APPENDIX C

GLOSSARY OF TRANSPORTATION TERMS AND ABBREVIATIONS

GLOSSARY OF TRANSPORTATION TERMS AND ABBREVIATIONS

Access Control Codes

- 1 Full control of access
- 2 Partial control of access
- 3 No access control or access by permit

ADA – Americans with Disabilities Act of 1990 - The ADA requires accessible public transportation services and facilities for persons with disabilities, including supplemental service in areas where fixed route transit service is operated.

ADD – Area Development District - One of 15 regional planning organizations covering the state; see http://www.kycadd.org for more information.

Adequacy Rating – A numerical score from 0 to 100 evaluating the current condition of a roadway segment based on congestion, safety, and pavement condition.
See http://www.ktc.uky.edu/Reports/KTC_02_30_SPR_256_01_1F.pdf

ADHS – Appalachian Development Highway System - An administrative designation of a highway system in the ARC region of Kentucky.

ADT – Average Daily Traffic Volume (sometimes referred to as AADT, Average Annual Daily Traffic).

AASHTO – American Association of State Highway and Transportation Officials - An organization of state Departments of Transportation. See http://www.transportation.org

ASTM – American Society for Testing and Materials - One of the largest voluntary standards development organizations in the world; produces for technical standards for materials, products, systems, and services. See http://www.astm.org

APD – Appalachian Development Highway Program - Geographically targeted matching funds, at an 80/20 ratio, for eligible roads (US 460 and US 119 are the only remaining eligible corridors).

Bike – Designated Kentucky bicycle system routes. Information is available in HIS.
See also http://bikewalk.ky.gov/

BR – Various Federal Bridge Replacement programs, including "on system" (BRO), "off system" (BRZ), and "on or off system" (BRX) which are, respectively, 65%, 15%, and 20% of the state's total BR program. These categorical funds are matched 80/20 and are used to repair or replace bridges on state systems (BRO), local streets and roads (BRZ), and on the Rural Secondary system (BRX) based on an analysis of bridge condition.

BR2 – BRAC Bond Projects Second Program

BRC – BRAC Bond Projects

BTS – Bureau of Transportation Statistics - An agency of USDOT.
See http://www.bts.gov/

C – for Construction Phase of project

CAA – Clean Air Act - The CAA was amended in 1990 (often referred to as the Clean Air Act Amendment) and imposes more stringent requirements for State Implementation Plans to improve air quality. The Environmental Protection Agency published the Transportation Conformity Rule in the Federal Register on November 24, 1994 (40 CFR 51). This rule established the criteria and procedures for determining that transportation plans, programs, and projects, which are approved in 23 United States Code or the Federal Transit Act, conform to the state or federal air quality implementation plans.

CBD – Central Business District - Generally considered being the downtown area of a metropolitan area.

Conformity Determination – The Long-Range Plan and TIP/STIP must demonstrate that the projects and program, as a whole, emit less pollution than baseline or are less than a given budget as designated in the SIP (40 CFR 51). This is achieved through project and program evaluation using transportation Models (Mobile Model Analysis).

If the Long-Range Plan and/or the Transportation Improvement Program (TIP) do not conform according to the transportation conformity regulations (Federal Register; November 24, 1994 40 CFR 51), the subject document cannot be approved by the metropolitan planning organization. If this is the case, projects cannot be authorized for federal-aid funding.

CE – Categorical Exclusion - One possible result of an environmental assessment (EA). See EA below and also http://www.environment.fhwa.dot.gov/projdev/docuce.asp

CMAQ – Congestion Mitigation and Air Quality - A category of federal-aid highway funds that may be used only to support projects in air quality nonattainment areas of Kentucky. Such projects must demonstrate an air quality improvement as a result of their use.
See http://www.fhwa.dot.gov/environment/cmaqpgs/

Coal Haul - Those routes over which coal was reported transported by truck during the previous calendar year. This database is updated in July of each year; therefore, the previous calendar year's data will become available in July of each year. Number of tons is reported separately for each direction of travel for state-maintained roads. Information is available in HIS.

