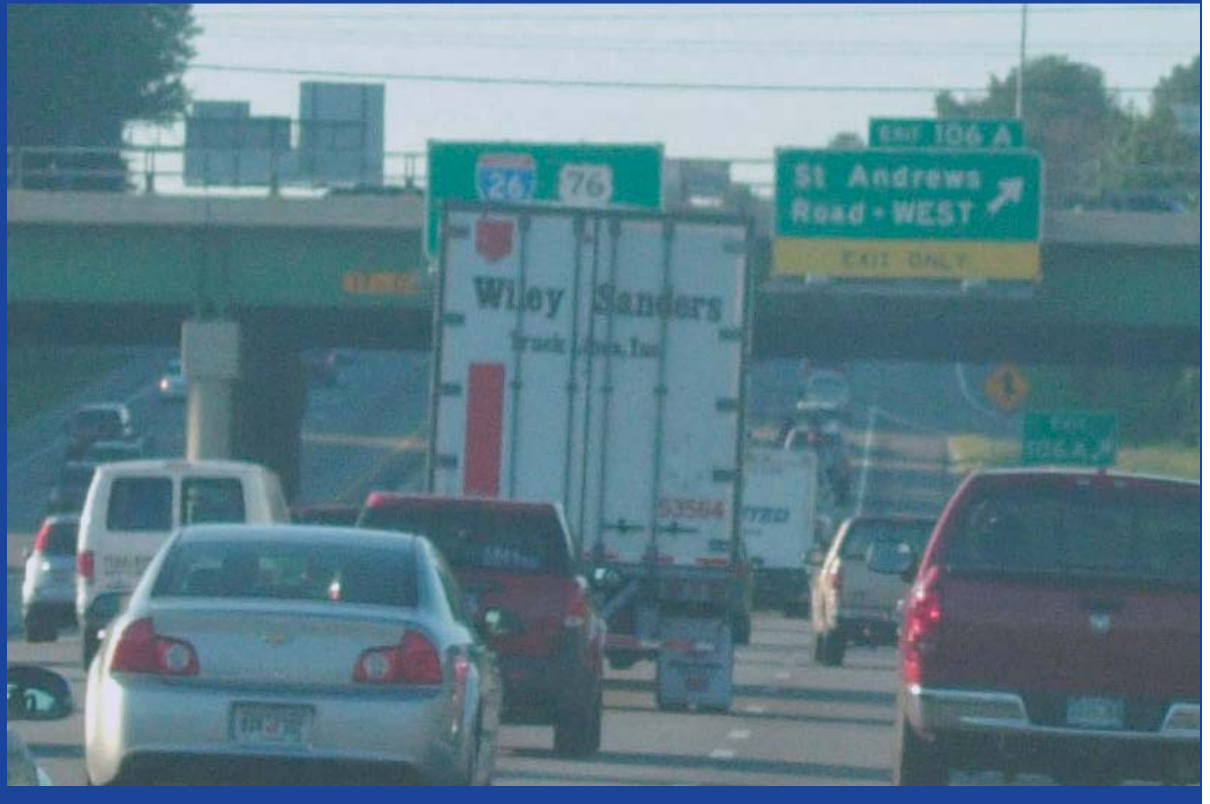


Midlands Tomorrow

2035 Long Range Transportation Plan



Consultation
Mobility
Accessibility
Safety
Security
Economic Vitality
Environment
Finance

