



PARTNER. INNOVATE. ACCELERATE.



COLORADO HPTE

Fiscal Year 2013
Annual Report
January 15, 2014



COLORADO DEPARTMENT
OF TRANSPORTATION



1.0 Overview	3
2.0 Organization & Summary of Activities	4
2.1 HPTE Board	4
2.2 Staff	4
2.3 Meetings and Special Events	5
2.4 Summary of Key Activities	5-6
3.0 Financial Status	7
3.1 Revenues and Expenses	7
3.2 Audited Financials	7
4.0 Status of Transportation Infrastructure Projects	8
4.1 Projects Completed or Under Construction	8-9
4.2 Pipeline Projects	11-12
4.3 Other Projects	13
5.0 Recommended Statutory Changes	13
Appendix 1: Current Budget-to-Actual through November 30, 2013	
Appendix 2: US 36 Project Report: Achieving Value for Money	

COLORADO HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

Seeking out opportunities for innovative finance and delivery of surface transportation infrastructure projects in Colorado.

1.0 OVERVIEW

The Funding Advancement for Surface Transportation and Economic Recovery Act (Part 8 of Article 4, Title 43, Colorado Revised Statutes), otherwise known as FASTER, created the High Performance Transportation Enterprise (HPTE) in 2009 as a government-owned business within the Colorado Department of Transportation (CDOT).

The HPTE has the responsibility to seek out, in partnership with local agencies, communities, and private industry, opportunities for innovative and efficient means of financing and delivering important surface transportation infrastructure projects in the State. It has the power, among others, to impose tolls and other user fees, to issue revenue bonds secured by those fees and to enter into contracts with public and private entities to facilitate public-private partnerships (P3s). The law also introduced a new governance structure, creating an HPTE Board of Directors which includes a mix of State Transportation Commissioners and external stakeholders appointed by the Governor to make it better able to pursue P3s and other creative financing mechanisms. The HPTE is an “enterprise” for purposes of section 20 of Article X of the State Constitution so long as it retains the authority to issue revenue bonds and receives less than 10 percent of its total revenues in grants from the State and local governments.

FASTER requires that the HPTE issue a report of its activities for the previous year to the Legislature by February 15, 2014, with the report posted to the HPTE website no later than January 15, 2014. This report fulfills that requirement and can be found at www.coloradohpte.com.



2.0 ORGANIZATION & SUMMARY OF KEY ACTIVITIES

2.1 HPTE Board

The HPTE Board consists of three members of the Transportation Commission and four external members who are appointed by the Governor from each of the following geographic areas:

- The Denver Metropolitan area
- The North Front Range Metropolitan Planning Organization (MPO) area
- The Pikes Peak Council of Governments MPO area
- The I-70 Mountain Corridor area

In October, the Governor appointed Trey Rogers to represent the Denver Metropolitan area for a term ending October 1, 2017. The Governor also appointed Brenda Smith to represent the Pikes Peak Council of Governments MPO area for a term ending October 1, 2017.

HPTE BOARD MEMBERS		
Name	Area Representing	Term Expires
Gary Reiff	Transportation Commissioner District 1	At pleasure of the TC
Kathy Gilliland, Vice Chair	Transportation Commissioner District 4	At pleasure of the TC
Doug Aden	Transportation Commissioner District 7	At pleasure of the TC
Trey Rogers	Denver Metropolitan Area	10-01-17
Don Marostica	North Front Range MPO Area	10-01-15
Brenda Smith	Pikes Peak MPO Area	10-01-17
Tim Gagen, Chair	I-70 Mountain Corridor Area	10-01-15

2.2 Staff

Michael L. Cheroutes was selected as Director of the HPTE in August 2010. HPTE has three full-time staff members: Executive Assistant Jane Hickey, who also serves as Secretary to the Board of Directors, and HPTE Specialists Kari Grant and Nicholas Farber, who are responsible for project management, internal and external stakeholder development, and communications, among other functions. CDOT staff assigned part time to the HPTE are accountant Kay Hruska and budget analyst Julie Becker. Additional support is provided by other CDOT employees, with time billed to the HPTE cost center, and by outside consultants as necessary to the HPTE mission. All expenditures are tracked independently of CDOT expenses to maintain a clear separation of the two organizations.

2.0 ORGANIZATION [CONTINUED]

2.3 Meetings and Special Events

In 2013, the HPTE Board of Directors met 12 times in regular session, and 2 times in special sessions.

Meeting Dates	Meeting Type
January 16, 2013	Regular Session
February 20, 2013	Regular Session
March 20, 2013.....	Regular Session
April 5, 2013.....	Special Session
April 17, 2013.....	Regular Session
May 15, 2013.....	Regular Session
June 19, 2013.....	Regular Session
July 17, 2013	Regular Session
August 14, 2013	Regular Session
September 18, 2013.....	Regular Session
October 10, 2013.....	Special Session
October 16, 2013	Regular Session
November 20, 2013	Regular Session
December 18, 2013.....	Regular Session

2.4 Summary of Key Activities

The key non-project specific activities of the HPTE in 2013 include the following:

CDOT Integration: Last year, both HPTE and CDOT identified a need to better integrate the new approaches HPTE was charged by statute to pursue. HPTE engaged an outside consultant to review “best practices” from around the country and, working with CDOT and staff, recommended procedural and structural steps to be taken.

In September, the HPTE Board and Transportation Commission adopted resolutions approving a Memorandum of Understanding (MOU) that defines the operating relationship between HPTE and CDOT and introduces a newly created Office of Major Project Development (OMPD) within CDOT. The creation of OMPD is based on models in other states and is viewed as the “best practice” response to the need for better coordination between CDOT and HPTE. The supporting role of the OMPD is a central feature of the MOU.

Rule Making: In 2012, HPTE embarked on a formal rulemaking process, considering toll enforcement and adjudication policies which are to have the effect of law. On April 14, 2013, the HPTE Board adopted its final Rules Governing the Administrative Toll Enforcement Process. Those Rules are available on the HPTE website under Organizational Documents.

2.4 Summary of Key Activities [continued]

HOV Policy: Last year, the Board began discussing the likely need for an HOV 3+ (vehicles with fewer than 3 passengers charged a toll for using an Express Lane) policy on tolled express lanes. Professional advice from the Federal Highway Administration (FHWA), consultants, credit-rating agencies and the industry indicated that an HOV 3+ policy would have a positive and possibly critical impact on the viability of the US 36 project in particular, and future tolled managed lane projects in general. A transitioned change to HOV 3+ on US 36 is viewed as essential to maintaining the travel time reliability of the lanes for buses and other vehicles and minimizing the public subsidy needed to finance the project in the first place.

The HPTE had a number of meetings with the coalition of local governments—the US 36 Mayors and Commissioners Coalition (MCC)—on HOV policy and while there was some dissent a consensus formed around a compromise solution. Based on that, HPTE submitted a Long Range Plan amendment to the Denver Regional Council of Governments (DRCOG) requesting a policy change for US 36. On February 20, 2013 the DRCOG Board of Directors, with a statement of support from the US 36 MCC, accepted the amendment to the Long Range Plan.

The HOV 3+ policy for US 36 will be triggered by a “change event” defined to include transit delays, degradation of average vehicle speed in the express lanes, HOV 2+ vehicle volumes exceeding a defined number of “passenger car equivalents” in peak periods, the introduction of an HOV 3+ policy in another corridor, or January 1, 2017 at the latest.

Subsequently, at the recommendation of the HPTE Board, the Transportation Commission adopted a policy requiring that any tolled express lanes introduced into the transportation system after January 1, 2017 with an HOV exemption should be HOV 3+.

Budget Development: The HPTE’s budget structure includes a transportation special fund (Fund No. 536) and a transportation enterprise operating fund (Fund No. 537). In 2013, the HPTE began using Fund No. 536 to account for all project-related revenues and to budget for specific project costs, including consulting and other development costs. This will ultimately result in a more transparent presentation of the financial resources being devoted to each of our projects. The HPTE FY14 budget for each fund is attached as Appendix 1. This budget-to-actual is a five-month snapshot from July 1, 2013 to November 30, 2013.

Marketing, Outreach and Communications: An element of the HPTE’s business plan is to market Colorado transportation projects to the P3 industry. The HPTE Director and others on staff made a number of 2013 marketing presentations describing the HPTE and potential projects in Colorado, including visits to the Canadian Council for Public-Private Partnerships conference, the annual InfraAmericas P3 conference and the annual Western Association of State Highway and Transportation Officials (WASHTO) conference. Communication and marketing of the HPTE have also been accomplished through peer-to-peer interactions with other departments of transportation. The HPTE estimates that during 2013 it will have had more than 30 meetings with local governments and stakeholders and more than 75 meetings with representatives of the private sector P3 industry.