Context Sensitive Design – A process through which the design of a transportation facility addresses safety, mobility, the preservation of scenic, aesthetic, historic, and environmental issues, and community values in a balanced manner to achieve design excellence.
See http://www.ktc.uky.edu/csd.html

CIA – Community Impact Assessment - A process for evaluating the effects of proposed transportation projects on a community and its quality of life. The assessment should include all items of importance to people, such as mobility, safety, employment effects, relocation, isolation, and other community issues.

CRF - Critical Crash Rate Factor - The quotient showing the ratio of the crash rate for a roadway spot or segment divided by the critical crash rate for that roadway spot or segment based on roadway type, number of lanes, and median type. The critical rate for a roadway type is determined annually by the Kentucky Transportation Center.
See http://www.ktc.uky.edu/Reports/KTC_09_16_KSP2_09_1F.pdf

D – for Design Phase of project

Defense - This network contains the routes and bridges to be used for defense material shipments, troop movements during a national defense emergency, and/or for evacuation of the general public from disaster areas. Information is available in HIS.

EA – Environmental Assessment - The general term used to describe the assessment of environmental impacts of a transportation development project. An EA may result in increasing order of level of detailed analysis in either (a) a CE (categorical exclusion) from formal assessment, (b) a FONSI (finding of no significant impact), or (c) the development of a formal EIS (environmental impact statement).
See http://www.epa.gov/compliance/resources/faqs/nepa/index.html

EIS – Environmental Impact Statement - One possible result of an environmental assessment (EA); see EA above and also http://www.epa.gov/compliance/nepa/eisdata.html

EJ – Environmental Justice - A term used to encapsulate the requirements of Federal Executive Order 12898 which state, in part, that "…each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations…" and hence to ensure equal environmental protection to all groups potentially impacted by a transportation development project.
See: http://www.fhwa.dot.gov/environment/ej2.htm

Extended Weight – A designated highway network over which certain vehicular weight limits are relaxed for coal haul vehicles.
See: www.transportation.ky.gov/HisEWBridge/

FONSI – Finding of No Significant Impact - One possible result of an environmental assessment (EA) See: http://www.environment.fhwa.dot.gov/projdev/docuFONSI.asp

Forest - Routes that are officially recognized jointly by the U.S. Forest Service and the KYTC as forest highway routes. The U.S. Forest Service assigns the 'Road Number.' Other U.S. Forest Service routes exist that are not included in this database. Information is available in HIS. Also, FH or Federal Forest Highway Funding (annual amount for Kentucky is about $400,000) is available solely for improvements on the system.

FAF – Freight Analysis Framework - A federal database that integrates data from a variety of sources to estimate commodity flows and related freight transportation activity among states, regions, and major international gateways.
See http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/index.htm

Functional Class Codes

- 1 Rural Interstate
- 2 Rural Other Principal Arterial
- 6 Rural Minor Arterial
- 7 Rural Major Collector
- 8 Rural Minor Collector
- 9 Rural Local
- 11 Urban Interstate
- 12 Urban Interstate Other Freeway or Expressway
- 14 Urban Other Principal Arterial
- 16 Urban Minor Arterial
- 17 Urban Collector
- 19 Urban Local

GARVEE – Grant Anticipation Revenue Vehicles - An innovative financing technique permitted by federal law and involves the commitment of future federal-aid appropriations as leveraging for current year highway improvements.

GIS – Geographic Information System - Refers to databases and/or software routines that store and graphically depict electronic data.

HCM/HCS – Highway Capacity Manual/Highway Capacity Software - A set of analytical tools that attempts to quantify the quality of service provided by a highway facility as perceived by the users of that facility. A common measure of that quality of service is the "Level of Service" provided, described as A through F.

HERS - FHWA's Highway Economic Requirements System - Software that evaluates the relationship between highway investment and system condition, performance, and user cost levels.

HES - Federal Hazard Elimination and Safety Program - Categorical funding matched at an 80/20 ratio for safety projects selected from among those with benefit/cost ratios >1.0.

