



US-36 PUBLIC-PRIVATE PARTNERSHIP (P3) PROJECT PERFORMANCE AUDIT

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

COLORADO DEPARTMENT OF TRANSPORTATION
MARCH 2015



CLARY
CONSULTING, LLC

LEGISLATIVE AUDIT COMMITTEE

Senator Lucia Guzman – Chair Representative Dan Nordberg – Vice-Chair

Senator Chris Holbert
Senator Cheri Jahn
Senator Tim Neville

Representative Dianne Primavera
Representative Su Ryden
Representative Lori Saine

OFFICE OF THE STATE AUDITOR

Dianne E. Ray

State Auditor

Matt Devlin

Deputy State Auditor

Cindi Stetson

Contract Monitor

Clary Consulting, LLC

Contractor

AN ELECTRONIC VERSION OF THIS REPORT IS AVAILABLE AT
WWW.STATE.CO.US/AUDITOR

A BOUND REPORT MAY BE OBTAINED BY CALLING THE
OFFICE OF THE STATE AUDITOR
303.869.2800

PLEASE REFER TO REPORT NUMBER 1415P WHEN REQUESTING THIS REPORT



March 11, 2015

Members of the Legislative Audit Committee:

We have completed the performance audit of the US-36 Public-Private Partnership (P3) Project, implemented by the High Performance Transportation Enterprise, a division of the Colorado Department of Transportation. Our audit was conducted in accordance with auditing standards applicable to performance audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

The audit was conducted pursuant to Section 2-3-103, C.R.S., which authorizes the State Auditor to conduct audits of all departments, institutions, and agencies of state government. The report presents our findings, conclusions, and recommendations, and the responses of the High Performance Transportation Enterprise.

Clary Consulting, LLC

A handwritten signature in blue ink that reads "Clary Consulting". The signature is written in a cursive, flowing style.

CLARY
CONSULTING, LLC

CONTENTS

| | |
|---|-----------|
| Report Highlights | 1 |
| Recommendation Locator | 3 |
| CHAPTER 1 | |
| OVERVIEW OF PUBLIC-PRIVATE PARTNERSHIPS | 7 |
| The High Performance Transportation Enterprise | 8 |
| US-36 Project | 11 |
| US-36 Project Development and Procurement Process | 15 |
| US-36 P3 Project Concession Agreement | 19 |
| Audit Purpose, Scope, and Methodology | 23 |
| CHAPTER 2 | |
| OVERSIGHT OF PUBLIC-PRIVATE PARTNERSHIPS | 29 |
| Toll Services | 30 |
| Federal Loan Financing | 40 |
| Operations and Maintenance Planning | 47 |
| Project Schedule | 56 |
| Project Value Analysis | 62 |
| Public Outreach and Stakeholder Input | 66 |
| Transparency and Open Records | 72 |
| Records Management | 77 |
| Monitoring Expert Advisors | 83 |
| Operations and Maintenance Monitoring | 88 |
| Project Management Framework | 96 |
| Glossary | A-1 |

CLARY
CONSULTING, LLC

REPORT HIGHLIGHTS

US-36 Public-Private Partnership (P3) Project
PERFORMANCE AUDIT, MARCH 2015

HIGH PERFORMANCE
TRANSPORTATION ENTERPRISE

AUDIT SUMMARY

The High Performance Transportation Enterprise (HPTE) executed a public-private partnership (P3) agreement for the US-36 P3 Project that met the goals outlined for the Project and provided the best value for taxpayers. HPTE could improve its planning, communications, monitoring, and project management practices for future P3 projects.

KEY FACTS AND FINDINGS

- A public-private partnership (P3) is a contractual agreement between a public sector agency and a private entity that allows for greater private sector participation in the delivery and financing of a government-owned project, such as the US-36 P3 Project.
- The US-36 P3 Project is the first P3 project implemented by HPTE.
- HPTE's practices for developing and procuring the US-36 P3 Project were generally consistent with industry standard practices, with some exceptions outlined below.
- HPTE's planning for the toll services, federal loan financing, and operations and maintenance elements of the US-36 P3 Project were not consistent with industry standard practices, and combined with external challenges, contributed to a 1-year delay in completing the procurement and a 6-month delay in reaching financial close.
- Delays in procuring the US-36 P3 Project increased HPTE's total payment for the Project from \$44 million to over \$49 million due to interest rate increases between the proposal due date and financial close.
- HPTE did not adequately inform, educate, and involve two stakeholder groups—legislators and the general public—in the project development and procurement stages of the US-36 P3 Project.
- HPTE does not have adequate records management processes for maintaining project-related documents or systematic processes for sharing public records and protecting confidential records under the Colorado Open Records Act.
- HPTE and the Colorado Department of Transportation have not developed systematic processes for monitoring operations and maintenance activities to ensure the concessionaire meets the performance standards outlined in the concession agreement once US-36 is open for operations.
- Systematic project management processes were not in place for managing all elements of complex P3 projects from beginning to end.

BACKGROUND

The High Performance Transportation Enterprise (HPTE):

- Was created in 2009 as a government-owned business and a division within the Colorado Department of Transportation.
- Is responsible for seeking out opportunities for public-private partnerships through any available means of financing that allows for efficient completion of road and bridge projects.

Under HPTE's US-36 P3 Project agreement, the private sector:

- Constructs highway improvements on US-36 from 88th Street in Louisville to Table Mesa Drive in Boulder.
- Finances, operates, and maintains the managed toll lanes on I-25 and US-36 from Downtown Denver to Boulder in exchange for toll revenues.

KEY RECOMMENDATIONS

The High Performance Transportation Enterprise should:

- Begin planning for key elements of P3 projects during project development and improve the information and details on these elements provided to prospective bidders during procurement phases.
- Build comprehensive and detailed schedules for P3 projects and include achievable due dates.
- Develop a comprehensive communications plan for informing and soliciting input from stakeholders and an open records and transparency plan for ensuring compliance with the Colorado Open Records Act.
- Develop a systematic project management framework and guidance for managing large P3 projects, and identify strategies for obtaining adequate resources and providing ongoing training.

HPTE agreed with all of the recommendations.



RECOMMENDATION LOCATOR

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

| REC. NO. | PAGE NO. | RECOMMENDATION SUMMARY | AGENCY RESPONSE | IMPLEMENTATION DATE |
|----------|----------|--|----------------------------------|---|
| 1 | 37 | Work with the CDOT's Office of Major Project Development to evaluate how toll services will be procured and managed for future projects involving toll facilities. The evaluation should result in (a) developing a comprehensive set of technical specifications and options for toll services identified and included at the RFQ stage in future P3 procurements, (b) providing detailed cost and technical specifications for any preferred or required toll services providers as part of the initial draft RFP documents and finalizing the technical specifications and costs for toll services as part of the final RFP, when the P3 project involves transferring toll services or toll revenue risk to the concessionaire, and (c) reviewing tolling authorities' operations and contracts in other states and jurisdictions to gain lessons learned for how to best manage toll services in the future. | A. AGREE B. AGREE C. AGREE | A. APRIL 2015 B. APRIL 2015 C. IMPLEMENTED |
| 2 | 39 | Work with the E-470 Authority and the concessionaire to facilitate execution of the toll services agreement for the US-36 P3 Project as soon as possible to ensure a clear understanding of and accountability for toll services well in advance of the commencement of toll operations. | AGREE | APRIL 2015 |
| 3 | 46 | Improve the planning process for future P3 projects by partnering with expert legal and financial advisors and approaching the TIFIA JPO to examine TIFIA loan options prior to the procurement phase. If HPTE provides a Letter of Interest to the TIFIA JPO related to a possible TIFIA loan for a P3 project procurement, or if in the future HPTE has a TIFIA loan that will be assumed as part of the P3 project, HPTE should (a) work with its legal and financial advisors and coordinate with TIFIA JPO to prepare a detailed term sheet for inclusion in the draft RFP, (b) update the term sheet during the procurement phase in response to questions from prospective bidders and upon further interactions with TIFIA JPO, and (c) ensure the procurement schedule includes adequate time for HPTE and its expert advisors to interact with the TIFIA JPO on the draft term sheet and for the loan negotiations to occur between selection of the preferred bidder and financial close. | A. AGREE B. AGREE C. AGREE | A. IMPLEMENTED B. IMPLEMENTED C. IMPLEMENTED |
| 4 | 54 | HPTE should (a) formalize practices for completing a thorough review of all major project components during the project development phase so that adequate information is available to identify the best value option and to provide adequate detail to prospective bidders in the procurement phase, (b) work with CDOT to develop standardized reporting formats for analyzing actual cost data to be used as a basis for cost estimates and to further refine performance standards for operations and maintenance elements, and (c) ensure adequate detail on the project scope of services is defined and included in the RFQ and initial RFP. | A. AGREE B. AGREE C. AGREE | A. IMPLEMENTED B. SEPTEMBER 2015 C. IMPLEMENTED |

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

| REC. NO. | PAGE NO. | RECOMMENDATION SUMMARY | AGENCY RESPONSE | IMPLEMENTATION DATE |
|----------|----------|---|--|--|
| 5 | 60 | Use the experience gained from the US-36 P3 Project and build comprehensive project schedules for future activities on the US-36 P3 Project as well as for future P3 projects. Specifically, project schedules should (a) identify all key tasks and include well-defined, appropriately-linked project activities, (b) assign resources and project costs to tasks and project activities, (c) specify realistic, achievable timeframes and due dates for when the work needs to be completed, and (d) include adequate detail on how the work will be accomplished to enable responsible parties to accomplish project activities in accordance with the project schedule. | A. AGREE B. AGREE C. AGREE D. AGREE | A. JULY 2015 B. JULY 2015 C. JULY 2015 D. JULY 2015 |
| 6 | 65 | Ensure the HPTE Board has adequate information to support decision-making by developing policies outlining the key points in the P3 decision-making and procurement processes where the Project Value Analysis and updates must be performed. Policies should specifically require performance of Project Value Analyses prior to (1) the decision to pursue the project as a P3, (2) selection of the preferred bidder and negotiations, and (3) financial close. | AGREE | SEPTEMBER 2015 |
| 7 | 71 | Expand upon the <i>Transparency Policy</i> , the Governor's Executive Order 2014-010, and the <i>Transparency Outreach and Public Engagement Plan</i> and develop a comprehensive communications plan for informing and soliciting input from stakeholders, policy makers, and the general public for future P3 projects. Additionally, maintain adequate and complete records of meetings and outreach efforts to follow up on outstanding issues and to assist with evaluating the effectiveness of the comprehensive communications plan. | AGREE | JULY 2015 |
| 8 | 76 | Continue to work with the Office of the Attorney General to develop a comprehensive open records and transparency plan for the P3 program that ensures compliance with the Colorado Open Records Act and with best practices. The plan should identify the key documents developed prior and during procurement, as well as during the construction and operation phases, that will become public records and determine milestones for when such documents will be released. List these documents and their release dates in communications to prospective bidders as appropriate and make the open records and transparency plan and public records available to the public on the HPTE internet site. | AGREE | SEPTEMBER 2015 |
| 9 | 81 | Work with CDOT's Official Records Custodian to assess HPTE's records retention needs and develop processes and systems for records retention as outlined by statute, the Records Management Manual, and CDOT policies, procedures, and schedules. Specifically (a) inventory HPTE records and document the storage methods and retention requirements for both public and protected documents that statutes or procedures require be retained and (b) review existing CDOT records retention schedules, identify areas where the schedules are not adequate to meet HPTE's document management and retention requirements for long-term P3 projects, develop HPTE-specific records retention schedules, and submit the schedules to appropriate authorities for approval. | A. AGREE B. AGREE | A. SEPTEMBER 2015 B. SEPTEMBER 2015 |
| 10 | 82 | Assess and evaluate resources for procuring a comprehensive document management system suitable for efficiently managing, maintaining, and accessing the documents associated with long-term P3 projects. | AGREE | SEPTEMBER 2015 |

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

| REC. NO. | PAGE NO. | RECOMMENDATION SUMMARY | AGENCY RESPONSE | IMPLEMENTATION DATE |
|----------|----------|--|--|---|
| 11 | 87 | Review processes and establish an adequate system of internal control for monitoring the performance and budget for contracted expert advisors to ensure the work remains within the budgeted amount and the services delivered are of sufficient quality and delivered in accordance with the requirements set forth in the contract. Additionally, consider implementing the contract monitoring best practices outlined in statute and State Fiscal Rule 3-1. | AGREE | IMPLEMENTED |
| 12 | 94 | Work with the Colorado Department of Transportation (CDOT) to develop a comprehensive monitoring framework and systematic mechanisms for managing and monitoring the concessionaire during the 50-year operations phase of the concession agreement. Specifically, (a) execute a project-specific agreement for the US-36 P3 Project specifying in detail HPTE's, CDOT's, and their contractors' respective roles and responsibilities for operations and maintenance monitoring; (b) review and revise, as appropriate, the contract with the engineering firm responsible for monitoring the concessionaire's technical requirements to ensure adequate controls are in place to prevent the engineering firm from monitoring its own work; (c) provide training through "scenario workshops" to educate and obtain input from CDOT operations and maintenance personnel on the performance standards and related requirements outlined in the concession agreement; (d) use the information developed through the "scenario workshops" to develop detailed monitoring management plans that ensure adequate technical review, provide for managing incidents and emergencies, establish protocols for addressing noncompliance, and incorporate processes for change and claims management for the operations phase; and (e) further refine the monitoring framework by researching and incorporating leading practices and lessons learned from other U.S. P3 projects that are in the operations phase. | A. AGREE B. AGREE C. AGREE D. AGREE E. AGREE | A. JULY 2015 B. IMPLEMENTED C. SEPTEMBER 2015 D. SEPTEMBER 2015 E. SEPTEMBER 2015 |
| 13 | 99 | Build upon the best practices and lessons learned from the US-36 P3 Project and strengthen the P3 program for the future by (a) developing a project management framework and detailed guidance for managing large and complex P3 initiatives that identify the key elements, decision points, information, and processes required for developing, procuring, and operating P3 projects in Colorado; (b) working with CDOT and the HPTE Board to develop strategies for acquiring adequate resources and project management expertise for managing, developing, and overseeing its P3 program; and (c) identifying staff training needs and ensuring adequate resources are allocated to provide ongoing training, including project management training and specific training on HPTE's project management guidelines, to HPTE personnel and staff from CDOT, the Office of the State Controller, and the Office of the Attorney General working on P3 projects. | A. AGREE B. AGREE C. AGREE | A. JANUARY 2016 B. JANUARY 2016 C. JANUARY 2016 |



CHAPTER 1

OVERVIEW OF PUBLIC-PRIVATE PARTNERSHIPS

A public-private partnership, or P3, is a contractual agreement formed between a public owner/agency (such as a state or local government) and a private sector entity that allows for greater private sector participation in the delivery and financing of a government-owned project. With respect to transportation projects, P3 concessions are public-private agreements in which the public owner/agency owns the transportation facility (such as a highway) and the private sector (concessionaire) takes on some of the risks and rewards of financing, constructing, operating, and maintaining the transportation facility in exchange for the right to future revenues or payments for a specified term. The contractual arrangement between the public owner/agency and the private sector concessionaire is formalized through a long-term concession agreement. P3 concessions can dramatically accelerate construction on projects that would take decades to build without private funding.

Public owner/agencies may use P3 concessions to construct or rehabilitate highways, bridges, or tunnels that the public owner/agency would otherwise have undertaken using public funds through traditional project development. The Federal Highway Administration encourages consideration of P3s in the development of transportation improvements. Currently 12 states (California, Colorado, Florida, Georgia, Indiana, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Texas, and Virginia) and Puerto Rico have P3 transportation concessions in procurement, under construction, or in operation.

P3s may be structured in a variety of ways depending on the elements and risks the private owner/agency wishes the private sector concessionaire to assume. The most common P3 structures used for large transportation projects are shown in the following table.

| TYPES OF PUBLIC-PRIVATE PARTNERSHIP ARRANGEMENTS COMMONLY USED FOR TRANSPORTATION PROJECTS | | | | | | |
|--|---|-------|---------|---------|----------|---------|
| | RISKS/ACTIVITIES ASSUMED BY THE PRIVATE SECTOR (CONCESSIONAIRE) | | | | | |
| | DESIGN | BUILD | FINANCE | OPERATE | MAINTAIN | REVENUE |
| DESIGN-BUILD —concessionaire designs and builds the project; public owner/agency finances, operates, and maintains the project. | X | X | | | | |
| DESIGN-BUILD-OPERATE-MAINTAIN —concessionaire designs, builds, operates, and maintains the project; public owner/agency finances the project. | X | X | | X | X | |
| DESIGN-BUILD-FINANCE —concessionaire designs, builds, and finances the project; public owner/agency operates and maintains the project. | X | X | X | | | |
| DESIGN-BUILD-FINANCE-OPERATE-MAINTAIN —“AVAILABILITY PAYMENT”—concessionaire designs, builds, finances, operates, and maintains the project; public owner/agency pays the concessionaire fixed periodic payments and retains the risk of paying the concessionaire from available revenue sources, such as taxes, fees, grants, or tolls, over the term of the agreement. The concessionaire’s payments are adjusted based on the availability of facilities and services, and the extent to which the concessionaire meets performance specifications. | X | X | X | X | X | |
| DESIGN-BUILD-FINANCE-OPERATE-MAINTAIN —“REVENUE RISK”—concessionaire designs, builds, finances, operates, and maintains the facility, but also assumes the risk of earning adequate toll or user fee revenue and uses this revenue to support and pay the financing for all or part of the project. | X | X | X | X | X | X |

SOURCE: Federal Highway Administration, Office of Innovative Program Delivery.

