Evaluation and Analyses

"Kentucky's Approach to our Transportation Challenges"

A recent overview of the management practices of the Kentucky Transportation Cabinet pointed out that "planning is the process through which the objectives are set for the future…of Kentucky's transportation system…planning establishes the broad, system-level needs for….major categories of need. Best practice involves the planning process establishing strategic investment priorities by allocating funds between broad policy objectives…. the process is policy driven and supported by technical analysis…"

In recognition of these issues, our approach to Kentucky's challenges must include an extensive public involvement process, comprehensive collection and analysis of data, a Cabinet policy regarding expenditure priorities, several tools for implementing these policies in a transparent fashion, and measurements of the linkage between policy and transportation system investment.

Since the 1970s, Kentucky has implemented a statewide transportation planning process to solicit public involvement and assist the Cabinet in the identification of needs. In response to the directives of the Intermodal Transportation Efficiency Act of 1991 (ISTEA), the Transportation Equity Act for the 21st Century (TEA-21) and SAFETEA-LU, this process was expanded to include more comprehensive public involvement, through the following:

- Identification, evaluation, prioritization, and ranking of transportation needs
- Coordination between Kentucky's nine metropolitan planning organizations (MPOs), fifteen Area Development Districts (ADDs), twelve Highway District Offices, and other planning agencies.
- Coordination with the Division of Air Quality to assure compliance with the State Implementation Plan and the public involvement process.

A major portion of the public involvement for the statewide planning process is accomplished through a cooperative program with the nine MPOs, 15 ADDs, 12 Highway District Offices, local officials, and public involvement committees. This process identifies transportation needs,

researches data, and establishes priorities for input into the *Long-Range Statewide Transportation Plan*, *Statewide Transportation Improvement Program* and the *Six-Year Highway Plan*. In 2002 an ADD Safety Program with local and regional safety partners was added to the Regional Transportation Planning Program. This ADD Safety Program provides local input and coordination for the Cabinet's Strategic Highway Safety Program as well as for the safety conscious planning component of the Statewide Transportation Planning Program through the regions.

Each ADD and MPO maintain a transportation advisory committee with representatives of local government, transportation users and providers (freight and passenger), economic, industrial, planning and land-use interests, other special interests, traditionally transportation underserved representatives, and the general public. These committees play an important role in the identification and prioritization of transportation needs for each region. Each ADD and MPO transportation committee develops and documents goals and objectives for the region and then prioritizes transportation needs to meet those goals and objectives. These regional goals are closely considered during the prioritization of projects. The goals for the current update of the Long-Range Statewide Transportation Plan were based in part on these regional goals. Therefore, recommended projects reflect not only the goals of the Long-Range Statewide Transportation Plan, but also the regional goals and objectives.

Through the ADDs and MPOs, local governments and the regional transportation committees review and analyze data and the changing economic environment of their regions to identify transportation needs. All transportation needs are then documented on a Project Identification Form which includes: the purpose and need of a project, specific project data, specific information addressing the SAFETEA-LU planning factors, cost estimates, project photographs and maps.

All projects are maintained in an Unscheduled Project List database. Every two years, each project is thoroughly reviewed and evaluated, and the Project Identification Form is updated as needed. Each project is then prioritized by the locally elected officials, the regional transportation committees, and the appropriate Highway District Office staff. These priorities are utilized as input to the Cabinet's project

selection process, along with and in conjunction with a scoring system as decribed below. Previous agency-wide strategic planning articulated three primary goals for Kentucky's Transportation System over the next twenty-five years:

- Safety and Security
- System Preservation
- Economic Opportunity and Mobility

Investments in a transportation system do not represent static, one-time expenditures. Ongoing investment is needed to operate the existing system. Maintenance investments are needed to repair and preserve the original condition of system elements as they deteriorate over time as a result of continued usage and environmental exposure. Investments are also needed to upgrade the original system to modern standards and for system expansion to accommodate increased traffic needs and economic growth. The Kentucky Transportation Cabinet has articulated its priorities among these types of investments:

- ✓ SAFETY
- ✓ RELIABILITY
- ✓ ECONOMIC DEVELOPMENT

In order to advance these broad policy objectives through data driven technical analyses, a project evaluation or scoring system was developed. The goal of this scoring system is to define and apply a basis for evaluating project conditions and other factors using a consistent set of readily available data that enables comparisons across project types. This scoring system must reflect key measures of particular project types and reflect Cabinet priorities among project types.