3.0 FINANCIAL STATUS



3.1 Revenues and Expenditures

Revenues and expenses of the HPTE are accounted for on a fiscal year basis. For FY 2013 (which ended on June 30, 2013) total unaudited HPTE revenues were \$5.04 million, up from \$3.76 million in FY 2012. In addition, HPTE carried over approximately \$11.1 million in the transportation special fund and \$761,991 in the transportation enterprise operating fund from the previous fiscal year.

Total unaudited HPTE expenditures in FY 2013 were \$16.35 million, up from \$8.55 million in FY 2012, reflecting the increased project activity of HPTE.

3.2 Audited Financials

The finances of the HPTE are audited each year as part of the State audit. The audited financial report for HPTE will be posted to HPTE's website on January 15, 2014.

4.0 STATUS OF TRANSPORTATION INFRASTRUCTURE PROJECTS

4.1 Projects Completed or Under Construction

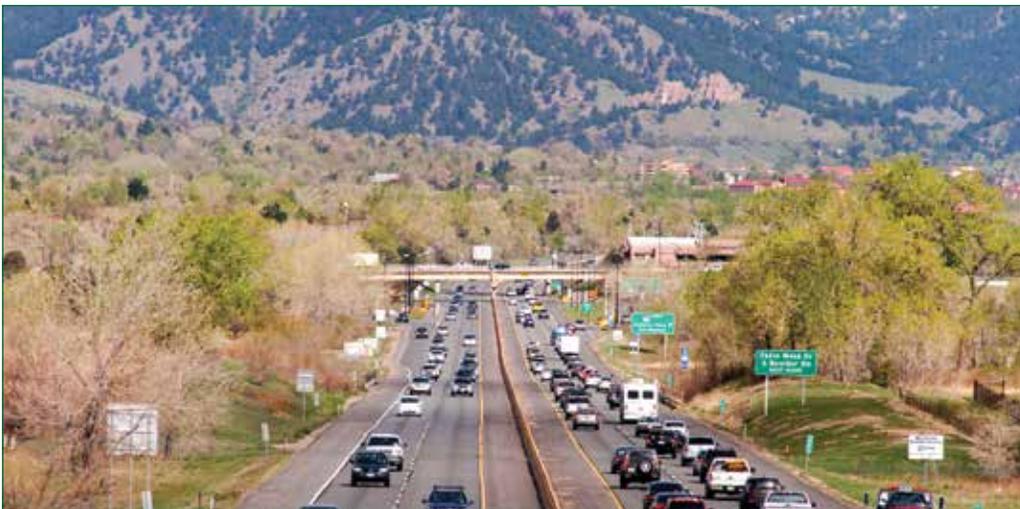
I-25 Downtown Express Lanes: Tolled express lanes in the barrier-separated I-25 HOV/bus reversible corridor opened in June of 2006, marking the first time solo drivers could legally access existing HOV lanes by paying a toll. The I-25 Express Lanes, also known as high occupancy toll (HOT) lanes, extend along a roughly seven mile section of I-25 between downtown Denver and US 36. Carpools, express and regional buses, hybrid vehicles with permits and motorcycles continue to use the lanes toll-free. This segment will become a part of the US 36 tolled express lane project that will be operated by Plenary Roads Denver under a 50-year concession agreement.



4.0 STATUS OF PROJECTS [CONT.]

4.1 Projects Completed or Under Construction [continued]

US 36 Phase 1: US 36 is the existing four-lane state highway that connects the Denver and Boulder metropolitan areas. It is a congested and rapidly growing corridor carrying between 80,000 and 100,000 vehicle trips per day. With the corridor operating at nearly 90 percent capacity, US 36 currently experiences three to four hours of severe bi-directional congestion daily. The approximately 18-mile corridor begins at I-25 in Adams County and ends near Foothills Parkway/Table Mesa Drive in Boulder, with four major arterial roadways intersecting the highway. Current and projected travel patterns, the level of roadway congestion, and growth in population and employment made new capacity on the corridor a high CDOT priority.



The first phase of the project, which broke ground in July of 2012, includes the construction of one express lane in each direction along 10.1 miles of the US 36 median between Pecos Street and 88th St. in Louisville, Bus Rapid Transit (BRT) service connecting to Denver Union Station and Boulder, enhancements to BRT stations, widening of the general purpose lanes and pavement replacement, bridge replacements, sound and retaining walls in selected areas, construction of a bikeway, and Intelligent Transportation Systems (ITS). Managed by CDOT, the \$317.9 million project is being constructed using a Design-Build (DB) delivery model. The new express lanes will connect to the northern terminus of the existing reversible I-25 Express Lanes. The BRT component of the project will become part of Regional Transportation District's (RTD) FasTracks system. Construction of Phase 1 is expected to be completed by early 2015.

Phase 1 of the project is being financed by Federal, State and RTD funds, including a \$54 million Transportation Infrastructure Finance and Innovation Act (TIFIA) loan (the repayment of which will be supported by tolls) and a \$10 million Transportation Investment Generating Economic Recovery (TIGER) grant. RTD contributed about \$124 million to the project cost; CDOT, HPTE and the Colorado Bridge Enterprise about \$77.7 million; DRCOG about \$46.6 million; and Broomfield and Westminster about \$5.6 million.

4.0 STATUS OF PROJECTS [CONT.]

4.1 Projects Completed or Under Construction [continued]

US 36 Phase 2: The second phase of the US 36 project is being constructed using a Public-Private Partnership (“P3”) with Plenary Roads Denver (Plenary). Plenary’s Canadian parent company is a major participant in large North American infrastructure projects. Phase 2 will extend approximately 5 miles, from 88th Street in Louisville to Table Mesa/Foothills in Boulder, and will carry forward the features of Phase 1. BRT will have priority in the express lanes and HOV free travel (starting with HOV 2+ and changing to HOV 3+ in 2017 or earlier if congestion warrants) will be permitted. It is expected that Phase 2 will be open in early 2016.

Plenary was selected on a competitive basis in April 2013. It will build the tolled express lanes and reconstruct the general purpose lanes in Phase 2 and will operate and maintain the entire corridor (I-25 Express Lanes, Phase 1 and Phase 2) over a 50 year period. The contract requires Plenary to return the express lanes to CDOT in reconstructed condition at the end of the concession term. Plenary will have the right, subject to contractual limitations, to collect tolls from the express lanes. See Appendix 2 to this report, “White Paper on US 36 Public-Private Partnership” for a description of the financial analysis that led to the choice of the P3 model for the US 36 project.

Plenary will contribute more than \$120 million in equity and debt (including a new \$60 million loan from TIFIA) to the Phase 2 project cost, which is estimated to total about \$190 million. Plenary will be solely liable for the project’s debt. In addition, CDOT/HPTE, RTD, DRCOG, and several local governments will contribute to the estimated Phase 2 cost, as follows: CDOT, about \$15 million; RTD, up to \$18.5 million; DRCOG, up to \$15 million; and Boulder County, Superior and Louisville a total of about \$11 million. Thus Plenary will be financing almost two-thirds of the Phase 2 cost.

I-25 North Metro: In October 2013 construction began for the extension of express lanes on I-25 north from US 36 to 120th Avenue. This six mile segment will maximize the use of the existing highway infrastructure to expand the capacity of I-25 by utilizing the inside shoulder of the road, creating one new express lane in each direction. The project will reconstruct the connection with the existing I-25 Downtown Express Lanes. In addition, the project will resurface the existing general purpose lanes, add/improve sound barriers, and install an Active Traffic Management System that alerts drivers of downstream backups or incidents. RTD buses, permitted hybrids and motorcycles may use these express lanes for free, HOV users (HOV 2+ or 3+ depending on the then-current policy on the US 36 Express Lanes) will travel free, and other drivers can opt to pay a toll for a trip unimpeded by congestion. The cost of the project is \$60 million, which includes a \$15 million TIGER Grant. The balance will be funded with State and local government dollars. The express lanes are projected to open in the fall of 2015, and will be operated and maintained by HPTE and CDOT.

