

Table of Contents

Executive Summary	ES -1
Chapter 1.0: Why Should You Read This?	1-1
1.1 Crossroads State	1-1
1.2 Unique State	1-1
1.3 Where Are We Going?	1-4
1.4 What Trips Do Our Goods Make?.....	1-4
Chapter 2.0: Who Are We?	2-1
2.1 Population Trends.....	2-1
2.2 Income	2-5
2.3 Community Characteristics.....	2-9
Chapter 3.0: Transportation At A Glance	3-1
3.1 Highways.....	3-2
3.2 Public Transportation	3-3
3.3 Airways	3-4
3.4 Railways	3-5
3.5 Waterways.....	3-6
3.6 Bicycle/Pedestrian Transportation	3-7
3.7 Modes and Interconnectivity.....	3-8

Chapter 4.0: Vision, Mission, Goals and System Performance.....	4-1
4.1 Federal Framework.....	4-1
4.2 The KYTC Mission.....	4-1
4.3 Public Input Process.....	4-2
4.4 Reach the Destination	4-10
4.5 Creating the Vision.....	4-13
4.6 Setting the Goals.....	4-13
4.7 Defining the Priorities.....	4-14
4.8 Establishing the Performance Measures	4-14
4.9 Setting Performance Targets	4-14
4.10 KYTC Organizational Framework	4-14
Chapter 5.0: Transforming Needs to Realities	5.1-1
5.1 Performance-Based Planning and Programming (PBPP) Process	5.1-1
5.1.1 PBPP Overview	5.1-1
5.1.2 Performance Evaluation and Target Setting	5.1-1
5.1.2-1 Data Management.....	5.1-4
5.1.2-2 The Highway Project Identification and Prioritization Process	5.1-6
5.1.2-2.1 The Prioritization Process.....	5.1-6
5.1.3 Environmental.....	5.1-11
5.1.3-1 Considerations.....	5.1-11
5.1.3-2 Air Quality	5.1-14
5.1.3-3 Transportation and Human Health.....	5.1-17

5.1.3-4 Kentucky Historical Marker Program.....	5.1-18
5.1.4 Transportation Funding	5.1-19
5.1.4-1 Sources of Funds.....	5.1-19
5.1.4-2 Use of Funds	5.1-21
5.2 Modal Application of Performance Based Planning and Programming (PBPP)	5.2-1
5.2.1 Highways	5.2-2
5.2.1-1 Basic Maintenance Overview	5.2-2
5.2.1-2 Pavement.....	5.2-2
5.2.1-2.1 Pavement Roughness	5.2-3
5.2.1-2.2 Pavement Condition	5.2-3
5.2.1-2.3 Pavement Performance.....	5.2-5
5.2.1-2.4 Pavement Preservation	5.2-6
5.2.1-3 Bridges	5.2-7
5.2.1-3.1 Bridge Condition.....	5.2-7
5.2.1-3.2 Improving Bridge Performance	5.2-7
5.2.1-3.3 Culverts.....	5.2-8
5.2.1-4 Signs, Signals and Striping.....	5.2-9
5.2.1-4.1 Signs.....	5.2-9
5.2.1-4.2 Signals	5.2-10
5.2.1-4.3 Pavement Markings	5.2-10
5.2.1-4.4 Roadside Maintenance	5.2-11
5.2.1-5 Enhancing Mobility	5.2-11

5.2.1-6 Safety	5.2-12
5.2.1-6.1 Enforcement	5.2-12
5.2.1-6.2 Engineering	5.2-14
5.2.1-6.3 Education	5.2-14
5.2.1-6.4 Emergency Response	5.2-14
5.2.1-6.5 Security	5.2-16
5.2.1-7 Congestion	5.2-17
5.2.1-8 Freight Movement	5.2-19
5.2.2 Public Transit	5.2-24
5.2.2-1 Overview of Public Transit	5.2-24
5.2.2-2 KYTC Office of Transportation Delivery	5.2-35
5.2.2-3 Safety	5.2-36
5.2.2-4 Future Needs	5.2-36
5.2.2-5 Light Rail and Intercity Passenger Rail	5.2-39
5.2.2-6 References and Links	5.2-39
5.2.3 Aviation	5.2-40
5.2.3-1 General Aviation	5.2-40
5.2.3-1.1 Future Concerns	5.2-41
5.2.3-1.2 Current and Future Funding	5.2-41
5.2.3-1.3 Current and Future Infrastructure	5.2-41
5.2.3-1.4 Maintenance and Improvement	5.2-41
5.2.3-1.5 Other Areas of Concern	5.2-42