Each project type is evaluated using a four-part system:

1. Safety data such as, critical crash rate factor and the critical fatal crash rate factor;
2. Reliability data such as, functional classification, volume-to-service flow ratio, percentage of trucks in the traffic stream, pavement smoothness, functional obsolescence or structural deficiency of any bridges, and access control;
3. Economic development data such as education level attainment, unemployment, accessibility to various transportation modes, as well as input from the Kentucky Economic Development and Commerce Cabinets;
4. Priority assignment and/or ranking through the Statewide Transportation Planning Process.

The numeric values of a set of candidate projects produce an ordered ranking among those candidate projects. The absolute value of the score for a candidate project has no inherent meaning. Rather, a candidate project's score is best viewed in comparison to other candidate projects. Thus, for example, a candidate project with a score of 237 would be viewed as a better project than another project with a score of 193.

The results of the scoring process produces a priority ranking based on a multi-faceted evaluation of roadway conditions which policy makers may then use as decisions are made regarding selection among candidate projects for advancement.

The main objective of the statewide transportation planning process is to develop a multimodal transportation plan which identifies improvements that will best utilize limited financial resources to improve the safety and efficiency of the transportation system. In this Plan, we have tried to highlight the major challenges of the transportation system and how we plan to address those challenges. However, most of our attention has been focused on the highway system and the consequences that Kentucky must face if adequate funding is not available.

Funding for other transportation modes is not quite so clearly defined nor as clearly addressed in this Plan. As was stated in the "State of the Commonwealth" section of this Plan, Kentucky does not provide specific state funding for most other transportation programs. Also Kentucky's constitution does not provide for the use of Road Funds for other than highway-related expenditures.

Kentucky's approach to transportation planning for rail and water transportation systems has been limited to addressing access needs and connectivity issues between the highway systems, the airports, the riverports, and the rail lines. Air transportation, however, is funded through federal aviation funds and through a trust fund, the Kentucky Aviation Economic Development Fund. However, these funds are limited to the current year's jet fuel tax receipts. For the purpose of this Plan and for Kentucky's long-range planning purposes, the needs, available funding, cabinet policies and strategic plans for these transportation systems will be addressed through incorporating by reference the following documents.

Air Transportation

- *Kentucky Aviation System Plan (1998)* – a twenty-year plan of airport construction projects and operational enhancements at Kentucky's regional and city airports that do not yet have a financial commitment. This Plan is generally updated about every ten years.

- *Six-Year Airport Capital Improvement Plan* – a short-range planning document implemented for the first time during 2002, which is a financially constrained list of projects based on anticipated funding levels. Total funding for this plan is derived from the Kentucky Airport Development Fund.

Public Transportation

The public transportation program in Kentucky is a two-year program which identifies capital and operating improvements to Kentucky's public transportation system. This program uses local, limited state general funds and federal transit funds. All federal funds for Kentucky's major transit systems do not flow through KYTC, but directly to the public transit system in Kentucky's urban areas.

Rail Transportation

- *2002 Kentucky Statewide Rail Plan (KSRP)* – This plan identified system-wide strategies and policies, developed specific goals and objectives, and provided a vehicle to identify future rail issues to meet requirements for federal funding, as it may become available.

- Water Transportation

  - *Kentucky Water Transportation Corridors, Public Riverport Development and Intermodal Access Study (1999)* – This study determined the development and intermodal access needs for the public riverports, including capital and operational needs, as well as highway access needs. Some financial strategies were also included as possible funding sources for this transportation system in the future.

  - *Kentucky's Public Riverports and Waterways (2003)* – The 2003 study highlighted the volume and economic impact of waterborne commerce traveling through Kentucky's public riverports. This study emphasized the impact of waterborne commerce on Kentucky's economy.