Agencies..... 1-3**
 - Planning Agencies and Regions* 1-3
 - Existing Plans Review* 1-4
- 2. Goals and Objectives..... 2-1**
 - Vision..... 2-1**
 - Transportation Goals2-2**
 - Transportation Planning*..... 2-2
 - Accessibility and mobility* 2-2
 - Network connectivity* 2-2
 - Public transportation* 2-2
 - Aesthetics and scenic corridors*..... 2-2
 - Land Use and Related Goals2-3**
 - General policies*..... 2-3
 - Existing infrastructure and services* 2-3
- 3. Public Involvement 3-1**
 - Outreach effort and description 3-1**
 - Study Website* 3-1
 - Public Meetings and Surveys* 3-2
 - Issues and Opportunities Identified3-2**
 - Stakeholder Interviews*..... 3-2
 - Public Consultation*..... 3-3
 - Previous findings from the 2007 Comprehensive Plan*..... 3-3
- 4. Planning Context.....4-1**
 - Built and Natural Environment 4-1**
 - Land Use* 4-1
 - Activity Centers and Community Facilities* 4-3
 - Future Zoning and Land Use*..... 4-5
 - Historic Sites* 4-8
 - Wetlands*..... 4-8



Residents and Businesses4-11

- Population 4-11
- Employment 4-12
- Environmental Justice Communities 4-14

5. Existing and Future Conditions Analysis 5-1

- Roadway 5-1**
 - Functional Classification 5-1
 - Safety 5-5
 - Level of Service 5-9
 - Road Surface and Bridge Conditions 5-11
 - Intersections and Operations 5-15
 - Parking 5-17
 - Emergency Vehicles and Evacuation Routes 5-17
 - Summary of Roadway Needs 5-18
- Freight Movement 5-18**
 - Truck 5-19
 - Rail 5-20
 - Summary of Freight Needs 5-23
- Pedestrian and Bicycle 5-23**
 - Existing Pedestrian Conditions 5-24
 - Summary of Pedestrian Needs 5-24
 - Existing Conditions for Bicycle Transportation 5-27
 - Summary of Bicycle Needs 5-28
- Transit 5-30**
 - Commuter Routes and Park and Ride Lots 5-30
 - Paratransit 5-30
 - Potential for Commuter or Regional Rail Service 5-31
 - Present Regional Transit Planning and Programming Efforts 5-31
 - Summary of Transit Needs 5-31

6. Recommended Projects and Policies 6-1

- Roadway Recommendations 6-1
- Bicycle Recommendations 6-2
- Pedestrian Recommendations 6-6
- Transit Recommendations 6-8
- Project Costs 6-10
- Evaluation and Prioritization 6-12
- Prioritized Project Lists by Mode 6-15
- Recommended Policies 6-36



Multi-Modal Connectivity, Mobility, and Access.....6-36

Travel Demand Management (TDM)6-36

Access Management6-37

Parking.....6-37

Intelligent Transportation Systems (ITS)6-38

Urban Design, Planning, and Zoning Tools6-39

7. Financial Resources..... **7-1**

Federal Funding Sources 7-1

State Funding Sources7-4

Local Funding Sources7-5

Future Potential Funding Sources.....7-6

APPENDICES (provided under separate cover)