THE HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

In 2009, the General Assembly created the High Performance Transportation Enterprise (HPTE) in the Funding Advancement for Surface Transportation and Economic Recovery or “FASTER” Act [Section 43-4-801, et seq., C.R.S.]. The General Assembly specifically charged HPTE with the responsibility to seek out opportunities for public-private partnerships for the purpose of completing road and bridge projects through any available means of financing that will allow the efficient completion of projects [Section 43-4-806 (1) (c), C.R.S.]. By statute, HPTE’s business purpose is to “pursue public-private partnerships and other innovative and efficient means of completing surface

transportation infrastructure projects [Section 43-4-806 (2) (c), C.R.S.].” To accomplish that purpose, HPTE has authority to:

- Impose tolls and other user fees for the privilege of using surface transportation infrastructure.
- Issue revenue bonds secured by those tolls and fees.
- Contract with government and nongovernment sources for loans or grants to be used to support HPTE’s functions.
- Seek out and enter into public-private partnerships.

HPTE is a government-owned business established as a separate division within the Colorado Department of Transportation (CDOT). HPTE is an enterprise for purposes of Section 20 of Article X of the State Constitution (commonly referred to as “TABOR”), and accordingly is not subject to the revenue and spending limitations of TABOR as long as it receives less than 10 percent of its total revenues in grants from state and local governments. A seven member board of directors (the HPTE Board) oversees HPTE’s operations; four members are appointed by the Governor and three are appointed by the Transportation Commission. The HPTE Board appoints the executive director and together, the HPTE Board and executive director exercise powers and perform duties specifically vested in statute.

HPTE accomplishes its statutory duties in collaboration with CDOT, the Transportation Commission, and affected local governments. According to HPTE, once CDOT identifies major project needs and available funding sources, HPTE:

- Explores creative financing and delivery alternatives on a case-by-case basis.
- Analyzes delivery alternatives and compares the costs, risks, and availability of traditional public financing against the potential value of private investment.
- Seeks approval from the HPTE Board and, in consultation with CDOT’s Executive Director and the Transportation Commission, implements the preferred alternative.

ADMINISTRATION AND FUNDING

As a government-owned business or “enterprise,” HPTE must generate resources to cover its costs. At start-up, the Transportation Commission approved loans from CDOT to cover HPTE’s annual operating costs. HPTE secures additional resources for individual projects from the project sponsors promoting or benefiting from the project—such as CDOT, local governments, and the Regional Transportation District (RTD)—and from the Federal Highway Administration through discretionary grants. HPTE receives revenue from tolls and fees charged to users of its projects and may allocate

these revenues to help finance its own projects or to pay a concessionaire for a P3 project.

By statute [Section 43-4-806 (3) and (4), C.R.S.], HPTE has two separate funds for financing its activities and each fund must be accounted for and maintained separately. The Statewide Transportation Special Revenue Fund is HPTE’s principal revenue source and receives revenues collected from tolls, fees, and other fines for use on authorized projects. The second fund, the Enterprise Operating Fund, was created to house monies provided by the Transportation Commission from the State Highway Fund to help defray HPTE’s expenses until HPTE receives adequate revenues from other sources to pay its operating costs. The Enterprise Operating Fund also receives funds from federal grants and other state and local sources to support specific projects.

For Fiscal Years 2011 through 2014, HPTE had four appropriated full-time equivalent employee (FTE) staff, including its executive director. HPTE’s revenues and expenses for Fiscal Years 2011 through 2014 for both funds combined are shown in the following table.

| HIGH PERFORMANCE TRANSPORTATION ENTERPRISE REVENUES AND EXPENSES (IN THOUSANDS) AND FTE FISCAL YEARS 2011 THROUGH 2014 STATEWIDE TRANSPORTATION SPECIAL REVENUE FUND AND ENTERPRISE OPERATING FUND COMBINED | | | | |
|---|---------------------|---------------------|---------------------|---------------------|
| | FISCAL YEAR 2011 | FISCAL YEAR 2012 | FISCAL YEAR 2013 | FISCAL YEAR 2014 |
| TOTAL REVENUE | \$3,459 | \$7,944 | \$4,451 | \$22,045 |
| Charges for tolls and services | \$2,485 | \$3,898 | \$2,655 | \$1,973 |
| Federal revenues | 875 | 3,925 | 0 | 14,425 |
| Investment income | 80 | 86 | 191 | 391 |
| Other operating revenue | 19 | 35 | 1,098 | 2,114 |
| Other non-operating revenue | 0 | 0 | 507 | 3,142 |
| TOTAL EXPENSES | \$3,793 | \$3,226 | \$4,299 | \$22,057 |
| Salaries and benefits | 244 | 375 | 446 | 600 |
| Operating and travel | 282 | 408 | 635 | 276 |
| Construction expenses | 0 | 0 | 0 | 18,016 |
| Professional services | 2,362 | 2,418 | 3,218 | 3,165 |
| Non-operating expenses | 0 | 25 | 0 | 0 |
| Interagency transfers ¹ | 905 | 0 | 0 | 0 |
| TOTAL REVENUE LESS EXPENSES² | (\$334) | \$4,718 | \$152 | (\$12) |
| FTE Positions | 4 | 4 | 4 | 4 |

SOURCE: Audited financial statements for Fiscal Years 2011 through 2014 provided by HPTE.
¹ Loan repayment made by HPTE to CDOT.
² Carryover amounts from prior years covered operating deficits.

HPTE’s resources are supplemented by contracted expert advisors who assist with developing transportation improvement projects, including P3s. As of the end of Calendar Year 2014, HPTE had contracts with:

- Two legal advisors with expertise in P3s and project finance, one for the US-36 P3 Project and one for the I-70 East project currently in the project development stage.
- One financial advisor with expertise in P3s and project finance for the I-70 East project currently in the project development stage.
- One technical advisor with expertise in toll services for general tasks as needed.
- One traffic and revenue advisor with expertise in analysis of traffic and toll revenues for I-70 West.
- One technical advisor with expertise in traffic demand management to assist in monitoring managed lanes on I-25 and US-36.

OFFICE OF MAJOR PROJECT DEVELOPMENT

In February 2013, CDOT created the Office of Major Project Development (OMPD) to assist both CDOT and HPTE “to more effectively and efficiently develop major projects through the promotion of consistency in the advancement, management, and oversight of major projects.” In September 2013, HPTE and CDOT executed an interagency memorandum of understanding outlining each agency’s responsibilities with respect to developing major transportation projects. As of June 30, 2014, OMPD had four appropriated FTE staff and contracted with the following expert advisors to support both CDOT and HPTE:

- One technical advisor with program management expertise related to planning, developing, and monitoring technical aspects of major projects, including design, construction, operations and maintenance, toll services, and other related project elements assigned by general task orders as needed.
- One traffic and revenue advisor with expertise in analyzing traffic and toll revenues associated with a potential extension of E-470, currently under study.
- One financial advisor with expertise in P3s and project finance assigned by general task orders as needed.

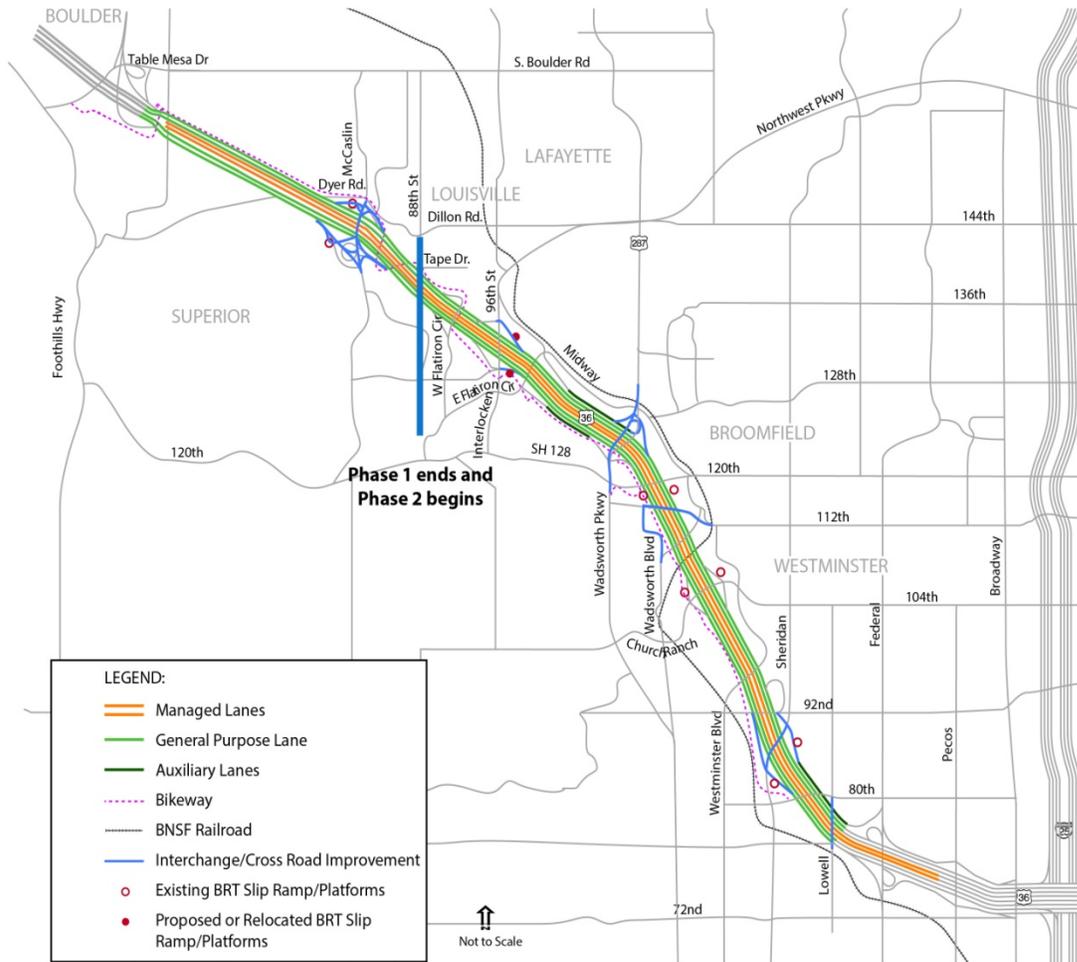
US-36 PROJECT

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. The corridor operates at nearly 90 percent capacity and experiences 3 to 4 hours of severe congestion in both directions daily.

The new construction elements of the US-36 project involve improvements to an approximately 18-mile corridor that begins at I-25/Pecos Street in Adams County and

ends near Foothills Parkway/Table Mesa Drive in Boulder, as shown in the following map.

US-36 PROJECT



SOURCE: HPTE.

The project's estimated total construction cost is about \$500 million and includes the following improvements:

- Adding a single “managed express lane” in each direction between I-25/Pecos Street and Foothills Parkway/Table Mesa Drive. Single Occupancy Vehicles are tolled; Bus Rapid Transit and High Occupancy Vehicles—which are vehicles containing two or more people—are not tolled. Managed lanes, High Occupancy Vehicles, and tolls are discussed in more detail later in this section.
- Reconstructing a 15.2 mile stretch of the highway.

- Widening the highway to accommodate 12-foot-wide inside and outside shoulders.
- Adding Bus Rapid Transit improvements, including new electronic display signage at stations and enhancements at interchange ramps that facilitate priority for RTD buses entering US-36. The construction will also provide shoulder lanes to allow buses to travel on the shoulders of US-36 between interchanges to decrease bus travel time.
- Replacing the bridges at Wadsworth Parkway, Wadsworth Boulevard (at 112th Avenue), Lowell Boulevard, and Sheridan Boulevard, and the US-36 bridge over the Burlington Northern Santa Fe Railway.
- Constructing a diverging diamond interchange at McCaslin Boulevard to improve safety and provide better flow for buses, cars, bicyclists, and pedestrians.
- Installing Intelligent Transportation Systems to facilitate tolling, transit, traveler information, and incident management. These systems include: electronic signage to notify travelers of the toll rates and provide traveler information; equipment to monitor the flow of traffic to help set variable toll rates, monitor performance requirements, and respond timely to incidents; and toll collection equipment.
- Installing a separate commuter bikeway from 80th Street (between Sheridan and Lowell) on the southern end to Foothills Parkway/Table Mesa Drive on the northern end of the corridor.
- Improving RTD stations along the corridor, including new canopies with enhanced weather protection.

A key feature of the US-36 project is the addition of one managed express toll lane (managed lane) running each direction down the entire US-36 corridor. The US-36 managed lanes will connect to the existing I-25 reversible managed lanes extending from Downtown Denver to I-25/Pecos Street. Bus Rapid Transit will have priority for use of the managed lanes. Riders pay for the bus service, but buses are not charged a toll for using the corridor. High Occupancy Vehicles containing two or more people also will not pay tolls. High Occupancy Vehicles must contain three or more people beginning in 2017, or sooner if the managed lanes reach a trigger of over-congestion. All other vehicles will pay a toll if they choose to use the managed lanes. The process for tolling managed lanes and for setting tolls is discussed in more detail later in this chapter.

In addition to HPTE and CDOT, other governmental entities, including RTD, the Denver Regional Council of Governments (DRCOG), and five local governments (Boulder County, the City and County of Broomfield, the cities of Louisville and Westminster, and the town of Superior) supplied financial support and provided input into desired improvements for the US-36 corridor. Specifically, RTD provided funding to ensure its Bus Rapid Transit has priority in express toll lanes and to have input into bus travel time

goals for the US-36 corridor. Travel time goals will be accomplished through the managed lanes by increasing or decreasing the toll rates for vehicles using the express toll lanes (except for Bus Rapid Transit or High Occupancy Vehicles) so that traffic flow remains more constant and travel time goals can be met. The local governments provided financial support for improvements at interchanges that were important to their respective jurisdictions.

The US-36 project is being constructed in two phases, as described below.

PHASE 1 of the US-36 project (I-25/Pecos Street to 88th Street in Louisville) is financed through public funds and constructed through a design-build delivery model. The private sector contractor carrying out the design and construction work does not have a role in financing the project or operating and maintaining it after completion. The project broke ground in July 2012 and is scheduled to open by June 2015. CDOT manages the project. Project costs are funded by federal, state, and local dollars as shown in the following table.

| US-36 PROJECT – PHASE I CONSTRUCTION FUNDING BY SOURCE (IN MILLIONS) | |
|--|----------------|
| Regional Transportation District | \$124.0 |
| Colorado Department of Transportation and the Colorado Bridge Enterprise | \$77.7 |
| Future US-36 Phase 1 Toll Revenues advanced through a Federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan ¹ | \$54.0 |
| Denver Regional Council of Governments | \$46.6 |
| HPTE (I-25 Toll Revenues and Federal Transportation Investment Generating Economic Recovery [TIGER] Grant) | \$10.0 |
| City and County of Broomfield and City of Westminster | \$5.6 |
| TOTAL | \$317.9 |
| SOURCE: Information provided by CDOT and HPTE. | |
| ¹ The maximum TIFIA loan amount for Phase 1 construction was \$54 million. | |

PHASE 2 of the US-36 project (88th Street in Louisville to Foothills Parkway/Table Mesa Drive) is the first highway project in Colorado to use a P3 to design, build, finance, operate, and maintain a major roadway under a long-term contract. Work on Phase 2 began in late 2013 and is scheduled to be completed in early 2016. The project started with “early works,” such as utility work, which began prior to financial close, as discussed later in this chapter. Funding for US-36 Phase 2 construction is shown in the following table.

**US-36 P3 PROJECT – PHASE 2
CONSTRUCTION FUNDING BY SOURCE (IN MILLIONS)**

| | |
|--|----------------|
| Toll Revenues on I-25 and US-36 (from both Phase 1 and 2) advanced by the concessionaire | \$120.0 |
| Regional Transportation District | \$18.5 |
| Denver Regional Council of Governments | \$15.0 |
| Colorado Department of Transportation | \$15.0 |
| Boulder County, the City of Louisville, and the Town of Superior | \$11.0 |
| TOTAL | \$179.5 |
| SOURCE: Information provided by HPTE. | |

US-36 PROJECT DEVELOPMENT AND PROCUREMENT PROCESS

The US-36 Public-Private Partnership Project is referred to as the US-36 P3 Project in this report. The US-36 P3 Project includes construction of US-36 Phase 2 plus toll services and operations and maintenance of the I-25 and US-36 managed lanes from Downtown Denver to Foothills Parkway/Table Mesa Drive in Boulder over the 50-year term of the concession agreement. Although P3s are still relatively new in the United States and P3 practices continue to evolve, most state transportation departments, including HPTE, typically observe generally accepted, or “industry standard” practices to develop and procure P3 projects. These industry standard practices broadly involve the following steps:

EVALUATING THE FEASIBILITY OF THE PROJECT (PROJECT DEVELOPMENT)—the public owner/agency evaluates the feasibility and cost-benefit of delivery options for the project and determines whether to move the project forward into procurement by:

- **IDENTIFYING KEY GOALS FOR THE PROJECT**, including what construction and reconstruction will occur, what risks will be allocated to the concessionaire, and what operational and performance levels are desired. HPTE’s overarching goal was to accelerate the construction and completion of the US-36 corridor and to limit the public funds contributed to the Project to a total of \$45 million, including a maximum of \$15 million from state funds as determined by the Transportation Commission. To that end, HPTE’s primary goals for the US-36 P3 Project included:
 - Improving mobility in the US-36 corridor by adding a “tolled managed lane” in each direction to facilitate Bus Rapid Transit and tolled express auto travel.
 - Shifting financial risk to the private sector for the design-build work on the I-25 managed lanes and US-36 Phase 2. This included transferring the risk of earning adequate toll revenues from the I-25 and US-36 managed lanes to the concessionaire.
 - Shifting operations and maintenance of the corridor to the private sector, where cost-effective, and releasing CDOT from its obligation under the TIFIA loan to operate

and maintain the I-25 and US-36 Phase 1 managed lanes without remuneration if toll revenues from Phase 1 are insufficient to pay both debt service and operations and maintenance expenses.