4.0 STATUS OF PROJECTS [CONT.]

4.2 Pipeline Projects

I-70 East/Viaduct: The I-70 Environmental Impact Statement (EIS) process, which began in 2003, addresses highway improvements on I-70 between I-25 and Tower Road (12.5 miles) to improve safety and access and to reduce congestion. The project team has recommended a Partial Cover Lowered (PCL) option as the preferred alternative. This alternative will remove the existing viaduct between Brighton Boulevard and Colorado Boulevard, rebuild I-70 below grade on the existing alignment, and place a cover over the highway between Columbine Street and Clayton Street next to Swansea Elementary School. The plan also contemplates adding express lanes in each direction to provide better mobility. A Record of Decision is expected by the end of 2014.



The Transportation Commission is currently considering a number of alternative approaches to the project. In the meantime, the HPTE is working with OMPD and Macquarie Capital, the financial advisor for the project, to explore financing and delivery options. A P3 model (Design, Build, Finance, Operate and Maintain) for a \$1.1 billion base-case—constructing the PCL replacement of the viaduct and adding new capacity between I-25 and I-270 at a cost of about \$1.1 billion—is among the alternatives being considered. It would require revenues from one or more tolled express lanes in each direction and capital contributions or payments over time from the Bridge Enterprise and from Senate Bill 09-228.

A decision is expected in February in time to begin an appropriate procurement process in May 2014.

4.0 STATUS OF PROJECTS [CONT.]

4.2 Pipeline Projects [continued]

North I-25 Corridor: HPTE and OMPD are continuing to evaluate ways of financing transportation improvements along the North I-25 corridor between Denver and Fort Collins (approximately 60 miles). In addition to the I-25 North Metro project, which is under construction, the current planning process is considering lane expansion, the introduction of tolled express lanes, interchange upgrades and the implementation of congestion management strategies, including potential transit service. The entire project, estimated to cost nearly \$1 billion, received a \$90 million allocation from CDOT's "Responsible Acceleration of Maintenance and Partnerships" (RAMP) program for use on certain project segments. An updated Level 2 traffic and revenue analysis (which assumes an HOV 3+ policy) has been completed and is being used to determine how much toll revenue will be generated to support the project. In December 2013 HPTE and OMPD invited key P3 industry representatives to suggest ways to advance the North I-25 project.

Working with CDOT Region 4 and the corridor stakeholders, HPTE and OMPD expect to develop in early 2014 an acceptable strategy that maximizes the potential for early improvements in the most congested portions of this corridor. P3 delivery models, among other alternatives, are being considered, as are issues of risk transfer and HOV/tolling policy.

C-470: The C-470 Coalition, consisting of elected and appointed officials along the corridor, has identified a technical interim solution for congestion on the segment of C-470 from I-25 to Kipling Parkway. The interim solution features an additional tolled express lane in each direction and auxiliary lanes to accommodate safe merging and exiting. The proposed solution also contemplates reconstruction and rehabilitation of the existing general purpose lanes. As originally proposed, the estimated project cost totaled about \$300 million.

A Level 2 traffic and revenue analysis (that assumes no HOV exemption) is expected in early January 2014. HPTE/OMPD are considering how much of the project can reasonably be carried by tolls. CDOT has allocated \$100 million from its RAMP program for the project. Nevertheless, it is likely that the design scope of the project will need to be reduced substantially and that process is under way.

HPTE and OMPD also are working with their financial consultant and the corridor stakeholders to determine the least expensive and highest value procurement model for C-470 expansion. The P3 model is a possibility but in some respects may not be the best alternative for the project. In any event, construction of the project is expected to start in 2014 with a completion date scheduled for 2017.

4.0 STATUS OF PROJECTS [CONT.]

4.3 Other Projects

I-70 Mountain Corridor: CDOT and the corridor communities continue to explore a program of transit, highway, safety and other improvements on the 144-mile stretch of I-70 between Glenwood Springs and C-470. The widening of the eastbound Twin Tunnel outside Idaho Springs (now open) and an anticipated Peak Period Shoulder Lane (PPSL) extending that new capacity back to Empire Junction is an important interim step. Peak period tolls will be collected once the extension is complete. The combined project, largely funded by CDOT using RAMP and other available funds totaling about \$141 million, is expected to provide substantial congestion relief when completed in 2015 and will be tolled as an express lane to manage congestion.

I-270: OMPD is considering a project to increase capacity on this badly congested stretch of interstate highway. HPTE is being consulted as a part of the financing discussion and it is possible that tolled express lanes and a P3 concession model will be part of the solution.

C-470 Segment 2: Concurrent with the 2006 Environmental Assessment for C-470 Segment 1 (I-25 to Kipling), an Express Lanes Feasibility Study was conducted. While the study concluded that tolled express lanes were viable for Segment 1, it found that Segment 2 (Kipling to I-70) was not feasible by itself, at least in the period up to 2025. Since that study was completed, demographic changes and shifting local sentiment have revived interest in examining new possibilities for improvements in this 13-mile stretch of the C-470 corridor. A Planning and Environmental Linkage (PEL) study by CDOT may be undertaken in 2014. A separate environmental assessment may also be required.

Western Beltway: HPTE continues to work actively with the local governments considering completion of the remaining segments of the Denver beltway—now consisting of C-470, E-470 and the Northwest Parkway. The Jefferson Parkway, one element of a final link in the beltway, is being pursued on a private concession basis by the public highway authority sponsoring the project. Other links are part of the state highway system. In any event, the coordinated and collaborative development of the various beltway projects is an important policy consideration for the state and an important part of the HPTE agenda. We plan to continue this work throughout 2014, including gap-filling financial assistance as and when authorized by CDOT.

5.0 RECOMMENDED STATUTORY CHANGES

The HPTE coordinates its legislative activity through CDOT. CDOT and HPTE communicated to the Joint Transportation Committee that legislation will be requested of the General Assembly to provide for greater public input, legislative reporting requirements, and other related principles pertaining to the use of public-private partnerships in future years. CDOT staff have already engaged in discussions with legislators in late 2013 and early 2014 to develop a potential bill.

APPENDIX 1

HPTE Budget to Actual As of November 30, 2013

Statewide Transportation Enterprise Special Revenue Fund (C.R.S. 43-4-806(3)(a) 536)						
ITEM	Estimated Revenues	Estimated Expenditures	Current Month Actual Rev/Exp	Year-To-Date Rev/Exp	Year-To-Date % of Budgeted Rev/Exp	Remaining
I 25 Express Lanes						
Estimated Carry Forward Balance from Prior Years	\$ 72,211,388					
Revenues						
Estimated Toll Revenues	\$ 1,305,091		\$ 238,239	\$ 1,248,803	96%	\$ 56,288
Estimated Fine Revenues	\$ 22,441		\$ 2,413	\$ 14,477	65%	\$ 7,964
Interest Earnings	\$ 209,774		\$ 11,398	\$ 101,996	49%	\$ 107,778
Total Revenues	\$ 1,537,306		\$ 252,050	\$ 1,365,275	89%	\$ 172,031
Total Available Funds	\$ 73,748,694					
Operating Expenditures						
Snow Plow and Routine Maintenance		\$ 287,836	\$ 20,447	\$ 117,676	41%	\$ 170,160
Colorado State Patrol		\$ 45,000	\$ 7,542	\$ 28,305	63%	\$ 16,695
Bus Travel Time Reporting		\$ 4,800	\$ -	\$ 140	3%	\$ 4,660
E-470 Oversight, Management, Operations & Maintenance Tech		\$ 280,000	\$ 48,019	\$ 214,859	77%	\$ 65,141
IBTTA Dues (25% of Total)		\$ 3,000	\$ -	\$ -	0%	\$ 3,000
Marketing/ Outreach		\$ 10,000	\$ -	\$ 75	1%	\$ 9,925
HPTE Staff Costs		\$ 22,596	\$ 3,642	\$ 19,380	86%	\$ 3,216
CDOT Staff Costs		\$ 12,237	\$ 5,114	\$ 24,498	200%	\$ (12,261)
Office Supplies		\$ 2,200	\$ -	\$ 1,044	47%	\$ 1,156
Annual Audit		\$ 5,000	\$ -	\$ -	0%	\$ 5,000
Region 1 Maintenance costs		\$ 29,530	\$ -	\$ -	0%	\$ 29,530
Courtesy Patrol		\$ 59,102	\$ 11,773	\$ 39,926	68%	\$ 19,176
Total Operating Expenditures		\$ 761,301	\$ 96,537	\$ 445,903	59%	\$ 315,398
Excess Revenue over Operating Expenditures		\$ 776,005				
Non Operating Expenditures						
Funded Reserve for US 36 O&M		\$ 604,614	\$ -	\$ -	0%	\$ 604,614
TIFIA Debt Service Reserve		\$ 1,610,225	\$ -	\$ -	0%	\$ 1,610,225
US 36 O&M		\$ 44,000	\$ -	\$ 19,914	45%	\$ 24,086
Reserve for US36 Phase II Concession Agreement		\$ 750,000	\$ -	\$ -	0%	\$ 750,000
Total Non Operating Expenditures		\$ 3,008,839	\$ -	\$ 19,914	1%	\$ 2,988,925
Total Budgeted Expenditures		\$ 3,770,140	\$ 96,537	\$ 465,817	12%	\$ 3,304,323
Total Unbudgeted Funds		\$ 69,978,554				
Actual Cash On Hand						
I 25 Express Lanes		\$ 10,432,639				
US 36 O&M Reserve		\$ 619,478				
Concessionaire Management						
Funds Received:						
Concessionaire Mangement Fee	\$ 187,500		\$ -	\$ -	0%	\$ 187,500
Total Funds Received	\$ 187,500		\$ -	\$ -	0%	\$ 187,500
Funds Budgeted						
Contract Monitoring		\$ 82,000	\$ -	\$ -	0%	\$ 82,000
HPTE Staff		\$ 5,000	\$ -	\$ -	0%	\$ 5,000
CDOT Staff		\$ 500	\$ -	\$ -	0%	\$ 500
Transfer to Fund 537		\$ 100,000	\$ -	\$ -	0%	\$ 100,000
Total Funds Budgeted		\$ 187,500	\$ -	\$ -	0%	\$ 187,500
Total Unbudgeted Funds		\$ -				

