



2035 Statewide Transportation Plan

Investment Strategy TECHNICAL REPORT

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INTRODUCTION

During the 2035 planning period, the Colorado Department of Transportation (CDOT) will invest about one billion of the public's dollars each year in the planning, development and maintenance of Colorado's transportation infrastructure. An investment of this magnitude demands a strategy that measures and reports the performance of the public's investment. Since the turn of the late 1990s, CDOT has developed and implemented a performance measurement and management program. The department's investment strategy is oriented around four categories of significant investment: system quality, mobility, safety and program delivery. Each of these categories is discussed in greater detail in the following pages.

The Investment Strategy Technical Report discusses CDOT's approach to investing the public resources. Simply put, the department establishes goals and objectives for each investment category. The investment category goals are aspirational, department wide, long term and can not be achieved with forecast resources. The investment category objectives focus the department's efforts and actions on performance outcomes achievable with available resources. Objectives are specific, measurable, achievable, results-oriented and time bound. The difference between the performance goals and objectives illustrates the gap between the desired level of performance and the reasonably achievable performance based upon forecast resources as defined in 2008-2035 Resource Allocation.

The 2035 Statewide Transportation Plan and recent report of Governor Ritter's Transportation Finance and Implementation Panel document that stagnant revenues and climbing costs have made it impossible for CDOT to meet Colorado's increasing need for services and provide a safe and well maintained transportation system. In the absence of new revenues CDOT's performance measures indicate significant deterioration in the near future the performance of state highway system.

Vitally important to CDOT is input from our customers. Customer input is obtained from the Statewide Customer Survey. The survey is administered every three years and asks Colorado residents' their opinions about CDOT services and other transportation-related issues in Colorado. The 2006 survey, which contributed to the 2035 plan, marks the fourth time the survey has been conducted.

In 2006, transportation issues ranked as the fifth most important problem facing the state of Colorado. When asked specifically about transportation issues, traffic congestion (27 percent) was cited as the biggest concern, followed by public transportation (20 percent), and road maintenance/repair (12 percent), although it is important to note that transportation priorities vary by region. Congestion is of greatest concern along the Front Range and rapidly developing areas of the state, and system quality being of prime importance in some of the more rural parts of the state.

CDOT'S INVESTMENT STRATEGY FRAMEWORK

The Colorado Department of Transportation (CDOT) is responsible for construction, maintenance and operations, and planning efforts that reach across many modes of transportation. The Transportation Commission developed the Investment Strategy Framework to provide a better opportunity to use resources more effectively and efficiently. There are several key components of the framework that enable the alignment of CDOT's work activities to its organizational priorities as established by the Transportation Commission.

The purpose of the framework is to assist CDOT in establishing priorities, assure that these priorities are implemented, result in better service for the traveling public and improve accountability to the general public. A strategic framework must be flexible and practical and yet serve as a guide to implementing programs, evaluating how these programs are doing, and making adjustments when necessary. As such there is a review of goals, objectives and system performance as part of the long range planning process and the annual budget process.

A key to successful strategic planning is having performance measures that give accurate and timely information. CDOT uses performance measures to continually evaluate progress towards accomplishing its goals and objectives, by determining where improvements can be made in its process, and readjusting work activities accordingly.

The Commission invests the public's dollars in four investment categories:

- **Safety** – Services, programs and projects that reduce fatalities, injuries and property damage for all users and providers of the system.
- **System Quality** – Activities, programs and projects that maintain the physical (integrity/condition) function and aesthetics of the existing transportation infrastructure.
- **Mobility** – Programs, services and projects that enhance the movement of people, goods and information.
- **Program Delivery** – Functions that enable the successful delivery of CDOT's programs, projects and services.

Each investment category has specific performance goals and performance objectives and associated measures that provide the foundation for discussion on how to best invest available funds. Performance measures provide tools to relate the expenditures and work results to the policies, priorities, and goals of the Department as determined by the Transportation Commission.

In support of these Investment Categories, the CDOT Executive Management Team identified the five lines of business, known as a Core Services:

- **Snow and Ice Management** – All services and maintenance activities to keep the road open for the winter season including post-event operations and the reopening of closed roads.
- **Project Delivery** – All activities for the delivery of a transportation project from planning to construction management.
- **System Operations** – All traveler information and traffic-related activities including tunnel operations and emergency/incident.

- **Roadside Management** – All roadside (from curb-line [roadway edge] to edge of ROW) including rest areas and other off-road facilities.
- **Roadway Management** – All physical elements of roadway, tunnel, and bridge maintenance activities from roadway edge to roadway edge.