- **HOLDING MEETINGS WITH PRIVATE INDUSTRY** to gauge interest, obtain input, explore opportunities for potential innovations, and identify potential barriers to project delivery. For the US-36 P3 Project, HPTE hosted an “industry forum” in August 2011 and discussed possible delivery options with international, national, regional, and local industry participants, including P3, construction, engineering, and financial firms.
- **CONDUCTING AN INITIAL PROJECT VALUE ANALYSIS** (also called a Value for Money Analysis) that compares the benefits and costs of delivering the project through a P3 with the benefits and costs of the public owner/agency delivering the project through traditional methods. HPTE’s expert advisors prepared an initial Project Value Analysis evaluating different approaches, including a P3 Availability Payment approach and a P3 Revenue Risk approach, and compared them to traditional delivery by CDOT.
- **DECIDING WHETHER TO PROCEED WITH THE PROJECT AS A P3**, based on whether the P3 project meets identified goals and is the best value option as demonstrated by the Project Value Analysis. HPTE presented the various options and the key elements of the Project Value Analysis for the US-36 P3 Project to the HPTE Board in December 2011. The only approach that met all of HPTE’s goals was the P3 Revenue Risk approach, where the concessionaire assumes the risk of designing, building, financing, operating, and maintaining the transportation facility and also the risk of earning enough toll revenue to cover all associated costs. A revenue risk P3 typically requires a contract term ranging between 40 and 75 years to provide enough time for the concessionaire to earn adequate revenue to recover its investment and earn a reasonable profit.

PROCURING THE PROJECT—the public owner/agency engages in a multi-phase process for procuring the project by:

- **ISSUING A REQUEST FOR QUALIFICATIONS (RFQ)** to provide prospective bidders with information about the project; outline the public owner/agency’s goals for the project; determine whether an adequate number of prospective bidders have the qualifications needed to execute the project, thereby creating a competitive environment; and weed out prospective bidders that do not have the qualifications to execute the project successfully. The most qualified prospective bidders are “short-listed” and move on to the next step in the procurement phase. The HPTE Board voted to move forward with the US-36 project as a P3 project by issuing the Request for Qualifications for the Project in February 2012. After HPTE, its expert advisors, and staff from CDOT, RTD, and the Office of the Attorney General reviewed the qualification packages from four prospective bidders, HPTE recommended that three prospective bidders be “short-listed” to move forward to the Request for Proposal stage. The HPTE Board approved the short-list of three bidders in May 2012.

- ISSUING A REQUEST FOR PROPOSAL (RFP)** to outline the technical, financial, and legal requirements for the Project; specify requirements for preparing and submitting proposals; provide drafts of agreements that the public owner/agency and selected bidder will execute after negotiations; and clarify the procedures that the public owner/agency will follow in reviewing and ranking the proposals. RFPs for large, complex projects such as the US-36 P3 Project are voluminous and comprehensive, amounting to thousands of pages of documentation. The RFP is provided to the short-listed bidders in draft form, and is typically followed by “one-on-one” meetings between the public owner/agency and each bidder. The “one-on-one” meetings allow the bidders to ask clarifying questions and provide suggestions for improving the RFP documents. HPTE issued the draft RFP for the US-36 P3 Project in July 2012. One-on-one sessions, bidders’ submissions of written questions, and HPTE’s responses to bidders’ questions occurred between July and December 2012. HPTE finalized the RFP in December 2012 and proposals were due March 1, 2013. As part of the RFP, HPTE included a “stipend” of \$500,000 per bidder to be paid to unsuccessful bidders that submitted a proposal meeting the minimum requirements. The payment and acceptance of the stipend allows HPTE to use materials provided by the unsuccessful bidder, including partial engineering plans, approaches to the project, and other related information.
- SELECTING THE PREFERRED BIDDER** based on criteria outlined during the RFP process. In addition to cost, evaluation criteria typically include the bidders’ technical and financial capabilities and P3 experience. Two bidders submitted proposals in response to the final RFP for the US-36 P3 Project. After detailed evaluation of the proposals by HPTE, its expert advisors, and representatives from CDOT, RTD, and the Office of the Attorney General, the HPTE Board selected Plenary Roads Denver as the preferred bidder in April 2013. A short time period is allowed for other bidders to “protest the scoring,” and after this period expired, HPTE notified Plenary Roads Denver that it was the selected bidder. Plenary Roads Denver and its consortium are referred to as “the concessionaire” throughout this report. The key parties to the consortium, as well as their respective responsibilities, are displayed in the table below.

| US-36 P3 PROJECT KEY CONCESSIONAIRE CONSORTIUM MEMBERS AND RESPONSIBILITIES | |
|--|----------------------------|
| ORGANIZATION | RESPONSIBILITIES |
| Plenary Roads Denver | Concessionaire |
| Ames Construction, Inc. | Construction |
| Granite Construction | Construction |
| HDR | Engineering Design |
| Transfield Services | Operations and Maintenance |
| Goldman Sachs | Financial Advisor |
| SOURCE: Clary Consulting, LLC review of documents provided by HPTE. | |

- NEGOTIATING THE CONCESSION AGREEMENT WITH THE SELECTED BIDDER** based on draft agreements developed for the RFP. HPTE and its expert advisors held meetings with the selected bidder to discuss finalization of the concession agreement, which

was executed at “commercial close” in June 2013. Commercial close allows the concessionaire to move forward with obtaining financing. Commercial close occurs before financial close because the lenders and rating agencies need the information in the concession agreement to complete their due diligence reviews.

- **FAILURE TO REACH FINANCIAL CLOSE** results in termination of the concession agreement. In the case of the US-36 P3 Project, if failure to reach financial close was caused by specific matters identified in the concession agreement for which HPTE or the State accepted responsibility, HPTE would have been required to make a termination payment to the concessionaire for the \$500,000 stipend amount. If the termination came about under extraordinary circumstances (such as situations involving bad faith on the part of HPTE or the State) HPTE or the State could have also been responsible for all or part of at least \$20 million in costs incurred by the concessionaire for pursuing the project to the date of the termination, including engineering and design costs, expert advisor costs, costs incurred by the selected bidders’ major partners, and reasonable lost profits. In contrast, if the concession agreement was terminated for any reason other than the specific matters for which HPTE or the State accepted responsibility prior to reaching financial close, HPTE would have been able to draw upon \$15 million in proposal/financial close security that was provided by the concessionaire.
- **EXECUTING FINANCIAL CLOSE** occurs once the concessionaire secures financing and all conditions required by lenders and rating agencies have been met. HPTE and the concessionaire executed the financial closing documents in February 2014. Final closing documents included amendments to the concession agreement executed prior to or at financial close, creating the “Amended and Restated Concession Agreement” that governs the implementation of the US-36 P3 Project. The concessionaire is “at risk” for repaying debt financing from the tolls received from the I-25 and US-36 managed lanes after paying its administrative costs, annual operations and maintenance costs, and periodic major maintenance costs for the managed lanes. HPTE’s expert advisors updated the Project Value Analysis immediately prior to financial close and reconfirmed that the US-36 P3 Project, as structured at financial close, was the best value for the State. Financing obligations for the concessionaire at financial close are shown in the following table.

| CONCESSIONAIRE'S FINANCING FOR THE US-36 P3 PROJECT BY SOURCE OF DEBT OR EQUITY (IN MILLIONS) | | |
|--|---|----------------|
| SOURCE OF DEBT/EQUITY | DESCRIPTION | AMOUNT |
| TOTAL DEBT | | \$155.9 |
| Senior Private Activity Bonds for US-36 Phase 2 | Issued by HPTE as a conduit for the concessionaire; the concessionaire has all the risk for repayment of the bonds | \$20.0 |
| Assumption of TIFIA Loan for US-36 Phase 1 ¹ | The concessionaire will assume this loan from HPTE when Phase 1 construction is completed | \$55.4 |
| TIFIA Loan for US-36 Phase 2 | The concessionaire is the borrower | \$60.0 |
| Northleaf Capital Loan | The concessionaire is the borrower and the loan is subordinate to the Senior Bonds and the TIFIA loans | \$20.5 |
| TOTAL EQUITY | Equity is cash commitments pledged by the concessionaire at financial close backed by Letters of Credit or other forms of secure obligations. | \$20.5 |
| TOTAL DEBT AND EQUITY | | \$175.4 |
| SOURCE: Clary Consulting review of financial close documents provided by HPTE. | | |
| ¹ The TIFIA loan for US-36 Phase 1 construction was \$54 million. The loan accrued interest during the construction of Phase 1; at financial close the principal plus accrued interest increased to \$55.4 million. | | |

- **ASSESSMENT OF LESSONS LEARNED** to evaluate the P3 development and procurement process and identify best practices and areas for improvement. HPTE hosted a workshop with its expert advisors as well as appropriate staff from CDOT, RTD, and the Office of the Attorney General after financial close for the US-36 P3 Project and identified improvements for future P3 procurements.

US-36 P3 PROJECT CONCESSION AGREEMENT

The State of Colorado retains ownership of the I-25 managed lanes and US-36 throughout the term of the 50-year concession agreement. CDOT retains overall responsibility for managing the roadways; the Colorado State Patrol and local law enforcement agencies are responsible for law enforcement within their respective jurisdictions. The concession agreement outlines the concessionaire's specific responsibilities related to the US-36 P3 Project over the 50-year term as described below.

DESIGN AND CONSTRUCTION. The concessionaire is responsible for constructing improvements on US-36 for the 5-mile stretch between 88th Street in Louisville to Foothills Parkway/Table Mesa Drive in Boulder and for repairing and improving the I-25 managed lanes (to be paid by HPTE), as outlined in the concession agreement. Improvements to the I-25 managed lanes are discussed in more detail in CHAPTER 2.

ANNUAL ROUTINE OPERATIONS AND MAINTENANCE. The concessionaire is responsible for operating and maintaining all US-36 general purpose and managed express lanes, as well as highway right-of-ways on either side of the travel lanes, from I-25/Pecos Street to Foothills Parkway/Table Mesa Drive in Boulder. In addition, the concessionaire is responsible for the annual routine operations and maintenance of the managed express lanes (not general purpose lanes) on the 7.7 mile stretch of I-25 between Downtown Denver and Pecos Street. Annual, routine operations and maintenance includes, but is not limited to: pothole repairs, snow and ice removal, rehabilitation, and striping. Under the concession agreement CDOT, through HPTE, will pay the concessionaire a yearly fee of \$675,000 for routine operations and maintenance and about \$458,348 for snow and ice removal, indexed to inflation, on the US-36 general purpose lanes. The concession agreement sets standards for routine operations and maintenance quality and service delivery, and if these standards are not met, the concessionaire incurs penalties that can result in negative financial impacts.

MAJOR MAINTENANCE. Major maintenance includes both periodic surface treatments to maintain the quality of the road, as well as full reconstruction of the highway when warranted. The concessionaire is responsible for major maintenance of the US-36 and I-25 managed express lanes. CDOT will retain responsibility for major maintenance of the general purpose lanes on US-36 and I-25.

TOLL COLLECTION AND ENFORCEMENT. The concessionaire is responsible for collecting and enforcing tolls for vehicles (except for buses and High Occupancy Vehicles) traveling on I-25 managed lanes between Downtown Denver and Pecos Street and on US-36 managed lanes. The concessionaire has contracted with the E-470 Authority to provide toll services on the I-25 managed lanes and is in the process of contracting with the E-470 Authority for the US-36 managed lanes. Toll services includes toll collection (including all of the hardware and software needed to read, assess, and collect tolls) on the managed lanes; customer service for setting up toll accounts and responding to customer questions and concerns; and enforcement, including assessing fines and pursuing uncollected tolls due.

OPERATION OF THE MANAGED LANES. The concessionaire is responsible for operation of the managed lanes. Managed lanes operate differently than traditional toll facilities, where vehicles pay a flat toll amount depending on the distance traveled regardless of the lanes used. In contrast, managed lanes provide the traveler a “choice:” (1) paying a bus fare to travel in an RTD bus on the managed lane; (2) car-pooling in a High Occupancy Vehicle on the managed lane; (3) vehicles other than High Occupancy Vehicles paying a toll to use the managed lane; or (4) traveling for free on the general purpose lanes. The tolls vary throughout the day to ensure that traffic in the managed lanes moves at travel speeds higher than the general purpose lanes. The concession agreement provides that the tolls must be designed to ensure that specified minimum performance levels are achieved. The concessionaire must monitor traffic congestion and speeds on the I-25 and US-36 managed lanes in partnership with HPTE, CDOT, and RTD to ensure the managed lanes move traffic at the required speeds.

TOLL RATES. The concessionaire is responsible for proposing toll rates and penalty charges (for toll violations and collection fees) to the HPTE Board for approval. While not stated explicitly in the concession agreement, it is expected that the HPTE Board will approve toll increases when congestion and traffic speeds in the managed lanes are not meeting performance expectations (e.g., speeds in the managed lanes are as slow as, or slower than, the general purpose lanes). If the HPTE Board does not approve a proposed toll increase, and the concessionaire can prove that the managed lanes are not meeting performance expectations, HPTE may be required to pay damages to the concessionaire for potential lost toll revenues. The US-36 managed lanes are not operating yet, but according to the concession agreement, the toll rates per trip must not be less than RTD’s rates for Bus Rapid Transit on US-36, and must not exceed the \$13.91 cap (adjusted annually for inflation). Effective March 2015, new toll rates for the I-25 managed lanes were proposed by the concessionaire and approved by the HPTE Board as shown in the following table.

| TOLL RATES FOR I-25 MANAGED LANES EFFECTIVE MARCH 2015 | | |
|---|---|--|
| TIME (24-HOUR CLOCK) | “EXPRESS TOLL” TOLL ¹ AMOUNTS | “LICENSE PLATE” TOLL ² AMOUNTS |
| 3:00 to 5:00 southbound and northbound | Lane closed | Lane closed |
| 5:00 to 6:00 southbound | \$0.70 | \$1.45 |
| 6:00 to 6:45 southbound | \$2.30 | \$3.45 |
| 6:45 to 7:15 southbound | \$4.20 | \$6.30 |
| 7:15 to 8:15 southbound | \$4.65 | \$6.98 |
| 8:15 to 8:45 southbound | \$4.20 | \$6.30 |
| 8:45 to 10:00 southbound | \$1.65 | \$2.48 |
| 10:00 to 12:00 southbound and northbound | Lane closed | Lane closed |
| 12:00 to 15:00 northbound | \$0.70 | \$1.45 |
| 15:00 to 15:30 northbound | \$2.00 | \$3.00 |
| 15:30 to 16:30 northbound | \$2.65 | \$3.98 |
| 16:30 to 18:00 northbound | \$4.65 | \$6.98 |
| 18:00 to 19:00 northbound | \$2.00 | \$3.00 |
| 19:00 to 03:00 northbound | \$0.70 | \$1.45 |
| Weekends southbound and northbound | \$0.70 | \$1.45 |

SOURCE: Information provided by HPTE.
¹Charged to users that have established Express Toll accounts with E-470. The user is issued a device that can be read by electronic toll equipment and payments are made as the user passes through the toll collection point.
²Charged to users that do not have Express Toll accounts. Software and cameras read the user’s license plate number and bills the user after traveling on the managed lanes.

EXCESS TOLL REVENUES. Under the concession agreement, HPTE receives a share of excess toll revenue if the concessionaire earns at least a 13.68 percent or higher cumulative return on its equity investment during the 50-year term, after the concessionaire has paid all of its annual costs related to the US-36 P3 Project. Once the 13.68 percent cumulative return is achieved, HPTE receives a share of the excess revenue, to be paid annually, as long as the cumulative return is at least 13.68 percent or greater. It is not possible to predict the year when the concessionaire might first earn at least 13.68 or higher cumulative return on its equity investment or if this level of return will be achieved at all, since earnings depend on many factors, including traffic volume, toll revenues, and expenses. Excess revenue, if received, must be used by

CDOT and HPTE for the US-36 corridor in accordance with an MOU executed with the affected local governments. The concessionaire is responsible for providing an updated financial report annually to HPTE that certifies the financial results of the US-36 P3 Project and must notify HPTE of the amount of excess revenue due. Once the concessionaire earns a 13.68 percent or higher cumulative return on its equity investment, annually that year and for each year after that, as long as the cumulative return on equity is at 13.68 percent or higher, HPTE receives excess revenue amounts through a formula, as shown in the following table.

| HIGH PERFORMANCE TRANSPORTATION ENTERPRISE'S SHARE OF EXCESS TOLL REVENUE BASED ON CONCESSIONAIRE'S CUMULATIVE PERCENTAGE RETURN ON EQUITY INVESTMENT FOR THE US-36 P3 PROJECT | | | |
|---|---|---|---|
| | CONCESSIONAIRE'S CUMULATIVE PERCENTAGE RETURN ON EQUITY INVESTMENT ¹ | | |
| | 13.68 TO 15.67 PERCENT | 15.68 TO 17.67 PERCENT | MORE THAN 17.68 PERCENT |
| | 25 percent of the amount earned above 13.68 percent | 25 percent of the amount earned above 13.68 percent up to 15.67 percent | 25 percent of the amount earned above 13.68 percent up to 15.67 percent |
| HPTE's Revenue Share to be Paid by the Concessionaire | | PLUS | PLUS |
| | | 33 percent of the amount earned above 17.67 percent | 33 percent of the amount earned above 15.68 percent up to 17.67 percent |
| | | | PLUS |
| | | | 50 percent of the amount earned above 17.68 percent |

SOURCE: Amended and Restated Concession Agreement for the US-36 P3 Project.
¹Once the concessionaire first earns 13.68 percent or more cumulative return on its equity investment after paying expenses, HPTE receives a share of excess toll revenue in each of the following years.