**HPTE Budget to Actual
As of November 30, 2013 (continued)**

Statewide Transportation Enterprise Special Revenue Fund (C.R.S. 43-4-806(3)(a) 536						
ITEM	Estimated Revenues	Estimated Expenditures	Current Month Actual Rev/Exp	Year-To-Date Rev/Exp	Year-To-Date % of Budgeted Rev/Exp	Remaining
<i>US36 Phase I</i>						
Funds Received:						
Carryforward	\$ 26,379,650					\$ 26,379,650
TIFIA Loan	\$ 23,449,500		\$ 3,906,465	\$ 7,573,184	32%	\$ 15,876,316
RTD	\$ 22,000,000		\$ -	\$ -	0%	\$ 22,000,000
Total Funds Received	\$ 71,829,150		\$ 3,906,465	\$ 7,573,184	11%	\$ 64,255,966
Funds Budgeted						
Project Construction		\$ 71,829,150	\$ 3,162,183	\$ 33,885,993	47%	\$ 37,943,157
Total Funds Budgeted		\$ 71,829,150	\$ 3,162,183	\$ 33,885,993	47%	\$ 37,943,157
Total Unbudgeted Funds		\$ -				
<i>US36 Phase II</i>						
Funds Received:						
Region 4	\$ 1,729,643		\$ 85,349	\$ 190,289	11%	\$ 1,539,354
Project Construction	\$ 52,428,431		\$ -	\$ -	0%	\$ 52,428,431
Total Funds Received	\$ 54,158,074		\$ 85,349	\$ 190,289	0%	\$ 1,539,354
Funds Budgeted						
Legal Services		\$ 383,923	\$ 63,843	\$ 181,025	47%	\$ 202,898
P3 Advisory Services		\$ 1,270,720	\$ -	\$ 73,107	6%	\$ 1,197,613
Project Construction Costs		\$ 52,428,431	\$ 2,715,166	\$ 2,715,166	5%	\$ 49,713,265
Traffic Congestion Mitigation		\$ 200,000	\$ 1,036	\$ 1,647	1%	\$ 198,353
Peer Review Value For Money		\$ 75,000	\$ -	\$ 62,341	83%	\$ 12,659
Total Funds Budgeted		\$ 54,358,074	\$ 2,780,044	\$ 3,033,286	6%	\$ 51,324,788
Total Unbudgeted Funds		\$ (200,000)				
<i>I-70 West</i>						
Funds Received:						
Region 1 Project	\$ 720,000		\$ 33,101	\$ 33,101	0%	\$ 686,899
Total Funds Received	\$ 720,000		\$ 33,101	\$ 33,101	5%	\$ 686,899
Funds Budgeted						
T&R Study		\$ 720,000	\$ 5,808	\$ 38,909	0%	\$ 681,091
Total Funds Budgeted		\$ 720,000	\$ 5,808	\$ 38,909	5%	\$ 681,091
Total Unbudgeted Funds		\$ -				

**HPTE Budget To Actual
As of November 30, 2013**

Statewide Transportation Enterprise Special Revenue Fund (C.R.S. 43-4-806(3)(a) 536						
ITEM	Estimated Revenues	Estimated Expenditures	Current Month Actual Rev/Exp	Year-To-Date Rev/Exp	Year-To-Date % of Budgeted Rev/Exp	Remaining
<u>US36 Phase I</u>						
Funds Received:						
Carryforward	\$ 26,379,650					\$ 26,379,650
TIFIA Loan	\$ 23,449,500		\$ 3,906,465	\$ 7,573,184	32%	\$ 15,876,316
RTD	\$ 22,000,000		\$ -	\$ -	0%	\$ 22,000,000
Total Funds Received	\$ 71,829,150		\$ 3,906,465	\$ 7,573,184	11%	\$ 64,255,966
Funds Budgeted						
Project Construction		\$ 71,829,150	\$ 3,162,183	\$ 33,885,993	47%	\$ 37,943,157
Total Funds Budgeted		\$ 71,829,150	\$ 3,162,183	\$ 33,885,993	47%	\$ 37,943,157
Total Unbudgeted Funds		\$ -				
<u>US36 Phase II</u>						
Funds Received:						
Region 4	\$ 1,729,643		\$ -	\$ 104,940	6%	\$ 1,624,703
Project Construction	\$ 52,428,431		\$ -	\$ -	0%	\$ 52,428,431
Total Funds Received	\$ 54,158,074		\$ -	\$ 104,940	0%	\$ 1,624,703
Funds Budgeted						
Legal Services		\$ 383,923	\$ 63,843	\$ 181,025	47%	\$ 202,898
P3 Advisory Services		\$ 1,270,720	\$ -	\$ 73,107	6%	\$ 1,197,613
Project Construction Costs		\$ 52,428,431	\$ 2,715,166	\$ 2,715,166	5%	\$ 49,713,265
Traffic Congestion Mitigation		\$ 200,000	\$ 1,036	\$ 1,647	1%	\$ 198,353
Peer Review Value For Money		\$ 75,000	\$ -	\$ 62,341	83%	\$ 12,659
Total Funds Budgeted		\$ 54,358,074	\$ 2,780,044	\$ 3,033,286	6%	\$ 51,324,788
Total Unbudgeted Funds		\$ (200,000)				
<u>I-70 West</u>						
Funds Received:						
Region 1 Project	\$ 720,000		\$ -	\$ -	0%	\$ 720,000
Total Funds Received	\$ 720,000		\$ -	\$ -	0%	\$ 720,000
Funds Budgeted						
T&R Study		\$ 720,000	\$ 5,808	\$ 38,909	0%	\$ 681,091
Total Funds Budgeted		\$ 720,000	\$ 5,808	\$ 38,909	5%	\$ 681,091
Total Unbudgeted Funds		\$ -				



Project Report: Achieving Value for Money
U.S. 36 Express Lanes Public-Private Partnership

**COLORADO DEPARTMENT
OF TRANSPORTATION**

March 14, 2014

U.S. 36 Express Lanes Public Private Partnership



BACKGROUND AND OBJECTIVES

The FASTER transportation measure passed by Colorado lawmakers in 2009 authorized state officials to look for innovative ways to finance and construct major highway projects since traditional sources of roads funding, including federal and state fuel taxes, are insufficient.

Passage of the law followed the release in 2008 of a special report on Colorado’s transportation crisis, commissioned by then Governor Bill Ritter that highlighted the need to invest billions of dollars in highway and bridge modernization in a period of diminishing resources.

The \$500 million project to expand and rebuild U.S. 36 between Denver and Boulder is the first highway venture in Colorado that will rely on the expertise of a private consortium to finance, build, operate and maintain a major roadway under a long-term contract.

Given the age and constrained lane capacity of U.S. 36, the deal forged between Colorado and the private consortium represents an opportunity to dramatically accelerate construction of a state-of-the-art multimodal transportation corridor and transfer the project risks—financing, operation and maintenance, and replacement risks—while retaining for the state the right to share in excess revenues generated by the highway if toll income exceeds pre-determined targets over the life of the agreement.

