



Colorado Transportation Finance and Implementation Panel:
A Report to Colorado
January 2008





This report is dedicated to

John Parr

in memory of his leadership, friendship and commitment to improved public policy for the State of Colorado.

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January 2008

To Governor Ritter:

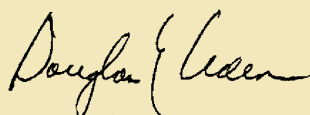
It is our privilege to present to you the findings and recommendations of the Transportation Finance and Implementation Panel. This report outlines the recommendations of the 32-member panel about how to address Colorado's current and future transportation needs.

The next 50 years will bring monumental changes to transportation demands in the U.S. and here in Colorado. We are part of a new global economy in tourism, agriculture, business and energy development. Our challenge, as you laid out in the Executive Order that established the panel, is to find ways to meet the growing mobility needs of a 21st century economy and to bring a fresh, balanced approach to reduce transportation's impact on the environment.

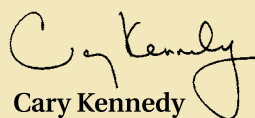
Unfortunately Colorado's transportation system - our highways, roads and streets, airports and transit networks are at risk of serious deterioration. Already, nearly 40% of the state highways are in disrepair and over 100 bridges are structurally deficient. Local transit systems are inadequate and the state lacks inter-regional transit alternatives. This situation is getting worse as traditional funding sources for transportation decline due to constitutional limits on taxes and greater fuel efficiency of vehicles.

The Transportation Finance and Implementation Panel recommends preserving and modernizing Colorado's transportation system. Colorado must enable its citizens and freight to move safely and efficiently throughout the state. Toward this end, the panel recommends broadening the revenue base that supports transportation by raising an additional \$1.5 billion annually through taxes and user fees. These funds will first be used to preserve the condition of the existing roadways to keep drivers safe. Additional resources are also recommended to accommodate a growing population, provide more choices and alternatives for travelers, and explore new opportunities to reduce environmental impacts.

It is with great pleasure that we submit this report. We thank you for the opportunity to serve and look forward to working with you in the future.



Doug Aden
Co-Chair



Cary Kennedy
Co-Chair



Bob Tointon
Co-Chair

Section One: Transportation and *The Colorado Promise*

Modernizing Colorado's outdated, deteriorating transportation system is a key tenet of *The Colorado Promise*, the 50-page blueprint for the state's future put forth by Governor Bill Ritter Jr. during his 2006 campaign.

The governor made a commitment, once elected, to convene a blue-ribbon panel of experts, policymakers, community leaders and various stakeholders to evaluate the state's transportation needs and recommend a plan of action. An executive order,¹ issued on March 26, 2007, by Governor Ritter, started the process by creating the Transportation Finance and Implementation Panel.

The Panel's mission was "to bring together a broad range of stakeholders to identify long-term, sustainable transportation programs and funding options for a 21st century multimodal transportation system to support a vibrant economy and quality of life." The executive order provided the following guidance:

- Convene a transportation summit
- Make the process inclusive
- Build statewide partnerships among the various stakeholders
- Conduct regional meetings to allow for statewide input
- Build upon existing studies and information, such as the Colorado Department of Transportation's (CDOT's) 2030 Statewide Transportation Plan²
- Use consensus-building techniques to ensure Panel members' comfort with final recommendations

Panel Membership

The 32-member Panel represents a wide spectrum of Coloradans with diverse perspectives on transportation issues. Members are from every corner of the state and include: representatives from private industry and labor; members of both parties in the General Assembly; experts on issues such as the environment, seniors and transit; and an array of elected local government officials. The three co-chairs are **Douglas Aden**, chairman of the Colorado Transportation Commission and a resident of Grand Junction; state Treasurer **Cary Kennedy**, a Denver resident; and **Bob Tointon**, president of Phelps-Tointon, Inc. and a resident of Greeley.

Other Panel Members

Ray Baker – *Colorado Commission on Higher Education*
Charles Bedford – *The Nature Conservancy*
Joe Blake – *Denver Metro Chamber of Commerce*
Mike Cheroutes – *Hogan & Hartson*
Ken Conyers – *Action 22*
Bill Elfenbein – *Regional Transportation District board*
Cas Garcia – *attorney*
Russell George – *executive director CDOT, (ex officio member)*

Neal Hall – *Colorado Building & Construction Trades Council*
James Hume – *citizen; agriculture perspective*
Mick Ireland – *Intermountain Transportation Planning Region*
Steve Johnson – *State Senator*
Joe Kiely – *town of Limon*
Carl Maxey – *Maxey Company*
Mark Mehalko – *Move Colorado*
Tony Milo – *Colorado Contractors Association*
Dale Mingilton – *president First Bank*
Kevin O'Malley – *Clear Creek County commissioner*
Michael Penny – *Frisco town manager*
Joe Rice – *State Representative*
Vince Rogalski – *Club 20*
Cathy Shull – *Progressive 15*
Paul Smith – *Smith Railway Consulting*
Vivian Stovall – *citizen; elderly and disabled perspective*
Dan Stuart – *Alpern, Myers, Stuart, Scheuerman & Hickey*
Stephanie Takis – *State Senator*
Ed Tauer – *mayor of Aurora*
Will Toor – *Boulder County commissioner*
Glenn Vaad – *State Representative*
Melanie Worley – *Douglas County commissioner*

Technical Advisory Committee

Due to the complex and highly technical nature of this effort, the Governor created a Technical Advisory Committee to assist the Panel. The Technical Advisory Committee was not a subcommittee of the Panel, although Treasurer Kennedy served as committee chairwoman. Members of the committee offered specific expertise in several areas critical to the development of a transportation finance plan. They included public finance attorneys, experts on transit operations, public policy experts, representatives of metropolitan planning and regional transportation organizations, former executive directors of CDOT and industry representatives.

TAC Members

Debra Baskett – *city and county of Broomfield*
Dan Blankenship – *Colorado Association of Transit Agencies*
Dr. Ray Chamberlain – *Parsons Brinkerhoff*
Tom Fisher – *Mesa County*
Greg Fulton – *Colorado Motor Carriers Association*
Dan Grossman – *Environmental Defense*
Carol Hedges – *Colorado Fiscal Policy Institute*
Bill Jensen – *Vail Resorts*
Mike Johnson – *Kutak Rock*
Cary Kennedy – *State Treasurer (chair)*
Cal Marsella – *Regional Transportation District*
Karin McGowan – *Denver Regional Council of Governments*
Bill Moore – *Pueblo Metropolitan Planning Organization*
Bill Vidal – *city and county of Denver*
Rachel Nance – *Colorado Realtors Association*
Tamra Ward – *Denver Metro Chamber of Commerce*
Joe O’Dea – *Concrete Express*
Dee Wisor – *Sherman & Howard*
Flo Raitano – *I-70 Mountain Corridor Coalition*
Wayne Williams – *El Paso County commissioner*

The Summit

Governor Ritter convened the Colorado Transportation Summit at the Denver Convention Center on April 5, 2007, with nearly 700 in attendance. In his remarks, the Governor reiterated the key issues he identified in his executive order

and asked all to participate in a constructive and consensual matter to resolve an issue critical to everyone in Colorado. The morning was devoted to presentations and the afternoon to small-group conversations on revenue options, the current and projected condition of the transportation system, a transportation vision for Colorado and transportation’s role in the new energy economy and in promoting livable communities. CDOT Executive Director Russell George outlined the next steps the Panel and Technical Advisory Committee would undertake.



Background

At the summit, Panel and committee members received two documents, a *History of Transportation Funding in Colorado*³ and a *Transportation Revenue Options Study Executive Summary*,⁴ to provide historical context and a starting place for understanding possible revenue-raising options. The documents introduced several key conceptual factors, including the division of revenue options into two categories: user-related taxes and fees and general-use taxes.

User-related taxes and fees include options such as the motor fuel tax, which is closely linked to the use of the transportation system. The Colorado Constitution dedicates 100 percent of proceeds from motor fuel taxes and license and registration fees to the “construction, maintenance and supervision of the public highways of the state.”⁵

General-use tax options include lodging fees or taxes, sales taxes and income taxes. Proceeds from these fees or taxes may be dedicated by a vote of the electorate or allocated by the General Assembly for a wide range of government-supported activities such as transit, environmental improvements or open space.

¹ See <http://colorado.gov/governor>, “Blue Ribbon Transportation Panel.”

² See <http://www.dot.state.co.us/StatewidePlanning/PlansStudies/2030Plan.asp> for more information.

³ See <http://www.dot.state.co.us>

⁴ See <http://www.dot.state.co.us>

⁵ Colorado Constitution, Article X, Section 18.

The Process

The Panel deemed three factors as critical to its success:

- To reach out to people in every region of Colorado to ensure that their transportation issues and concerns were heard and considered. The Panel held meetings throughout the state, in locations as varied as Akron and Durango. Public comment was solicited at each meeting and presentations were made on the condition of the area's transportation network and how current funding projections would affect future construction and maintenance.
- To understand the concerns of interested and impacted entities such as the agriculture, tourism and energy industries. The Panel scheduled special-topic presentations from several organizations and agencies, including the Colorado State Patrol, the state Department of Agriculture and transit providers.
- To develop a plan that integrates multiple and sometimes divergent needs and tries to match them with resources, the current state of transportation infrastructure and a 21st-century vision for transportation in Colorado.

Transportation in Context

A final critical factor the Panel built into its process was to consider transportation in the context of other key issues Governor Ritter identified in his *Colorado Promise*. Concurrent with the transportation effort, Governor Ritter has established other panels to examine the state of Colorado's educational system and its delivery of health care. The Governor also is committed to preserving Colorado's natural beauty, air and water quality and open space while ensuring sustainable economic development. An efficient and effective transportation system is a critical component of all these other discussions.

The Panel completed its deliberations on Nov. 15, 2007. Its policy recommendations are detailed in Section Four, and investment and funding recommendations in Section Six.

An efficient and effective transportation system is a critical component of discussions ranging from education and health care to natural beauty, water quality and continued economic development.

Section Two: Transportation – A Quiet Crisis No Longer

Colorado's transportation system faces a quiet crisis. Many motorists, perhaps preoccupied by an inquisitive child or busy on a cell phone, are oblivious to the condition of the roads on which they drive.

They may be unaware that many of the state's highways and bridges are in disrepair. Credit can be given to state and local transportation agencies that have managed to hold the system together despite increasing demands and stagnant revenue.

Many drivers also don't realize that the primary means by which we pay for transportation has eroded to less than a third of its value over the last 10 years. Gas taxes are no longer a sufficient source of funding. The evidence is the dilapidated underside of many bridges, eroding road shoulders and lengthy congestion delays.

It is a crisis we can no longer ignore.

Economic Foundation

Virtually every activity we engage in outside our homes involves the transportation system. Colorado's roads, bridges, tunnels, transit systems, railroads, sidewalks, bike paths and airports connect us to our livelihoods and lifestyles, deliver goods to markets, facilitate national and international trade, and provide access to Colorado's natural wonders. Transportation infrastructure is literally the foundation of our lives and our economy.

In 2006, CDOT analyzed the costs and benefits of sustaining the current condition of Colorado's highway, transit, aviation and local road infrastructure. The study⁶ concluded that investing an additional \$48 billion in transportation between now and 2030 would generate nearly \$60 billion in benefits, including shorter travel times, lower vehicle operating costs and fewer accidents and injuries. Quality-of-life improvements, such as better access to recreation areas, also come from an investment in transportation, though they are more difficult to quantify.

Increasing Demands on Aging Infrastructure

The demands placed on roads, bridges and other parts of Colorado's transportation system have increased with our growing population and economy. More than 4.7 million people live in Colorado, 44 percent more than in 1990, and another 1.2 million are expected by 2020. Like all of us, these newcomers travel to work, go shopping, have packages delivered and take trips for fun. Because of development patterns, travel is growing

at a rate faster than the population. In 2006, 28.5 billion miles were driven on state highways, a 60 percent increase from 1990.

All that extra driving happens on essentially the same infrastructure, which is why we spend more time in traffic. All that traffic leads to extra wear and tear on roads and bridges already showing their age. The increasing congestion, along with the deteriorating and aging infrastructure, raises safety concerns for motorists, as well.

Deteriorating Performance

Without additional resources, it will not be possible to maintain the current surface condition of state roads. This will have a major impact on Colorado. Today, if you drive an hour on an average stretch of highway, you will spend about 20 minutes on rough pavement. By 2016, you will spend about 40 minutes on rough pavement. This is bad news, not only for your driving comfort but because that rough pavement takes a toll on your car's tires and suspension and eventually your wallet. It is bad for state finances, as well. Roads and bridges that are not maintained today will cost more to repair tomorrow.