5.2.3-1.6 New Facilities.....	5.2-42
5.2.3-2 Commercial Passenger Service	5.2-45
5.2.3-3 Air Cargo Service.....	5.2-46
5.2.3-4 Military Service.....	5.2-47
5.2.3-5 Emergency Medical Service.....	5.2-47
5.2.3-6 Technology and Education	5.2-47
5.2.3-6.1 Technology	5.2-47
5.2.3-6.2 Aviation Education.....	5.2-48
5.2.3-7 References and Links	5.2-48
5.2.3-7.1 General Information	5.2-48
5.2.3-7.2 Educational	5.2-49
5.2.3-7.3 Government.....	5.2-49
5.2.4 Railways.....	5.2-50
5.2.4-1 General Rail.....	5.2-50
5.2.4-2 General System Planning, Funding, and Development	5.2-51
5.2.4-3 KYTC and Rail Coordination	5.2-53
5.2.4-4 KYTC Railroad Safety.....	5.2-54
5.2.4-5 Light Rail	5.2-55
5.2.4-6 High Speed Rail	5.2-55
5.2.4-7 Rail and Other Modes.....	5.2-56
5.2.4-8 References and Links	5.2-59
5.2.4-8.1 General Information	5.2-59

5.2.5 Waterways.....	5.2-60
5.2.5-1 Overview Navigable Waterways.....	5.2-60
5.2.5-2 Riverports	5.2-61
5.2.5-3 Ferry Operations.....	5.2-62
5.2.5-4 System Planning, Funding, and Development.....	5.2-62
5.2.5-5 References and Links	5.2-64
5.2.5-5.1 General Information	5.2-64
5.2.6 Bicycle and Pedestrian Facilities.....	5.2-66
5.2.6-1 Bicycle and Pedestrian Transportation.....	5.2-66
5.2.6-2 Pedestrian and Bicycle Planning	5.2-66
5.2.6-3 References and Links	5.2-68
5.2.6-3.1 General Information	5.2-68
5.2.6-3.2 Educational	5.2-68
Chapter 6.0: How Do We Get There?	6-1
 6.1 Conclusions.....	6-1
Chapter 7.0: Acronyms.....	7-1
Chapter 8.0: Glossary	8-1

List of Figures

Chapter 1.0: Why Should You Read This?	1-1
Figure 1.1 A - Kentucky – A Crossroads State	1-1
Figure 1.2 A - Kentucky Geographical and Point of Interest Map	1-1
Figure 1.3 A - Transportation and Our Trips.....	1-4
Figure 1.4 A - Kentucky – Freight (Goods) Routing to, from and through Kentucky via Truck	1-5
Figure 1.4 B – Kentucky Crossroads State for Freight	1-6
Chapter 2.0: Who Are We?	2-1
Figure 2.1 A - Population Change in Kentucky versus United States form 2000-2010.....	2-1
Figure 2.1 B – Kentucky Population by Age Group (Average 2007-2011)	2-2
Figure 2.1 C – Kentucky Population Projections from 2010 through 2035	2-3
Figure 2.1 D – Kentucky Population Percent Change by County	2-4
Figure 2.1 E – Minority Population Percentage in Kentucky from Census Data.....	2-5
Figure 2.1 F – Minority Population Percentage in Kentucky from 2010 Census Data.....	2-6
Figure 2.2 A – Individual Poverty Rate by Kentucky County.....	2-7
Figure 2.3 A – Average Travel Time for those in Kentucky versus those in the United States from 2007-2011.....	2-8
Figure 2.3 B – Kentucky Average Daily Population Traveling to Work without a Vehicle from 2007-2011.....	2-9
Chapter 3.0: Transportation At A Glance	3-1
Figure 3.7 A – Kentucky Highway Arterial Map	3-8
Figure 3.7 B – Kentucky Airport Location Map	3-9