This report describes the project need and benefits, delivery method, and value received by the state by entering into a Public Private Partnership.

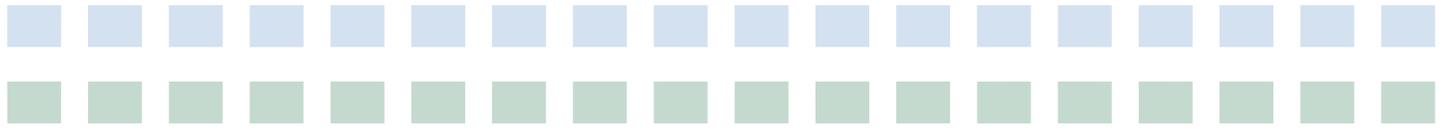
Funding Transportation

Currently over 80% of CDOT’s \$1.1 billion budget is dedicated to maintenance of the system, providing little to improve congestion and mobility. Despite innovative approaches to budgeting that will increase construction, as well as the retirement of the TRANS bonds, CDOT projects an approximately \$600 million/year shortfall to maintain and expand our transportation system.

ANNUAL FUNDING GAP—After RAMP/TRANS Bond Debt Retirement			
	Annual Funding	RAMP	TRANS Retirement
Transportation Category	Annual Gap*	2013–17	2018–22
Maintain the System	\$157	\$150	\$167
Rural Road Safety/Reliability	\$100	\$0	\$0
Congestion Relief/Mobility	\$500	\$150	\$0
Inter-Regional Transit	\$15	\$0	\$0
Total	\$772	\$300	\$167
*TBD Colorado		Deficit	Deficit
*All \$ in millions		\$432	\$605

CDOT’s ability to keep pace with that growth is hamstrung by state and federal gas taxes that have not changed in the last twenty years. Due to inflation and increases in fuel efficiency, CDOT is unable to keep pace with the growing demands on the statewide transportation system.

In the meantime, CDOT is not sitting still. The agency has initiated several programs to do more with the available resources. Public private partnerships (P3) are a strategy to leverage limited state resources with the private sector.



PROJECT NEEDS AND BENEFITS

The U.S. 36 Express Lanes project builds upon the success of the existing I-25 Express Lanes by extending the regional managed lanes system to form a continuous network from downtown Denver all the way to Boulder. It is a priority regional transportation project in one of the highest growth corridors in the state.

A congested and rapidly growing corridor carrying between 80,000 and 100,000 vehicle trips per day and operating at nearly 90 percent capacity, U.S. 36 currently experiences three to four hours of severe bi-directional congestion daily.

Overall, the project need was clear:

- Improve the condition of the highway
- Replace bridges that are in poor condition
- Provide congestion relief
- Expand mode of travel options
- Increase efficiency of transit service



Because CDOT revenue only provides the funds to maintain the statewide transportation system, with no planned-for funds available for highway expansion, the department, through the Colorado High Performance Transportation Enterprise, has been exploring innovative partnerships to expand capacity and mobility in congested corridors. The U.S. 36 Express Lanes Project is the first of several potential projects to include tolled express lanes that will enhance the reliability of travel in the area by providing an additional lane of capacity for transit, high occupancy vehicles and single occupancy vehicles willing to pay a toll.

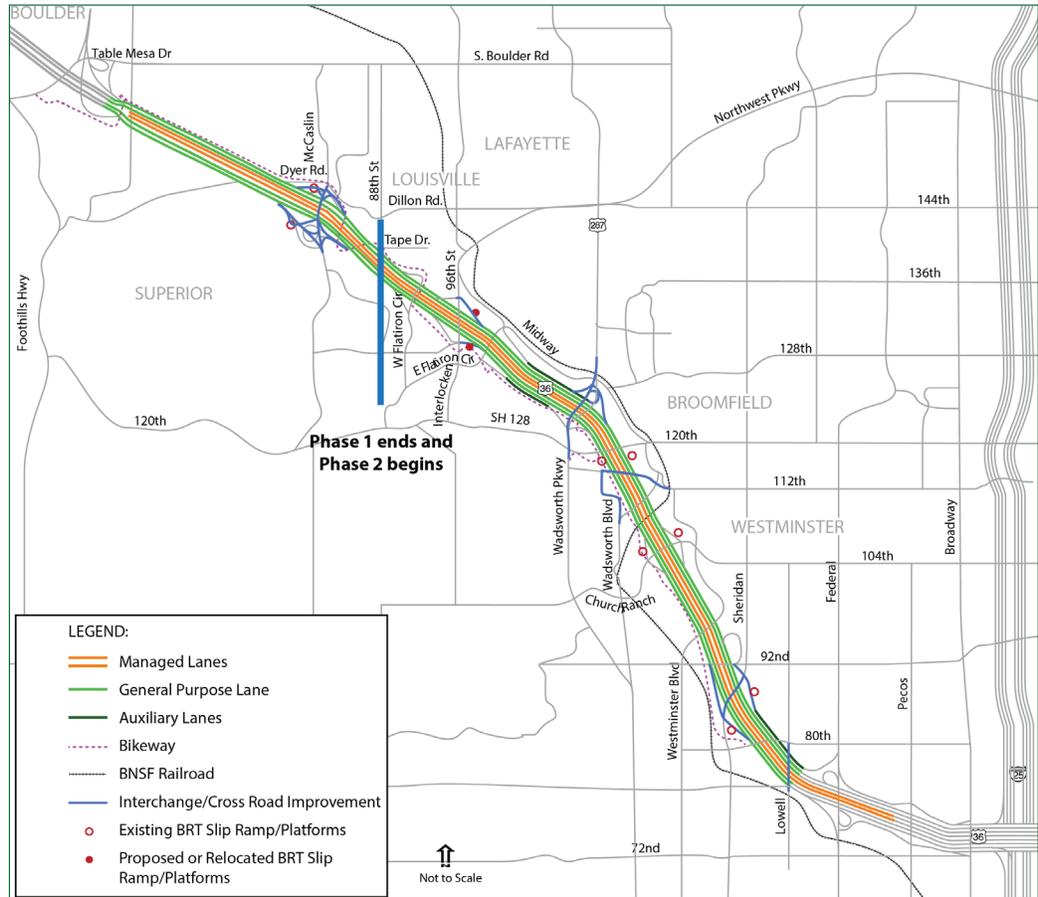
At the completion of the U.S. 36 Express Lanes project, the traveling public will have more choices—pay toll, carpool or ride bus for a more efficient trip, or travel free in existing lanes—creating a more effective transportation system that supports economic and job growth. Additionally, the project will reduce congestion, improve gas mileage and air quality.

Project Scope

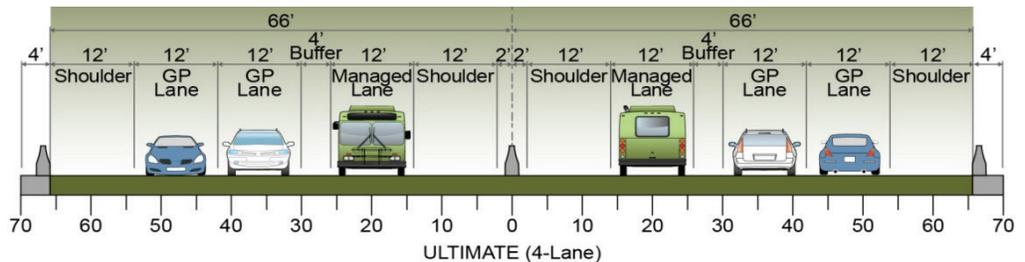
U.S. 36 Express Lanes is a two-phase multi-modal project led by the Colorado Department of Transportation (CDOT) and the Regional Transportation District (RTD) to reconstruct and widen U.S. 36 between Denver and Boulder. Project scope includes:

- Add a single express toll lane in each direction between Pecos Street and Table Mesa Drive for Bus Rapid Transit (BRT), High Occupancy Vehicles (HOV) and tolled Single Occupancy Vehicles (SOV);
- Reconstruct the highway throughout a 15.2 mile stretch of the corridor;
- Widen the highway to accommodate 12-foot-wide inside and outside shoulders;
- Add Bus Rapid Transit improvements, including new electronic display signage at stations and bus priority improvements at ramps. The improvements also will allow buses to operate on the shoulders of US 36 between interchanges to decrease bus travel time;
- Replace the Wadsworth Parkway, Wadsworth Boulevard (at 112th Avenue), Lowell Boulevard and Sheridan Boulevard bridges, and the US 36 bridge over the Burlington Northern Santa Fe Railway;
- Construct a diverging diamond interchange at McCaslin Boulevard to improve safety and better flow for buses, cars, bicyclists and pedestrians;
- Install Intelligent Transportation Systems (ITS) for tolling, transit and traveler information, and incident management;
- Install a separate commuter bikeway along much of the corridor; and
- Improve RTD stations along the corridor, including new canopies with enhanced weather protection.