MONITORING. The concessionaire is responsible for monitoring its own activities against performance specifications and providing periodic reports to HPTE related to construction, operations and maintenance, major maintenance, and toll collection and enforcement. In addition, HPTE is accountable for monitoring the concessionaire's performance. Under the concession agreement, the concessionaire pays HPTE a yearly fee of \$375,000, indexed to inflation, to help defray the cost for HPTE to provide periodic monitoring of the US-36 P3 Project over the 50-year term of the concession agreement.

HANDBACK. The concession agreement specifies the required condition of the US-36 P3 Project's managed lanes, including roadways, bridges, equipment, and related assets, when the concessionaire "hands over" the facility to HPTE and CDOT at the end of the 50-year term. The concessionaire must create cash reserves or provide equivalents, such as a bank letter of credit, to ensure funds are available for improvements if the assets do not meet specified conditions when handback occurs.

TERMINATION/DEFAULT. HPTE may terminate the concession agreement for convenience or for cause, such as for consistent non-performance by the concessionaire. Whether terminated for convenience or cause, HPTE would take back the I-25 and US-36 managed lanes and receive the right to operate these facilities. In the case of termination for convenience, HPTE is required to compensate the concessionaire for: (1) the cost of construction improvements including paying any outstanding debts plus “breakage,” or early termination fees on outstanding bonds/loans; and (2) a reasonable return on the concessionaire’s equity investment and other reasonable costs due to the early termination. If termination occurs due to the concessionaire’s default or non-performance, HPTE is entitled to remedies, including the right to take back the highway and managed lanes, and in these cases, the concession agreement outlines that HPTE may only be obligated to pay part of the concessionaire’s debt or other obligations.

NON-COMPETE. The concession agreement does not limit the rights of HPTE or CDOT to make transportation improvements to the US-36 corridor or other transportation facilities in the area. However, the agreement does require HPTE to compensate the concessionaire for lost toll revenues due to any improvements which are built in the airspace above US-36 (excluding a lengthy list of planned future improvements that were known when the agreement was executed).

EARLY WORKS. HPTE’s goal is to complete US-36 Phase 2 as soon as possible after completing US-36 Phase 1. Due to delays in reaching financial close on the US-36 P3 Project (SEE CHAPTER 2), HPTE and the concessionaire agreed to advance certain “early works,” such as installation of utilities, before financial close was completed. The early works began in the fall of 2013; financial close occurred in February 2014. Advancement of early works did not increase the total cost of the Project.

AUDIT PURPOSE, SCOPE, AND METHODOLOGY

The Colorado Office of the State Auditor contracted with Clary Consulting, LLC to conduct this performance audit pursuant to Section 2-3-103, C.R.S., which authorizes the State Auditor to conduct audits of all departments, institutions, and agencies of state government. The performance audit was prompted by a legislative request and audit work was performed from October 2014 to February 2015.

We conducted this performance audit in accordance with generally accepted government audit standards, except for the standard requiring an external peer review every 3 years. Clary Consulting, LLC provides a variety of consulting services not requiring an external peer review; conducting government audits is not a routine part of our firm’s practice. To ensure the adequacy of our system of quality control, we provided (1) a highly-experienced senior partner to lead and manage the audit and supervise the legal and technical experts on the team; and (2) an independent, highly-experienced senior partner to review the documentation and ensure the audit evidence supported the conclusions in the findings and report. Consequently, we do not believe that the absence of an external peer review impacted the audit results or the assurance provided.

Generally accepted government audit standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We would like to thank HPTE, CDOT, the Office of the Attorney General, and the Office of the State Controller for their assistance during the audit.

The primary objective of this audit was to perform a detailed review of the US-36 P3 Project and to determine whether HPTE's processes for developing, procuring, and implementing the Project were consistent with industry standard practices and statutory/regulatory requirements to provide the best overall value to taxpayers. The audit was designed to answer the following questions:

1. Does HPTE have adequate and appropriate processes for developing and procuring P3 agreements that comply with all applicable laws, consider industry and government public participation standard practices, and ensure that surface transportation infrastructure projects are, as required by statute, properly prioritized and accelerated and that the resources for such projects are efficiently, effectively, and responsibly used? This included assessing the processes in place for information sharing, and timely solicitation and incorporation of input into decision making from all applicable stakeholders, including the General Assembly and the general public.
2. Did HPTE ensure that the terms of the US-36 P3 Project agreement regarding performance, responsibilities, and authority comply with all applicable laws, consider industry and government standard practices, and are supported by HPTE planning and development activities that identify these terms as being in the best interest of the State? This included reviewing the impact of termination and penalty provisions included in the agreement.
3. How did HPTE ensure that the costs of the US-36 P3 Project agreement are appropriate, provide for the efficient, effective, and responsible use of state resources, and are in the best interests of the State? This included comparing the financial terms of the agreement that were chosen by CDOT and HPTE to alternative scenarios and assessing the short- and long-term impact and risk to the State of the various options as outlined in the initial and final Project Value Analysis.

To answer these questions, we:

- Reviewed all applicable laws, policies, and guidelines related to the Project.
- Identified industry standard and best practices advocated by the Federal Highway Administration and used by other states (California, Florida, Georgia, Texas, and Virginia), the Commonwealth of Alberta, the World Bank, and the National Council for Public-Private Partnerships.

- Reviewed documents associated with the analysis and procurement of the US-36 P3 Project including, but not limited to:
 - Analysis of project delivery options including the Project Value Analysis Report and presentations made to the HPTE Board.
 - Major procurement documents, including the Request for Qualifications, Request for Proposal (drafts and final), draft Concession Agreement, written questions from bidders and HPTE's responses, Value Engineering Report, and other related documents provided by HPTE.
 - Private Activity Bonds Official Statement (public offering document updated after the bonds are sold).
 - Financial Close File, including TIFIA loan agreements; the Amended and Restated Concession Agreement; "Due Diligence" documents required as part of financial close (such as legal opinions, the audit of the concessionaire's financial model, and the technical advisor's review of the concessionaire's proposal and technical ability to meet the project requirements); major contracts such as the concessionaire's contract with the Design-Build Joint Venture, the equity investor's contracts, and the subordinated lender agreement; and TIFIA due diligence reviews.
 - Concessionaire's Financial Model as of financial close.
 - Qualifications of HPTE's legal, financial, and technical expert advisors.
 - HPTE Board meeting agendas and minutes during the term of the Project.
 - Select Transportation Commission meeting agendas and minutes that related to the Project.
 - Notes, agendas, and minutes of public meetings on the Project, when available.
 - Contracts between HPTE and CDOT related to the Project and also related to OMPD.
 - HPTE's post procurement assessment of best practices and lessons learned on the Project.
- We conducted interviews with individuals involved in analyzing and procuring the US-36 P3 Project, including HPTE and OMPD management and staff; CDOT staff responsible for overseeing the design-build elements of the Project; HPTE's legal, financial, and technical expert advisors; Office of the Attorney General and Office of the State Controller staff; and current and former chairmen of the HPTE Board.

We planned our audit work to assess the effectiveness of the internal controls that were significant to our audit objectives. Our conclusions on the effectiveness of those controls, as well as specific details about the audit work supporting our findings, conclusions, and recommendations, are described in the audit findings and recommendations. We noted certain other matters that we reported to HPTE management in a separate letter dated March 5, 2015.

A central focus of our audit was to evaluate HPTE’s development and procurement processes for the US-36 P3 Project and compare them with industry standard practices and applicable legal requirements and policies. Overall, we concluded that HPTE’s practices were generally consistent with industry standard practices and that HPTE executed the P3 alternative that met its goals and provided the best value for taxpayers. The following table details the areas where we found HPTE’s practices were consistent with legal requirements and industry standard practices. Areas for improvement are discussed in CHAPTER 2.

| EVALUATION OF HIGH PERFORMANCE TRANSPORTATION ENTERPRISE'S PROJECT DEVELOPMENT AND PROCUREMENT PROCESSES FOR THE US-36 P3 PROJECT COMPARED TO APPLICABLE LEGAL REQUIREMENTS OR POLICIES AND INDUSTRY STANDARD PRACTICES | | |
|---|---|---|
| AUDIT QUESTION | HOW WERE THE RESULTS MEASURED? | WHAT DID WE FIND? |
| PLANNING AND DEVELOPMENT | | |
| Did the US-36 project achieve environmental review and clearance? | National Environmental Policy Act (NEPA) and CDOT policy require that the proposed project be reviewed for a range of environmental requirements. | Required environmental studies and approvals were achieved. |
| Were key project goals identified? | NEPA requires that transportation improvement projects be designed and implemented to meet defined transportation goals. Industry standard practices for P3 projects as defined by the Federal Highway Administration also dictate that key project goals be established. | Key project goals were outlined and included: <ul style="list-style-type: none"> Improving mobility in the US-36 corridor by adding a “tolled managed lane” in each direction to facilitate Bus Rapid Transit and tolled express auto travel. Shifting financial risk to the private sector for the design-build work on the I-25 managed lanes and US-36 Phase 2. Shifting operations and maintenance risk to the private sector, where cost-effective. |
| Did HPTE identify relevant laws and legal requirements governing moving the Project forward as a P3? | Colorado statutes [Sections 43-3-202.5, 43-4-803 and 806, C.R.S.] establish legal requirements for implementing P3 projects. | Office of the Attorney General staff and expert legal advisors provided thorough reviews of relevant laws and helped HPTE apply them in the planning, procurement, and implementation of the US-36 P3 Project. |
| Did HPTE hire expert advisors to assist in evaluating and implementing the Project as a P3? | Other state departments of transportation and standard industry practices use expert advisors for evaluating and implementing P3 projects. | HPTE and CDOT hired highly experienced legal, financial, and technical expert advisors to advise them on the US-36 P3 Project. |
| Did HPTE prepare and review a Project Value Analysis that showed the public benefit for moving forward with US-36 Phase 2 as a P3 prior to beginning the procurement process? | Industry standard practices used by the Federal Highway Administration and other state departments of transportation recommend using a Project Value Analysis to plan and evaluate P3 projects prior to moving the project forward into the procurement process. | HPTE’s expert advisors prepared an analysis of alternative delivery options and an overall Project Value Analysis and presented this information to the HPTE Board prior to HPTE moving forward with US-36 Phase 2 as a P3 project. |

**EVALUATION OF HIGH PERFORMANCE TRANSPORTATION ENTERPRISE'S
PROJECT DEVELOPMENT AND PROCUREMENT PROCESSES FOR THE US-36 P3 PROJECT
COMPARED TO APPLICABLE LEGAL REQUIREMENTS OR POLICIES AND INDUSTRY STANDARD PRACTICES**

| AUDIT QUESTION | HOW WERE THE RESULTS MEASURED? | WHAT DID WE FIND? |
|---|---|--|
| Did the Project Value Analysis consider the risk of P3 project failure due to financial risk? | Industry standard practices require the Project Value Analysis to show and analyze stress scenarios. | The Project Value Analysis provides a scenario analysis that includes stress factors, such as higher-than-anticipated costs, lower-than-anticipated toll revenues, and changes in financing assumptions (i.e., increases in interest rates), to evaluate the financial risk for the project. |
| Did HPTE discuss the business case for moving US-36 Phase 2 forward as a P3 project with key outside interests? | Industry standard practices suggest that the business case be presented to key outside interests prior to moving forward with a P3. | HPTE presented the business case for moving US-36 Phase 2 forward as a P3 project to the HPTE Board and briefed the Transportation Commission in open public meetings. HPTE also briefed the Governor's Office and Office of the Attorney General staff. Briefings with lawmakers and outreach to the public on the business case could be improved, SEE CHAPTER 2. |
| Did HPTE develop a decision-making process for resolving key project issues with CDOT, the Federal Highway Administration, and local governments prior to moving the project forward as a P3 project? | Industry standard practices suggest that it is essential that a clear decision-making process be developed and put in place prior to moving the project forward as a P3 and for the planning, procurement, and implementation processes to be successful. | The HPTE management team and Board discussed the decision-making process in detail with CDOT management and the Transportation Commission. The HPTE management team worked closely with CDOT management and Office of the Attorney General staff to establish a decision-making process for the US-36 P3 Project. This process included consultation with and approvals from the Federal Highway Administration prior to moving forward. |
| PROCUREMENT, NEGOTIATION, AND MONITORING | | |
| Did HPTE plan a comprehensive procurement process designed to provide a competitive environment in accordance with applicable laws, policies, and procedures? | Industry standard practices, as evidenced by the Federal Highway Administration, Virginia, and the Province of Alberta suggest that a comprehensive procurement planning process is essential to ensuring a fair and competitive procurement environment. | Overall, HPTE planned a comprehensive two-step procurement process that included a Request for Qualifications and a Request for Proposals. HPTE's expert advisors assisted with legal and financial review and helped develop procurement documents, including draft agreements and technical requirements. Improvements can be made in the planning for toll services, federal loan financing, operations and maintenance services, and project scheduling, SEE CHAPTER 2. |
| Did HPTE communicate the P3 project opportunity to the P3 industry? | Industry standard practices dictate that strong communication with the P3 and construction industry is essential to encourage strong competition during the procurement process. | HPTE held an "industry forum" on a possible P3 approach for the US-36 project in August 2011. |
| Did the Request for Qualifications provide for a competitive opportunity to solicit high quality teams for the Project? | Industry standard practices for P3 projects typically include a Request for Qualifications stage where interested bidders outline their qualifications to deliver the P3 project. | The Request for Qualifications generally provided adequate opportunity for prospective bidders to outline their qualifications for the US-36 P3 Project. Improvements could be made to identify project requirements earlier for future P3 projects, SEE CHAPTER 2. |

**EVALUATION OF HIGH PERFORMANCE TRANSPORTATION ENTERPRISE'S
PROJECT DEVELOPMENT AND PROCUREMENT PROCESSES FOR THE US-36 P3 PROJECT
COMPARED TO APPLICABLE LEGAL REQUIREMENTS OR POLICIES AND INDUSTRY STANDARD PRACTICES**

| AUDIT QUESTION | HOW WERE THE RESULTS MEASURED? | WHAT DID WE FIND? |
|---|--|---|
| Did the procurement process include appropriate interactions with short-listed bidders to discuss the draft Request for Proposals, associated documents and agreements, and project technical specifications? | Industry standard practices for P3 projects typically provide for an interactive process where short-listed bidders review draft documents and provide feedback to the public owner/agency so that the final Request for Proposal is fair and supports strong competition for a project in the public's best interest. | <p>HPTE and CDOT and their advisors provided ample opportunity for short-listed bidders to pose questions and provide input into the draft Request for Proposal, associated documents and agreements, and technical specifications.</p> <p>Toll services, federal loan financing, and operations and maintenance elements of the Project had outstanding issues until late in the bidding process, SEE CHAPTER 2.</p> |
| Did the Request for Proposal process provide a competitive process for soliciting proposals from short-listed bidders? | HPTE policies and industry standard practices provide that a fair and competitive process be applied for P3 procurements. | All short-listed teams had equal opportunity to compete for the US-36 P3 Project. |
| Did negotiations with the selected bidder result in a concession agreement that was fair and balanced and that provided best value for the State as supported by the final Project Value Analysis? | Industry standard practices dictate that an updated Project Value Analysis showing that the P3 project provides "best value" for the State when compared to other delivery options, such as a traditional project delivery approach, be provided prior to financial close. | <p>The updated Project Value Analysis prepared by HPTE's expert advisors prior to financial close showed that the best value option for the State was to finalize the P3 concession agreement.</p> <p>Delays in reaching financial close increased HPTE's costs, SEE CHAPTER 2.</p> |
| Were briefings held with outside interested parties, such as elected officials and the public, on the "best value option" for the US-36 P3 Project before the concession agreement was finalized? | Industry standard practices emphasize that discussing the P3 Project with key policy makers and the public prior to financial close and implementation is critical. | HPTE briefed members of the General Assembly and the public prior to executing the US-36 P3 Project concession agreement. |
| Did HPTE establish a process and identify professionals to monitor the implementation of the US-36 P3 Project? | Industry standard practices provide that the public owner/agency should establish a process for monitoring implementation of the P3 project to ensure the State receives best value. | <p>The concession agreement outlines monitoring responsibilities and certain professionals have been assigned monitoring duties. The monitoring process for construction of the US-36 P3 Project is solid.</p> <p>The monitoring process for operations and maintenance, once the Project opens in June 2015, could be improved, SEE CHAPTER 2.</p> |
| Did HPTE conduct an internal evaluation of the US-36 P3 Project procurement after financial close? | Industry standard practices provide that the public owner/agency should conduct an evaluation after the P3 procurement process is complete to identify best practices, lessons learned, and areas for improvement. | HPTE and CDOT completed an "after assessment" for the US-36 P3 Project procurement and are using the results to improve the P3 process. |

SOURCE: Clary Consulting, LLC review and analysis of legal requirements or policies and industry standard practices applicable to P3s and information and documentation provided by HPTE.

KEY: = Met Legal/Policy requirements or industry standard practices. = Area for improvement.

CHAPTER 2

OVERSIGHT OF PUBLIC-PRIVATE PARTNERSHIPS

As noted in CHAPTER 1, public-private partnerships (P3s) are contractual arrangements where the private sector takes on some of the risks and rewards of financing, constructing, operating, and maintaining a transportation facility, such as a highway or interchange, in exchange for the right to future revenues or payments for a specified term. P3 projects are highly complex endeavors that demand a strong project management infrastructure to develop projects from conception to financial close. Project management principles are crucial to providing systematic oversight of the decision-making, procurement, construction, and monitoring processes of P3 programs including:

- Determining whether the decision to move forward with a P3 approach is in the best interest of the State.
- Ensuring proper planning, risk assessment, and scheduling occurs prior to procurement.
- Ensuring stakeholders are engaged and educated about the P3 delivery model from the earliest stages of project development through implementation and that communications are open and transparent.
- Monitoring the financial and technical aspects of the project and the concessionaire's performance through the construction and operations phases.