Bridges in disrepair are "weight posted" to keep heavy trucks off them and ensure safety. That's good for your commute to work, but the truck that delivers your groceries to the supermarket may find itself on a lengthy detour. And the supermarket is likely to pass its increased costs along to customers.

⁶ See <http://www.dot.state.co.us>

Colorado's Highways Show Their Age

1930	Colorado's population tops 1 million
1932	FDR elected President
1932	115 bridges used this year still operate 75 years later (in 2008)
1938	US-85 (Santa Fe Drive) paved border to border
1958	What will become I-25 through Denver is completed
1960	Broncos play first game
1960s	Lengthy sections of I-70, I-25 and I-76 completed
1964	I-70 Viaduct constructed
1970	Colorado's population tops 2 million
1973	Eisenhower Tunnel completed
1990	Colorado's population tops 3 million
1994	I-70 through Glenwood Canyon finished
2000	Colorado's population tops 4 million
2002	Oldest continuously operating state bridge in Colorado turns 100
2006	The joint CDOT-RTD T-REX project is completed

In 2006, 28.5 billion miles were driven on state highways, a 60 percent increase from 1990.

Impacts of a Deteriorated System:

- Greater Long-Term Cost
- Speed Reductions/Rough Roads
- More Congestion/Less Reliability
- Weight-Posted Bridges
- More Hours of Closed Roads
- Closing Additional Mountain Passes
- Less Safe Roads

I-70 Viaduct: 44 years old and working harder than ever

The Interstate 70 viaduct in Denver is a good example of aging infrastructure facing increasing demands. The six-lane viaduct was completed in 1964 at a cost of \$12.5 million and originally carried 31,000 vehicles per day. By the turn of the millennium the viaduct carried about 100,000 vehicles per day. In 2006, just six years later, the viaduct carried about 140,000 vehicles per day. It has been rated structurally deficient since 1993.

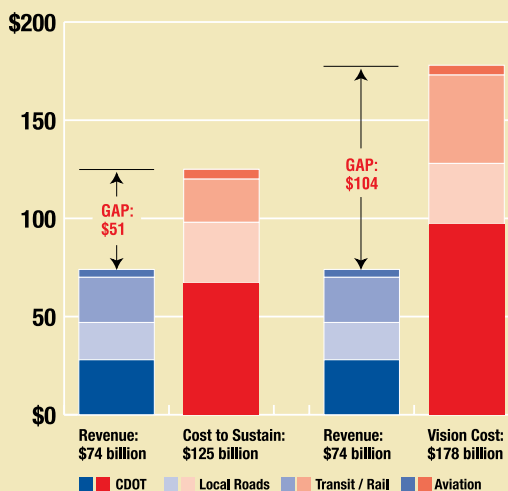


More cars and trucks on the same roads means more congestion. The amount of time the average motorist sits in traffic in congested corridors during peak hours every day is expected to more than double in 10 years.⁷ Without better transit options where appropriate and new capacity where feasible, congestion threatens to cripple Colorado's urban corridors.

Transit agencies in Colorado also face a revenue shortfall and are projected to meet less than half of the expected service demand by 2030. At the same time, approximately 50 percent of small urban and rural transit vehicles are in poor condition and need to be replaced. Only nine of the state's nearly 50 public transit providers have a dedicated revenue source; the others depend on local general funds and fare box collections.

More than 100,000 households in Colorado do not have a car. For these people and many others, transit provides access to jobs, education and health care. Most of the public transit providers serve local and regional areas and another 37 focus on services for senior citizens and people with disabilities. Only a few connect regions of the state.

2030 Funding Gap in billions of dollars



Climbing Costs

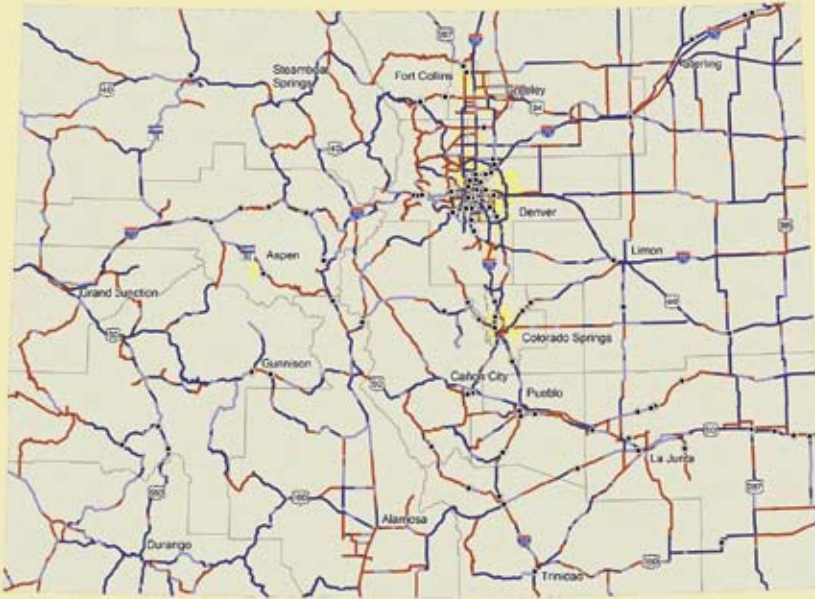
From 2003 to 2006, the cost of transportation construction grew faster than at any time since 1990, according to a 2007 study by the U.S. Department of Transportation's Inspector General.

The situation in Colorado is no different. Since the last state motor fuel tax increase in 1992,⁸ the Colorado Construction Cost Index (C-CCI) has grown at an average annual rate of 6.4 percent. This rapid growth means a dollar in revenue generated in 1992 was worth just 39 cents by 2006. Growing global demand for core construction materials, such as asphalt, concrete and steel, led to a 52 percent price spike in 2005. In 2006, the C-CCI moderated but did not decline.

⁷CDOT, 2005 congestion management calculations. The 10-year projection is between 2005 and 2015.

⁸The excise tax on gasoline was set at 22 cents per gallon, effective Jan. 1, 1991. The excise tax on special fuel (diesel engine, kerosene, liquefied petroleum gas and natural gas for the generation of power to propel a motor vehicle) was set at 20.5 cents per gallon, effective Jan. 1, 1992.

Current Service Conditions: Highways and Bridges



The Condition of the State Highway System Deteriorates over the Next Decade

	2006	2016
Pavement in Good/Fair Condition	60%	40%
Bridge Deck in Need of Replacement	5%	16%
Maintenance Level of Service Grade	B	F
Average Daily Delay in Congested Corridors	22 minutes	46 minutes

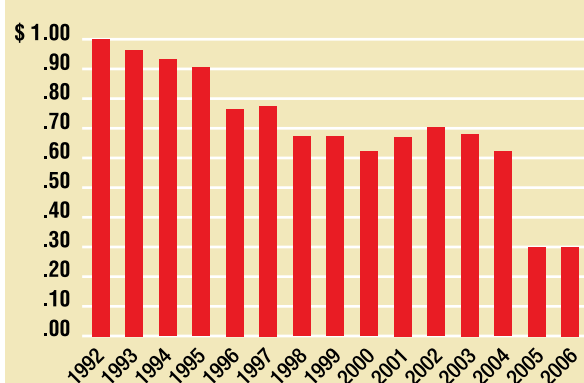


Stagnant Revenue

State motor fuel taxes – 22 cents per gallon on gasoline and 20.5 cents per gallon on diesel – are the primary funding source for Colorado’s roads, along with federal motor fuel taxes. A mid-size car (Toyota Camry or Ford Taurus) driven 15,000 miles annually pays about \$132 in state gas taxes and \$110 in federal gas taxes a year. Motor fuel tax revenue depends on the number of gallons sold, not the sale price. Despite the fact that Coloradans are driving more than ever, the increasing fuel efficiency of motor vehicles has led to a decline in the rate of growth of motor fuel tax collections, slowing the growth of transportation funding.

Compounding this effect is the fact that the last gas tax increase in Colorado happened 17 years ago (16 years ago for the tax on diesel). In contrast, between 1977 and 1992 the fuel tax increased a penny per year on average, or 214 percent over that 15-year period. Revenue restrictions in the Taxpayer Bill of Rights (TABOR) have since prevented state lawmakers from raising taxes to

State Fuel Tax – Worth 30% of its Original Value



Source and notes: Colorado Department of Transportation. The value is deflated by the Colorado Construction Cost Index (C-CCI). The C-CCI averaged 6.4 percent annually between 1992 and 2006.

Why are costs on the rise?

Industry analysts point to structural changes in the markets for steel, asphalt, concrete and aggregate (crushed stone that is the foundation of many roadways) as the catalyst for cost increases. The market for steel has been impacted by a decline in the availability of domestic scrap steel, an increase in international demand for scrap steel and considerable industry consolidation.

Asphalt is primarily a byproduct of motor fuels production. The rise in oil prices and global demand for motor fuels has motivated refiners to increase the efficiency of their production, reducing the production of byproducts like asphalt. Simply put, the supply of asphalt has decreased and prices have risen accordingly. Cement production is energy intensive and the price of cement tracks the growth in oil prices. Finally, the supply of aggregate declines as the proliferation of suburban and exurban development leads to political pressures to limit quarry activities.

keep pace with construction-cost inflation. Keeping up with inflation would have required a penny-and-a-half increase in the gas tax each year.

Therefore, transfers of general tax revenues (e.g. income and sales through SB 97-01 and HB 02-1310⁹) have become an increasingly important source of transportation funding. However, the availability of this revenue is highly volatile because it depends on the health of the state's economy, mandated spending increases for other programs and Colorado's tax and expenditure limits. From 1998 to 2006, transfers from the state General Fund varied from zero (i.e. no transfers were made) to as much as nearly 28 percent of the Highway Users Trust Fund (HUTF), Colorado's principal account for transportation spending.

The HUTF is not able to support current or future state and local transportation needs. Between FY 1994 and FY 2005, it grew by 56.6 percent, a compound average annual growth rate of 4.1 percent. However, the average annual growth rate is expected to be only 1 percent through FY 2011.

Federal

About 33 percent of highway funds in Colorado come from the federal government, primarily through an 18.4-cents-per-gallon tax on gasoline and a 24.4-cents-per-gallon tax on diesel. Though the allocation of federal money to Colorado increased substantially from 1998 to 2007, it did not keep up with inflation. It is estimated that the federal Highway Trust Fund, like Colorado's HUTF, has lost about one-third of its purchasing power since the last federal gas tax increase in 1993. Because federal motor fuel taxes, like Colorado's fuel taxes, are fixed at a certain amount per gallon, the flow of revenue has stagnated as vehicles have become more fuel efficient.

According to recent Congressional Budget Office estimates, an alarming decrease is expected in the Highway Trust Fund account balance by 2009. The fund balance most likely will dip below zero and the shortfall is expected to accelerate unless action is taken by Congress. Because of the shortfall, Colorado expects to receive only 80 percent or less of the \$2.45 billion it was authorized to receive under a six-year federal funding authorization act.

Transit

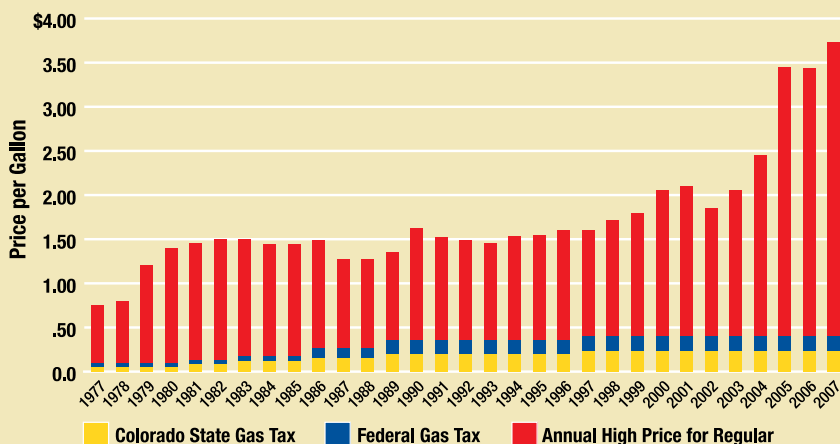
Colorado's transit systems are financed largely through local sales taxes, federal grants and fares. Though sales tax revenue typically grows with population, transit agencies statewide are contending with fuel, labor and equipment cost increases that outpace revenue growth. Currently, the only state funding for transit comes through grants for strategic projects that promote inter-regional connections and access to critical destinations. Transit receives 2.5 cents per gallon of the federal motor fuel tax.