US 36 Express Lanes Project Map and Elements



Final Configuration



PROJECT DELIVERY

While the project is being delivered in two phases with separate project delivery models, the goals of both Phase 1 and Phase 2 are the same and include:

- Maximize scope and improvements within the project budget;
- Minimize operating and life cycle maintenance costs and provide a quality product;
- Meet or beat schedule;
- Minimize inconvenience to the public and maximize safety of workers and traveling public;
- Maximize engagement of local workers, businesses, and communities in the development, construction and sustainability of improvements.

Phase 1 Delivery Details

The first phase of the project, which broke ground in July 2012, includes the construction of the project elements between Pecos Street and 88th Street in Louisville. Managed by CDOT, the \$317.9 million project is being constructed using a Design-Build (DB) delivery model. The new express lanes will connect to the northern terminus of the existing reversible I-25 Express Lanes. The BRT component of the project will become part of Regional Transportation District's (RTD) FasTracks system. Construction of Phase 1 is expected to be completed by early 2015.

Phase 1 of the project is being financed with Federal, State and Regional Transportation District (RTD) funds, including a federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan (the repayment of which will be supported by tolls), a federal Transportation Investment Generating Economic Recovery (TIGER) grant, as well as contributions from the City and County of Broomfield and the City of Westminster.

Phase 2 Delivery Details

RTD's substantial commitment to Phase 1 of the project came with an understanding that partial completion does not fill the need, and commencement of Phase 2 should begin before completion of Phase 1. CDOT and our local partners share in that view. Given current constraints on funding and the financing risks attached to the additional cost, the second phase of the U.S. 36 project is being constructed using a Public-Private Partnership ("P3") with Plenary Roads Denver (Plenary).

Benefits of Phase 1: Design Build Delivery

Design build allows for a best value selection rather than lowest bid. The Ames/Granite team:

- Successfully addressed all five goals outlined in the Request for Proposals;
- Beat the project completion schedule by six months;
- Committed to build many Additional Requested Elements (improvements that were desired but not included in the base project), including extending the terminus of the project $\frac{3}{4}$ miles to the west to 88th Street and reconstructing two additional bridges on the corridor.



Phase 2: Public Private Partnership Selection Process

The selection process included several steps which involved partner agencies and local governments:

- Request for Qualifications (RFQ) released February 2012
- Four teams responded by April 2012 and three were short-listed
- Final Request for Proposals (RFP) released August 2012
- Submissions were evaluated on technical proposal, financial capacity, experience and qualifications of team
- Plenary Roads Denver selected April 2013

All RFQ and RFP materials available for public review



Phase 2 Delivery Details (continued)

Plenary’s Canadian parent company is a major participant in large North American infrastructure projects. Phase 2 will extend approximately five miles, from 88th Street in Louisville to Table Mesa/Foothills in Boulder, and will carry forward the features of Phase 1. BRT will have priority in the express lanes and HOV free travel (starting with HOV 2+ and changing to HOV 3+ in 2017 or earlier if congestion warrants) will be permitted. It is expected that Phase 2 will be open in early 2016.

Plenary was selected on a competitive basis in April 2013, at the end of an extended and open procurement process lasting almost a year, with local governments consulted throughout the process. Plenary will build the tolled express lanes and reconstruct the general purpose lanes in Phase 2 and will operate and maintain the entire corridor (I-25 Express Lanes, Phase 1 and Phase 2) over a 50 year period. The contract includes strict performance measures and requires Plenary to return the express lanes to CDOT in reconstructed condition at the end of the concession term.

Plenary will have the right, subject to contractual limitations, to collect tolls from the express lanes. Under terms of the pact, Plenary also will retain tolls collected from the 7.7-mile express-toll operation on Interstate 25 between downtown Denver and the Pecos Street interchange on U.S. 36. The I-25 High Occupancy Toll, or “HOT lane”, facility opened in 2006 and currently generates about \$2.6 million in annual toll revenues.

Plenary will assume the Phase 1 TIFIA loan and will contribute more than \$120 million in equity and new debt (including a new \$60 million loan from TIFIA) to the Phase 2 project cost, which is estimated to total about \$180 million. Plenary will be solely liable for the project’s debt.

In addition, CDOT/HPTE, RTD, DRCOG, Boulder County and the cities of Superior and Louisville will contribute to the Phase 2 cost. By financing almost two-thirds of the Phase 2 cost rather than waiting until funds become available over time, construction is accelerated for the Phase 2 projects by 20 years.

The Plenary Roads Denver Team includes:

- Ames Construction, Inc.–Construction
- Granite Construction–Construction
- HDR–Engineering Design
- Transfield Services–Maintenance
- Goldman Sachs–Financial Advisor



US 36 Phase 1 and 2 Funding Sources			
	Phase 1	Phase 2	Total
RTD	\$124,000,000	\$18,500,000	\$142,500,000
DRCOG	46,600,000	15,000,000	61,600,000
CDOT (including Bridge Enterprise)	77,700,000	15,000,000	92,700,000
HPTE (including TIGER Grant)	10,000,000	–	10,000,000
Plenary Debt & Equity (including TIFIA 1 & 2)	54,000,000	120,000,000	174,000,000
Local Government	5,600,000	11,000,000	16,600,000
TOTAL	\$317,900,000	\$179,500,000	\$497,400,000

PROJECT VALUE ANALYSIS AND RATIONAL FOR PUBLIC PRIVATE PARTNERSHIP

The decision to enter into a Public Private Partnership (P3) for Phase 2 of the U.S. 36 Express Lanes project was based on a Project Value Analysis (PVA). A PVA is a risk-adjusted analysis that attempts to quantify the benefits and costs of the HPTE Board retaining risks under the “public model” and compares those risks to the risks of utilizing the “concession model.”

HPTE asked KPMG, a national consulting firm, to analyze the value Colorado and its taxpayers are getting from having a private concessionaire build, operate and maintain the entire U.S. 36 project, along with the I-25 express lanes, under a long-term agreement instead of having the state try to handle the venture itself. The analysis considers the subsidy and net revenues over the 50 year operating term of the concession agreement.

Summary of Assumptions

Revenue: The public model uses traffic and revenue forecasts prepared by CDM Smith and are the forecasts HPTE would rely on if it financed the project itself. The concession model utilizes the Plenary traffic and revenue consultant for its model. The concession model forecasts are very similar to the CDM Smith forecasts for the first fifteen years of the concession. This is a bit unusual, as traditionally the private sector forecasts higher traffic and revenue numbers than those of the public sector. The concessionaire has the right to collect and retain all estimated revenues during the fifty years. However, if revenue is higher than projected under the concession model, the HPTE will share in those “excess” revenues. Revenue assumptions include the change in the regional HOV policy from HOV 2+ to HOV 3+ beginning in 2017.

Construction: Because the public model would utilize a design-build delivery method, overall construction costs are expected to be similar in both the public and concession delivery models. It should be noted that because the term of the Final Request for Proposal included a \$500,000 stipend for responsive bidders if the state financed the project using a public delivery model, \$1 million has been included in the cost of the public model.

Qualitative Factors Influencing P3 Decision

- Deliver project with lowest upfront subsidy
- Transfer risk to concessionaire
- Relieve CDOT of Phase 1 O&M obligations
- Construct Phase 2 Managed Lanes Reconstruction of General Purpose Lanes in an effective and economical way
- Facilitate RTD’s Bus Rapid Transit programs
- Optimize asset condition over long term
- Minimize inconvenience to public and maximize safety of workers and the traveling public.



Summary of Assumptions (continued)

Operations and Maintenance (O&M): CDOT asked proposers to submit a price to perform routine maintenance on the U.S. 36 General Purpose Lanes. If the proposed price was less than a benchmark price predetermined by CDOT but not provided to the proposers, the concessionaire would receive the fees and perform the associated maintenance work. Because Plenary's proposer was less than the benchmark, the O&M agreement covers "fence to fence," meaning the concessionaire will be responsible for not only operations and maintenance of the express lanes, but also the general purpose lanes and highway right-of-way on either side of the travel lanes, and includes snow removal activities. Both Phase 1 and Phase 2 of the project will be maintained by the concessionaire, as well as the I-25 Express Lanes (not General Purpose Lanes).