Figure 3.7 C – Kentucky Riverport Location Map	3-10
Figure 3.7 D – Kentucky Railroad Network Map.....	3-11
Figure 3.7 E – Kentucky Urban Mass Transit Providers Map.....	3-12
Figure 3.7 F – Kentucky Rural Public Mass Transit Boundary Map	3-13
Figure 3.7 G – Kentucky Trans-America Bike Trail US-BR-76 Map	3-14
Chapter 4.0: Vision, Mission, Goals and System Performance.....	4-1
Figure 4.2 A – KYTC Project Life Cycle.....	4-1
Figure 4.3 A – KYTC “Your Turn” Survey Logo	4-2
Figure 4.2 B – KYTC Public Engagement Process	4-3
Figure 4.3 B – KYTC “Your Turn” Transportation Survey Responses by Kentucky County	4-5
Figure 4.3 C – KYTC “Your Turn” Transportation Survey Responses – In a Word	4-6
Figure 4.3 D – Kentucky Area Development District Offices and Boundary Map	4-7
Figure 4.3 E – Kentucky Metropolitan Planning Organization Offices and Boundary Map.....	4-8
Figure 4.3 F – KYTC Highway District Offices and Boundary Map	4-9
Figure 4.3 G – Destination Postcard for Kentucky.....	4-11
Figure 4.4 A – KYTC Pyramid of Performance.....	4-12
Figure 4.6 A – KYTC Goals Implementation	4-13
Figure 4.10 A – KYTC Organizational Chart.....	4-15
Figure 4.10 B – KYTC Highway District Boundary Map	4-16
Figure 4.10 C – Plan-Do-Check-Act Cycle of Performance-Based Planning & Programming	4-18
Figure 4.10 D – The Role of the Plan-Do-Check-Act Cycle in Performance-Based Planning & Programming.....	4-19

Chapter 5.0: Transforming Needs to Realities	5.1-1
 5.1 Performance Based Planning and Programming (PBPP) Process.....	5.1-1
 5.1.1 PBPP Overview	5.1-1
 5.1.2 Performance Evaluation and Target Setting	5.1-1
Figure 5.1.2 A – KYTC Performance Measures as Part of the PBPP Process.....	5.1-2
Figure 5.1.2 B – KYTC Performance Targets as Part of the PBPP Process.....	5.1-3
Figure 5.1.2 C – Public Participation in the Consultation Process (from the 2014 KYTC Public Involvement Plan).....	5.1-8
Figure 5.1.2 D – Transportation Needs Funnel: From a Need to a Delivered Project	5.1-9
 5.1.3 Environmental.....	5.1-11
Figure 5.1.3 A – Kentucky Natural Environmental Considerations.....	5.1-12
Figure 5.1.3 B – Kentucky Human Environmental Considerations	5.1-13
Figure 5.1.3 C – Kentucky Air Quality Attainment Map	5.1-16
Figure 5.1.3 D – The Four Points of Intersection between Health and Transportation	5.1-17
 5.1.4 Transportation Funding	5.1-19
Figure 5.1.4 A – Revenue Sources for Transportation Funding in Kentucky	5.1-19
Figure 5.1.4 B – The Flow of State and Federal Highway Funding in Kentucky.....	5.1-22
Figure 5.1.4 C – Road Fund Expenditures by Appropriations Units (FY 2013).....	5.1-23
Figure 5.1.4 D – Highway Expenditures from Road Fund (FY 2013)	5.1-24
 5.2 Modal Application of Performance Based Planning and Programming (PBPP)	5.2-1
 5.2.1 Highways	5.2-2
Figure 5.2.1 A – KYTC Pavement Roughness.....	5.2-3
Figure 5.2.1 B – Range of Pavement Conditions.....	5.2-4
Figure 5.2.1 C – 2013 Pavement Conditions in KY by Roadway Functional Class.....	5.2-4