Airports

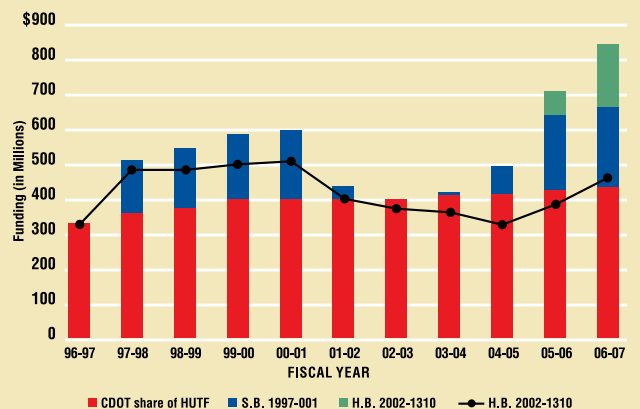
Communities in Colorado rely on the state's 77 public airports for economic development, access to emergency medical services, tourism and general transportation. The airports have been largely immune from funding challenges because their primary sources of revenue – aviation fuel taxes, landing fees and passenger facility charges – are indexed to keep up with inflation and are exempt from TABOR limitations.

⁹SB 97-01, passed by the legislature in 1997, dedicated certain state funds, when available, to high-priority transportation projects with statewide significance. HB 02-1310, passed in 2002, required that surplus funds be split 2/3 transportation and 1/3 capital construction.

State gas tax remains steady as prices climb



State Transportation Funding vs. Colorado Construction Industry-Specific Inflation (Purchasing Power)



Section Three: Regional Meetings

From May through October 2007, the Panel conducted a series of regional meetings to gain an understanding of the transportation needs of people from all over Colorado. Consistent themes emerged, from the pleas of rural residents for essential road maintenance to the appeal of urban dwellers for relief from hours spent each week sitting in traffic.

“Rural Colorado is sending a clear message,” said Cas Garcia, a Panel member and former transportation commissioner from the San Luis Valley, summarizing public comments from meetings on the Western Slope and Eastern Plains. “They are talking about basic survival – needs, not wants. Maintain the roads. Keep the bridges from falling down. Give us a little shoulder to work with.”

In all parts of the state – urban, rural and resort areas – Coloradans spoke of a growing need for more and better transit services. “Our roads are no longer just farm-to-market or tourist roads,” said Diane Mitsch-Bush, a Routt County commissioner and vice chairwoman of the Northwest Transportation Planning Region. “Our roads are vital for commuters. We need to expand our well-used commuter transit services. Transit reduces traffic, increases safety and provides reliable transportation for our workforce during inclement weather. This matters to workers and employers alike.”

In urban areas, transit has become a vital alternative to congested highway travel and allows the capacity of a transportation corridor to grow when highway expansion is no longer possible. The T-REX project, which added both general-purpose highway lanes and light rail on Interstate 25 south of Denver, is a strong example of building for the future, said Jennifer Finch, CDOT’s director of transportation development. “There will come a point when I-25 south of Denver is again congested,” she said. “However, the number of commuters traveling through the corridor will have the capacity to grow as RTD (the Regional Transportation District) adds new vehicles to the adjacent light rail line.”

On the following pages are the key issues and maintenance concerns for each region.



DENVER METRO AREA: May 31, 2007, Denver

Background:

- 4,144 lane miles of state highway and 1,150 state-owned bridges
- More than 65 million vehicle miles traveled in 2005, projected to increase to nearly 105 million in 2030
- Fifteen state strategic projects, 10 of which are complete
- Region population of 2.7 million, projected to grow to nearly 4.4 million by 2030

Key Region Issues:

- Substantial congestion throughout the region and the need for more transportation choices
- Available revenue declining as construction costs increase
- Extremely expensive maintenance and reconstruction needs due to heavy traffic volumes that restrict lane closures and require additional safety measures

Major Maintenance Concerns:

I-70 Viaduct

- Replacing the 1.2 miles of elevated structure costs \$800 million
- Interim critical repairs are underway costing \$23 million
- Full funding for I-70 will require “non-traditional” funding streams

I-25 North Interim Repairs

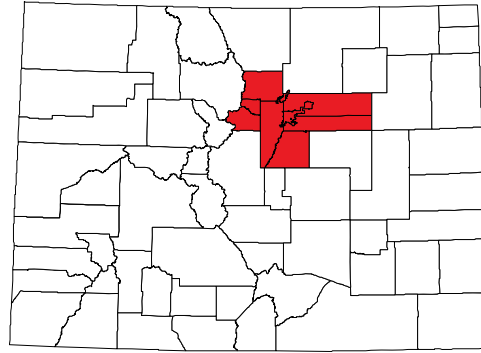
- Interim repairs on most dire sections are underway at a cost of \$3.3 million per mile
- Total repair cost is \$85 million

I-25/Santa Fe Bridge

- More than 50 years old and a potential safety issue
- Scheduled to be reconstructed as part of first-phase improvements on the Valley Highway (I-25) Environmental Impact Statement

Congestion:

- 33 percent of highways congested, projected to rise to 70 percent by 2030
- \$14.6 billion needed to keep congestion from worsening between now and 2030



I-70 Viaduct – Safety Issues



I-25 North – Surface Condition



I-25 / Santa Fe Bridge – Safety Issues



I-25 near Washington – Congestion

WESTERN SLOPE: June 29, 2007, Meeker

Background:

- 4,636 lane miles of state highway
- 659 state-owned bridges
- 11 mountain passes
- Seven tunnels

Major Maintenance Concerns:

Energy Development Issues

- Recent energy development activity putting substantial demands on infrastructure, including: I-70, U.S. 40, S.H. 64, S.H. 13, U.S. 6, S.H. 65, S.H. 130, S.H. 330, S.H. 92, S.H. 133, and S.H. 141
- 18-wheel trucks causing significant road damage
- Future development of 20,000 proposed gas wells is estimated to generate 18 million truck loads on state highways

Congestion and Shoulders

- Extreme growth in the area causing increased congestion
- Approximately 70 percent of collectors and secondary roads lack paved shoulders

Surface Treatment

- Current surface treatment investment is \$22 million per year
- An additional \$36 million per year for five years is needed to deal with backlog of roadways with no remaining surface life
- Total need for the region is \$490 million over 10 years

Natural Disaster Management

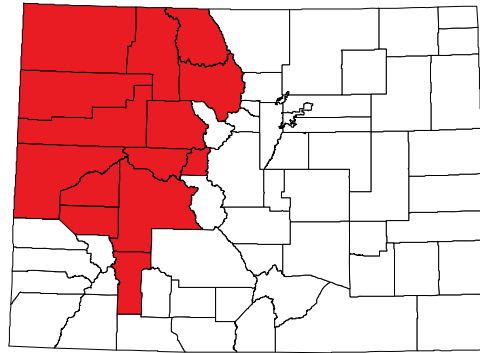
- Natural disasters in area impact regional mobility
- Rock avalanche on Thanksgiving Day 2004 significantly damaged I-70
- The resulting road closure required a detour of about 200 miles

Unique Aging Condition

- Glenwood Canyon infrastructure has aging retaining walls, guardrails, etc.
- I-70 corridor is 40 years old and portions not built to current standards
- Fixing aging infrastructure throughout region will cost \$300 million to \$700 million over 10 years

Other Infrastructure Problems

- S.H. 65 Grand Mesa and S.H. 13 Rio Blanco Slip are just two of the region's 39 landslides areas



S.H. 13 – Energy Development Issues



U.S. 40 – Shoulders



I-70 Business Route – Congestion



I-70 Wolcott – Safety Issues

SOUTH CENTRAL AND SOUTHEAST: July 12, 2007, Pueblo

Background:

- 4,779 lane miles of state highway
- 928 state-owned bridges
- Four mountain passes

Surface Treatment Needs:

- Current surface treatment investment is \$29 million per year
- An additional \$40 million per year for five years needed to deal with backlog of roadways with no remaining service life
- \$43 million for five to 10 years needed to sustain the system and keep 90 percent of roads at Good or Fair
- \$560 million over 10 years needed for all surface treatment projects

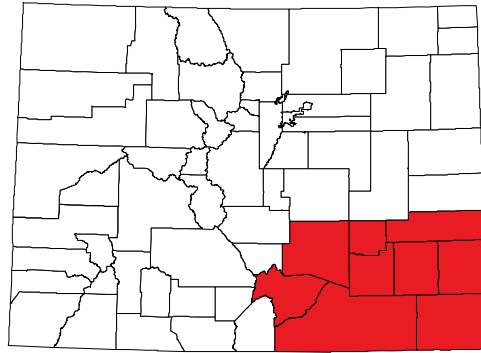
Major Maintenance Concerns:

I-25 Viaduct in Trinidad

- Aging and substandard roadway and bridges for 1.1 mile section of I-25
- Northbound reconstruction costing \$45 million in progress
- An additional \$50 million needed to reconstruct the southbound viaduct, bridges, roadway and interchanges

I-25 in Pueblo

- Five bridges in poor condition, nine others rapidly deteriorating
- Entire eight-mile section needs reconstruction and realignment requiring large sections of new roadway and new interchanges to be built with each bridge
- Entire project estimated to cost \$1 billion



I-25 Viaduct / Trinidad – Safety Issues



I-25 in Trinidad – Surface Condition



I-25 In Pueblo – Safety Issues

EASTERN PLAINS: July 31, 2007, Akron

Background:

- More than 5,200 lane miles of state highway, 29 percent in poor condition
- 1,123 state-owned bridges, 11 with a sufficiency rating of 50 or below
- Growth of energy development, including ethanol production, in the region

Major Maintenance Concerns:

I-25 North Interim Repairs

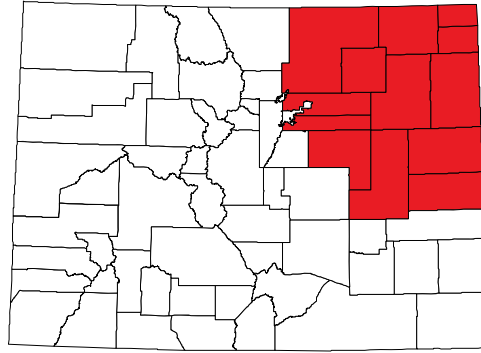
- Interim repairs focus on the most deteriorated sections at a cost of \$3.3 million per mile
- Total repairs cost \$85 million
- Funding for interim repairs severely impacts the region's ability to address other resurfacing needs

I-70 East

- More than 40 miles of insufficient pavement
- Several bridges and interchanges also insufficient
- Requires the use of funding sources beyond surface treatment funds to address outstanding deficiencies

I-76 Repairs

- Also requires the use of funding sources beyond surface treatment funds to address outstanding deficiencies, affecting funding for other regional projects



I-25 North – Surface Condition



I-70 East – Surface Condition

I-70 MOUNTAIN REGION: August 24, 2007, Breckenridge

Background:

- Recreation and tourism key economic drivers
- Traffic volumes continue to increase
- Construction costs higher and maintenance challenges greater than in rest of the state
- 26 resorts hosted more than 12.6 million skier visits during 2006-2007 season

Maintenance Cost Comparison:

I-70 West Corridor vs. East Corridor

- From Vail to Morrison (71.5 miles) – total cost for snow removal \$1,917,355 at a cost of \$26,816 per mile for 2006-2007 winter season
- From Arriba to Kansas state line (67.5 miles) – total cost for snow removal \$268,104 at a cost of \$3,972 per mile for 2006-2007 winter season

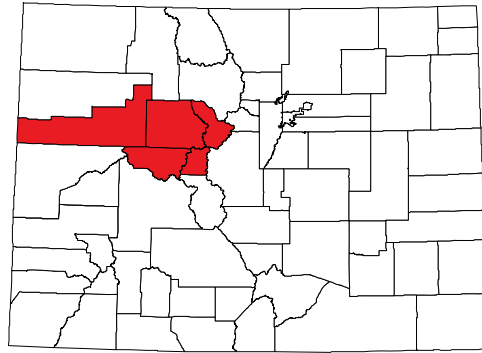
Major Maintenance Concerns:

Central Mountain Area Construction Challenges

- Higher costs to transport materials and supplies
- Landslides and other natural occurrences
- Working in difficult terrain and aesthetic considerations
- Environmental sensitivity (i.e. historic sites, wildlife crossings, noise abatement, water quality issues)
- More involved public

Response to Increasing Traffic Volumes

- Night work in mountains, weekend restrictions and accommodating special seasonal events all part of keeping the corridor accessible to the traveling public



I-70 in Summit County – Maintenance Concerns



I-70 Eisenhower Tunnel – Capacity Improvements



U.S. 40 Berthoud Pass – Natural Occurrences

SOUTHWEST: September 10, 2007, Durango

Background:

- 3,107 lane miles of state highways
- 224 state-owned bridges
- 12 mountain passes

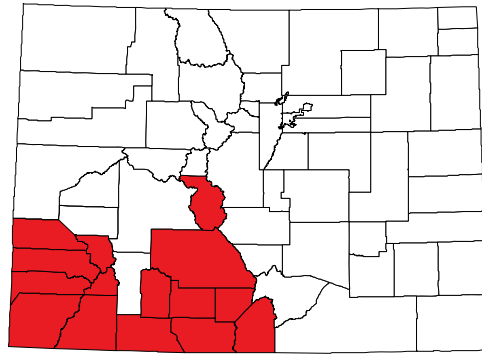
Major Maintenance Concerns:

Surface Conditions and Shoulders

- 30 percent of highways have a remaining service life of zero
- \$500 million needed to get 60 percent of roads in Good/Fair condition by 2026
- The other 40 percent would have a zero remaining service life; getting them to Good/Fair condition requires an additional \$984 million
- More than 80 percent of highways have substandard shoulders and 20 percent have no shoulders

Natural Occurrences

- Red Mountain Pass has more than 100 avalanche pathways, most in the United States
- Region has 165 avalanche runs, most in the state
- Wolf Creek Pass has the most snow in Colorado
- \$6.2 million spent clearing roads in winter 2006
- 121 rock fall sites need attention
- \$97 million needed to mitigate rock fall sites
- More than \$600,000 a year spent to clear roads after mudslides and debris flows



S.H. 141 – Surface Condition



U.S. 550 – Sharing the Road



S.H. 145 – Natural Occurrences / Rock Fall

NORTH/UPPER FRONT RANGE: September 25, 2007, Windsor

Background:

- 16 bridges in need of immediate repair; lack of shoulders a major concern
- Conflicts between autos, recreational vehicles, oversized trucks and farm equipment

Major Maintenance Concerns:

I-25 North

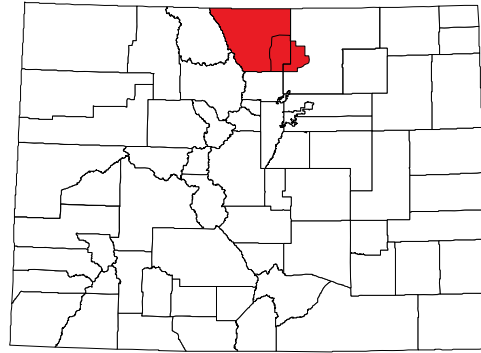
- Total interim repairs costs \$85 million
- Complete reconstruction estimate is \$1 billion and remaining strategic funding commitment is \$237 million

Surface Treatment

- 40 percent of highways in poor condition.
- Current funding for surface treatment totals \$375 million over 10 years
- Needed funding is \$677 million over 10 years
- Resulting shortfall is \$302 million

Energy Development

- Front Range Energy in Windsor produces 40 million gallons of ethanol annually
- One bushel of corn produces 2.8 gallons of fuel, meaning 14 million bushels of corn travel from farm to facility in one year



I-25 North – Surface Conditions

PIKES PEAK REGION: October 4, 2007, Colorado Springs

Background:

- 706 lane miles of state highway
- Expanding urban areas and military installations of significant concern
- 195 state-owned bridges
- Four mountain passes

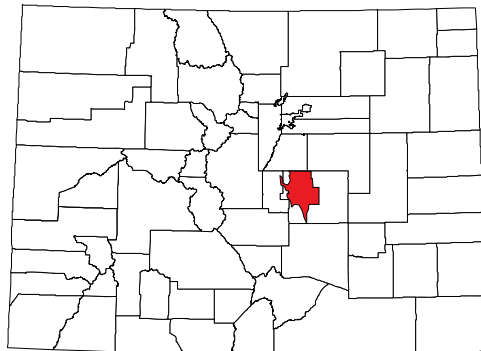
Major Maintenance/Reconstruction Issue:

COSMIX

- I-25 expansion from Circle Drive to North Academy Boulevard close to completion
- Project includes three lanes each direction through Colorado Springs
- Total cost is \$150 million
- Additional improvements from Academy Blvd. north to Monument total \$400 million

System Quality Concerns

- Aging infrastructure and natural disaster management issues
- \$560 million over 10 years needed for all surface treatment projects
- A current investment of \$27 million per year, a total of \$270 million, needed to fix 43 bridges in poor condition



I-25 – COSMIX Reconstruction

Any additional investment in the transportation system should result in more reliable travel times, more options for travel and fewer accidents, injuries and fatalities.



Keypad Polling

Electronic polling at the Panel's regional meetings collected the opinions of participants on transportation priorities and financing options. Those polled range from local government officials to businesspeople, community leaders and representatives of the agriculture and business industries. Though a statistically accurate survey method was not used, the polling results gave insight to Panel members on certain topics. The following summarizes the highest ranking responses at each meeting:

- Maintenance and traffic congestion are the primary concerns.
- Any additional investment in the transportation system should result in more reliable travel times, more options for travel and fewer accidents, injuries and fatalities.
- Colorado's transportation needs could be best met through additional taxes, additional user fees and public-private partnerships.
- Additional transportation revenue should come from a combination of user fees and general taxes.
- New sources of revenue could be used to fund any mode of transportation and should have no time limits attached.



Section Four: Recommended Vision and Policies

Based on public input at the regional meetings, presentations from industry experts, CDOT reports on the condition of the transportation system and evidence regarding the ongoing erosion of the fuel tax, Panel members unanimously support an increased investment in transportation.

This investment must address a broad range of infrastructure needs, both roadway and transit, and how those needs relate to new environmental goals. The Panel identified the safety of the traveling public as its paramount concern and agreed the state must play a critical role in providing not only for those who own cars and trucks but also for those who are dependent on transit.

The Panel prepared the vision statement on the following page.



Colorado's Transportation Future: Our Vision for 2050

Transportation Investment for the Future of Colorado

Colorado's economy and quality of life depend on the efficient movement of people and goods, and responsible stewardship of the environment. The people of this state demand and deserve a transportation system that cannot be provided with the current level of investment by the federal, state and local governments. The transportation plans in place reflect the need to repair, maintain and expand the transportation system to meet current and future critical demands. We need a revenue base and an investment strategy to match those plans. Future transportation plans should support development patterns that maximize these investments. Colorado must address the deterioration of our transportation infrastructure and the continued erosion of mobility that looms in the near future.

Sustaining the existing transportation system and expanding it to meet the needs of current and future Coloradans will require much more than the revenues currently expected for transportation at the state and local levels. It will require more than double the expected revenue through 2030 to carry out Colorado's basic transportation needs.

Colorado's Transportation Finance and Investment Policies

- Reflect a commitment to financial prudence with guarantees to the people of the state that they will always get what they pay for by ensuring the efficient use of all resources that are available for the system
- Recognize that the system consists of state highways, local roads and streets, aviation, a variety of transit alternatives, and bicycle and pedestrian facilities
- Ensure mode flexibility in the use of revenues
- Maintain purchasing power of the revenue sources over time

Transportation Choice and Mobility for Colorado

Colorado's transportation system:

- Is a complete system with multi-modal corridors north to south and east to west in the state that connect communities and regions
- Serves people who want to take transit, carpool, ride a bike, or walk but still drive when they need to by providing alternatives to the automobile
- Is a comprehensive and sustainable system.

Transportation and Economic Sustainability for Colorado

Colorado's transportation system supports the economy of the state by:

- Considering jobs, housing in investment decisions
- Working in partnership with the public and private sectors to provide infrastructure needed for economic expansion
- Providing dependable road, public transit, and rail freight transportation routes throughout the state

Transportation and Safety for Colorado

Colorado's transportation system is made safer by:

- Appropriate allocation of resources to ensure a high standard of safety through the proper repair, maintenance and reconstruction of the system
- Ensuring safe shoulders, intersections and bridges
- Providing appropriate speed limits throughout the system
- Effective enforcement of traffic safety regulations

Transportation and Quality of Life in Colorado

Colorado's transportation system and related technology support our quality of life by:

- Saving time for commuters and recreational travelers
- Preserving Colorado's scenic beauty and natural environment
- Providing accessible transportation to the people of Colorado regardless of age or economic circumstances
- Reducing emissions of greenhouse gasses and air pollutants that impact the health of Coloradans
- Mitigating environmental impacts in the implementation of the transportation system

Transportation for a Changing and Growing Colorado

Colorado's transportation system:

- Anticipates concentrations of population throughout the state
- Provide incentives for the integration of transportation planning and local land use planning to minimize Vehicle Miles Traveled (VMT) growth and ensure efficient infrastructure investments for transportation
- Works in collaboration with local governments to maintain a seamless transportation system
- Anticipates future right-of-way needs and acquire rights-of-way as possible

The vision for Colorado's transportation future should be dynamic and this vision statement should be revisited and updated on a regular basis.

What follows are the Panel's recommended policy actions. It should be noted that safety would be enhanced significantly through investments in each category.

Programs

1 Maintain existing infrastructure first.

- Address deteriorating components of the highway system, including bridges
- Routine and preventative maintenance of roads and bridges
- Enhance operational capacity of transportation corridors

The Panel strongly supports reinvesting in the state's deteriorating transportation system. Over the past century, Colorado has invested billions of dollars to create a comprehensive transportation network that includes 23,000+ lane miles of state highway and more than 3,700 bridges.

Preserving the existing system and maintaining its functionality must be the top priority. However, Colorado's increasing population and growing economy place extreme demands on it, manifested as traffic congestion and greater wear and tear on roadways. Population and economic-growth projections suggest this problem will worsen in the immediate future. From 1994 to 2005, Colorado's population grew 25 percent. During that period, the vehicle miles traveled on Colorado highways increased 42 percent. The roadway network, however, expanded only 4.6 percent. So, more people are driving more miles on essentially the same highway system. This increased usage accelerates the degradation of roads. Forty percent of Colorado highways were in poor condition in 2006, up from 20 percent in 1989, according to CDOT studies. Under current revenue and expenditure scenarios it will reach 60 percent by 2016. CDOT maintenance programs, encompassing everything from snow removal to traffic signage,

CDOT's Multi-Billion Dollar Highway Assets

23,000+	Lane Miles of State Highway
3,700+	State Bridges
1,700+/-	Miles of Guard Rail
1,800+	Signalized Intersections
180,000+	Signs
6,000	Miles of Ditches
800	Pieces of Snow Removal Equipment
225	Restrooms

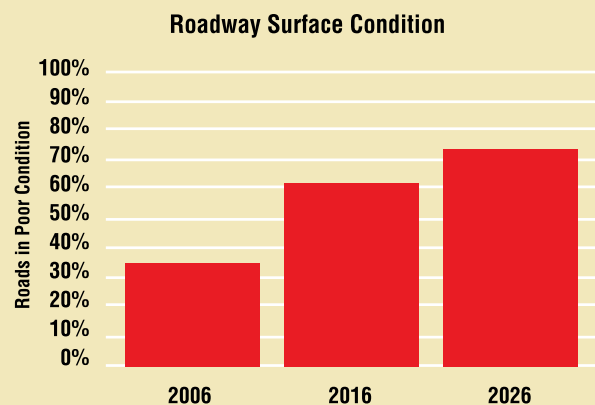
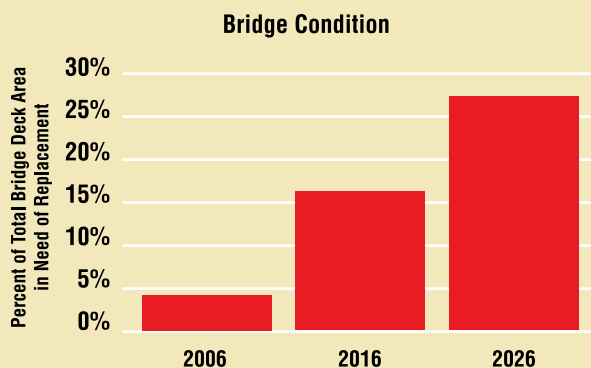
are expected to be at level of service F – the lowest grade – by 2016. And the longer adequate maintenance is deferred, the more costs will escalate to maintain the system in future years.

Over the long run, without additional funding, more than half of the state's roads will be in poor condition, additional bridges will become weight restricted and current service levels will decline.

2 Improving shoulders is essential for safety.

- 2,526 miles of state highway have shoulders narrower than four feet
- Recovery room for vehicles
- Room for bicycles

Shoulders are a key element of any sound roadway. Adequate shoulders provide a comparatively safe zone for bicyclists and pedestrians. They allow stalled vehicles to move out of the travel lane and make it less likely a vehicle will leave the roadway in an accident or due to inclement weather. Shoulder improvements are particularly important on the many two-lane state highways that are experiencing a substantial increase in truck traffic. The reconstruction or expansion of any road in the system should include adequate shoulders if technically feasible and reasonable in cost.