Major Maintenance: Major maintenance includes both periodic surface treatments to maintain the quality of the managed lanes, but also full reconstruction during the fifty year life of the agreement. The concessionaire will be responsible for both the U.S. 36 Express Toll Lanes, as well as the I-25 Express Toll Lanes. Major maintenance of the U.S. 36 General Purpose Lanes will remain CDOT's responsibility.

Toll Collection: Because both the public and concession models assume utilizing the E-470 Public Highway Authority to provide back office toll collection services, these costs do not impact the overall PVA.

Financing: Both models assume the Phase 1 TIFIA loan remains unchanged, although Plenary takes the loan over as part of the concession. The public model assumes a Phase 2 TIFIA loan and tax-exempt bonds. The concession model includes a subordinate Phase 2 TIFIA loan, senior level Private Activity Bonds, and a subordinate shareholder loan and equity. Both models include a debt service reserve account and major maintenance accounts, while the concession model also includes reserve funds for ramp up and O&M.

Terms of Analysis: The analysis considers the subsidy and net revenues over the 50 year operating term on the Concession Agreement.

Upfront Public Subsidy

The cost of Phase 2 is expected to be approximately \$179.5 million. The upfront public subsidy is that portion of the construction cost that the state and other public partners (such as RTD) must produce in order to fully fund the project. The upfront subsidy is presented in nominal¹ or year-of-expenditure terms to provide consistency in comparing the results of each delivery model against the amount of available funding. KPMG found that the concession model could deliver the project with a lower upfront public subsidy. Overall, the subsidy under the public model, assuming a design-build delivery method, is \$66.0 million. The concessionaire's proposal required a public subsidy of \$48.8 million, or \$17.2 million less than the required subsidy under the public model.

Base Case Upfront Public Subsidy (millions)—Nominal Value		
Concession Model Public Subsidy	Public Model Public Subsidy	Public Savings from Concession Model
\$(48.8)	\$(66.0)	\$17.2

¹Nominal value considers the value of money in today's dollars, without considering when the dollar was earned or spent. Therefore, it doesn't account for variables such as how increases in inflation over time may lessen the buying power, and therefore the value, of the dollar.

Total Project Value

Total Project Value is a metric that allows the HPTE to compare whether the public model or concession model requires the public to bear the greater financial burden (actual and at risk) for initial construction and long-term maintenance over the fifty year term. As you can see from the table above, if the only factor for consideration was reducing the upfront public subsidy, the concession model is the clear winner.

However, while an important goal of the HPTE Board was to minimize the upfront public subsidy—and it is unclear whether the project could even move forward at a cost to the public of \$66.0 million—it is only a piece of the overall financial picture. In order to effectively determine which delivery method provides the most value to the public, the PVA must consider not only the nominal value, but also net present value.² For example, the PVA considers the net present value of both the upfront subsidy and future “excess” toll revenues over the fifty year analysis. Because the excess toll revenues do not come until the later years, the net present value accounts for expected inflationary changes that reduce the value of those dollars as compared to the reduced construction costs today. The net present value is calculated as *upfront subsidy + excess revenues = net present value*. The model uses a 14% discount rate³ for excess revenues and a 5% discount rate for the upfront and additional subsidy amounts to cover the difference in the U.S. 36 General Purpose Lane O&M costs.

The following table shows the Base Case⁴ Total Project Value based on the proposal received from Plenary and adjustments, including savings that accrue on O&M costs, interest rates and project costs. The total project value (and public savings) under the concession model is a bit more narrow than the nominal upfront subsidy difference of \$17.2 million. However, working with toll revenue estimates and forecasts of operating and maintenance expenses, KPMG determined that the concession model under a base case scenario still offers Colorado a \$2.2 million advantage in value over the public alternative when the figures are expressed in “net present value.”

Base Case Total Project Value (millions)—Net Present Value				
Concession Model Upfront Subsidy (Changed to NPV) and Total Project Value	Public Model			Total Project Value of Concession Model Over Public Model
	Upfront Subsidy (changed to NPV)	Excess Revenues (in NPV)	Total Project Value	
\$(45.4)	\$(60.2)	\$12.6	\$(47.6)	\$2.2

²Net present value accounts for when a dollar is earned or spent and what inflation has done to the value of that dollar over time.

³Discount rate is the percentage that is applied to a dollar in order to calculate its net present value.

⁴The Base Case does not assume risk variables such as the possibility that toll revenues come in higher or lower than projected. The risk analysis and how it impacts project value is discussed in the next section.



PROTECTING THE TAXPAYERS: TRANSFER OF RISK

While the total project value (and public savings) is slightly greater under the concession model, revenue and other forecasts over a 50 year time horizon are only estimates and include an element of high risk. Given HPTE and CDOT's limited financial resources, the Board was concerned about the potential financial exposure if revenue were less than estimates over fifty years, or other costs were higher forecast.

The analysis indicated that even if Colorado could build, operate and maintain Phase 2 of the U.S. 36 highway complex itself instead of having a P3 concessionaire perform the tasks, the public model carried significant risks for the state, especially if traffic counts and toll revenues are lower than anticipated in the coming decades.

It is in this risk analysis where the nominal value of the public model is overshadowed by the value of transferring the long-term risks to the private sector. The transaction HPTE reached with Plenary calls for the concessionaire to assume nearly all the project risks, including financing and maintenance risks, while retaining for the state the right to share in excess revenues generated by the highway if toll income meets forecasted targets over the life of the agreement. The nominal value of this risk transfer could equate to several hundred million dollars over the fifty year agreement. Moody's estimates that a 10 percent reduction in total corridor volume results in a more than 25 percent reduction in managed lane volume. This sensitivity results in a 48 percent reduction in revenue from the base scenario, and reflects the potential volatility of revenue projections.

Revenue Risks

Lower Than Expected Revenue: HPTE's prime motivation for selecting the P3 model was to shift the bulk of the project's risk to the concessionaire. With highway projects using the express lanes model having limited experience in the United States, there is more than a little uncertainty about how the U.S. 36 project will fare financially over the long term. So, the PVA includes a sensitivity analysis that considers 25 percent and 40 percent reductions in revenue from base-case projections. For example, if toll revenues come in 25 percent below the base-case projections, there would be insufficient funding for HPTE to make debt service payments on the project for 17 years, according to consultant's analysis. In nominal terms, the total shortfall to fund O&M, debt service, and major maintenance would be \$130 million.

If revenues are below projections for the concession model HPTE has no liability. Lower-than-expected toll revenues are among the risks being borne by the P3 concessionaire. Shortfalls could mean a decline in toll income totaling tens of millions of dollars, yet Plenary still will have the responsibility for paying off loans and operating and maintaining the highway over the 50-year period. The concessionaire may request toll increases, up to a capped amount, to secure its investment and guarantee that enough revenue is generated to meet loan obligations and operate and maintain the roadway over the decades. However, approval from HPTE's Board is required before a toll increase can go into effect.

Public Model Revenue Sensitivities												
\$M	Debt Service Shortfall			O&M Service Shortfall			Major Maintenance Shortfall			Total Shortfall		
	Nominal	NPV @ 5%	NPV @ 14%	Nominal	NPV @ 5%	NPV @ 14%	Nominal	NPV @ 5%	NPV @ 14%	Nominal	NPV @ 5%	NPV @ 14%
25% Downside	(26.6)	(15.3)	(6.9)	(4.6)	(4.0)	(3.2)	(99.1)	(31.6)	(9.6)	(130.3)	(50.9)	(19.7)
40% Downside	(80.7)	(40.3)	(14.2)	(25.5)	(18.5)	(11.3)	(215.1)	(50.6)	(11.0)	(321.43)	(109.3)	(36.5)

Higher Than Expected Revenue: HPTE’s consultant also looked at scenarios in which toll revenues might exceed predictions, including one where income would be 10 percent higher. Such a case would reward Plenary for the risks it took on the project by accelerating the concessionaire’s return on its investment, including the payment of interest. To attract involvement from the private sector in the U.S. 36 venture, it was necessary to provide an adequate return on the equity investment a consortium would be making in the project.