Highway Plan - The Kentucky Transportation Cabinet's legislatively mandated program (costs and schedule) of highway project development phases submitted biennially to the General Assembly in even numbered years.
See http://transportation.ky.gov/progmgmt/2010highwayplan.html

HIS – Highway Information System - A comprehensive database of highway inventory information maintained by, and in many cases collected by, the Division of Planning.
See: www.transportation.ky.gov/planning

Horizontal Alignment Adequacy Codes:

- 0 No curve data on urban segments
- 1 All curves meet design standards
- 2 While some curves may not meet current design standards, all can be safely and comfortably negotiated at prevailing speed
- 3 Infrequent curves with reduced speed necessary for safety
- 4. Frequent curves with reduced speed necessary for safety

HOV – High Occupancy Vehicle - A vehicle with at least a predefined number of occupants, generally two or more.

HPP – Federal High Priority Program - Projects earmarked by Congress for Congressional High Priorities; funding is 80/20 match ratio.

HPMS – Highway Performance Monitoring System - A data extract, in Kentucky's case from the HIS database, that is submitted annually to FHWA as a part of that agency's periodic reporting to Congress on the condition and performance of the nation's highway system.

IM – Federal Interstate Maintenance Program - Federal match monies at a 90/10 ratio dedicated to maintenance of Kentucky's interstate highways.

IRI - International Roughness Index - A measure of pavement roughness. IRI values less than 100 generally indicate smooth pavements; between 100 and 150 somewhat rough pavements, and greater than 150 very rough pavements.

ITS – Intelligent Transportation Systems - A generic description of signal systems, traffic monitoring devices, and other traffic operations projects to improve capacity and safety (or 'TOPICS' projects as they were known in the 1960's) without major capital investment in facility reconstruction. See http://www.its.dot.gov/

KYD – Kentucky Demonstration Program - Represents Congressional earmarks, usually at an 80/20 ratio, for projects identified through the annual federal appropriations process.

Management Systems - These include a pavement management system (PMS), bridge management system (BMS), safety management system (SMS), congestion management system (CMS), public transportation facilities and equipment management system (PTMS), intermodal facilities and systems management system (IMS), and traffic monitoring system for highways (TMS/H). Current guidelines for setting up or revising these systems were issued on December 1, 1993 in the Federal Register, 23 CFR 500.

Management Systems is a systematic process designed to assist decision-makers in selecting cost-effective strategies/actions to improve the efficiency and safety of, and protect the investment in the nation's infrastructure. A management system includes performance measures, data collection and analysis, determination of needs, evaluation and selection of strategies/actions to address the needs, and evaluation of the effectiveness of the implemented strategies/actions. A management system is only one of the decision support tools available to the governing bodies of the region.

MUTCD – Manual of Uniform Traffic Control Devices - Defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways. See: http://mutcd.fhwa.dot.gov/

Median Type Codes

- 1 Curbed
- 2 Positive Barrier
- 3 Unprotected
- 4 None

MP – Milepoint - Used, along with county and route number, to identify location of a highway segment.

Metropolitan Planning Area Boundary – This boundary must enclose at least the existing urban area and the contiguous area expected to become urban in the next twenty years. This boundary establishes the area covered by the Transportation Improvement Program and is eligible for urban STP funds.

MPO – Metropolitan Transportation Planning Organization - A KYTC designated, FHWA approved organization to conduct ongoing transportation planning activities in areas with population greater than 50,000 persons.
See: http://www.transportation.ky.gov/planning/mpo.asp

NCHRP – National Cooperative Highway Research Program - Along with the Transit Cooperative Research Program (TCRP) and the new Airport Cooperative Research Program (ACRP), are applied, contract research programs that develop near-term, practical solutions to problems facing transportation agencies.
See: http://www.trb.org/NCHRP/Public/NCHRP.aspx

NH – National Highway System projects - Federal match monies at an 80/20 ratio to support projects on Kentucky's 2,889-mile portion of the National Highway System.

NN – National Truck Network - Those routes on the state-maintained road system which have been specifically designated by the KYTC and approved by FHWA for use by motor vehicles (trucks) with increased dimensions (e.g., 102 inches wide, 13'-6" high, semi-trailers up to 53 feet long, trailers 28 feet long - not to exceed two (2) trailers per truck). Information is available in HIS.