Decreasing Revenue + Aging Roads + Increasing Volumes + Higher Costs = Tripling the Percent of Bridge Deck in Need of Replacement and Deteriorating Road Conditions

③ Develop a state Strategic Mobility Program.

- 10% – “7th Pot” strategic projects (corridors and highways)
- 30% – state strategic transit projects
- 60% – multimodal mobility projects

Mobility is the term used to describe projects and programs that move people, goods and information. It includes a wide range of investments encompassing highway projects, transit and management strategies.

“7th Pot” Strategic Projects

In 1996, CDOT established 28 strategic projects that became known as the 7th Pot. These were high-priority projects of statewide significance with price tags much greater than the state’s ability to fund them in a timely manner. In 1997, passage of SB 97-01 dedicated certain state funds, when available, to these projects and voters approved a bonding program to advance them. Nineteen of the original 28 have been completed. Of those remaining, four are traditional highway improvements and five are Major Investment Study¹⁰ corridor projects. At current spending levels, the highway projects can be completed, but only portions of the MIS corridors can be addressed. The Panel recognizes the 7th Pot¹¹ as a high priority and funding should be accelerated so the projects can be completed as quickly as possible.

Remaining 7th Pot Projects

Major Investment Study (MIS) corridors include:

- East Corridor
- West Corridor
- I-70 MIS – DIA to Eagle County Airport
- I-25 South Corridor MIS – Denver to Colorado Springs
- I-25 North Corridor MIS – Denver to Fort Collins

Highway projects include:

- Powers Boulevard (Colorado Springs)
- US 287
- U.S. 550
- U.S. 160

10% for transit

Strategic Transit

In 2002, the legislature required that at least 10 percent of SB 97-01 money be spent on transit. Twenty-one strategic transit projects were identified through a statewide solicitation process. Assuming that SB 97-01 dollars are available for FY 2008, only one of these projects will remain unfunded. Additional projects need to be identified as money becomes available in FY 2009.

Within congested urban areas of the state, transit is a critical element of any strategic mobility effort. Moving commuters out of cars and into buses or trains reduces fuel use, emissions and the number of vehicles on the roads. Key elements of a successful mobility program are reliable travel times, competitive costs and schedules that accommodate workers. Dedicated transit rights of way (rail or bus/High Occupancy Vehicle lanes) are expensive to build but ensure that transit has a substantive impact on congested general-purpose lanes. Transit also often leads to high-density development in urban areas, making those areas less prone to expansion and an increase in vehicle miles traveled (VMT) that typically accompanies such expansion.

It is particularly important that the state be involved in inter-regional transit. Many regions of Colorado have transit systems but they are not tied together in a coherent way. This makes it difficult for people in some parts of the state to get to regional centers and hubs for air or rail transportation. The Panel strongly supports the implementation of inter-regional rail, now being studied, if additional dollars are available. For example, rail transit could begin to connect regions of the state along high-demand corridors such as I-70 or I-25.

CDOT Multimodal Mobility Corridors

The development of future projects is guided by corridor visions written into the state transportation plan. These visions include strategies for safety, maintenance, better mobility and congestion relief. CDOT is developing 37 corridor projects at an estimated total construction cost of \$14 billion to \$23 billion (in 2008 dollars). In addition to highway improvements, transportation alternatives under consideration in some corridors include transit and toll roads. The cost of transit ranges from \$7 billion to \$12 billion, or about half the total cost. Many of these corridors also include 7th Pot projects. Due to budgetary constraints, current funding for mobility corridors is alarmingly low: only \$8 million of CDOT’s \$1 billion annual budget is allocated for mobility investments. The Panel strongly suggests a funding source in this category that can be invested in any mode of transportation to meet future demands.

¹⁰Major investment studies are requirements of the federal Intermodal Surface Transportation Efficiency Act (ISTEA). States must undertake comprehensive studies of how transportation projects affect entire transportation corridors.

¹¹Refer to appendix on 7th Pot: www.dot.state.co.us



4 Allocate state dollars to supplement existing rural and urban local/regional transit.

- Separate from local roadway share allocation
- Separate but equal rural and urban allocation

Transit is a critical element of an integrated statewide transportation system. Local transit gives those who do not wish to drive, cannot afford to drive or simply cannot drive a viable alternative to the automobile. Transit funding historically is a local responsibility in Colorado, but demand is greater than individual local economies can bear. Therefore, it makes sense to look at how local transit benefits the overall state transportation system and seriously consider allocating a share of new state transit funds to support local/regional transit services. Currently, less than half of the transit demand in rural areas of the state is being met. Handicapped accessible transit is literally a lifeline for many elderly people and people with disabilities. More than 1.5 million trips in 2006 demonstrate a high demand for this service. Such transit is particularly critical in rural and suburban areas where general transit is limited or nonexistent. Our aging population suggests the need for additional specialized transit will only grow over time.

As with highways, investments in transit have lagged behind need. Insufficient funding makes it difficult to keep buses in good condition and equip them with new technology, and that makes transit less reliable, less attractive and less efficient. This results in lower ridership, lower revenues and higher operating costs. A state allocation that supplements local dollars or leverages federal dollars would help local agencies offer new or expanded transit services.

5 Create a state enhancement program to mirror the federal enhancement program.

- Bicycle and pedestrian facilities, including safe routes to schools
- Requirement for a 10 percent local match

Colorado receives about \$10 million a year from the federal government for 12 types of “enhancement” projects, including bicycle and pedestrian paths. But that is not enough money to go around to the many communities applying for grants. The state should support improvements that make non-motorized trips convenient and safe while also improving air quality and promoting exercise. These projects can range from wider shoulders to dedicated trails. A modest funding commitment from the state would allow for the completion of many of these types of projects, substantially improving our quality of life and economy. Local governments would still be required to pay 10 percent of the project cost.



6 Promote environmental stewardship.

- Proactive mitigation to enhance environment and streamline environmental clearances
- Mitigation of maintenance impacts

A key reason Colorado remains a vibrant and attractive place to live is its extraordinary environment and beauty. It is essential that the maintenance and possible expansion of the state's transportation system not compromise the health of our families or materially degrade the contribution this remarkable environment makes to the quality of our lives.

Historically, construction and maintenance practices haven't always met current expectations for environmental stewardship. Corrective action is needed in some corridors. Future projects should include mitigation opportunities that expedite the receipt of environmental clearances and better protect habitat, water quality and scenic beauty. To maintain this essential balance, the Panel recommends funding an independent environmental stewardship program.

7 A local share allocation should be considered at every funding threshold for all types of transportation.

- Local roads are critical to the success of the transportation system
- New dollars should not replace current local revenue

Local governments are key partners in the construction, operation and maintenance of the state's transportation system. Local roads connect to state highways and in many cases provide "reliever" routes that lessen traffic and wear and tear on the state system. Historically, Colorado has recognized that partnership by sharing state highway revenue with local governments. The Panel believes this partnership must remain in place. At the same time, local roads cannot support their communities without a well-maintained state system. Consequently, a proper balance must be struck that ensures both state and local transportation projects are adequately funded.

It is essential that the maintenance and possible expansion of the state's transportation system not materially degrade the contribution our remarkable environment makes to the quality of our lives.



Leveraging Revenue Streams

Traditional public sources of revenue such as fees and taxes provide the foundation for transportation investments. It is in the best interest of the state to seek innovative financing mechanisms to stretch these dollars.

⑧ Provide increased resources to the Aviation State Infrastructure Bank.

- Financing capital projects is the biggest challenge for airports
- Low-rate loans can be provided from the state infrastructure bank

Aviation has a unique capacity to generate steady revenue to support itself through dedicated fuel taxes, landing fees and Federal Aviation Administration grants. The primary challenge for most airports is how to finance capital projects. Loans from the Aviation State Infrastructure Bank are very attractive for airports because the application process is straightforward and inexpensive and they can obtain loans at rates typically as low as or lower than those made in the municipal bond market.

Rapid growth in traffic at Colorado's general aviation airports is straining existing capacity, and the demand for funds for capital projects outstrips the amount available in the aviation infrastructure bank. To meet this need, the Panel strongly recommends a substantial increase in the bank's assets. Money allocated to the aviation bank is not spent, but loaned out and repaid with interest, providing benefits that far exceed the initial amount of the funding.

⑨ CDOT should pursue public-private partnerships where appropriate.

- Pursue only those that complement the statewide transportation planning process
- A means to reduce risks borne by CDOT
- An opportunity to reduce costs and project duration

The Public-Private Initiatives (PPI) Program, passed in 1995, authorizes partnerships between CDOT and private entities. CDOT has entered into public-private partnerships (P3s) involving cellular towers, fiber optics and traffic control. RTD is exploring P3s for the FasTracks program, and a private company recently obtained a concession to operate the Northwest Parkway toll road. The Panel believes a careful examination of these P3s will give the state a better understanding of when to pursue such

partnerships. However, they are not likely to have a significant impact on the current transportation funding shortfall.

⑩ If a ballot measure is pursued, a portion of new revenue should be leveraged through bonding to accelerate completion of major projects.

- Bonding is not recommended for maintenance and operations
- New revenue to repay bonds must be available

Bonding can have a dramatic impact on the rate at which transportation projects are completed. While the Colorado Constitution prohibits the state from issuing debt pledged by general sources of revenue, the State Highway Fund has been pledged for the repayment of debt securities. Pledging such revenue requires voter approval, unless the debt is issued by an enterprise – a government-owned business such as the Colorado Tolling Enterprise, which operates the I-25 High Occupancy Toll (HOT) lanes.

From 2000 to 2004, CDOT issued approximately \$1.5 billion of Transportation Revenue Anticipation Notes (TRANS) following an authorizing election. The notes are repaid from future receipts from the Federal Highway Administration and the State Highway Fund. TRANS proceeds helped accelerate the completion of T-REX in southeast Denver and COSMIX in Colorado Springs, along with other projects in the Strategic Initiatives Program, or 7th Pot. These notes also reduced the cost of these projects. Because construction costs historically increase at a faster rate than inflation, the sooner a project is completed the less it costs. With sufficient funds in hand, CDOT was able to let single contracts for entire projects, rather than writing, bidding and overseeing a series of smaller contracts over an extended period, a far less efficient and much more costly process.

Bonding is typically used for construction and not to support ongoing maintenance. As long as bond repayment costs do not impair CDOT's maintenance operations or its ability to address future construction needs, bonding can spur tremendous upgrades to the transportation system far more quickly and cost effectively than a pay-as-you-go financing plan.

With sufficient funds in hand, CDOT was able to let single contracts for entire projects, rather than writing, bidding and overseeing a series of smaller contracts over an extended period, a far less efficient and much more costly process.

11 Toll roads should be considered on a corridor by corridor basis.

- Can be used as a congestion management tool
- Can generate incremental revenue that makes specific projects affordable
- Not for existing lanes at this time

Toll roads should be viewed as tools for managing congestion, not just as revenue-producing operations. Managed lanes can provide an option to congested travel lanes, ensuring that those willing to pay can count on reliable travel times.

The current expectation is that toll projects should be structured in a way that toll revenue completely covers construction and operation costs. The Panel's advisory committee discussed the value of using tolls to recover a portion of construction costs, not all. This would work only if other new funds were available to finance the balance.

The Panel believes that any new toll roads approved by the Colorado Tolling Enterprise should not reduce Transportation Commission dollars allocated to the region in which the toll road lies. In addition, toll revenue should not be considered when calculating the proportion of state or federal highway funds received by a transportation planning region or CDOT region.

General Policy

12 Identify and address freight issues.

- Key bottlenecks and safety hazards
- Economic impacts
- Incorporate freight recommendations into the project development process

The impact of truck-borne freight on the state's transportation infrastructure is rapidly increasing. Trucks now move about 200 million tons a year across the state, and that number is projected to reach nearly 500 million tons by 2035. Although heavy trucks spread the impact of their loads across more axles and tires, they still cause more wear and tear on the system than does the average car. Freighters pay a substantial portion of total motor fuel taxes and also pay significantly higher registration fees. But it's unclear whether the amount of taxes and fees paid by the trucking industry correlates with the impact of its vehicles on the highway system.

CDOT and the state Freight Advisory Council should work together to examine the economic impact of trucking and other key freight-related issues including road bottlenecks and safety hazards.



16 Ensure the state's transportation system is sufficiently funded, operated and maintained to provide Coloradans with the infrastructure needed for a vibrant state economy.