HPTE’s contract with Plenary calls for the state to share in revenues generated by the U.S. 36 project after minimum rate-of-return targets are met. The revenue-sharing formula is designed to maintain an incentive for the concessionaire to maximize revenue, but also increases the state’s revenue share as the return to Plenary increases. On a nominal basis, the HPTE may realize up to \$290 million in additional revenues if the express lanes immediately generate 10 percent more revenue than the base case, and slightly less than that if the revenue escalates up to a 10 percent over time. In this way, HPTE has a stake in the financial upside of the project while leaving in place the primary incentive for securing participation of a private investor. The amount of revenue-sharing and its timing, likely a decade or more into the concession term, depends on just how robust the toll income turns out to be.

Upside Revenue Sensitivities (millions)		
Public Model	HPTE Revenue Nominal	HPTE Revenue NPV @14%
10% Upside Immediately	\$290.0	\$13.3
Escalating Upside	\$276.9	\$8.1

Local Benefits to Cost-Sharing

HPTE has signed an agreement with cities and counties in the U.S. 36 corridor that allows them to participate in deliberations over how the state would spend excess toll revenue, should it materialize, to boost mobility and transit options in the corridor.

Operations & Maintenance Risks: There is significant empirical evidence nationally to suggest that the public sector will receive value through reduced O&M costs under the concession model. CDOT estimates this maintenance to be approximately \$798,900 per year for the state to maintain over the fifty year review period under the public model. The concessionaire proposal requires a state payment of \$675,000 per year, or \$123,900 per year less than the benchmark set by the department, resulting in savings to the state of approximately 15 percent. In both the public and concession model, the new express lanes would be maintained using toll revenues.

Maintenance costs assume a 5% discount rate to determine Net Project Value and include both Phases 1 and 2 of the project, as well as the I-25 Express Lanes.

Annual Operations and Maintenance Costs for GP Lanes	
Concession Model	Public Model
\$675,000	\$798,900

State Employee Impact

No state employee will lose their job because of the new P3 arrangement. CDOT crews will be deployed to other critical areas to provide maintenance and operations for the traveling public. CDOT may also adjust staffing levels over time based on retirement and attrition.

Risks Related to Maintenance Costs: O&M cost variances could result from higher materials cost due to inflation as well as higher than expected snow and ice removal costs. If highway maintenance and operation costs are greater than \$675,000 annually, the concession model puts the entire liability for those additional costs on Plenary, increasing the value to CDOT of the concession model. Under the public model CDOT would be responsible for those additional costs, with potential liability to CDOT as high as a \$3 million nominal cost over the term. In Net Present Value terms, the potential exposure to the state could total approximately \$14.5 million assuming revenues were insufficient to fund 50% of the total project O&M.

Lower Than Expected Maintenance Costs: If O&M over the term is 15% less than expected, it would match the CDOT benchmark costs for O&M. In other words, the value of the concession model would be equal to the public model.

Overall Risk Analysis: Colorado weighed risks vs. rewards in selecting the concession model for the U.S. 36 project. It limits the state’s exposure if toll revenues come in lower than expected, or if maintenance costs are higher than anticipated, yet the revenue-sharing provision allows for upside gain if toll-lane traffic and income are more robust than predicted. The following table provides a checklist of all risks associated with the concession model, and whether the risk belongs to the state, Plenary, or the risk is shared.

The following table provides a summary of the risk allocation for the project, including risks transferred to PRD, risks retained by CDOT/HPTE and shared risks.

Risks Relating to:	Risk Allocation		
	CDOT/HPTE	Private (PRD)	Shared
Design of highway and structures		•	
Construction of highway and structures (risk of time and cost overruns)		•	
Revenue risk, that is, the risk that toll revenue is not sufficient to pay off debt raised for the project		•	
Majority of risks associated with environmental factors including changes to restrictions and permitting (with the exception of permits obtained by CDOT or HPTE)		•	
Geotechnical (for example, soil below the highway surface)		•	
Operations and maintenance, including routine maintenance and life cycle maintenance, life cycle maintenance in relation to non-separable tasks on the general purpose lanes		•	
Snow and ice removal on both the general purpose lanes and the managed lanes		•	
Handback of the facility at the end of the term of the contract which fulfills CDOT and HPTE requirements in relation to the residual life of the highway at that time		•	
Acquisition of property required for highway construction—including risks related to cost and timeliness to acquire such property	•		
Responsibility for repairing any latent defects in work which as completed prior to the contract commencement date or for works undertaken by other CDOT contractors	•		
Bringing the highway back into agreed-upon condition after the occurrence of a significant natural event	•		
Require to undertake soils or other remediation as a result of the discovery of undisclosed contaminated soils	•		
Requirements for moving utilities to construct the highway and structures and the risk that utility companies will not move quickly enough to meet PRD's schedule or that they will levy higher than expected charges for the relocation work			•
Increases in the future of general insurance premium cost charged by the insurance industry for the insurance required by the contract			•

VALUE TO THE TAXPAYERS

According to the PVA consultant, the concession agreement reflects “an optimal balance of risks” between HPTE and Plenary. Additionally, the infusing of private sector resources accelerates the construction schedule of this critical project by 20 years, providing an immediate return on investment to the traveling public through reduction in delay of travel time on this currently heavily congested corridor.

Under the agreement, Plenary is responsible for risks associated with the level of traffic in the express lanes and the sufficiency of toll revenues to support repayment of loans, as well as the long-term operation and maintenance of the highway.

Tolls on the U.S. 36 and I-25 express lanes will be variable, with higher tolls set for peak travel periods. HPTE and the concessionaire will have the capability of introducing dynamic pricing at some future point. This would allow toll rates to be adjusted in real time to help meter traffic flows and limit congestion in the express lanes.

Express lanes give commuters options to carpool, take public transportation or pay a toll to get reliable, congestion-free travel in a busy transportation corridor.

HPTE’s consultant found the concession model “delivers significant value” to the state by transferring revenue, operations and maintenance risks to the private operator, and by having the concessionaire assume financial risks associated with loans on the project. Regardless of how much revenue is produced by the express lanes, Plenary must meet high performance standards set by HPTE that ensure the lanes will be well maintained and adequately plowed during snowstorms, or the concessionaire is subject to penalties established by the agreement. Plenary also is responsible for returning to the state a highway in first-class condition at the end of the concession agreement.

High Occupancy Vehicles

In the concession agreement, HPTE directors approved a provision that after Jan. 1, 2017 will only allow vehicles with three or more occupants to travel toll-free in the U.S. 36 and I-25 express lanes. Until then, vehicles with at least two occupants, so-called HOV 2+ vehicles, can continue free use of the lanes, unless congestion increases to a level that impedes the reliable flow of RTD buses and other vehicles in the corridor. Current congestion levels on the I-25 Express Lanes may trigger HOV 3+ sooner than 2017.

The HOV 3+ policy was needed as a market mechanism to forestall excessive use of the express lanes, which would slow travel times to unacceptable levels. The policy also was designed to raise enough toll income to attract private sector interest and investment in the project. HOV 3+ tolling is a policy employed by a number of toll road operators around the country.



FINAL CONTRACT

The contract with Plenary Roads Denver is designed to protect the public interest by maintaining public ownership of the roads while specifying service standards under which the concessionaire will operate and maintain the system. Any tolling decisions are the final decision of the HPTE Board and the contract permits CDOT and any other transportation agency to make future improvements to the roads or transportation system in the area.

Other key terms of the contract include:

- Plenary will design, construct, and finance its portion of the corridor improvements;
- The state retains ownership of the highway and Plenary is granted a non-exclusive license for 50 years to access and use the highway and its structures for the purpose of carrying out the operations;
- Plenary will operate, maintain and rehabilitate the whole corridor including the express tolled lanes as well as the general purpose lanes;
- Plenary will operate, maintain and rehabilitate the I-25 express tolled lanes;
- Plenary will receive payment from the state for fulfilling its maintenance obligations on the general purpose lanes;
- If Plenary fails to meet the specified performance standards, they can incur financial penalties. Examples of performance failures include:
 - Failure to meet the operations and maintenance standards such as snow plowing;
 - Travel time delays to transit;
- Plenary will assume certain risks, such as construction schedule and budget and is responsible to ensure the asset meets acceptable conditions such as highway surfaces and bridge quality
- The state will monitor compliance against the contract requirements
- The state can make further improvements to the highway at its own option and cost
- The state will share in revenues generated by the U.S. 36 project after minimum rate-of-return targets are met
- Plenary must return to the state a highway in first-class condition at the end of the concession agreement

The U.S. 36 concession agreement could be a model for other major highway ventures in Colorado, including expansion and improvement projects being considered for C-470; I-25 north of the Denver metro area; and I-70 in both the mountain corridor and central Denver.