Our audit concluded that overall, the High Performance Transportation Enterprise (HPTE) successfully executed a P3 concession agreement for the US-36 Public-Private Partnership Project (US-36 P3 Project) that provided the “best value” for the State, based on the goals that the Transportation Commission, the Colorado Department of Transportation (CDOT), HPTE, the Federal Highway Administration, the Regional Transportation District (RTD), and other project partners outlined for the Project. We also determined that HPTE's practices for developing and procuring the US-36 P3 Project were generally consistent with industry standard practices (SEE CHAPTER 1). However, we identified areas where HPTE could improve its planning, communications, and monitoring efforts for P3 projects and establish a systematic project management framework for overseeing its P3 program in the future. The areas for improvement we identified in this report are typical of new P3 programs generally and a first P3 project specifically; the learning curve for public sector owner/agencies involved with developing, procuring, and implementing a P3 project is substantial. Increased experience and a systematic project management process, as well as additional P3 and project management training and resources, as recommended in this

chapter, will strengthen HPTE's P3 program and better position the State to take on additional P3 transportation projects in the future.

P3 PROJECT PLANNING AND PROCUREMENT

Sound P3 project planning and procurement is the foundation of a successful P3 program. As noted in CHAPTER 1, industry standard practices for P3 project planning typically involve identifying goals for the project, analyzing delivery alternatives and the risks associated with transferring various project elements to the concessionaire, comparing the costs and benefits of the various options with the costs and benefits of delivering the project through a traditional approach (such as by CDOT), and selecting the delivery approach that best meets the project goals and provides the best value to taxpayers and the traveling public. Industry standard practices for P3 project procurement typically involve a two-stage process that includes (1) issuing a Request for Qualifications (RFQ) to provide project details and identify a pool of qualified bidders and (2) issuing draft and final Requests for Proposals (RFPs) outlining comprehensive details about the project requirements, including draft concession agreements and related documents. The second stage of the procurement process is completed when the public owner/agency uses pre-established criteria, as outlined in the RFP, to select the bidder that provides best value and negotiates with the selected bidder to execute the concession agreement and reach commercial and financial close.

Our review of HPTE's planning for three key elements of the US-36 P3 Project—toll services, federal loan financing, and operations and maintenance—identified areas where HPTE's practices were not consistent with industry standard practices, contributing to inefficiencies and ultimately, a 1-year delay in completing the procurement and a 6-month delay in reaching financial close. Between the proposal due date of March 1, 2013, and the financial close in February 2014, interest rates increased. Under the concession agreement, HPTE assumed a share of any changes in interest rates between the proposal due date and financial close and as a result, HPTE's total payment for the US-36 P3 Project increased by over \$5 million—from \$44 million to over \$49 million (or about 11 percent).

We also identified areas where HPTE could improve its processes for developing project schedules and conducting Project Value Analyses during procurement. Our recommendations for improvement follow.

TOLL SERVICES

Planning for toll services is a crucial step in the development and procurement of any P3 project that involves transferring the risk of operating toll concessions and earning adequate toll revenue to the concessionaire. The term "toll services" encompasses all activities and equipment associated with collecting tolls, including:

- Installation and maintenance of lane toll equipment

- Issuance of electronic toll transponders
- Toll collection processing
- Toll violations enforcement
- Customer service

“Toll services costs” include the costs associated with providing the equipment and delivering the services listed above. Toll services costs are a significant expenditure for the concessionaire and continue for the entire project term. For the US-36 P3 Project, the concessionaire’s estimated annual costs for providing toll services are about \$1.6 million in 2016—the first full year of operations, and increase to \$34.8 million in 2065—the last full year of operations under the 50-year concession agreement.

As noted in CHAPTER 1, one of the goals of the US-36 P3 Project was to shift the risk of earning adequate net toll revenue to the concessionaire. Net toll revenue is the amount available to the concessionaire for paying financing costs and expenses for building Phase 2 of the US-36 corridor and operating and maintaining the managed lanes of US-36 and the I-25 segment as required by the concession agreement. The cost of providing toll services is a key factor in determining net toll revenue for the US-36 P3 Project. Net toll revenue is calculated as follows:

$$\text{GROSS TOLL} - \text{TOLL SERVICES} = \text{NET TOLL}$$

The concessionaire, in assuming the risk of earning adequate net toll revenue, assumes a number of related risks. For example, if the concessionaire does not adequately understand the public owner/agency’s requirements for providing toll services, or if the costs for providing toll services are higher than expected, net toll revenues may be lower than estimated and the concessionaire’s ability to pay project costs may be impaired. These risks may also impact the travelling public, who may experience service interruptions or reduced customer service as a result of the concessionaire’s unanticipated costs or service requirements. Therefore, providing information on toll services specifications and costs early in the project’s procurement phase is important for providing an overall positive outcome for customers and for ensuring bidders have adequate information and time to fully understand their risks, develop sound financial models, and determine reliable pricing for their proposals.

HPTE contracted with the E-470 Public Highway Authority (E-470 Authority) for toll services on the I-25 managed lanes and also planned to use the E-470 Authority for toll services on Phase 1 of US-36, which CDOT procured under traditional methods for the construction of the project. Early in planning and development for the US-36 P3 Project, HPTE determined that its preferred option for delivering toll services for the US-36 P3 Project was to also have prospective bidders contract with the E-470 Authority for these services. Although the E-470 Authority was HPTE’s preferred

provider for the US-36 P3 Project, HPTE also wanted to allow bidders the option to develop an alternative approach for delivering toll services at a potentially lower cost, if the bidder could provide detailed information on the alternative approach early in the RFP stage of the procurement.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our audit work was to evaluate whether HPTE had properly planned for and adequately addressed toll services requirements during the US-36 P3 Project procurement. To perform our work, we reviewed the development of the toll services portion of the US-36 P3 Project's RFQ, RFP, the concession agreement, and toll services documents. We also reviewed the initial schedule and any subsequent modifications to evaluate HPTE's management of toll services for the Project. In addition, we interviewed staff from HPTE, CDOT, and the Office of the Attorney General to gain an understanding of how planning for toll services was addressed prior to and during procurement. We collected and applied best practices from the National Council of Public-Private Partnerships and industry standard practices for P3 procurements.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

Consistent with best practices outlined by the National Council of Public-Private Partnerships and industry standard practices for P3 procurements, the public owner/agency should plan for and provide crucial technical and cost information at key points in the procurement process to ensure that bidders fully understand the risks involved and have adequate time and information to develop their qualifications and proposals. These key points include:

THE RFQ—should explain how the public owner/agency intends to handle toll services for the P3 project. With respect to the US-36 P3 Project, the RFQ should clearly outline HPTE's options for delivering toll services and its preference for the E-470 Authority option. Since HPTE required bidders to indicate whether they intended to propose an alternative to using the E-470 Authority for toll services early in the RFP process, the RFQ should also include high-level summaries on technical specifications and costs for the E-470 Authority toll services. This information is needed to ensure that bidders have adequate information to evaluate the E-470 Authority option and determine whether to pursue an alternative approach as part of qualification and early in the RFP stage of the procurement.

THE INITIAL DRAFT AND FINAL RFP—should provide detailed cost information and technical requirements for toll services. With respect to the US-36 P3 Project, the initial draft RFP should provide detailed information on the cost of toll services to be provided

by the E-470 Authority and on key required technical elements, such as the type of toll equipment to be used, how tolls will be collected, and how tolls will be enforced so that bidders have adequate information to develop their inquiries and to prepare the approach, financial model, and pricing structure for their proposals. Additionally, since HPTE had indicated a strong preference that the E-470 Authority be used to provide toll services, the initial draft of the RFP should include a draft toll services agreement outlining the responsibilities of the E-470 Authority and the concessionaire. Providing a draft toll services agreement with the initial draft RFP is important for ensuring the risks of assuming responsibility for toll services are clearly understood by bidders and to provide bidders with sufficient time to determine whether to contract with the E-470 Authority or whether to develop a comprehensive alternative approach that meets or exceeds the technical requirements for toll services outlined in the RFP.

The Federal Highway Administration typically requires that all major agreements associated with a P3 project, including the toll services agreement, be provided prior to closing on a Transportation Infrastructure Finance and Infrastructure Act (TIFIA) loan. Requiring the toll services agreement helps to ensure that all parties understand the technical requirements and key cost factors before loan closure and confirms that the estimated net toll revenue, based on the financial model, toll revenue forecasts, and toll services costs, is adequate to repay the debt.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

HPTE did not adequately plan for or provide sufficient technical and cost information for delivering toll services, consistent with industry standard practices, at key points in the procurement process.

RFQ. Although HPTE adequately outlined its two options for delivering toll services and its preference for the E-470 Authority option in the RFQ, HPTE did not provide high-level summaries of technical specifications and costs for E-470 Authority toll services so that bidders had adequate information to evaluate the E-470 Authority option and determine whether to pursue an alternative approach in their responses to the RFQ and in the RFP phase.

THE INITIAL DRAFT AND FINAL RFP. HPTE did not provide detailed cost information and technical specifications for delivering toll services when issuing the initial draft and final RFP. Although HPTE provided opportunities for prospective bidders to interact with the E-470 Authority during the RFP process and negotiations regarding toll services were ongoing throughout procurement, HPTE did not timely provide:

- Final costs for the E-470 Authority to collect toll transactions electronically (e.g., when the individual's travel on the tolled managed lane is captured through an electronic "transponder" in his or her car, and the individual's account with the E-470 Authority is billed accordingly), until 11 days before proposals were due.

- Detailed information on key technical elements of the E-470 Authority toll services system, such as the toll equipment to be used and how toll collections would be enforced, until 49 days before proposals were due.
- A draft toll services agreement upon release of the initial draft RFP. HPTE provided a draft toll services agreement in August 2012, 1 month after the initial draft RFP, and included the draft toll services agreement as part of the final RFP.

Additionally, a final toll services agreement between the E-470 Authority and the concessionaire for the US-36 portion of the P3 Project was not in place prior to closing on the TIFIA loan. The Federal Highway Administration agreed to close the TIFIA loan on the basis of a signed toll services agreement for the I-25 managed lanes and the latest draft toll services agreement between the parties for US-36. As of March 11, 2015, more than 1 year after financial close, a final toll services agreement for US-36 still was not in place or signed by the E-470 Authority and the concessionaire. HPTE reports that an agreement will be in place prior to the opening of US-36 Phase 1 in June 2015.

WHY DID THE PROBLEMS OCCUR?

HPTE lacked expertise and experience with revenue risk P3 procurements generally and toll services specifically. Consequently, HPTE engaged a tolling consultant for the procurement to provide additional expertise. However, HPTE underestimated the magnitude of the risk it was asking prospective bidders to assume related to toll services. HPTE also underestimated the complexity related to executing toll services contracts between a concessionaire and another public agency over which HPTE has no authority. HPTE assumed it would be a simple matter to expand the E-470 Authority toll services operating on I-25 to include the US-36 corridor.

On September 30, 2013, after the selection of the bidder and commercial close for the US-36 P3 Project, CDOT and HPTE executed a comprehensive Memorandum of Understanding (MOU) outlining the areas where CDOT's Office of Major Project Development (OMPD) will provide support to HPTE. HPTE recommended creating OMPD largely as a result of the lessons learned from the US-36 P3 Project. The MOU states that OMPD will provide HPTE with technical expertise and promote consistent project management and oversight practices for major projects across HPTE and CDOT. In part due to the challenges HPTE experienced in the US-36 P3 Project, OMPD has developed internal expertise in toll services and procured a consultant advisor that specializes in toll services to provide HPTE and CDOT with adequate technical expertise for tolled projects. By working together on future projects involving toll services, HPTE and OMPD will be able to plan for toll services earlier, develop a set of technical specifications and options to manage toll services for future projects, and provide a higher level of confidence in managing these services. Additionally, since tolling technology is constantly evolving, HPTE may want to also benchmark its tolling operations against operations in other states. By contacting tolling authorities in

other jurisdictions, HPTE may be able to identify leading practices or lessons learned to assist with improving toll services in the future.

WHY DOES THIS FINDING MATTER?

Due to HPTE's inexperience with toll services, HPTE did not accept inquiries from bidders related to toll services or allow interactions between prospective bidders and the E-470 Authority until it could schedule an open house with prospective bidders and the E-470 Authority. The open house occurred 1 month after release of the initial draft RFP and allowed HPTE to address prospective bidders' concerns and questions. As a result of this open house, prospective bidders communicated their concerns to HPTE regarding the lack of adequate information in the initial draft RFP and the high estimated costs for contracting with the E-470 Authority for toll services. Using this information, HPTE conducted an additional and more thorough review of the scope of services and technical specifications related to the E-470 Authority's toll services. The review resulted in HPTE modifying the required level of service for US-36 toll services to reduce costs while ensuring that the modified toll service levels were adequate for effective operations on the I-25 and US-36 managed lanes. However, since HPTE lacks authority over the E-470 Authority, HPTE had limited ability to expeditiously obtain information from the E-470 Authority to respond to bidders' questions. HPTE's inexperience, lack of authority over the E-470 Authority, additional review of the E-470 Authority costs, and its modification of service level requirements all contributed to delays in providing detailed and timely technical specifications and cost information to bidders.

Since HPTE did not adequately plan for and provide crucial technical and cost information for toll services at the RFQ stage and at the issuance of the initial draft and final RFP, and instead provided information to bidders right before proposals were due, bidders had limited time to evaluate whether to use the E-470 Authority to deliver toll services, as HPTE preferred, or develop an alternative approach for delivering toll services. As a result, HPTE faced increased risks and challenges in several areas.

First, HPTE faced risks that bidders would increase their prices or drop out of the procurement process and not submit a bid due to unknown information and higher risk. When bidders lack adequate information to evaluate a risk, they could either add contingencies, which could increase the price of the bid, or they could determine that the risks are too high to submit a proposal. To help address this risk, HPTE made certain concessions: HPTE agreed to allow the concessionaire the right to cancel any agreements with the E-470 Authority if the concessionaire could find a less expensive option or provider for delivering toll services, and HPTE agreed to pay the E-470 Authority "breakage fees" if the agreement between the concessionaire and the E-470 Authority was cancelled within the first 5 years of toll operations. HPTE's breakage fees would be zero if cancellation occurs prior to the start of toll operations, or as much as \$830,000 if cancellation occurs toward the end of the 5-year period.

Second, since HPTE did not adequately evaluate toll services costs and technical requirements and did not include sufficient information in the initial draft RFP, resolving the toll services issue was a contributing factor to project delays, increasing HPTE's interest costs for the project by over \$5 million, as noted previously in this chapter.

Third, HPTE's lack of adequate toll services planning may erode industry confidence in HPTE's management of P3 projects that involve transferring toll revenue risk to the concessionaire. Lack of industry confidence could potentially impair HPTE's ability to raise adequate industry interest and secure qualified competition for future P3 procurements that require the concessionaire to assume toll revenue risk.

Finally, since US-36 Phase 1 is scheduled to open in June 2015 and Phase 2 is scheduled to open in late 2015 or early 2016, delays in executing the toll service agreement could delay the opening of the US-36 corridor managed lanes.

RECOMMENDATION 1

The High Performance Transportation Enterprise (HPTE) should work with the Colorado Department of Transportation's Office of Major Project Development (OMPD) and its toll services expert advisor to evaluate how toll services will be procured and managed for future projects involving toll facilities. The evaluation should result in:

- A Developing a comprehensive set of technical specifications and options for toll services which are identified and included at the RFQ stage in future P3 procurements.
- B Providing detailed cost and technical specifications for any preferred or required toll services providers as part of the initial draft RFP documents and finalizing the technical specifications and costs for toll services as part of the final RFP, when the P3 project involves transferring toll services or toll revenue risk to the concessionaire.
- C Reviewing tolling authorities' operations and contracts in other states and jurisdictions to gain lessons learned for how to best manage toll services in the future.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

- A AGREE. IMPLEMENTATION DATE: APRIL 2015.

Over the past year, HPTE, OMPD, and the E-470 Authority have negotiated a Master Tolling Services Agreement that includes a comprehensive set of technical specifications and options for toll collection and administration services to be provided by the E-470 Authority on all HPTE express lane projects. The Master Tolling Services Agreement will be considered by the HPTE and E-470 Authority Boards in March and is expected to be fully executed and effective shortly thereafter. HPTE intends to use the Master Tolling Services Agreement for all of its express lane projects in the foreseeable future and with any modifications required by the circumstances, will identify and include it at the RFQ stage in any P3 procurements.

The I-70 East project, which is being procured on a P3 basis, is intended to leave tolling authority and responsibility with HPTE and the E-470 Authority under the Master Tolling Services Agreement. It will be provided to potential bidders at the RFQ stage to inform their consideration of technical and other specifications.

B AGREE. IMPLEMENTATION DATE: APRIL 2015 AND AS APPLICABLE FOR EACH FUTURE P3 PROJECT.

HPTE will provide detailed cost and technical specifications required by the E-470 Authority under the Master Tolling Services Agreement or by any other toll services provider as part of the initial draft RFP documents and will finalize those cost and technical specifications as part of the final RFP, when the P3 project involves transferring toll services or toll revenue risk to the concessionaire.

C AGREE. IMPLEMENTED AND ONGOING.

HPTE is actively engaged in reviewing tolling authorities' operations and contracts in other states and jurisdictions to gain lessons learned for how best to manage toll services in the future. For example, HPTE and OMPD staff are scheduled to participate this spring in Federal Highway Administration-sponsored meetings with tolling providers in both Washington and Florida.

HPTE is mindful that tolling operations and structures are constantly evolving, both technically and contractually. HPTE, with the assistance of OMPD, has assigned staff to monitor and evaluate these developments to ensure that both agencies keep up with the "state of the art" in this aspect of P3 projects.