The economic and social consequences of a failing transportation system would be enormous. The roads, bridges, tunnels, transit systems, railroads, sidewalks, bike paths and airports that constitute the transportation network literally are the foundation of Colorado's economy. They connect people to their livelihoods and lifestyles, deliver goods to markets, facilitate national and international trade and provide access to Colorado's natural wonders.

- **Energy** – The tremendous growth of this sector across Colorado depends on roads to transport employees, equipment and raw materials to drill sites, ethanol distilleries and wind farms. Moving coal, oil, and ethanol requires reliable roads and railroads. But the overweight and oversized trucks that support these industries are accelerating the degradation of road surfaces and sub-surfaces, as well as bridges.
- **Tourism** – During winter, safe and passable roads along the I-70, U.S. 40, U.S. 160, U.S. 50 and U.S. 550 corridors are vital to the ski industry. A recent study by the Denver Chamber of Commerce estimates that congestion on I-70 costs the state's economy about \$839 million annually. Summertime vacations, spurred by the increasing popularity of road cycling and mountain biking, actually lead to more cars on the road than during the winter ski season.
- **Freight** – The furniture in your house, the food on your plate, the gasoline in your car and just about every other good you purchase was transported by truck. Colorado's reliance on freight transportation is certain to grow with our population and economy.
- **Manufacturing** – These firms are a source of well-paying, high-skilled jobs, and they must have the ability to receive raw materials and ship finished products inexpensively and on the tight timelines needed to compete in worldwide markets.
- **Access** – The transportation infrastructure gives the elderly and people with disabilities access to the economy, allowing them to get to jobs and obtain the goods and services they need.

Tourism: the cost of safe and passable roads.

During winter, safe and passable roads along the I-70, U.S. 40, U.S. 160, U.S. 50 and U.S. 550 corridors are vital to the ski industry. A recent study by the Denver Chamber of Commerce estimates that congestion on I-70 costs the state's economy about \$839 million annually.



Process

14 CDOT should continue to ensure resources are expended in an effective and accountable manner.

- Seek opportunities and innovative ways to improve processes and projects
- Use management systems to optimize investments
- Use an asset management philosophy to spend dollars where they will do the most good over the long run
- Expand performance measures to better account for transit

CDOT is regularly recognized for its commitment to efficiency and accountability. The department's performance is validated through the use of a performance measurement program that ensures taxpayer investments are aligned with goals established by the Colorado Transportation Commission. The Panel encourages CDOT to continue looking for ways to operate more efficiently.

Efficiency and Accountability Assessments

The Task Force on Transportation Finance, created in 2003 by Governor Owens, found that CDOT has “minimized administrative overhead, and has instituted measures to maximize innovative opportunities in order to leverage as much funding capacity as possible.” Colorado, the task force said, is a leader among the states in innovative financing and efficient and effective program management.

CDOT operating practices were again scrutinized in 2007 as part of Governor Ritter's Government Efficiency and Management Performance Reviews of state agencies. The final report is not yet released, but a draft indicates there will be just two recommendations, both calling for CDOT to contract out less work. The review said using the department's own garage technicians and environmental staff is more cost effective than contracting with private businesses.

During regional meetings, the Panel also heard about other ways CDOT maintenance crews and engineers save money. One example is the installation of snow fences in mountain valleys to catch snow before it blows across highways. Studies show that snow fences save \$100 in snow-removal costs for every dollar invested in them over their 20-year lifespan. Another example: CDOT recycles asphalt, when possible, during resurfacing projects, saving nearly \$40 per ton.

Asset Management and Performance Measurement

Management systems monitor CDOT's performance in four major areas: pavement, bridges, maintenance and congestion. The department's philosophy is to spend money where it does the most good over the long run to maintain, operate and upgrade infrastructure. This approach helps ensure that we get the most from our transportation dollars. Similar performance measures will be put in place for transit, rail and other modes of transportation if those elements become part of an expanded state system.

The backlog of deferred maintenance makes it difficult to optimize the use of available revenue. Just as maintaining your car is less costly than a major repair, preventative maintenance on roadways is less costly than reconstruction. If additional revenue can reduce the backlog, the budget for long-term maintenance may actually decrease.

Innovation

Innovative approaches can make the transportation system more effective and efficient. For example, a design-build contract saved significant time and money in the construction of the T-REX light rail/highway project on I-25. The introduction of High Occupancy Toll (HOT) lanes on I-25 provided a revenue-generating alternative to congested general-purpose lanes.

15 Use the transportation planning process to select projects funded with new revenue.

- Seek broad participation for a broad range of investment types
- Assure inter-regional priorities are considered

CDOT develops regional and statewide transportation plans with significant input from the public, elected officials and businesses, as well as environmental and transit interests. Fifteen Transportation Planning Regions hold regular public meetings in an effort to understand the needs of communities. This process is the best way to develop project priorities with grassroots support. An effort should be made to bring new stakeholders to the table if additional revenue allows for the expansion of the state transportation network beyond highways. In addition, the Statewide Transportation Advisory Council should help prioritize inter-regional projects.

Section Five: Revenue Options

Everyone in Colorado benefits from a statewide transportation system that is properly maintained, moves people and goods safely and efficiently and is built to accommodate future growth and development. So it is appropriate that everyone – from visitors to interstate truckers – share the cost.

The Technical Advisory Committee helped the Panel analyze numerous alternatives for generating more revenue for transportation. The committee compiled a list of 39 options and ranked each on 16 criteria such as political viability and whether the revenue source is stable. Revenue options were further categorized as either a user fee or general tax option.

Revenue Options Considered *(highlighted options recommended by the Panel)*

Motor fuel tax increase	Weight-distance tax on heavy trucks	Parcel tax
Motor fuel tax indexed to inflation	Delivery tax/fee on sales (Internet or all)	Parking space fee
Sales and use tax increase	Expand use of funds generated from gaming	Public-private partnerships/ Concession
Income tax increase	Gaming - Bet limit increase	Real estate transfer tax
Motor vehicle registration fee increase	Visitor fee (lodging and vehicle rental)	Road frontage fee
Referendum C extension for transportation	Lottery – Create new game for transportation	Second home tax
Sales tax extension to vehicle repair services	Sell the Colorado Lottery	Eliminate SB 97-01 transfer restrictions
Sales tax increase on vehicles and vehicle parts	Highway maintenance fee	Sin tax (liquor)
Severance tax increase	Local impact fees	Sin tax (tobacco)
State sales tax on fuel purchases	Moving vehicle violations surcharge	Use revenue from tobacco lawsuit for transportation
Statewide property tax increase	New-wheels-on-the-road fee	Tolling
Storm water utility fee model (Ft. Collins)	Eliminate HUTF funding for Colorado State Patrol and Ports of Entry	Transportation impact fee – Local
Vehicle miles traveled (VMT) fee	Overweight vehicle fines	Transportation impact fee – State

Evaluation Criteria

Predictable	Is revenue generated by this source able to be known in advance?
Sustainable	Can this revenue source be maintained into the future?
Accountable	Is the transportation benefit understandable to Colorado citizens?
Transparent	Is the revenue source obvious?
Visible	Is the revenue source in the public view and/or conspicuous?
Flexible	Is the revenue source responsive to change, adaptable and can it be used for multiple modes?
Innovative	Does the revenue source demonstrate funding success in other states and reflect best practices?
Indexed	Can the revenue source be adjusted to rise or fall in accordance with a rate of inflation or other indicator to reflect the cost of doing business?
Leveraging	Can the revenue source supplement other funding sources and make more effective use of this source or other sources?
Pricing	Can the revenue source be adjusted based on the need to reduce congestion?
Politically Acceptable	Will the revenue source have public support?
Administrative Burden	How much additional work or money is required to implement this revenue option?
State and/or Local Share	Is this a historic transportation revenue source that has state and local distribution precedence?
User Pay Component	Can the revenue stream be easily be tied back to use of the transportation system?
Benefit	Does the revenue source promote or enhance the well being of all Colorado citizens?

Revenue Options – Recommended by the Panel

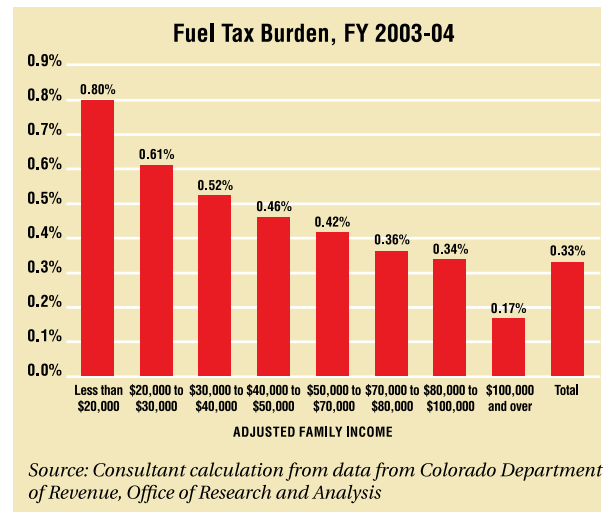
Highway Maintenance Fee

- **Specifics:** Add a new annual “State Highway Maintenance Fee” to the cost of registering a motor vehicle. All proceeds, after the cost of administration, would be dedicated to maintenance operations for the state highway system.
- **Rationale:** A well-maintained highway system is essential for motor vehicles to be driven safely, expeditiously and without incurring damage.
- **Administration:** The fee would be collected by county clerks as part of the annual vehicle registration renewal process. Installment payments could be allowed for motorists who have difficulty paying the higher amount all at once, but that would substantially increase administrative costs.
- **Constitutionality:** Article X, Section 18 of the Colorado Constitution requires that fee proceeds be used for road construction, maintenance or supervision. The state legislature could adopt the fee without voter approval or refer the question to voters.
- **Estimated revenue calculation:** There are about five million vehicles registered in Colorado. An average fee per vehicle of approximately \$100 would generate about \$500 million.
- **Who pays:** Because heavier vehicles cause more wear on roads, the fee should be based on vehicle type and weight. However, it could not be assessed on the many trucks registered out of state that travel through Colorado. Those trucks would pay through the International Registration Plan, which prorates state registration fees based on miles driven within each state.

- **Competitive position of the state:** A large number of commercial and recreational vehicles are registered in other states to avoid Colorado's relatively high specific ownership tax (a property tax collected by counties and distributed exclusively to local governments). An additional registration fee may exacerbate this problem, particularly if the fee is based on vehicle weight.
- **Revenue stream:** Vehicle registration fees generally are a stable source of revenue.

Motor Fuel Tax Increase Indexed to Inflation

- **Specifics:** Increase excise taxes on motor fuels. The taxes would be indexed to inflation or the ballot measure would include a schedule of future incremental rate changes.
- **Rationale:** Colorado historically has relied on motor fuel taxes to finance public roads, and this revenue source is consistent with the concept of having users pay for transportation. The excise tax has been at 22 cents per gallon of gasoline since 1991 and 20.5 cents per gallon of diesel fuel since 1992.
- **Administration:** The mechanisms for collecting fuel taxes are well established. The revenue is disbursed to state, county and municipal governments through a set of tiered formulas.
- **Constitutionality:** Article X, Section 18 of the Colorado Constitution requires that motor fuel tax revenue be used for road construction, maintenance or supervision. An increase in motor fuel taxes must be approved by voters.
- **Estimated revenue calculation:** Each penny of motor fuel tax generates approximately \$22 million annually. Colorado's current fuel tax generated about \$577 million FY 2005-06.
- **Who pays:** The majority of fuel taxes are paid by Colorado residents and in-state businesses, though an increase in fuel taxes also would affect visitors and interstate truckers. Lower-income families generally pay a larger percentage of their annual income in fuel taxes.
- **Competitive position of the state:** In FY 2005-06, Colorado ranked 35th among states in fuel tax burden relative to income. It is more likely that a fuel tax increase would significantly change the driving habits or fueling locations of interstate truckers, rather than residents, because three neighboring states – Oklahoma and New Mexico (13 cents per gallon) and Arizona (18 cents) – have lower diesel fuel tax rates than Colorado.
- **Revenue stream:** Fuel taxes over time are projected to become increasingly insufficient as a funding source as vehicles become more fuel efficient, travelers change their behavior and more mass-transit options become available.



Visitor Fee

- **Specifics:** Establish a fee for renting a car and staying in a hotel or motel. The revenue would go to transportation-related projects.
- **Rationale:** Visitors to Colorado, either for tourism or business reasons, benefit from the state's transportation system. While they may pay some fuel taxes, adding a visitor fee would provide another way to make sure they contribute to construction and maintenance.
- **Administration:** The state Department of Revenue would establish a new system for collecting the fee. The fee should not pose a major administrative burden on innkeepers and car rental companies because they likely already collect data on lodging nights and rental days per customer.