DRAFT - 10/31/08

COLUMBIA AREA TRANSPORTATION STUDY

MIDLANDS TOMORROW

2035

LONG RANGE
TRANSPORTATION PLAN

DRAFT 10/31/08

Prepared by:
CMCOG Staff

Draft 10/31/08

236 Stoneridge Drive
Columbia, SC 29201
Phone: (803)376-5390
Fax: (803)376-5390

www.centralmidlands.org



TABLE OF CONTENTS

CHAPTER 1 - INTRODUCTION	1
1.1 Purpose and Scope.....	1
1.2 Planning Process	2
1.3 Committee Oversight.....	4
1.4 Vision, Goals, Objectives and Strategies	4
CHAPTER 2 - PUBLIC PARTICIPATION	6
2.1 LRTP Transportation Survey.....	6
2.2 LRTP Public Meetings.....	8
2.3 Use of Supplemental Plans	10
2.4 Objectives & Strategies	12
CHAPTER 3 - SOCIOECONOMIC ANALYSIS	14
3.1 Introduction	14
3.2 Population Trends	14
3.2.1 Existing Trends	14
3.2.2 Future Trends	21
3.3 Economic Development	28
3.3.1 Existing Trends	28
3.3.2 Future Trends	32
3.4 Social Environment	36
3.4.1 Environmental Justice.....	36
3.4.2 Social Equity Analysis.....	37
3.5 Objectives & Strategies	44
CHAPTER 4: ENVIRONMENTAL MITIGATION	47
4.1 Introduction	47
4.2 Consultation and Coordination	48
4.3 Environmental Mitigation Strategies.....	49
4.3.1 Environmental Screening.....	49
4.3.2 Green Infrastructure/Open Space Planning.....	50

4.3.3 CMCOG Wetlands Mitigation Bank.....	51
4.3.4 Regional Air Quality Forum.....	52
4.4 Land Use and Transportation.....	53
4.4.1 Transportation Network Design Principles.....	54
4.4.2 Land Use and Community Design Principles.....	57
4.4.3 Comprehensive Planning and Policy Tools.....	61
4.5 Objectives and Strategies.....	64
CHAPTER 5: QUALITY OF LIFE.....	66
5.1 Introduction.....	66
5.2 Bike & Pedestrian Planning.....	66
5.2.1 Bike & Pedestrian Planning in the COATS.....	67
5.2.2 Local Initiatives.....	72
5.2.3 Gaining Public Support & Funding.....	74
5.3 Transportation Enhancements.....	77
5.4 Objectives & Strategies.....	82
CHAPTER 6: TRANSIT.....	85
6.1 Introduction.....	85
6.2 Transit in the Central Midlands Region.....	85
6.3 Funding Sources.....	91
6.4 Human Services Coordination.....	94
6.5 Commuter Rail in the Midlands.....	95
6.5.1 Description of Potential Corridors.....	96
6.5.2 Comparison to Peer Systems.....	97
6.5.3 Connections to Regional High Speed Rail.....	99
6.5.4 Rail in the Future.....	100
6.6 Objectives and Strategies.....	100
CHAPTER 7: HIGHWAY ELEMENT.....	102
7.1 Introduction.....	102
7.2 The Financially Constrained Planning Requirement.....	102
7.3 Highway Proposals.....	103

7.3.1 The Project Prioritization Process	103
7.3.2 Road Widenings.....	105
7.3.3 New Right of Way Projects	112
7.4 Intersection Improvements	115
7.5 The Interstate Highway System	117
7.6 Objectives and Strategies	120
CHAPTER 8: CONGESTION MANAGEMENT	121
8.1 Introduction	121
8.2 Existing Conditions.....	121
8.2.1 Congested Corridors.....	122
8.2.2 Potential Intersection Hot Spots.....	123
8.3 Future Updates.....	123
8.4 Objectives and Strategies	124
CHAPTER 9: MOTOR FREIGHT	126
9.1 Introduction	126
9.2 Existing Conditions.....	127
9.2.1 System Overview and Highway System	127
9.2.2 Rail.....	127
9.2.3 Freight Movements	128
9.2.4 Safety.....	129
9.2.5 Stakeholder Survey.....	129
9.2.6 Roadway Bottlenecks	129
9.3 Objectives and Strategies	130
CHAPTER 10: SAFETY	139
10.1 Introduction	139
10.2 Safety-related Databases in the COATS.....	140
10.3 Strategic Highway Safety Plan (SHSP).....	140
10.4 SCDOT Incident Response	141
10.5 Safe Routes to School.....	141
10.6 Access Management.....	142