RECOMMENDATION 2

The High Performance Transportation Enterprise (HPTE) should work with the E-470 Authority and the concessionaire to facilitate execution of the toll services agreement for the US-36 P3 Project as soon as possible to ensure a clear understanding of and accountability for toll services well in advance of the commencement of toll operations.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

AGREE. IMPLEMENTATION DATE: APRIL 2015.

A final Tolling Services Agreement has been negotiated between the E-470 Authority, Plenary Roads Denver, and HPTE, providing for the collection and administration of tolls on US-36. This Tolling Services Agreement is also scheduled for authorization by the E-470 Authority and HPTE Boards in March 2015, subject to consent by the Transportation Infrastructure Finance and Innovation Act Joint Project Office (the federal loan provider). HPTE has no reason to believe that there will be any difficulties in obtaining this consent and the full Tolling Services Agreement will be in place well before the date for completion of the Phase 1 managed lanes.

The interim Tolling Services Agreement that is presently in place in relation to the I-25 managed lanes has been working well over the last 12 months. The Master Tolling Services Agreement described in our response to Recommendation 1A will provide the basis for avoiding issues in the future.

FEDERAL LOAN FINANCING

The financing plan for Phase 2 of the US-36 P3 Project included the assumption of an existing loan and execution of a new loan from the U.S. Department of Transportation (USDOT) under the federal Transportation Infrastructure Finance and Innovation Act (TIFIA). The TIFIA program provides loans, loan guarantees, and standby lines of credit to highway, bridge, transit, and intermodal freight projects that have a dedicated source of revenue pledged toward repayment. TIFIA loans are highly attractive for transportation projects because the interest rates are typically lower than other forms of financing, such as private activity bonds, bank loans, and equity investments. TIFIA loans also have longer repayment terms than conventional financing. The TIFIA loan program is administered by the Innovative Program Delivery Office through the TIFIA Joint Program Office (TIFIA JPO).

In September 2011, HPTE executed a \$54 million TIFIA loan (TIFIA Loan 1) for US-36 Phase 1. The loan matures July 1, 2049, and at the time of execution the loan was to be repaid from toll revenues generated from the managed lanes for US-36 Phase 1 when Phase 1 was completed.

For the US-36 P3 Project, HPTE required that the concessionaire assume the TIFIA Loan 1 obligations, accomplishing two of HPTE's key goals for the P3 Project, which were to (1) shift the toll revenue risk to the concessionaire and (2) release CDOT from contractual obligations to provide operations and maintenance services without remuneration if toll revenues from Phase 1 were insufficient to pay both debt service and operating and maintenance expenses. Additionally, HPTE submitted a Letter of Interest to the TIFIA JPO for a second TIFIA Loan of \$60 million (TIFIA Loan 2) for US-36 Phase 2. The loan was to be available to bidders to include in the finance plans supporting their proposals for the US-36 P3 Project.

TIFIA loans executed with private entities are structured differently than those with government entities such as HPTE, since certain risks, such as bankruptcy risk, may not be present for a government agency. The process for obtaining a TIFIA loan for a private entity is outlined below:

1. The public owner/agency submits a letter of interest addressing required program criteria to the TIFIA JPO and the USDOT.
2. A USDOT evaluation team reviews the letter of interest and determines whether the project meets the program criteria.
3. If the program criteria are met, the public owner/agency will include the TIFIA loan option in the RFP (and in the RFQ, if the public owner/agency has identified the TIFIA loan option by the time of RFQ release) for consideration by the bidders as they prepare their proposals.
4. If the selected bidder includes a TIFIA loan in its finance plan, the selected bidder will be the borrower and after preliminary discussions with TIFIA, the selected

- bidder is invited to file an application including detailed information about the project, how it will be funded, and how the TIFIA loan will be repaid.
5. The USDOT evaluation team reviews the application and the borrower makes an oral presentation before the TIFIA JPO.
 6. The TIFIA Loan Agreement is negotiated and the TIFIA JPO performs a due diligence review that includes all key documents, including the concession agreement, the selected bidders' finance plans, contracts with the key parties of the concession agreement (design-build contract, operations and maintenance contract, toll services agreement), financing agreements for other lenders and equity investors, and related documents.
 7. Once the due diligence review is completed and the TIFIA Loan Agreement is finalized, the USDOT credit council determines, on the basis of all the information reviewed and provided, whether to recommend that the USDOT Secretary extend credit assistance to the project.
 8. If the USDOT credit council recommends credit assistance and the USDOT Secretary accepts the recommendation, the project loan is approved.
 9. The TIFIA JPO and the borrower execute the TIFIA Loan Agreement and related documents, after which the loan is funded.

The TIFIA JPO's processes for working with public owner/agencies on bidder loans for P3 projects were in transition during Calendar Years 2012 and 2013. Essentially, the TIFIA JPO's practices evolved from providing public owner/agencies with very limited information, such as responding to specific questions submitted on behalf of bidders, to providing more detailed terms and conditions for a prospective TIFIA loan as part of the procurement process.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our audit work was to evaluate whether HPTE began planning early enough, and included sufficient information in the RFP, to accommodate the assumption of TIFIA Loan 1 and a possible new TIFIA Loan 2. We reviewed procurement documents, including the RFP, questions from the proposers, and responses from HPTE; financial closing documents, including the concession agreement and TIFIA loan agreements; and communications from HPTE to prospective bidders and the TIFIA JPO during the procurement process. We also interviewed HPTE management, staff from the Office of the Attorney General, and HPTE expert advisors on legal and financial issues. We reviewed guidance provided by the TIFIA JPO and collected and applied best practices from the National Council of Public-Private Partnerships.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

According to *7 Keys to Successful P3s*, a best practice resource promulgated by the National Council of Public-Private Partnerships, a detailed contract or business plan that “include[s] detailed description[s] of the responsibilities, risks, and benefits of both the public and private partners” increases the probability of the partnership’s success. Providing details on key terms and conditions related to assuming or acquiring a TIFIA loan is essential to ensuring prospective bidders fully understand their responsibilities and risks related to TIFIA loans and have the information needed to develop their finance plans. Providing comprehensive, detailed information early in the procurement process helps to shorten the time from the selection of the preferred bidder to reach financial close on the project.

In addition, the TIFIA Program Guide states that the TIFIA JPO will not negotiate with a prospective bidder until the bidder has been awarded rights to develop a project. Therefore, the public owner/agency procuring the project is responsible for providing detailed term sheets on key loan terms and conditions from available information and to the extent possible, from the TIFIA JPO, to respond to prospective bidders’ inquiries and enable bidders to prepare their finance plans and proposals. Additionally, the public/owner agency is responsible for developing a project schedule that accommodates the 6- to 9-month timeframe required to complete loan negotiations with the TIFIA JPO once the bidder is selected, based on similar TIFIA loans closed for P3 projects for the 2 years prior to the US-36 P3 Project. Further, since the US-36 P3 Project included an assumption of TIFIA Loan 1 and the TIFIA JPO had never completed a loan assumption before, additional time beyond the 6- to 9-month timeframe should be added to the project schedule to allow adequate time to complete loan assumption negotiations.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

HPTE did not adequately plan for and provide details in the RFP on key terms and conditions for the assumption of TIFIA Loan 1. Specifically, bidders did not receive requested items until February 21, 2013, 9 days before proposals were due. Examples of items that were requested by bidders but not provided until the end of the procurement process include:

- How defaults between TIFIA Loan 1 and TIFIA Loan 2 would be handled.
- What events would trigger bankruptcy.
- How toll revenues from I-25 and US-36 would be prioritized for repaying TIFIA Loan 1, TIFIA Loan 2, and senior bonds in the event of a bankruptcy.

Additionally, certain items were not provided by HPTE at all during procurement and were still outstanding after the selection of the preferred bidder, including:

- When CDOT's contractual obligations to guaranty operations and maintenance services would end.
- What major documents the selected bidder would be required to execute to assume TIFIA Loan 1.
- When enforcement provisions would be triggered and when pledge of toll revenues would occur.

HPTE did approach the TIFIA JPO during the procurement process for more information on some of these items; however, many remained outstanding and were not resolved until loan negotiations occurred after selection of the preferred bidder.

HPTE did not provide bidders a term sheet containing sufficient detail about key loan terms and conditions for assuming the TIFIA Loan 1 or for executing the TIFIA Loan 2. HPTE also did not provide adequate time in the project schedule for negotiating both loans with the TIFIA JPO. Specifically, HPTE allowed 3 months in the original November 2011 project schedule to negotiate and close the TIFIA loans. As noted previously, the TIFIA JPO had not executed a loan assumption previously and therefore, HPTE should have included more than 6 to 9 months in the project schedule to allow ample time to complete negotiations for both loans.

WHY DID THE PROBLEMS OCCUR?

The US-36 P3 Project was HPTE's first experience working with the TIFIA JPO during the procurement process to execute both a loan assumption and a new TIFIA loan on behalf of bidders. Previously, HPTE's only experience with the TIFIA JPO was executing TIFIA Loan 1, where HPTE was the borrower. For TIFIA Loan 1, HPTE was able to work directly with the TIFIA JPO to rapidly negotiate and reach financial close.

In contrast, HPTE was unaware of the challenges related to having a concessionaire assume TIFIA Loan 1. In addition, prior to the US-36 P3 Project, the Federal Highway Administration had never moved a TIFIA loan executed with a governmental entity to a concessionaire. Since HPTE was a party to TIFIA Loan 1, HPTE had a relationship with the TIFIA JPO and could directly contact and discuss the potential TIFIA Loan 1 with appropriate staff at TIFIA JPO. As no precedent for this type of loan assumption existed, HPTE, as the borrower, could have interacted directly with the TIFIA JPO prior to and early in the procurement process to develop a term sheet of key loan terms and conditions and developed estimates for the time required to execute the loan assumption.

With respect to TIFIA Loan 2, HPTE was aware that the TIFIA JPO did not negotiate with prospective bidders or typically provide detailed terms and conditions for inclusion

in RFPs. Therefore, the responsibility rested with HPTE and its expert advisors to develop a term sheet with key terms and conditions based on available information from similar TIFIA loans and present to the TIFIA JPO to refine for inclusion in the US-36 P3 Project RFP. HPTE contacted the TIFIA JPO repeatedly during procurement and provided it the bidders' questions for response. HPTE shared those responses with the bidders during the procurement.

As of 2014, the TIFIA JPO will provide public owner/agencies with more complete information on the key terms and conditions required for the final TIFIA loan agreement so that this information can be included in RFPs for P3 procurements. The availability of TIFIA key loan terms and conditions earlier in procurement will assist HPTE with planning and scheduling for future P3 projects.

WHY DOES THIS FINDING MATTER?

The lack of adequate detail on the terms and conditions related to assuming TIFIA Loan 1 and executing TIFIA Loan 2 presented increased risks to bidders, since bidders lacked complete information for preparing their finance models and proposals. As noted previously, increased risk to bidders typically translates into increased costs for the public/owner agency.

Further, the lack of adequate detail related to the two TIFIA loans contributed to delays, which in turn increased the costs for reaching financial close. The financial close scheduled for October 4, 2013 in the final RFP was extended four times to accommodate the loan negotiations between HPTE, the concessionaire, and the TIFIA JPO. The federal government shut-down, which occurred during the loan negotiation period, also contributed to the delay. Financial close did not occur until late February 2014, almost 1 year after proposals were delivered and 5 months after the date scheduled in the final RFP.

The delay in closing the TIFIA Loan 1 refinancing and the TIFIA Loan 2 resulted in increasing HPTE's interest costs by over \$5 million, as noted previously. Additionally, HPTE negotiated a concession agreement amendment to permit the concessionaire to undertake utility work and certain other tasks referred to as concessionaire-financed "early works" to avoid a delay in completing Phase 2 of the construction. The amendment obligated HPTE to pay for approximately \$8.8 million in utility work and \$750,000 for early works prior to the project's financial close. It is important to note that these tasks were part of the Project budget and did not increase the Project's overall costs. However, if HPTE had been unable to reach financial close, HPTE would have been responsible for paying for these tasks.

Finally, the additional time required for parties to negotiate the terms for TIFIA Loans 1 and 2 could have resulted in a failure to reach financial close. If this had occurred, HPTE would have had to exercise its right to terminate the concession agreement and likely would have been required to make a termination payment to the concessionaire. When failure to reach financial close has been caused by matters for which the State has accepted responsibility, under reasonable circumstances HPTE would be responsible for paying the concessionaire the \$500,000 stipend required by the concession agreement.

RECOMMENDATION 3

The High Performance Transportation Enterprise (HPTE) should improve the planning process for future P3 projects by partnering with its expert legal and financial advisors and approaching the Transportation Infrastructure Finance and Innovation Act Joint Project Office (TIFIA JPO) to examine TIFIA loan options prior to the procurement phase. If HPTE provides a Letter of Interest to the TIFIA JPO related to a possible TIFIA loan for a P3 project procurement, or if in the future HPTE has a TIFIA loan that will be assumed as part of the P3 project, HPTE should:

- A Work with its legal and financial advisors and coordinate with TIFIA JPO to prepare a detailed term sheet for inclusion in the draft RFP.
- B Update the term sheet during the procurement phase in response to questions from prospective bidders and upon further interactions with TIFIA JPO.
- C Ensure the procurement schedule includes adequate time for HPTE and its expert advisors to interact with the TIFIA JPO on the draft term sheet and for the loan negotiations to occur between selection of the preferred bidder and financial close.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

- A AGREE. IMPLEMENTATION DATE: IMPLEMENTED AND ONGOING.

HPTE will work with its legal and financial advisors to coordinate with the TIFIA JPO to prepare a term sheet which is as detailed as the TIFIA JPO is prepared to agree to for inclusion in any draft RFP for future P3 projects involving TIFIA loans.

- B AGREE. IMPLEMENTATION DATE: IMPLEMENTED AND ONGOING.

HPTE agrees that for future projects it will update the term sheet in response to questions from prospective bidders, and assuming the TIFIA JPO remains willing to interact further.

- C AGREE. IMPLEMENTATION DATE: IMPLEMENTED AND ONGOING.

HPTE agrees that future procurement schedules will make sure to include adequate time for HPTE and its advisers to interact with the TIFIA JPO on any draft term sheet and for the loan negotiations to occur between selection of the preferred bidder and financial close.

OPERATIONS AND MAINTENANCE PLANNING

Performing operations and maintenance for the US-36 corridor and the I-25 managed lanes, once construction is complete and the Project is fully operational, is a significant component of the US-36 P3 Project. In essence, the concessionaire is providing a “long-term warranty” on the operations and condition of the transportation facility and ensures the facility is maintained in accordance with prescribed performance standards for the 50-year term of the concession agreement. “Operations and maintenance” is a technical term, including the following key “elements:”

- **ROUTINE MAINTENANCE**—includes routine and ongoing activities such as trash and wildlife removal; minor repairs to the roadway and shoulders; maintaining lights, signs, and roadside shoulders; routine maintenance of bridges; ensuring adequate drainage on roadways and bridges; and related items.
- **SNOW AND ICE REMOVAL**—involves the timely removal of snow and ice from the roadway on an ongoing basis.
- **OPERATIONS**—ensure the roadway operates in accordance with performance standards set forth in the concession agreement. This activity requires interactions with outside entities and systems, including the public owner/agency, local agency traffic management systems (such as emergency warning and messaging on electronic signs), and tolling facilities, to minimize negative impacts on the performance of the roadway.
- **MAJOR MAINTENANCE AND REPAIRS**—includes major repairs to the road surface such as repairing major cracks, holes, and washouts, and periodic roadway resurfacing and bridge repairs.
- **HANDBACK REQUIREMENTS**—outline the requirements for the condition of the transportation facility (e.g., roadway, bridges, shoulders, and major signs) at the time the facility is turned over to the public owner/agency at end of the concession term.

HPTE’s decision-making with respect to which operations and maintenance elements the concessionaire would perform for the US-36 P3 Project evolved throughout project development and procurement. Early in project development, HPTE determined that the concessionaire would provide operations, routine maintenance, and major maintenance and repairs for the managed lanes on US-36 Phase 2. Additionally, HPTE wanted to transfer CDOT’s responsibilities for performing operations, routine maintenance, and major maintenance and repairs for the I-25 and US-36 Phase 1 managed lanes to the concessionaire as part of the concession agreement. As the project evolved, HPTE added requirements that the concessionaire provide snow and

ice removal for the US-36 and I-25 managed lanes and the US-36 general purpose lanes. Additionally, after the initial RFP was issued, HPTE included options for the concessionaire to perform routine maintenance for the US-36 general purpose lanes, if the bidder could provide those services a lower cost than CDOT's estimated costs for providing the same services. In the end, the concessionaire agreed to perform all of these operations and maintenance responsibilities, and provided a lower bid than CDOT's estimated costs for operating and maintaining the US-36 general purpose lanes. The concessionaire's operations and maintenance responsibilities, estimated costs, and funding sources as set forth in the final concession agreement are shown in the following table.

| US-36 P3 PROJECT REQUIRED OPERATIONS AND MAINTENANCE ELEMENTS ¹ , ESTIMATED COSTS, AND REVENUE SOURCES | | | | | | |
|---|------------------------------|---|----------------------|--|--|---|
| OPERATIONS AND MAINTENANCE ELEMENTS | US-36 AND I-25 MANAGED LANES | | | US-36 GENERAL PURPOSE LANES | | |
| | ELEMENTS PROVIDED | ESTIMATED COST | REVENUE SOURCE | ELEMENTS PROVIDED | ESTIMATED COST | REVENUE SOURCE |
| Operations, Routine Maintenance, Snow and Ice Removal | X | \$3.1 million annually, increased by the change in the Consumer Price Index each year over the 50-year term | Net Toll Revenues | X | \$1.1 million annually, increased by the change in the Consumer Price Index each year over the 50- year term | HPTE separate reimbursement |
| Major Maintenance ² | X | \$162 million total over the 50-year term | Net Toll Revenues | HPTE may contract separately for this work ³ | not available | HPTE separate reimbursement ⁴ |

SOURCE: Clary Consulting, LLC analysis of information provided in the US-36 P3 Project Finance Plan and the Amended and Restated Concession Agreement as of the financial close in February 2014.