APPENDIX A. Public Involvement Documentation

APPENDIX B. Overview of Socioeconomic Data Forecasting

APPENDIX C. Travel Demand Model Development

APPENDIX D. Preliminary Field and Environmental Screening of Selected Projects

APPENDIX E. List of All Recommended Transportation Improvements



List of Figures

Figure 1.1 Ten-County Coastal Georgia Region	1-1
Figure 4.1 Existing Land Use	4-2
Figure 4.2 Activity Centers and Community Facilities	4-4
Figure 4.3 Effingham County Future Development Map from Comprehensive Plan.....	4-7
Figure 4.4 Historic Sites and Districts	4-9
Figure 4.5 Wetlands and Waterbodies	4-10
Figure 4.6 Historic and Projected Population, 1970-2030	4-11
Figure 4.7 Historic and Projected Employment, 1970-2030	4-13
Figure 4.8 Environmental Justice Areas (2000)	4-15
Figure 5.1 Roadway Functional Classification System Diagram.....	5-2
Figure 5.2 2007 GDOT Functional Class.....	5-3
Figure 5.3 2006 Annual Average Daily Traffic (AADT).....	5-4
Figure 5.4A Roadway Crash Frequency and Fatalities (2004 – 2006)	5-6
Figure 5.4B Road Segment Crash Rates by Functional Classification Vs. Statewide Averages (2004 – 2006)	5-7
Figure 5.5 Vehicular Incidents by Time of Day.....	5-8
Figure 5.6 2030 Existing Plus Committed Daily Traffic Volume/Capacity (V/C) and Level of Service (LOS)	5-10
Figure 5.7 Roadway Surface	5-12
Figure 5.8 Signalized Intersections	5-16
Figure 5.9 Truck Percentage on Roadway System.....	5-20
Figure 5.10 Past and Current Railroad lines in Effingham	5-21
Figure 5.11 Railroad Ownership and Public Grade Crossings	5-22
Figure 5.12 Pedestrian Needs Analysis	5-26
Figure 5.13 Existing and Proposed Bicycle Facilities.....	5-29
Figure 6.1 Proposed Roadway Segment Improvements	6-3
Figure 6.2 Proposed Intersection Improvements	6-4
Figure 6.3 Proposed Bicycle Improvements.....	6-5
Figure 6.4 Proposed Pedestrian Improvements	6-7
Figure 6.5 Proposed Transit Improvements.....	6-9
Figure 6.6 Estimated Cost of Roadway Segment Improvements Benefitting Each Mode.....	6-11
Figure 6.7 Number of Miles of Roadway Recommended for Various Types of Improvements	6-12



List of Tables

Table 1.1 Resources Consulted During Planning Process	1-5
Table 4.1 Land Use Distribution in Effingham County.....	4-3
Table 4.2 Description of Transportation Facility Character Areas.....	4-5
Table 4.3 Wetland Area in Cities and County.....	4-8
Table 5.1 Roadway Type and Utilization	5-2
Table 5.2 Crash Statistics by Year.....	5-5
Table 5.3 Bridge Conditions.....	5-13
Table 5.4 FHWA Sidewalk Guidelines.....	5-25
Table 6.1 Assumed Per-mile Cost of Various Types of Transportation Improvements	6-10
Table 6.2 Evaluation Factors and Associated Points	6-14
Table 6.3 Prioritized List of All Recommended Potential Projects (Overview)	6-15
Table 6.4 Ranked List of Recommended Potential Roadway Projects.....	6-23
Table 6.5 Ranked List of Recommended Potential Bicycle Projects	6-27
Table 6.6 Ranked List of Recommended Potential Pedestrian Projects	6-31



Glossary of Acronyms

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
CARE	Critical Analysis Reporting Environment
CAT	Chatham Area Transit
CID	Community Improvement District
CMAQ	Congestion Mitigation and Air Quality
CZM	Coastal Zone Management
DCA	Department of Community Affairs
DHR	Department of Human Resources
DNR	Department of Natural Resources
DRI	Development of Regional Impact
E+C	Existing plus Committed
EDA	Economic Development Authority (Effingham)
EJ	Environmental Justice
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GDOT	Georgia Department of Transportation
GIS	Geographic Information Systems
HOV	High Occupancy Vehicle
ISTEA	Intermodal Surface Transportation Efficiency Act (1991)
ITS	Intelligent Transportation System
LOS	Level of Service
MMTS	Multi-Modal Transportation Study
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
NBI	National Bridge Inventory
NHRP	National Register of Historic Places
PACES	Pavement Condition Evaluation System
PIP	Public Involvement Plan
RDC	Regional Development Center
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
SOV	Single Occupant Vehicle
SPLOST	Special Purpose Local Option Sales Tax
SRTA	State Road and Tollway Authority (Georgia)
STAA	Surface Transportation Assistance Act (1982)
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
TAD	Tax Allocation District
TDM	Travel Demand Management
TDR	Transfer of Development Rights
USDOT	United States Department of Transportation
V/C	Volume to Capacity