Figure 5.2.1 D – Future Pavement Performance Levels for Interstates & Parkways at Current Funding	5.2-5
Figure 5.2.1 E – KYTC Resurfacing Program: Needs versus Spending.....	5.2-5
Figure 5.2.1 F – Pavement Condition over Time.....	5.2-6
Figure 5.2.1 G – 2013 Bridge and Culvert Conditions in Kentucky	5.2-9
Figure 5.2.1 H – Total Highway Fatalities in Kentucky (2000-2012)	5.2-13
Figure 5.2.1 I – Total Highway Collisions in Kentucky (2000-2012)	5.2-15
Figure 5.2.1 J – 2010 National Freight Movement by tonnage on Highways, Railways and Inland Waterways.....	5.2-20
Figure 5.2.1 K – Long Haul Freight Movement on National Highway Network by Truck in 2007	5.2-21
Figure 5.2.1 L – National Freight (Goods) Routing to, from and through Kentucky via Truck.....	5.2-23
5.2.2 Public Transit	5.2-24
Figure 5.2.2 A – Rural Transit Providers in Kentucky.....	5.2-25
Figure 5.2.2 B – Kentucky Western Region Rural Transit Providers	5.2-26
Figure 5.2.2 C – Kentucky Central Region Rural Transit Providers	5.2-27
Figure 5.2.2 D – Kentucky Bluegrass Region Rural Transit Providers	5.2-28
Figure 5.2.2 E – Kentucky Eastern Region Rural Transit Providers	5.2-29
Figure 5.2.2 F – Urban Fixed Route Transit Systems in Kentucky.....	5.2-31
Figure 5.2.2 G – Total Passenger Trips for Urban Transit Systems in Kentucky	5.2-33
Figure 5.2.2 H – Passenger Trips of the Urban Transit Systems in Kentucky.....	5.2-34
5.2.3 Aviation	5.2-40
Figure 5.2.3 A – Airport Facilities in Kentucky	5.2-43
5.2.4 Railways	5.2-50
Figure 5.2.4 A – Kentucky Railway and Riverport Statewide Connectivity Map	5.2-57
Figure 5.2.4 B – Kentucky Railway and Highway System Statewide Connectivity Map	5.2-58

5.2.5 Waterways	5.2-60
Figure 5.2.5 A – Freight Mode Equivalent Unit Comparison	5.2-60
Figure 5.2.5 B – Public Riverports in Kentucky	5.2-61
Figure 5.2.5 C – Ferry Boat Locations in Kentucky.....	5.2-63
5.2.6 Bicycle and Pedestrian Facilities.....	5.2-66
Chapter 6.0: How do we get there?.....	6-1
 6.1 Conclusion	6-1
Figure 6.1 A – KYTC Goals Implementation	6-2
Figure 6.1 B – The Role of the Plan-Do-Check-Act Cycle in Performance-Based Planning & Programming.....	6-3

List of Tables

Chapter 1.0: Why Should You Read This?	1-1
Chapter 2.0: Who Are We?	2-1
Chapter 3.0: Transportation At A Glance	3-1
Chapter 4.0: Vision, Mission, Goals and System Performance	4-1
Chapter 5.0: Transforming Needs to Realities	5.1-1
5.1 Performance Based Planning and Programming (PBPP) Process	5.1-1
5.1.1 PBPP Overview	5.1-1
5.1.2 Performance Evaluation and Target Setting	5.1-1
Table 5.1.2 A – KYTC Databases and Contents	5.1-5
5.1.3 Environmental	5.1-11
5.1.4 Transportation Funding	5.1-19
Table 5.1.4 A – KYTC Historic Construction/Maintenance Expenditures for Kentucky	5.1-25
5.2 Modal Application of Performance Based Planning and Programming (PBPP)	5.2-1
5.2.1 Highways	5.2-2
5.2.2 Public Transit	5.2-24
Table 5.2.2 A – Urban Fixed Route Transit Systems in Kentucky.....	5.2-30
Table 5.2.2 B – Public Transit Funding Comparison in Kentucky and Other States.....	5.2-37
5.2.3 Aviation	5.2-40
Table 5.2.3 A – Aviation Funding Comparison in Kentucky and Other States	5.2-44

KENTUCKY LONG-RANGE STATEWIDE TRANSPORTATION PLAN

Table 5.2.3 B – Annual Passengers and Aircraft Operations for Kentucky Airports with Scheduled Passenger Air Carrier Service	5.2-45
Table 5.2.3 C – Annual Air Cargo Service Volumes of Major Commercial Airports.....	5.2-46
5.2.4 Railways	5.2-50
Table 5.2.4 A – Railway Funding Comparison in Kentucky and Other States.....	5.2-52
5.2.5 Waterways	5.2-60
Table 5.2.5 A – Waterway Commodities	5.2-60
Table 5.2.5 B – Ferry Boat Operations in Kentucky	5.2-62
Table 5.2.5 C – Waterway Funding Comparison in Kentucky and Other States.....	5.2-65