10.7 Older Drivers	142
10.8 Roadway design.....	143
10.9 Advanced technology	143
10.10 Transportation Options.....	143
10.11 Objectives & Strategies	144
CHAPTER 11: SECURITY	145
11.1 Introduction	145
11.2 Security in the COATS	145
11.3 Regional Emergency Management (REM) Program	145
11.4 Security Improvements.....	146
11.5 Objectives Strategies	146
CHAPTER 12: FINANCIAL PLAN	148
12.1 Introduction	148
12.2 Financial Planning Requirements.....	148
12.3 Financial Issues.....	149
12.4 Revenue Projections	150
12.5 Existing and Potential Funding Sources.....	155
12.5.1 Federal Revenue Sources for Transportation Projects	155
12.5.2 South Carolina Department of Transportation Revenue Sources ...	156
12.5.3 Revenue Sources for Local Transportation Projects.....	158
12.6 Objectives & Strategies	164

LIST OF TABLES

Table 2.1: Transportation Survey Results.....	7
Table 2.2: 2008 Public Input Meetings for the 2035 LRTP.....	9
Table 2.3: Plans used to supplement LRTP Public Outreach Process	11
Table 3.1: Population Projection Summary for the COATS Area.....	22
Table 3.2: School Enrollment 2000-2035.....	27
Table 3.3: Employment by Industry Type 2005.....	30

Table 3.4: Change in Employment 2005-2035.....	33
Table 3.5: Environmental Justice Profile of the COATS Region	38
Table 5.1: Existing Bike Lanes in the COATS Boundary	70
Table 5.2: Local Government Initiatives	73
Table 5.3: Early Action Projects	74
Table 5.4: COATS Transportation Enhancement Projects.....	79
Table 6.1: Fixed Routes Over Past 5 Years.....	89
Table 6.2: Top 5 Most Popular Routes	90
Table 6.3: DART Service	90
Table 7.1: Road Widening Ranking Criteria.....	104
Table 7.2: Prioritized Road Widening Projects.....	107
Table 7.3: Intersection Improvement Ranking Criteria	115
Table 7.4: Prioritized Intersection Improvements	115
Table 7.5: Interstate Improvements	118
Table 9.1: Cost of Logistics.....	127
Table 10.1 Crash Data.....	140
Table 12.1: Base Funding/Cost Constrained Plan	152
Table 12.2: Enhanced Revenues Plan.....	154
Table 12.3: Revenue Sources for Local Transportation Projects Summary.....	161
Table 12.4: Revenue by County	164

LIST OF FIGURES

Figure 3.1: Change in Population Density.....	18
Figure 3.2: 2035 Growth Trends (X Pattern).....	23
Figure 3.3: 2005 Major Employers (650-plus Employees)	29
Figure 3.4: Change in Employment 2005-2035	33
Figure 4.2: Traditional Neighborhood Design	58
Figure 4.3: Schematic Regional Network of Mixed use Activity Centers.....	61
Figure 6.2 Fixed Ridership Trends.....	89

Figure 6.3: DART Ridership Trends.....	91
--	----

LIST OF MAPS

Map 3.1: MPO Planning Area 1960- 2000	16
Map 3.2: 2005 Population Density	24
Map 3.3: 2035 Population Density	25
Map 3.4: Change in Population Density 2005-2035.....	26
Map 3.5: Employment by Industry 2005.....	31
Map 3.6: 2035 Employment Density	35
Map 3.7: Percent Minority Population (2000).....	40
Map 3.8: Percent Hispanic Population (2000).....	41
Map 3.9: Families Below the Poverty Line (2000).....	42
Map 3.10: Environmental Justice Areas (2000)	43
Map 5.1: Existing Bike and Pedestrian Facilities.....	69
Map 5.2: COATS Transportation Enhancement Projects.....	81
Map 6.1: Existing Public Transit System.....	88
Map 6.2: Potential Commuter Rail Corridors	98
Map 7.1: Highway Widening Needs Assessment	106
Map 7.2: Prioritized Road Widening Projects.....	111
Map 7.3: New Construction Projects.....	114
Map 7.4: Intersection Improvements.....	116
Map 7.5: Interstate Improvements	119