Action Plans are developed for each of the Core Services. The Action Plans identify strategies (i.e., what activities are needed to achieve the goals and objectives) and measures to assist CDOT regions, divisions and offices to align their activities to support CDOT's goals established by the Transportation Commission. The investment objectives are influenced by the allocation (appropriation) of funding by program and investment category. The Action Plan teams have an ongoing role in monitoring progress toward achieving these goals and objectives.

Roles/Responsibilities

The Transportation Commission

- Approves the vision statement, mission statement, and investment category goals and objectives, policies and priorities.
- Approves the Statewide Transportation Plan. (A 20 year+ long range plan)
- Approves the State Transportation Improvement Program. (A 6 year capital investment program)
- Approves the annual budget.

The CDOT Executive Management Team

- Identifies Core Services that define CDOT critical business processes.
- Approves the Action Plans that identify strategies and performance measures that support accomplishment of identified investment goals and objectives.

Action Plan Teams (consisting of a team of relevant CDOT staff)

- Prepare, for EMT approval, Action Plans that identify strategies and performance measures to support the accomplishment of the goals and objectives.

CDOT'S CURRENT INVESTMENT STRATEGY

System Quality

The Transportation Commission has put a high priority on maintaining existing infrastructure the last several years. Despite this emphasis, future infrastructure condition indications are alarming, based on projected funding, increased costs, increases in population, and the age of the system. Some notable performance trends include:

- For the third consecutive year, the Department's Statewide goal of 60 percent good/fair pavement condition was met. However, to maintain this level of service, funding for resurfacing and reconstruction will need to increase from the current \$151 million/year to \$309 million/year for the next fifteen years.
- The On-System bridge good or fair condition based on percent of total bridge deck area has declined (97 percent good or fair in FY 2005 to 95 percent good or fair in FY 2006). The major portion of the decline is due to the condition of the I-70 Viaduct east of I-25 changing from fair to a poor condition. To maintain current condition levels, funding will need to increase to \$143 million per year. To eliminate the backlog of poor bridges in the next twenty years, funding will need to increase to \$184 million dollars per year for the next twenty years. Current funding is \$27 million per year for the bridge program. Funding from other capital construction sources are also used to replace bridges (e.g. bridges were replaced on the TREX project).
- Six out of the nine Maintenance Program Areas (MPA) met or exceeded their 2006 target, including Roadway Surface, Roadside Facilities, Structures, Snow and Ice, Planning and Scheduling and Roadside Appearance, while the other three MPAs, Traffic Services, Equipment, Buildings and Grounds, and Tunnels, did not meet the targeted performance rating.

Mobility

Despite population growth in already congested areas and along the fringe of the Front Range as well as the significant growth along the I70 corridor and other areas on the West Slope, traffic congestion has decreased over the past three years. This decrease has been primarily due to a combination of moderated growth in travel and expansion of some key corridors along the Front Range. This trend is expected to reverse dramatically over the next decade. Mobility encompasses investments made improve accessibility of the transportation system, transportation options, connectivity, travel time variability and overall infrastructure management. The effort to illustrate statewide congestion relief performance, which is a component of mobility, led to the decision to measure congestion by the growth in vehicle miles traveled (VMT) and volume to capacity (V/C) ratio as well as the recent addition of average daily delay in congested corridors. Notable 2006 mobility performance trends include:

- Vehicle miles of travel have increased from 27.4 to 28.5 billion from 2005 to 2006.

- Vehicle miles of travel in congested conditions and congested lanes miles of state highway have decreased slightly over the past three years.
- According to the 2006 Customer Survey, as a statewide average, traffic congestion was reported as the biggest transportation related problem in Colorado.

Safety

Providing a safe and secure transportation system to the traveling public is of prime importance to CDOT. As such, CDOT implements numerous programs to improve the safety of its transportation system. Notable performance trends include:

- 2004 statewide crash rate declined to 293.6 from 299.3 in 2003
- 2004 statewide injury rate declined to 70.1 from 73.9 in 2003
- 2004 statewide fatal crash rate of 1.15 fatalities per 100 million VMT remains 0.31 below the national average of 1.46 fatalities per 100 million VMT
- Despite continued driver behavior education and awareness programs, statewide alcohol-related fatal crash rate increased from 37.3 percent in 2004 to 38.1 percent in 2005 however, seat belt usage did increase slightly from 79.2 percent in 2004 to 80.3 percent in 2005.

Program Delivery

The Program Delivery Investment Category consists of activities that support the delivery of CDOT's programs and projects. Program Delivery goals and objectives focus on program support functions such as engineering and construction supervision as well as other support functions such as policy analysis, public information, accounting and human resources. Notable performance trends include:

- In FY2006 projects delivered within 30 days and within 60 days of scheduled advertisement dates increased to 53.1 percent and 44.25 percent, respectively.
- CDOT's employee turnover rates increased to 12.7 percent in FY2006 from 9.9 percent in FY2005.