- **Constitutionality:** Revenue from vehicle rentals can only be used for public highways. Revenue from lodging may be used for any purpose, including transit. The state legislature could adopt the fee without voter approval or refer the matter to voters.
- **Estimated revenue calculation:** A \$6 fee per night and per daily car rental would raise an estimated \$240 million per year.
- **Who pays:** The primary users of rental vehicles and lodging are out-of-state residents who currently do not pay their “fair share” to build and maintain the transportation system. The Panel recognizes that some residents will pay the fee if they rent a vehicle or use lodging in the state.
- **Competitive position of the state:** Local sales taxes already are applied to car rentals and lodging in many areas of the state, and some jurisdictions impose a separate tourism fee. An additional visitor fee may discourage the use of lodging and car rental services in some parts of the state, particularly metro Denver and the resort communities.
- **Revenue stream:** Fees tied to travel behavior can be a volatile source of revenue, but Colorado’s healthy tourism and business travel economy would make the visitor fee fairly reliable.

Sales & Use Tax Increase

- **Specifics:** Increase state taxes on the sale of retail items to individuals and the use of items purchased by businesses. The revenue would be dedicated to transportation.
- **Rationale:** Because revenue from vehicle fees and fuel taxes must, under the state Constitution, only be used for state highways, an additional revenue source is needed to pay for transit and other transportation needs. Many local governments have used sales taxes to subsidize transit programs, and there is a precedent for using state sales tax proceeds for transportation. SB 97-01 transfers a portion of sales and use tax revenue that is motor vehicle related to the HUTF.
- **Administration:** Administrative issues associated with increasing the sales tax rate are minimal. The state treasurer would credit the incremental increase in revenue to the highway fund.

- **Constitutionality:** Increasing sales and use taxes would require voter approval. Revenue from general taxes such as these may be used at the legislature’s discretion. However, the question referred to voters could specify an intended use of the additional revenue.
- **Estimated revenue calculation:** The state sales tax rate is 2.9 percent. An increase of 0.1 percentage points would generate about \$93.6 million in additional revenue in FY 2009-10 (\$89.2 million in 2008 dollars). The table below shows how much money could be raised over time for transportation.

Increasing the Sales and Use Tax Rate by 0.1 Percentage Point		
Period	Revenue*	Cumulative Revenue*
FY 2008-09 to FY 2009-10	\$133	\$133
FY 2010-11 to FY 2014-15	\$488	\$621
FY 2015-16 to FY 2019-20	\$573	\$1,194
FY 2020-21 to FY 2024-25	\$672	\$1,866
FY 2025-26 to FY 2029-30	\$790	\$2,655
FY 2030-31 to FY 2034-35	\$928	\$3,583

**millions of 2008 inflation-adjusted dollars*



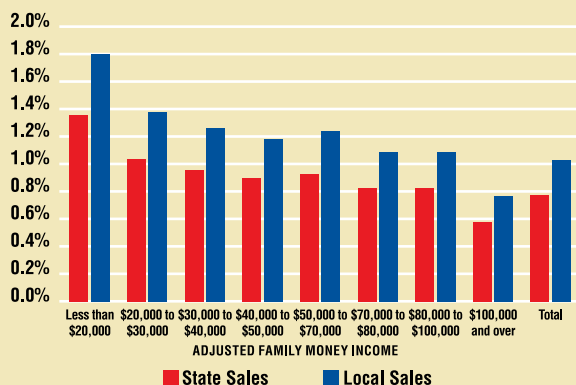
- **Who pays:** Colorado residents pay the predominant share (47.2 percent) of sales taxes, and visitors pay some portion. Businesses pay most of the use tax and a substantial portion of the sales tax. Lower-income families pay a larger share of their annual family income in sales taxes.
- **Competitive position of the state:** Colorado has the lowest sales and use tax burden at the state level, but the ranking rises to the midpoint of the 50 states when state and local sales and use taxes are combined. A 0.1 percentage point increase would not alter the state's ranking.
- **Revenue stream:** The sales and use tax is generally a strong revenue generator for the state, but it can be volatile in down economic periods. Local government officials, who rely heavily on sales taxes to fund services, express concern that a statewide increase will make it less likely voters will approve future local sales tax increases. The sales tax is projected to become less productive over time as the state's population ages and spends less on goods that are taxed.

Severance Tax Increase

- **Specifics:** Increase severance tax rates on oil and gas income and dedicate the money for transportation. The current tax rate ranges from 2 percent to 5 percent.
- **Rationale:** An increase in severance tax rates would help offset the impact of expanded oil and gas exploration on Colorado's highway system. A recent study shows the tax burden of the energy industry in Colorado is low compared to neighboring states with significant natural resources.

- **Administration:** The state Department of Revenue, which collects the severance tax, would have to calculate the incremental revenue from higher tax rates so it can be used for transportation.
- **Constitutionality:** Increasing severance tax rates would require voter approval. Revenue from general taxes such as the severance tax may be used at the legislature's discretion. However, the question referred to voters could specify an intended use of the additional revenue.
- **Estimated revenue calculation:** An average effective rate increase of 1.7 percentage points would generate an estimated \$96 million per year.
- **Competitive position of the state:** Colorado's effective severance tax rate is low compared to nearby states, according to the Colorado Legislative Council Staff. The gap between Colorado and these states is smaller when all taxes on the oil and gas industry are combined.
- **Revenue stream:** The oil and gas severance tax is volatile because of price trends and the 87.5 percent property tax credit allowed against the severance tax. For example, a price surge will lead to increased severance tax revenue the first year, but the property tax credit deducted in the second year leads to somewhat depressed net revenue. From FY 1992-93 to FY 2002-03, Colorado's severance tax revenue averaged \$32.2 million a year. Since FY 2002-03, revenue has averaged \$164.1 million a year. Yearly revenue has been volatile even within that period, with a low of \$125 million and a high of \$234 million. The state projects an annual average of \$194 million during the next five years.

State and Local Sales and Use Tax Burden, FY 2003-04



State and Local Tax Effective Tax Rates on Oil and Gas Income

State	Effective Tax Rate – All Taxes	Effective Tax Rate – Severance Tax
Colorado	5.7%	1.9%
Wyoming	11.2%	5.5%
Utah	4.5%	2.5%
New Mexico	9.4%	6.9%
Oklahoma	7.0%	6.7%



Section Six: Funding and Investment Category Recommendations

The Panel recommends a package of funding mechanisms that would generate additional annual revenue for transportation at any of four levels: \$500 million, \$1 billion, \$1.5 billion or \$2 billion. The Panel's preferred alternative – the one most reflective of its vision for a comprehensive transportation system – would raise an extra \$1.5 billion a year.

This level of funding would make it possible for the state to address needs across all program areas. One-third of the new revenue – approximately \$500 million – would be focused on safely preserving roads, bridges, shoulders and other existing components of infrastructure. The other \$1 billion would go to projects designed to relieve traffic congestion, better connect regions of Colorado, improve local roads and add more transit options.

Choosing an alternative level of funding – more or less than \$1.5 billion – would mean fulfilling these needs more or less quickly or some not at all.

\$1.5 Billion Recommendation – Funding Sources

Revenue Source	Incremental Fee or Tax	Revenue Generated*	Voter Approval Required?
Highway Maintenance Fee	Average fee increase of \$100	\$500 million	no
Motor Fuel Tax	13¢ per gallon increase	\$351 million	yes
New Visitor Fee	\$6 per day	\$240 million	no
Sales & Use Tax	0.35% increase	\$312 million	yes
Severance Tax	1.7% effective increase	\$96 million	yes

*Estimated first full-year revenues are in FY 2007-08 inflation-adjusted dollars.

*Choosing an alternative level of funding
– more or less than \$1.5 billion –
would mean fulfilling these needs more or
less quickly or some not at all.*

CDOT uses a grading scheme – the As, Bs and Cs commonly used in school – to illustrate how an investment of dollars can improve various aspects of the transportation system. For instance, spending an additional \$222 million a year on road surfaces would raise their overall condition – or “drivability” – from a C to a B. That means 75 percent of lane miles in the state highway system would be labeled as being in Good or Fair condition, up from 60 percent.

What \$1.5 Billion Buys

Investment Category	Funding Level	Service Level Outcome
Surface Treatment	\$222 million	Raise from C to B
Bridges	\$156 million	Maintain at B
Maintenance Levels of Service	\$82 million	Raise from C to B
Shoulders	\$78 million	Raise from F to D
Mobility	\$562 million total includes:	
• Strategic Projects	\$56 million	Accelerate funding obligation by about five years
• Multi-Modal Mobility	\$337 million	Limit decline of Mobility to D+ rather than to F
• Strategic Transit	\$169 million	Raise from D to C-
Transit - Urban	\$36 million	Raise from C to B
Transit - Rural	\$36 million	Raise from C to B
Environmental	\$25 million	Establish at B
Bicycle & Pedestrian	\$10 million	Establish at B
Local Transportation	\$293 million	Varies by local jurisdiction



Investment Categories

Surface Treatment

CDOT annually rates each state roadway surface as Good, Fair or Poor. Good and Fair roads have more than five years of remaining service life, while Poor roads are expected to last five years or less. The Transportation Commission's current goal is to maintain 60 percent (level C) of lane miles in Good or Fair condition, but at present funding levels fewer than 40 percent will be in Good or Fair condition by 2026.

Bridges

Colorado's bridge infrastructure is aging rapidly, and CDOT's backlog of bridges requiring maintenance increases annually. Spending \$156 million a year to maintain state bridges at a B level means that 95 percent of the total deck square footage of bridges (rather than all bridge structures) would be in Good or Fair condition. Bridges in Good condition typically meet all safety and geometry standards and typically require only preventative maintenance. Bridges in Fair condition require preventative maintenance or rehabilitation and marginally satisfy safety and geometry standards. For the purpose of determining bridge-funding needs, it is assumed that bridges in Poor condition have exceeded their viable service life and should be replaced.

Shoulders

Increasing the width and surface condition of road shoulders makes a road safer for motorists and bicyclists. Colorado currently has 2,526 miles of state road shoulders that are narrower than four feet, and the current F grade means there is no program underway to widen them. Spending an additional \$78 million a year to increase the overall grade to a D would mean widening 25 percent of miles with shoulders narrower than four feet. The cost of widening shoulders may include mountain engineering and the acquisition of rights of way, and widening may not always be possible.

Colorado's bridge infrastructure is aging rapidly, and CDOT's backlog of bridges requiring maintenance increases annually.

Mobility: Strategic Projects

Twenty-eight high-cost and high-priority projects were selected in 1996 by the Colorado Transportation Commission to address demands for better mobility, safety and system quality in critical corridors of the state. These projects received funding through voter-approved Transportation Revenue Anticipation Notes in addition to general fund revenues from SB 97-01. Unfortunately, the TRANs bonds did not fully fund the total cost of the projects due to extraordinary inflationary costs. The Panel recommends accelerating funding to these projects.

Mobility: Multimodal Mobility

Multimodal mobility is the moving of people and goods by more than one form of transportation with the goal of relieving congestion, shortening travel times, improving safety and giving travelers more options. CDOT studied delays and congestion in 2006 and determined that a much bigger investment in alternative modes of transportation is needed just to maintain travel delays at their current levels. Delays are measured by the length of time spent by a commuter in a one-way trip from home to work at peak traffic time on a state highway operating at 85 percent capacity, compared to a traffic-free commute. In 2006, the average delay in congested corridors during peak hours was 22 minutes, and by 2035 it is projected to increase to 70 minutes. Investing an additional \$337 million a year to limit the decline of mobility to a D+, rather than an F, would increase the average delay to less than 54 minutes.

Mobility: Strategic Transit

This investment aims to improve access and mobility between communities in Colorado. Allocating an additional \$169 million a year to improve the current D grade to a C- could, for example, allow for the construction of some rail transit along portions of I-70 and I-25.

Urban and Rural Transit

This money would speed the progress of existing local transit programs. In urban areas, it could supplement or expand existing transit systems. In rural areas, it could help expand or introduce transit services for critical access needs.

Environmental and Bicycle/Pedestrian

New programs would mitigate the environmental impact of transportation projects. Others would enhance bicycle and pedestrian routes, encouraging a reduction in car usage.

Other Funding Scenarios

\$1 Billion – Funding Sources

Revenue Source	Incremental Fee or Tax	Revenue Generated*	Voter Approval Required?
Highway Maintenance Fee	Average fee increase of \$60	\$300 million	no
Motor Fuel Tax	18¢ per gallon increase	\$486 million	yes
New Visitor Fee	\$5 per day	\$200 million	no
Severance Tax	1.7% effective increase	\$96 million	yes

**Estimated first full-year revenues are in FY 2007-08 inflation-adjusted dollars.*

A funding threshold of \$1 billion a year would mean that transportation needs would be met less quickly.