NR Properties – National Register (of Historic Places) Properties - An environmental concern that triggers a special analysis and/or treatment. Avoidance of such properties is almost always mandatory. See: http://www.cr.nps.gov/nr/

Nonattainment Area – A nonattainment area is one where air quality monitors show that the area exceeds the level of toxic emissions (ozone or carbon monoxide) permitted by the Clean Air Act. The boundary of the area is determined by the Environmental Protection Agency. All nonattainment areas must demonstrate conformity, as required in the transportation conformity rule, before federal-aid funds may be authorized in the given area.

Nonexempt – A project that adds capacity to an existing roadway system, and the project is located within a designated "nonattainment" or "maintenance" area for air quality standards pursuant to the Federal Clean Air Act.

P – for Preliminary Engineering and Environmental Phase of project

PLH - Public Lands Highways Program - Originally established in 1930; intent of the program is to improve access to and within the federal lands of the nation.
See: http://www.fhwa.dot.gov/discretionary/012304a3.htm

PM 2.5 - Particulate matter that is 2.5 micrometers or smaller in size; an air quality issue.
See: http://www.epa.gov/region4/sesd/pm25/p2.htm#1

P & N - Purpose and Need - A brief statement of the problem a potential transportation project is to address. In later project development phases, a concise purpose and need statement is essential in establishing a basis for the development of reasonable alternatives to be evaluated in accordance with a project's EIS.

PUBLIC PARTICIPATION PROCESS – The process that the KYTC uses to be compliant with 23 CFR 450.212 (a) which stated that "Public involvement processes shall be proactive and provide complete information, timely public notice, full public access to key decisions, and opportunities for early and continuing involvement."

R – for Right-of-Way acquisition phase of project

ROD – Record of Decision - A formal decision published in the federal register of a federal agency's decision on a federally-funded project on which an EIS was prepared. See 23 CFR 771.127, 40 CFR 1505.2, 40 CFR 1506, et al. An example of a ROD for a Kentucky transportation project may be found at: http://www.kyinbridges.com/pdfs/rod.pdf.

RRP – Federal Railroad Protection Program - Match monies at an 80/20 ratio dedicated to installing protective devices at rail/highway crossings.

RRS - Federal Railroad Separation Protection Program - Federal match monies at an 80/20 ratio dedicated to replacing at-grade rail/highway crossings with a grade separation (overpass or underpass).

RSE – An identifier for GIS purposes consisting of county and route number.

SAFETEA-LU – Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. This Act authorizes the Federal Surface Transportation Programs for highways, highway safety, and transit for the 5-year period 2005-2009.

SB2 – State Bonds 2010

SC – State Contingency Account - A discretionary account available to the Secretary of the Kentucky Transportation Cabinet for emergency or economic development projects.

Scenic Byway - These routes are nominated by local support groups and designated by the Transportation Cabinet because they are deemed to have roadside or view sheds of aesthetic, historical, cultural, natural, archaeological, and/or recreational value worthy of preservation, restoration, protection, and/or enhancement. Information is available in HIS.

SIP – State Implementation Plan - A plan that provides for implementation, maintenance, and enforcement of primary and secondary air quality standards. It requires the development of a comprehensive emissions inventory and it includes enforceable emission limitations and other control measures, means, or techniques as well as schedules and timetables for compliance.www.air.ky.gov/

SP – State Funded Projects - Monies dedicated to a 100% state-funded project development program. Funding in this program is the "balancing account" within the transportation development program, and hence is subject to cash availability. Projects in this category are subject to substantial delay should cash not be available to support planned expenditures.