¹ "Required Operations and Maintenance Elements" are the responsibility of the concessionaire under the concession agreement.

² "Major maintenance" costs vary from year to year; therefore, we provided total costs for the 50-year term, which is a more accurate representation of these costs.

³ Major maintenance may be required on both the managed and the general purpose lanes at the same time. In these situations, HPTE will reimburse the concessionaire through the concession agreement or execute a separate contract for the concessionaire to provide major maintenance on the general purpose lanes if the work can be performed cost-effectively, concurrent with major maintenance on the managed lanes.

⁴ HPTE pays a separate reimbursement for any major maintenance work performed by the concessionaire on the general purpose lanes.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our audit work was to evaluate whether HPTE adequately assessed and analyzed the operations and maintenance elements of the US-36 P3 Project at key points in the project development and procurement process. To perform our work, we reviewed key documents, including the evaluation of the project delivery options, the

initial Project Value Analysis, the RFQ, and the RFPs, along with supporting documentation. We interviewed HPTE and CDOT management and HPTE's expert advisors related to the operations and maintenance elements of the Project. We collected and applied industry standard practices and best practices promulgated by the State of Virginia and the Province of Alberta, Canada, both of which are leaders in P3 procurements.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

According to industry standard practices for project management and P3 procurements, and best P3 practices promulgated by the State of Virginia and the Province of Alberta, Canada, the public owner/agency should thoroughly assess and analyze all major project components, including operations and maintenance elements, at key points in the project, including during:

PROJECT DEVELOPMENT. The public owner/agency should evaluate the scope and cost of operations and maintenance elements early in project development, which helps determine whether the P3 delivery approach is estimated to provide best value for the State prior to moving forward with the procurement stage. Specifically:

- **SCOPE.** The public owner/agency should evaluate whether to retain some or all of the operations and maintenance elements, or whether to transfer some or all of the elements to the concessionaire. The evaluation should identify and assess the technical requirements and the advantages and disadvantages of various options to assist with identifying the option that is estimated to provide best value for the State.
- **COSTS.** The public owner/agency should identify the costs for the public owner/agency to perform operations and maintenance under a traditional approach and the estimated costs for the concessionaire to perform operations and maintenance under the various options. This information is important for preparing the Project Value Analysis, which compares the benefits and costs of delivering the project through a P3 with the benefits and costs of delivering the project through a traditional approach. The information is also important for evaluating the reasonableness of bids submitted by prospective bidders, if the P3 project proceeds to procurement.

RFQ. The public owner/agency should outline the major scope and high level requirements for the operations and maintenance elements to be transferred to the concessionaire in the RFQ so that prospective bidders can include appropriate technical qualifications and capacity for those elements when submitting their qualifications.

RFP. The public owner/agency should include substantial details on the scope, inventory, condition, and technical and performance requirements (operations and maintenance responsibilities) of the assets that will be transferred to the concessionaire for operations and maintenance in the initial RFP so that prospective bidders have adequate information to evaluate the risk and prepare their proposals and pricing.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

HPTE did not adequately assess and analyze operations and maintenance elements at key points in the project, consistent with industry standard practices.

PROJECT DEVELOPMENT. HPTE did not adequately evaluate the scope and cost of retaining or transferring major operations and maintenance elements early in project development to assist with preparing the project for procurement or to support analysis for identifying the procurement approach that provides the best value for the State as part of the initial Project Value Analysis.

- **SCOPE.** HPTE did not conduct adequate analysis to identify options, technical requirements, or the advantages and disadvantages related to retaining or transferring major operations and maintenance elements. For example:
 - **I-25.** Prior to procurement, HPTE had not analyzed the condition of the roads and bridges on the I-25 managed lane segment so that it could identify the technical requirements—such as when pavement would need to be replaced, the extent of repairs needed for roads and bridges, or the lifespan of existing road and bridge infrastructure—to estimate costs for the Project Value Analysis or to determine whether to maintain or transfer this obligation to the concessionaire.
 - **US-36.** Prior to procurement, HPTE did not identify the challenges of having CDOT employees perform routine snow and ice removal or road repairs on the US-36 general purpose lanes at the same time the concessionaire was performing routine snow and ice removal and road repairs on the US-36 managed lanes. Since no dividers separate the managed and general purpose lanes on US-36, it became clear as the project developed that HPTE would need to either transfer all responsibilities for routine maintenance and snow and ice removal on both the managed and general purpose lanes of US-36 to the concessionaire or retain these responsibilities for performance by CDOT to ensure effective, efficient, and safe maintenance operations on US-36.
- **COSTS.** HPTE did not have an adequate basis for operations and maintenance costs for either the traditional public approach (where the work would be performed by CDOT) or for the P3 approach (where the work would be performed by the concessionaire). Specifically, operations and maintenance costs under the P3 approach in the initial Project Value Analysis were about \$23,500 per lane mile, compared to about \$8,600 per lane mile for the traditional public approach, or

almost three times higher. HPTE could not provide detailed data supporting these cost estimates; however, documentation indicates that HPTE was concerned about the large discrepancy between the estimates and that the CDOT estimate may be too low. HPTE and CDOT subsequently performed additional analysis during the RFP phase to improve CDOT's cost estimates for performing the operations and maintenance work. HPTE used these more detailed estimates to compare bidders' costs for performing operations and maintenance services with CDOT's costs when evaluating bidders' proposals.

RFQ. HPTE did not clearly outline the scope and high-level requirements for the major operations and maintenance elements to be transferred to the concessionaire in the RFQ. The RFQ specified that the concessionaire would assume operations and routine and major maintenance for the I-25 and US-36 managed lanes, but also identified a large scope of items that could be "options" in the RFP phase, such as providing routine and major maintenance for general purpose lanes, or snow and ice removal for either the managed or general purpose lanes. However, the RFQ did not outline basic information on these "options" to inform and help potential bidders develop their team in response to the RFQ.

RFP. HPTE did not provide sufficient information regarding the current inventory, condition, and technical requirements for maintaining the I-25 managed lanes in the initial draft RFP dated July 2012. Complete, detailed information was not provided to prospective bidders until January 2013, 2 months before proposals were due.

WHY DID THE PROBLEMS OCCUR?

Overall, HPTE did not have formal practices in place to ensure adequate, systematic review of all major P3 project components, including operations and maintenance, during the planning and procurement phases for the US-36 P3 Project. As noted previously, HPTE was new to P3 procurements. HPTE's inexperience, along with its key goal to transfer CDOT's operations and maintenance obligations for the I-25 and US-36 Phase 1 managed lanes, overshadowed the importance of thoroughly analyzing the technical requirements and the advantages and disadvantages of retaining or transferring various major operations and maintenance elements.

Further, neither HPTE nor CDOT had cost records in a format that allowed them to determine the cost of providing operations and maintenance elements through a traditional public approach or compare the costs of the public and P3 approaches. Although CDOT's accounting system contains detailed cost data, CDOT had not created standardized reporting formats to analyze cost data for specific highway segments or corridors. HPTE and CDOT also did not have performance standards to describe the level of service required for providing operations and maintenance services under a performance-based P3 approach. To address this issue, HPTE hired an expert advisor to work with CDOT during the procurement process to develop detailed cost estimates and performance standards and related non-performance penalties for the operations and maintenance elements of the US-36 P3 Project, using

information provided by CDOT and the expert advisor's own experience with a similar P3 project in another state.

WHY DOES THIS FINDING MATTER?

When major project components, such as operations and maintenance elements, are not thoroughly evaluated and analyzed, risks increase throughout the procurement process, as described below.

PROJECT DEVELOPMENT. When adequate analysis of the scope and cost of major project components does not occur, the public owner/agency could select a delivery approach or transfer or retain risks that are not in the best interest of the State. With respect to the US-36 P3 Project, HPTE did not have sufficient scope and cost information for the initial Project Value Analysis to support selection of the P3 approach for operations and maintenance. Preliminary cost estimates indicated that the more cost effective option would be for CDOT to perform operations and maintenance for the Project. However, in pursuit of its goal to relieve CDOT of its operations and maintenance obligations for the I-25 and US-36 Phase 1 managed lanes under TIFIA Loan 1, HPTE continued to evaluate and refine the scope of operations and maintenance services as the Project progressed through the procurement phase. HPTE was fortunate in that the selected bidders' price proposal, as supported by the final Project Value Analysis performed immediately before financial close, indicated that the P3 option—i.e., the transfer of operations and maintenance responsibilities including snow removal to the concessionaire for both the managed lanes and the general purpose lanes—provided best value for the State.

RFQ. When the RFQ does not include basic information on the scope of the operations and maintenance elements to be transferred to the concessionaire, prospective bidders may not include team members with the qualifications and the capacity needed to handle the operations and maintenance requirements once the scope of these services is fully defined. Additionally, lack of adequate information may raise issues of credibility with private industry and lead to fewer bidders responding to the RFQ.

RFP. Since the initial draft RFP did not provide sufficient information on the inventory, condition, and technical requirements for maintaining the I-25 managed lanes that HPTE intended to transfer to the concessionaire, prospective bidders did not have adequate information to prepare their proposals. Prospective bidders raised concerns that the lack of information on the condition of the I-25 managed lanes, and the potential repairs needed to bring the I-25 managed lanes and bridges into acceptable condition, made it difficult to determine the risk the selected bidder would assume for operations and maintenance, including major maintenance, for the I-25 managed lanes. To address these concerns, HPTE and CDOT updated existing inventories for the I-25 managed lanes, such as the condition of roadway surfaces and bridge structures. HPTE provided this information during the RFP process; however, bidders did not receive complete information on structures for the I-25 managed lanes until January 8 and January 10, 2013, less than 2 months before proposals were due on

March 1, 2013. This information was needed for bidders to include a preventive maintenance plan and the I-25 Initial Works Package in their proposals. Both the I-25 Initial Works Package (valued at \$6.9 million and included as part of Phase 2 construction) and the preventative maintenance plan are intended to repair and maintain the assets at a condition acceptable to both HPTE and the selected bidder over the 50-year term of the agreement.

RECOMMENDATION 4

The High Performance Transportation Enterprise (HPTE) should:

- A Formalize practices for completing a thorough review of all major project components during the project development phase so that adequate information is available to identify the best value option and to provide adequate detail to prospective bidders in the procurement phase.
- B Work with the Colorado Department of Transportation (CDOT) to develop standardized reporting formats for analyzing actual cost data to be used as a basis for cost estimates and to further refine performance standards for operations and maintenance elements.
- C Ensure adequate detail on the project scope of services is defined and included in the RFQ and initial RFP.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

- A AGREE. IMPLEMENTED AND ONGOING.

We note that the audit concludes that HPTE's practices were generally consistent with industry standard practices and that the US-36 P3 agreement met HPTE's goals and provided best value to the taxpayers. We accept that there were also challenges. The issues discussed in this part of the audit report were responsible for our recommendation to the Executive Director that a specialized coordinating unit be established within CDOT. The Office of Major Project Development (OMPD), created as the report describes in February 2013, is that coordinating unit. OMPD is a direct report to the Chief Engineer of CDOT and provides engineering, operational, and financial advisory resources for potential P3 projects.

HPTE and OMPD, working under an MOU which establishes roles and responsibilities between the two, have implemented and will continue to formalize practices for making sure we are doing a thorough review of all major components during the project development phase so that adequate information is available to identify the best value option and to provide adequate detail to prospective bidders in the procurement phase.

Thus, in the pending I-70 East procurement, HPTE and OMPD have been working for months to determine best value and project details, as evidenced by the I-70 East information already posted to the HPTE, CDOT, and project websites.

B AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE agrees to work with OMPD and CDOT to develop standardized reporting formats for analyzing actual cost data to be used as a basis for cost estimates and to further refine performance standards for operations and maintenance elements.

HPTE's experience with the US-36 P3 Project and the observations of this audit report will inform this work, much of which is already being done for the I-70 East project.

C AGREE. IMPLEMENTATION DATE: IMPLEMENTED AND ONGOING.

HPTE, working with OMPD, will ensure that adequate detail on the project scope of services with clear definition, and an appropriate level of detail, will be included in future RFQs and initial RFPs. As a point of reference, the RFQ for the I-70 East project is scheduled to be released in March 2015, and will demonstrate our new focus on providing clear definition and detail.

PROJECT SCHEDULE

Complex P3 transportation project procurements may involve multiple public- and private-sector parties, detailed technical specifications, and long-term financing, tolling, and operations and maintenance obligations. Developing detailed, achievable project schedules for these procurements is crucial to ensuring timely completion and controlling procurement costs.

In major procurements for P3 transportation projects, public owner/agencies typically plan and finalize the schedule prior to the procurement phase. The schedule is developed in coordination with expert advisors and industry input obtained through an “industry forum” held before the procurement process begins. HPTE developed the initial schedule for the US-36 P3 Project after holding an “industry forum” in August 2011. HPTE presented the project schedule to the HPTE Board in November 2011, 3 months before the procurement process began.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our audit work was to evaluate whether HPTE prepared an adequate project schedule for efficient and timely management of the US-36 P3 Project, consistent with project management best practices. To perform our work, we interviewed HPTE, CDOT, and Office of the Attorney General staff as well as HPTE’s expert advisors. We reviewed documentation outlining HPTE’s processes for developing and managing the schedule for the US-36 P3 Project evaluation and procurement effort. We reviewed and applied best practices for project management outlined in CDOT’s *Controlling Our Critical Path: A CDOT Guide to Better Project Management Practices (CDOT Guide)* and the *Project Management Body of Knowledge (PMBOK Guide)* promulgated by the Project Management Institute.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

A project schedule is a tool that communicates what work needs to be performed, which resources will perform the work, and the timeframes in which that work needs to be performed. According to the *PMBOK Guide*, the globally-recognized standard and guide for the project management profession, schedule management is a key component of the project planning process and helps to ensure timely completion. The *CDOT Guide* states that project schedules are most effective when the project activities are well-defined and appropriately linked. Typically, project activities address:

- What work is going to be done
- Who is going to do the work

- When is the work going to be done and how much time will the work require
- How much is the work going to cost
- How is the work going to be accomplished

Additionally, the *CDOT Guide* states that the “relationships of project activities must be established within the project schedule so that an order of completion and dependencies on one another are clearly represented.”

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

HPTE did not prepare an adequate project schedule to ensure timely completion of the procurement process. Specifically, HPTE did not include well-defined and appropriately-linked project activities in the schedule for the US-36 P3 Project that adequately:

- **IDENTIFIED THE WORK TO BE DONE.** The project schedule identified the major tasks in the procurement process, including issuing the RFQ, determining the short-list of qualified bidders, issuing the final RFP, selecting the preferred bidder, and completing commercial and financial close. However, the schedule did not include project activities supporting those major tasks. Additionally, the schedule did not include crucial Project elements, such as planning for toll services, federal loan financing, and operations and maintenance. As noted previously, HPTE did not plan for and fully evaluate these elements until later in the procurement process.
- **PROVIDED THE COSTS FOR PERFORMING MAJOR TASKS AND PROJECT ACTIVITIES.** The project schedule did not assign any costs to major tasks or link these to budgets for work to be performed by expert advisors.
- **SPECIFIED WHO WOULD BE DOING THE WORK, WHEN THE WORK WOULD BE DONE, OR HOW THE WORK WOULD BE ACCOMPLISHED.** The project schedule provided due dates only for the major tasks. The schedule did not include specific detail on who would be performing the supporting project activities, when they would be completed, or how they would be accomplished.

Since HPTE did not identify project activities for major tasks, the project schedule also did not outline the relationships or dependencies between project activities.

WHY DID THE PROBLEMS OCCUR?

HPTE’s ability to develop an adequate project schedule was hampered by its inexperience with project management generally and with complex P3 projects and processes specifically. At the start of the US-36 P3 Project procurement, HPTE had only four full-time equivalent employee (FTE) staff, including its director. HPTE received additional technical support from CDOT and legal assistance from the Office of the Attorney General, both of which were also new to P3 procurements. HPTE,

CDOT, and Office of the Attorney General personnel reported that their first P3 process was “like drinking from a fire hose,” and confirmed during interviews that the process was a significant learning experience.

HPTE’s schedule development problems were further exacerbated by the fact that a key goal of the P3 project was to complete US-36 Phase 2 as soon after Phase 1 as possible. Timely completion of Phase 2 was important to ensuring the entire I-25 and US-36 managed lane network operated effectively. As a result, HPTE developed an aggressive schedule, but did not perform adequate analysis or include sufficient detail to ensure the schedule was reasonable or could be accomplished within identified dates.

Public sector agencies new to P3 procurements face substantial learning curves with respect to most aspects of P3 projects, including project schedule development. According to *Public-Private Partnerships – Reference Guide 2.0*, a report produced jointly by the World Bank and other similar international organizations, public sector agencies “may lack some of the skills needed to identify and develop [P3] projects successfully,” especially in the early stages. The report emphasizes the importance of strong expert advisors, even for experienced public sector programs. In the end, HPTE hired solid advisors with good P3 experience and the advisors helped bring the Project to financial close and mitigate HPTE’s lack of project management and schedule development experience.

WHY DOES THIS FINDING MATTER?

The lack of an adequate project schedule for managing the US-36 P3 Project evaluation and procurement contributed to the significant schedule delays and increased costs discussed previously. The final RFP was issued 5 months later than planned, proposals were submitted 6 months later than planned, and overall, the procurement was completed 1 year later than planned, as shown in the following table.

