Appendix A  Capacity Projects

This appendix lists the roadway capacity projects that would help achieve the goals of the 2045 Regional Transportation Plan. The RPC recognizes that there are many corridors throughout the region that require additional capacity, however there is not enough funding over the next 25 years to address all of the needs. Of the $2.2 billion in federal funding available for projects in the Birmingham region over the next 25 years, about two-thirds ($1.4 billion) goes to maintenance and operations projects. This leaves only $778,313,890 available for capacity projects. The projects are divided into two separate lists – the Fiscally Constrained Non-exempt (“Capacity”) projects and Visionary projects.

• Capacity projects are those that can be reasonably funded. Public officials and other stakeholders identified $1 capacity projects they desired to be constructed with available funds.

• Visionary projects are those that are needed, but lack funding and cannot be built unless more funding becomes available.

Appendix B  Public Involvement Summary

This appendix highlights the public outreach process for this plan. The following methods were used to gain perspective of transportation issues, needs and opportunities for the 2045 Regional Transportation Plan.

• Project Website
• Stakeholder Interviews
• Short Survey
• MetroQuest Online Survey
• E-blasts

In addition to the 2045 Regional Transportation Plan public outreach was conducted for both The Regional Freight Plan and the Regional Active Transportation Plan (B-Active).

Appendix C  Environmental Justice

The Birmingham Metropolitan Planning Organization (MPO) represents Jefferson and Shelby counties, and a portion of Blount and St. Clair counties. It is a recipient of federal and state funding for carrying out urban transportation planning for the designated Metropolitan Planning Area (MPA). This appendix outlines the following:

• Explanation of environmental justice and its relationship to transportation planning
• Equity Emphasis Areas (EEAs)
• Capacity Project Impacts in EEAs
• Public Participation Process
• Public Complaint Process

Appendix D  Network Modeling Support

This appendix explains the methodology, inputs and outputs for the MPO’s travel demand model. The MPO uses Citilab’s Cube Voyager, a four-step forecasting model, as its travel demand modeling software. The travel demand model forecasts future travel patterns and traffic loads based on existing conditions and planned capacity projects. The MPO uses the travel demand model to evaluate the future impacts of capacity projects included in the Fiscally Constrained Plan (those capacity projects that can reasonably expect funding over the next 25 years).

The model combines existing regional conditions (such as population and employment density, traffic counts, median household income, etc.) with empirically-derived travel behaviors and future capacity projects to generate travel pattern forecasts in specific future years.

Appendix E  Emerging Technologies

New technologies are rapidly changing how people get around and use public roads. The next wave of transportation technologies, spearheaded by the autonomous vehicle, is coming quickly. State, regional and local governments can use this revolution as an opportunity to rethink how transportation is provided, for whom, and for what purposes, in an attempt to provide it better. This appendix summarizes the following:

• Trends and Impacts of Connected, Autonomous and Alternative-fuel Vehicles
• Trends and Impacts of Shared Mobility
• Trends and Impacts of Data and Infrastructure Advancement
• Policy Implications for Public Agencies

Appendix F  Environmentally-Sensitive Areas and Mitigation Practices

The 2045 Regional Transportation Plan (RTP) recommends a suite of major projects that will address existing and projected mobility needs within the Birmingham Metropolitan Planning Area (MPA). These are high-level, preliminary planning recommendations do not fully investigate the wide range of potential environmental impacts each project may incur. Projects that receive federal funds will be subjected to the requirements of the National Environmental Policy Act (NEPA) of 1969 and must undergo an environmental review process. While projects funded locally do not. To comply with the Fixing America’s Surface Transportation Act (FAST Act) requirements, this appendix outlines the following:

• An inventory of environmental impacts/ environmentally sensitive areas within the Region
• A discussion of other environmental considerations to be evaluated and screened during a NEPA-level analysis of a federally-funded transportation project
• Recommendations for environmental mitigation strategies