SPB – State Bonds 2009

SPP – State Funded Projects – High Priority Projects

STP – Federal Surface Transportation Program - Federal match monies at an 80/20 ratio that may be used as long as federal-aid eligibility criteria are met. Kentucky has historically used this category of funding for projects on arterial and major collector routes, recognizing the "farm to market" needs we have across the state. Subcategories include:

- SLO - dedicated to Louisville Metro Area
- SLX - dedicated to Lexington Metro Area
- SNK -dedicated to Northern Kentucky Metro Area

Strahnet – Strategic Highway Network - A designated system of public highways that provides access, continuity, and emergency transportation of personnel and equipment in times of peace and war. The 61,000-mile nationwide system, designated by the Federal Highway Administration in partnership with the Department of Defense and the state DOTs, comprises about 45,400 miles of interstate and defense highways and 15,600 miles of other public highways. STRAHNET is complemented by about 1,700 miles of connectors - additional highway routes linking more than 200 military installations and ports to the network.

SUA – Small Urban Area - Population centers of between 5,000 and 50,000 persons.

TCM – Transportation Control Measure - Transportation control measures may be identified in the State Implementation Plan as a means of controlling air quality and may consist of such projects as vehicle emissions testing program, ridesharing, transit improvements, etc.

TCSP – Transportation and Community and System Preservation (TCSP) Program - TCSP provides funding for a comprehensive initiative including planning grants, implementation grants, and research to investigate and address the relationships between transportation and community and system preservation, and to identify private sector-based initiatives. Projects eligible for TCSP funding include any project eligible for funding under Title 23 or Chapter 53 of Title 49 U.S.C. or any other activity relating to the purposes of this section determined appropriate by the Secretary. This includes corridor preservation activities necessary to implement transit oriented development plans, traffic calming measures, or other coordinated preservation practices.

TDM – Transportation Demand Management - TDM consists of techniques to control demand on roadways, such as offering incentives to use transit, raising parking costs in the CBD, and telecommuting.

TE – FHWA Transportation Enhancement Program - A category of federal highway funds, with strict eligibility requirements that exists to support non-traditional transportation-related

projects. In Kentucky, this funding source has traditionally supported Renaissance Kentucky and other historic preservation projects. See: http://tea21.ky.gov/

TIP/STIP – Transportation Improvement Program/State Transportation Improvement Program - A fiscally balanced project listing that constitutes an agencies transportation project development schedule for a certain time period.

TMA – Transportation Management Area - An urbanized area over 200,000 in population as defined by ISTEA. A TMA is given responsibility, through the MPO, for making decisions as to how some categories of federal transportation funds will be spent.

TPC – Transportation Policy Committee - The TPC is the MPO committee responsible for deciding how local federal transportation dollars will be spent and for determining local transportation planning policy.

Transportation Study Area/Transportation Planning Area – This federally mandated area includes the urban area, the contiguous area expected to become urban in the next 20 years, and the nonattainment area.

Travel Forecasting Model – A travel model developed for use with a computer. This model utilizes a geographic and mathematical simulation of area travel which estimates traffic volume on the existing system, and projects future traffic volumes. Congestion problems may be located, and traffic impacts of a particular project can be evaluated.

TSM – Transportation System Management -TSM techniques are designed to improve the level of efficiency at which the existing transportation system works. A project to synchronize traffic signals along corridors, for instance, will improve traffic flow and the efficiency of the road.

U – for Utility relocation phase of project

UPL – Unscheduled Projects List (formerly Unscheduled Needs List, or UNL) - A list maintained by the Division of Planning, of potential transportation projects with project data derived from the KYTC Project Identification Form.

Urban Area – Defined as a place of 5,000 or more in population, <u>including</u> the urbanized area as defined by the Bureau of Census. An urban area boundary, which encircles the urbanized areas in a region, may be developed by states in cooperation with local officials. This boundary is the line of demarcation for rural/urban functional classification of roadways.

VMT – Vehicle Miles of Travel - VMT is a measure of the level of travel activity in an area. The figure is generally found by multiplying the average length of trip by the total number of trips. As vehicle miles of travel increase, congestion and auto emissions that degrade air quality may be expected to increase (see PMT).

V/SF – Volume to Service Flow ratio - A quotient showing the ratio of a facility's actual vehicular traffic volume to its theoretical maximum potential vehicular traffic volume. A ratio higher than about 0.6 indicates traffic volumes are approaching congested conditions. This is also referred to V/C or Volume to Capacity ratio.