\$2 Billion – Funding Sources

Revenue Source	Incremental Fee or Tax	Revenue Generated*	Voter Approval Required?
Highway Maintenance Fee	Average fee increase of \$100	\$500 million	no
Motor Fuel Tax	22¢ per gallon increase	\$594 million	yes
New Visitor Fee	\$5 per day	\$240 million	no
Sales & Use Tax	0.55% increase	\$490 million	yes
Severance Tax	2% effective increase	\$113 million	yes

**Estimated first full-year revenues are in FY 2007-08 inflation-adjusted dollars.*

An investment of \$2 billion a year would accelerate the implementation of transportation maintenance and capacity projects.

\$500 Million – Funding Sources

Revenue Source	Incremental Fee or Tax	Revenue Generated*	Voter Approval Required?
Highway Maintenance Fee	Average fee increase of \$80	\$400 million	no
Severance Tax	1.7% effective increase	\$96 million	yes

**Estimated first full-year revenues are in FY 2007-08 inflation-adjusted dollars.*

What \$1 Billion Buys

Investment Category	Funding Level	Service Level Outcome
Surface Treatment	\$222 million	Raise from C to B
Bridges	\$156 million	Maintain at B
Maintenance Levels of Service	\$82 million	Raise from C to B
Shoulders	\$78 million	Raise from F to D
Mobility	\$260 million total includes:	Accelerate funding obligation by about two years Limit decline of Mobility to D+ rather than to F Raise from D to D+
• Strategic Projects	\$26 million	
• Multi-Modal Mobility	\$156 million	
• Strategic Transit	\$78 million	
Transit – Urban	\$36 million	Raise from C to B
Transit – Rural	\$36 million	Raise from C to B
Environmental	\$25 million	Establish at B
Bicycle & Pedestrian	\$10 million	Establish at B
Local Transportation	\$95 million	Varies by local jurisdiction

What \$2 Billion Buys

Investment Category	Funding Level	Service Level Outcome
Surface Treatment	\$222 million	Raise from C to B
Bridges	\$156 million	Maintain at B
Maintenance Levels of Service	\$82 million	Raise from C to B
Shoulders	\$78 million	Raise from F to D
Mobility	\$1.055 billion total includes:	Accelerate funding obligation by about six years Limit decline of Mobility to C+ rather than to F Raise from D to C+
• Strategic Projects	\$106 million	
• Multi-Modal Mobility	\$632 million	
• Strategic Transit	\$317 million	
Transit – Urban	\$36 million	Raise from C to B
Transit – Rural	\$36 million	Raise from C to B
Environmental	\$25 million	Establish at B
Bicycle & Pedestrian	\$10 million	Establish at B
Local Transportation	\$300 million	Varies by local jurisdiction

What \$500 Million Buys

Investment Category	Funding Level	Service Level Outcome
Surface Treatment	\$222 million	Raise from C to B
Bridges	\$156 million	Maintain at B
Maintenance Levels of Service	\$82 million	Raise from C to B
Local Transportation	\$40 million	Varies by local jurisdiction

Section Seven: Transportation into the Future

The Panel envisions a transportation system for Colorado that is safe, efficiently meets the needs of the traveling public and is supported by a reliable, inflation-proof revenue stream. The transportation network of the future will sustain a robust economy, a cleaner environment and thriving communities.

It is clear that Colorado's future transportation network requires a greater financial investment today. The traditional approach to spending current transportation dollars should be reexamined. Simply adding more lanes to existing roads will not get Colorado where it needs to be – the population is growing too fast for the system to keep pace with the increased demand. The cost of building, operating and maintaining infrastructure is growing, as well.

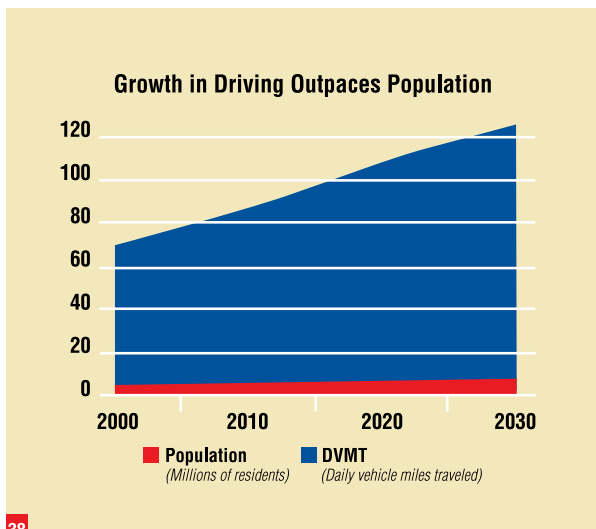
The Panel's vision recognizes the need for Coloradans to think differently about the way they live, work and play. In addition, there should be an emphasis on the management of demand, as well as building to keep pace with that demand. Programs should focus on reducing trips and trip lengths, minimizing emissions, providing choices in modes of transportation and embracing technological innovations in fuels, vehicles and transit systems. Travelers, in turn, should be persuaded to change their behavior.

The chart below compares the growth rate of vehicle miles traveled (VMT) in Colorado to the state's population growth rate. This accelerated growth in VMT is not expected to ease in the foreseeable future.

Transportation planning has traditionally focused on the supply side – trying to ensure the infrastructure of roads, transit and aviation supports the projected demands of future travelers. Much of Colorado's transportation system has developed in this manner, with population and employment growth driving the need for further investment.

A planning policy that emphasizes the management of demand would:

- Employ transportation modes that use energy more efficiently, such as walking, cycling, carpooling and public transit
- Improve transportation choices by increasing the quality of public transit, bicycle and pedestrian paths and other facilities and services
- Persuade motorists to drive more efficiently by clustering trips, reducing trip lengths and shifting time of trips
- Encourage the use of telecommunications to reduce or replace physical travel
- Promote the use of more fuel-efficient vehicles, electric or hybrid cars, cleaner fuels and biodiesel



It is critical to ensure access and services for lower-income groups and people with mobility limitations, including the fast-growing population of older citizens. Additional modes of transportation would help people age in place, serve the health concerns of minority communities, accommodate people with disabilities and provide safe routes to schools.

A key factor driving VMT growth is a mismatch between where people can afford to live and where they can find employment. The problem is particularly acute in the metropolitan and mountain resort areas. Local governments, developers and planning agencies should come together to ensure there are jobs where people live and housing where people work.

Smart management of regional and community growth patterns can save money by minimizing the need to expand transportation infrastructure. Such strategies include: encouraging compact development patterns and mixed-use, transit-oriented development; planning corridors that support multiple options for travel; and promoting more urban development and re-development. Planning scenarios created by the Denver Regional Council of Governments (DRCOG) demonstrate the enormous impact that land-use patterns have on transportation needs. In the Denver metro area, DRCOG showed, slightly more compact development with no additional revenue for new capacity would perform as well or better than current development trends with an additional investment of \$8 billion for regional highways. It is important to remember that Colorado has a lot of dirt between light bulbs in some places, and the transportation system of the future should meet the needs of rural and remote communities as well as the more populated urban centers.

Global Climate Change

In 2005, transportation represented 23 percent – the second-largest source – of all greenhouse gas (GHG) emissions in Colorado. Goals set by Governor Ritter would reduce GHG emissions 20 percent below 2005 levels by 2020 and 80 percent below those levels by 2050.

To meet these goals, transportation policies must include strategies for reducing energy consumption, U.S. dependence on foreign oil and CO2 emissions from cars, trucks and air travel. Such strategies fall into three categories:

- Improving vehicle efficiency with technology that reduces GHG emissions in new vehicles.
- Reducing carbon-based emissions by modifying transportation systems. This can include mass-transit options, measures aimed at congestion relief and the use of more-efficient vehicles.
- Expanding low-carbon and no-carbon fuel options.

The state can do little to improve vehicle efficiency or expand fuel options, but it can play a key role in identifying, evaluating and, when appropriate, implementing transportation-system improvements that can reduce the production of GHG.

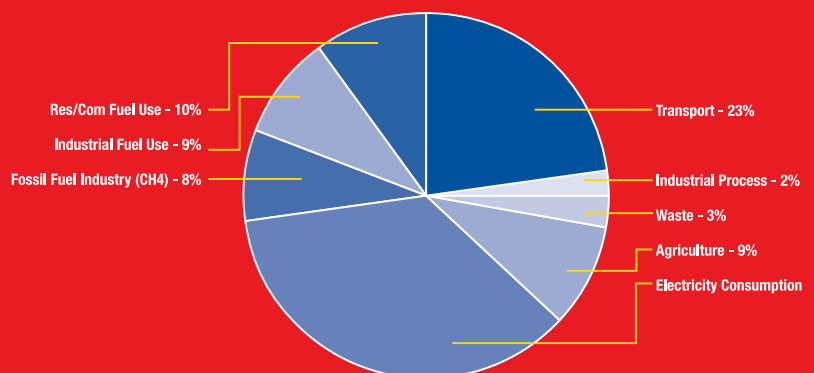
Sustainable Revenue for Transportation

Motor fuel taxes, registration fees and other charges associated with using cars should remain key revenue streams for transportation into the future. But as we move to using vehicles that are more fuel efficient or run on biodiesel, electricity or are hybrids, motor fuel tax revenue will decrease. Strategies that reduce VMT, while reducing some wear and tear on the system, have the potential to reduce revenue needed to maintain the road network – unless there is a willingness to raise taxes or fees to compensate for the reduction in travel.

Policy – Climate Change and VMT:

The state and its transportation planning partners need to take a leadership role in developing strategies to reduce carbon-based VMT and greenhouse gas emissions associated with them.

Greenhouse gas emissions produced in Colorado (2000)



Federal fuel taxes help pay for transit, as well, but a large share of transit funding comes from sales taxes. This fits with the concept that transit provides a larger public benefit, especially in areas of concentrated activity, and therefore may be funded by mechanisms other than user fees. Other such mechanisms may be worth considering as Colorado's transportation system becomes more integrated.

The cost of providing transportation services has risen rapidly. Construction costs are up more than 50 percent in the last five years. The purchasing power of state motor fuel taxes is a third of what it was in the early 1990s, the last time taxes were raised. Funding mechanisms for transportation must be regularly adjusted for inflation or Colorado always will be falling behind.

Pilot VMT Fee Program

The Panel supports the creation of a Vehicle Miles Traveled (VMT) Fee pilot program. Recognizing that a revenue structure that relies so heavily on motor fuel taxes will someday become obsolete, a system that charges for use of a road – regardless of fuel consumption – could eventually provide a more sustainable revenue source for transportation.

A VMT fee also could be used to address congestion and the environmental impacts of transportation. It has great potential for improving the efficiency of the transportation network by spreading demand and improving its reliability in ways that allow individuals to make better decisions about when and how to travel.

Local Transportation

Money flowing to local governments would be invested in roadways and transit recognizing Colorado's broader transportation network.

Section Eight: Next Steps

The quiet crisis in transportation must not be ignored. This became increasingly apparent to the Panel with each regional meeting and presentation.

Most Panel members began this discussion with some recognition that a bigger investment in transportation is needed. All now stand unified in their position that action is not only necessary, it is critical to Colorado's future and economic success.

"Fix it First" – the commitment to maintaining existing roads and bridges – is viewed by the Panel as non-negotiable, an absolute must. However, simply maintaining the system is widely acknowledged as not enough. Driving the Panel's final recommendations is a realization of Colorado's ongoing population growth and the resulting demands placed on the transportation system, as well as a desire to avoid undesirable environmental impacts.

Transportation revenue is not keeping pace with inflation, and construction costs continue to rise. Colorado is not unique in this area, but we cannot approach our transportation problems as we have in the past. We were challenged to think broader and offer sustainable programs and funding that take us into the future.

The Panel offers these recommendations with a long-term outlook. We recognize it will take time to make an investment of this magnitude. But action can and must begin now to move this conversation in the right direction and realize incremental improvements. It is going to take a bipartisan commitment and a unified effort of businesses, industries, government leaders, environmental interests and communities all over Colorado.



Acknowledgements:

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As Panel members traveled throughout the state, our conversations were enhanced by the contributions of many citizens, local and state officials, as well as representatives of local businesses, chambers of commerce, transportation planning regions, the tourism industry, the trucking industry, the construction and materials industry, the environmental community, Native American tribes, the bicycling and pedestrian communities, affordable housing interests, the elderly and disabled communities, transportation corridor coalitions, and the transit and rail industries. We appreciated professional insights from other state transportation and organizational representatives wrestling with this similar challenge.

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