RECOMMENDATION 5

The High Performance Transportation Enterprise (HPTE) should use the experience gained from the US-36 P3 Project and build comprehensive project schedules for future activities on the US-36 P3 Project as well as for future P3 projects. Specifically, project schedules should:

- A Identify all key tasks and include well-defined, appropriately-linked project activities.
- B Assign resources and project costs to tasks and project activities.
- C Specify realistic, achievable timeframes and due dates for when the work needs to be completed.
- D Include adequate detail on how the work will be accomplished to enable responsible parties to accomplish project activities in accordance with the project schedule.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

- A AGREE. IMPLEMENTATION DATE: JULY 2015 FOR THE US-36 P3 PROJECT AND BEFORE PROCUREMENT OF EACH FUTURE P3 PROJECT.

HPTE, working with OMPD and using industry standard and CDOT project management guidelines, will identify all key tasks and will include well-defined, appropriately-linked project activities for the US-36 P3 Project and for each future P3 project. Specifically, HPTE will clearly identify all contemplated major tasks in the procurement process, provide estimates for the costs for performing major tasks and project activities, and specify what party or parties will be doing the work and how that work should be completed.

- B AGREE. IMPLEMENTATION DATE: JULY 2015 AND BEFORE PROCUREMENT OF EACH FUTURE P3 PROJECT.

HPTE, working with OMPD, agrees to build program schedules that assign resources and project costs to tasks and project activities for the operational phases of the US-36 P3 Project and before the procurement of all future P3 projects. While HPTE had limited resources when the US-36 P3 Project procurement process began, the HPTE office now has support from the OMPD and has learned from the experiences of the US-36 P3 Project.

- C AGREE. IMPLEMENTATION DATE: JULY 2015 FOR THE US-36 P3 PROJECT AND BEFORE PROCUREMENT OF EACH FUTURE P3 PROJECT.

HPTE, working with OMPD, agrees to provide project schedules that specify realistic, achievable timeframes and due dates for when the work needs to be completed. HPTE agrees that focusing our efforts on providing comprehensive and realistic timeframes and due dates for future P3 projects is important in order to provide clear transparency and understanding of the processes.

- D AGREE. IMPLEMENTATION DATE: JULY 2015 AND BEFORE PROCUREMENT OF EACH FUTURE P3 PROJECT.

HPTE, working with OMPD and its advisors, will include in comprehensive project schedules adequate detail on how the work will be accomplished to enable responsible parties to accomplish project activities in accordance with project schedules.

PROJECT VALUE ANALYSIS

A Project Value Analysis, also called a “Value for Money” analysis, is an industry standard practice that determines the feasibility of delivering a major project through a P3 approach. The Project Value Analysis compares the benefits and costs of delivering the major project through a P3 to the benefits and costs of delivering the project through a traditional approach (i.e., a project procured, managed, operated, and maintained by CDOT). The Project Value Analysis helps ensure that the P3 delivery option, if selected and procured, is the best value option for the State.

Project Value Analyses are usually prepared by expert advisors with extensive knowledge of P3 and traditional project delivery. These analyses typically consider major aspects of the project including:

- **PROJECT COSTS**—the costs for design and construction as well as the costs incurred over the anticipated agreement term, including operations and maintenance, major maintenance and repairs, and toll services (collection, enforcement) costs.
- **PROJECT REVENUES AND CONTRIBUTIONS**—inflows from one-time grants from public sector agencies, ongoing toll revenues, and payments from public agencies for operations and maintenance expenses or major maintenance and repairs for certain travel lanes, if applicable.
- **FINANCING COSTS TO ADVANCE THE PROJECT**—municipal bonds and P3 private activity bonds, loans (including federal TIFIA loans), and private sector equity.
- **SCENARIO TESTS**—analysis of the impact if assumptions change; for example, if project costs, toll revenues, or interest rates are higher or lower than projected.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our audit work was to evaluate whether HPTE performed a Project Value Analysis at key points in the P3 decision-making and procurement processes in accordance with industry standard practices. To perform our work, we reviewed documentation prepared by HPTE’s expert advisors, including the Project Value Analyses prepared for the US-36 P3 Project. We conducted interviews with HPTE’s management and expert advisors. We also collected and applied industry standard practices for Project Value Analysis prepared by the Federal Highway Administration and by Virginia and Florida, states with leading practices in P3 procurements.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

Industry standard practices, including practices outlined in the Federal Highway Administration's P3 Toolkit, suggest that public owner/agencies prepare an initial Project Value Analysis prior to making a decision to pursue a P3 project. If the public owner/agency decides to move forward with the P3 project, the Project Value Analysis is updated at two key points in the procurement process **IMMEDIATELY** prior to the:

- Selection of the preferred bidder.
- Financial close and signing the P3 agreement.

The Commonwealth of Virginia's 2012 *Public-Private Transportation Act of 1995 (as Amended) Implementation Manual and Guidelines* requires an updated Project Value Analysis (termed "Value for Money" analysis in the Virginia Manual) before selecting the preferred bidder. The updated Project Value Analysis must take into account any additional project information that has become available since the initial Project Value Analysis was performed and compare the costs of the preferred bidder against the public sector's costs for the same project.

Florida statutes require the Florida Department of Transportation to provide a Project Value Analysis (termed "Independent Analysis") that demonstrates the cost-effectiveness and overall public benefit of the proposed P3 option prior to (1) moving forward with procurement and (2) selection (termed "award" in Florida statutes) of the preferred bidder.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

HPTE did not perform a Project Value Analysis at one of the key points in the P3 decision-making and procurement processes. Specifically, HPTE prepared a Project Value Analysis prior to the decision to move forward with a P3 approach for US-36 Phase 2 in February 2012. Additionally, HPTE updated the Project Value Analysis prior to financial close in February 2014 to ensure the final agreement provided best value for the State. However, HPTE did not update the Project Value Analysis prior to selecting the preferred bidder in April 2013, which occurred about 10 months before financial close.

WHY DID THE PROBLEMS OCCUR?

HPTE has not established policies outlining the key points in the P3 decision-making and procurement processes where the Project Value Analysis and updates must be performed. As noted previously, the US-36 P3 Project was the first P3 project pursued by HPTE and staff lacked experience with these complex procurements and existing

best practices. We discuss the need for HPTE to acquire additional training and expertise for P3 projects in more detail at the end of this chapter.

WHY DOES THIS FINDING MATTER?

If HPTE does not perform an updated Project Value Analysis prior to selection of the preferred bidder, there are risks that HPTE will select, and embark upon extensive negotiations with, a preferred bidder that may not provide “best value” for the State. As noted previously, more than 10 months passed between the selection of the preferred bidder and financial close. If HPTE had updated the Project Value Analysis at the point of selection as suggested by industry best practices, HPTE would have been able to support whether proceeding with contract negotiations was the best value option for the State. If the Project Value Analysis update did not provide adequate value, HPTE would have had the option to negotiate changes with the selected bidder, consider the feasibility of executing the project with the second bidder, or cancel the procurement and move to a traditional approach if more cost effective. Although HPTE did not update the Project Value Analysis prior to selecting the preferred bidder for the US-36 P3 Project, the final Project Value Analysis performed at financial close confirmed that HPTE’s executed agreement with the selected bidder was the best value option.

P3 experiences in other states illustrate the importance of performing a Project Value Analysis at selection of the preferred bidder. In a recent transit project in Florida, the updated Project Value Analysis prepared prior to bidder selection concluded that only the preferred bidder, and not the number two bidder, provided the overall best value for the transit agency. Had the transit agency not reached agreement with the preferred bidder during the negotiation phase, the Project Value Analysis showed that the best value option was to reject all proposals and pursue a traditional public approach.

RECOMMENDATION 6

The High Performance Transportation Enterprise (HPTE) should ensure the HPTE Board has adequate information to support decision-making by developing policies outlining the key points in the P3 decision-making and procurement processes where the Project Value Analysis and updates must be performed. Policies should specifically require performance of Project Value Analyses prior to (1) the decision to pursue the project as a P3, (2) selection of the preferred bidder and negotiations, and (3) financial close.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE accepts the recommendation to carry out Project Value Analyses at the recommended times, and the I-70 East procurement schedule anticipates just such a process.

HPTE agrees that an updated Project Value Analysis as an interim step at the point of selection of the preferred bidder should be a necessary additional step to confirm the good value of the P3 approach and will establish a policy to that effect.

COMMUNICATIONS AND TRANSPARENCY

P3s are large, complex projects that affect local populations and economies and involve a large number of public and private entities. According to the Federal Highway Administration's P3 Toolkit, *Establishing a Public-Private Partnership: A Primer* certain features of P3 projects may also generate controversy. Since the P3 approach accelerates project delivery and limits time for consensus building, the need for frequent, clear, and transparent communication from the earliest stages of the project is paramount.

P3 projects also involve volumes of information, most of which is public record under Colorado law. To support transparency, comply with the Colorado Open Records Act [Section 24-72-201, et. seq., C.R.S.], and help ensure efficient management of the concession agreement over the 50-year term, strong mechanisms for maintaining and accessing records are important. Records need to be maintained and readily retrievable to respond to public records requests and also to support future P3 procurements. Records from previous procurements become the foundation for future P3 projects, support lessons learned, and prevent reinventing the wheel.

PUBLIC OUTREACH AND STAKEHOLDER INPUT

Large scale P3 projects typically impact a broad spectrum of interested and affected parties, including local governments, state and local agencies and officials, local communities, special interest groups, and the public. Additionally, because P3 projects involve high dollars, long-term obligations, and specific policy concerns—such as transferring responsibility for financing, tolling, and asset maintenance to a concessionaire—P3 projects are of significant interest to the General Assembly. Consequently, proactive outreach methods for educating and informing lawmakers and other interested parties and soliciting their input and involvement at key points in the process are crucial to the success of these initiatives.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of the work was to determine the extent to which HPTE provided stakeholders, legislators, and the general public with the information needed to understand the P3 approach, the decision-making process for pursuing a P3 project, and the State's and the concessionaire's obligations related to the US-36 P3 Project specifically. We examined statutes, rules, and best practices for pursuing and procuring public-private partnerships for transportation projects in the United States, including best practices compiled by the Federal Highway Administration, the National Conference of State Legislatures, and public relations experts. We reviewed HPTE

Board and Transportation Commission meeting minutes. We reviewed documentation for meetings held with four stakeholder groups along the US-36 corridor, including: US-36 Commuting Solutions, the US-36 Mayors and Commissioners Coalition, the Denver Regional Council of Governments, and the North Area Transportation Alliance. We conducted interviews with HPTE management, HPTE Board Members, and CDOT staff involved with the US-36 P3 Project and staff responsible for public or legislative relations. Our audit work was limited to reviewing HPTE's public outreach efforts related to the financing and delivery method for the US-36 P3 Project and did not review other public outreach activities, such as the public outreach required as part of environmental assessments for the Project.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

We applied best practices developed by the National Conference of State Legislators, the Federal Highway Administration, and public relations experts to evaluate HPTE's public outreach efforts for the US-36 P3 project. These best practices emphasize the need to identify all relevant stakeholders at project conception and inform and involve those stakeholders at key points in the project development and procurement phases. According to the National Conference of State Legislators P3 Toolkit, stakeholders typically include state legislators, public sector executive agencies, other public officials (e.g., governors, mayors, commissioners, metropolitan planning organizations), and the general public (voters, taxpayers, and project users).

Consistent with public relations best practices for P3 programs, public and stakeholder education and involvement should occur prior to making the decision to use the P3 approach and then at key points in the P3 project. Specifically, public and stakeholder engagement should occur at the following milestones:

- **DEVELOPMENT OF A PROJECT PRIORITY LIST**—which lists the projects that the public owner/agency is considering for a P3 approach.
- **PROJECT DEVELOPMENT**—which includes the initial Project Value Analysis and the decision-making process used to decide whether to use a P3 or traditional approach for project implementation.
- **BIDDER SELECTION**—which is the point when the preferred bidder is selected, but is prior to entering negotiations.
- **FINANCIAL CLOSE/FINAL CONCESSION AGREEMENT**—which occurs after negotiations are concluded but prior to contract execution.

Further, public owner/agencies should hold outreach and education activities in appropriate forums—such as one-on-one meetings with legislators and town hall-style meetings with the general public. Outreach and education activities should include

adequate detail to help the public and stakeholders understand the complexities of the P3 project, such as the difference between P3 and traditional delivery models for major transportation projects, and the details and long-term obligations of the financing arrangement.

Finally, public owner/agencies should maintain records of stakeholder engagement activities, including all meeting dates, the names of meeting attendees, copies of handouts or presentations, and meeting minutes and follow-up action items, consistent with public relations best practices and established Federal Highway Administration and CDOT practices for public engagement during environmental reviews. These records are important for evaluating the effectiveness of P3 stakeholder education and outreach efforts to ensure continuous improvement.

WHAT PROBLEM DID THE AUDIT WORK IDENTIFY?

HPTE did not adequately inform, educate, or involve two stakeholder groups—legislators and the general public—at key points in the US-36 P3 Project. Specifically, HPTE did not adequately inform legislators at two of the four milestones and did not adequately solicit public input at three of the four milestones as shown in the following table.

| HIGH PERFORMANCE TRANSPORTATION ENTERPRISE OUTREACH EFFORTS TO LAWMAKERS AND THE PUBLIC RELATED TO THE US-36 P3 PROJECT AND THE P3 DELIVERY OPTION ¹ DURING KEY PROJECT MILESTONES | | | |
|--|--------------------------------|---|---|
| MILESTONE | TIMEFRAME FOR US-36 P3 PROJECT | OUTREACH TO LEGISLATORS ² | SOLICITATION OF PUBLIC INPUT ³ |
| Development of Priority List for Transportation P3s | January 2011 to August 2011 | No | No |
| US-36 P3 Project Development | January 2011 to February 2012 | No | No |
| Selection of Preferred Bidder | April 2013 to June 2013 | YES | No |
| Financial Close/Execution of Amended and Restated Concession Agreement | February 2014 | YES | YES |

SOURCE: Clary Consulting, LLC and Office of the State Auditor review of documentation provided by the High Performance Transportation Enterprise.

¹ Documentation review focused specifically on whether the Phase 2 project or the P3 delivery model was discussed during the outreach activity.

² Outreach occurred if (1) discussions focused on the Phase 2 project and the P3 delivery model and (2) contacts were either one-on-one meetings or committee hearings with HPTE staff.

³ Solicitation occurred if the meeting was (1) a town-hall style meeting and (2) focused on educating and soliciting public input regarding the P3 delivery model.

Although HPTE held 54 public Board meetings and 16 documented meetings with local government stakeholders, HPTE did not hold any town hall meetings specifically

seeking public involvement and input into the P3 approach or the US-36 P3 Project. Additionally, HPTE provided annual reports to the General Assembly and CDOT held legislative briefings and met one-on-one with legislators covering various CDOT topics that included the US-36 P3 Project; however, the information provided did not include adequate detail for understanding the complexity of the Project or the differences between P3 and traditional public procurement approaches. HPTE management also did not hold any one-on-one meetings with legislators, including legislators representing the US-36 region, to educate and provide details on the US-36 P3 Project.

HPTE also did not maintain complete records of its engagement activities. Although HPTE provided records of meeting dates, HPTE did not maintain records of the names of meeting attendees, meeting minutes, or items for follow-up.

WHY DID THE PROBLEM OCCUR?

HPTE did not understand the importance of having public relations expertise on the US-36 P3 Project team. Additionally, HPTE did not develop a comprehensive communications plan outlining strategies and approaches for informing stakeholders, policy makers, and the general public about the US-36 P3 Project. A comprehensive communications plan provides a framework for public relations and stakeholder outreach efforts by identifying relevant audiences, building strategies for communicating to targeted audiences, identifying appropriate communications media and venues for each audience, developing timelines for message delivery, and evaluating the effectiveness of the communications plan in meeting its objectives.

After the US-36 P3 Project was finalized, the General Assembly passed Senate Bill 14-197, which intended to increase public and legislative involvement and expand legislative oversight of the development and procurement of P3s. The Governor subsequently vetoed Senate Bill 14-197, stating that the bill inappropriately constrained the business terms of future P3 agreements. The Governor then issued Executive Order D 2014-010, which directed HPTE to implement many of the public communication and involvement provisions of Senate Bill 14-197.

On the basis of lessons learned from the US-36 P3 Project, HPTE hired a public relations firm and partnered with CDOT to obtain a public information officer to help guide public outreach and involvement efforts on P3 projects. In addition, prompted by the Governor's Executive Order D 2014-010, HPTE adopted a *Transparency Policy Related to Public-Private Partnerships (Transparency Policy)* to provide guidance for communicating with the public, the General Assembly, and other stakeholders. The purpose of the *Transparency Policy* is "to provide additional transparency and accountability for, and public participation in, any Public-Private Partnership entered into by the High Performance Transportation Enterprise." The policy requires HPTE to hold a minimum of three public town hall meetings for any P3 considered, including (1) during the visioning stage; (2) before issuance of the draft RFP; and (3) after preparation of, but prior to issuance of, the final RFP. The town hall meetings are to be

held in close proximity to affected communities and allow for comment, input, and questions from the public and responses from HPTE Board members and management. The policy also requires HPTE to provide additional reports and presentations to the General Assembly upon the request of any legislator. To further define its public engagement activities for P3 projects, HPTE also developed a *Transparency Outreach Public Engagement Plan*. Although the *Transparency Policy* and the *Transparency Outreach Public Engagement Plan* do not constitute a comprehensive communications plan, these documents form a solid first step toward improving HPTE's public outreach efforts.

WHY DOES THE PROBLEM MATTER?

By not conducting town hall style meetings and providing one-on-one meetings between HPTE management and legislators, HPTE did not receive important input that could have benefited the Project. Instead, HPTE faced large public outcry from both traditional and social media, threatening the US-36 P3 Project and the future use of the P3 approach in Colorado. Additionally, legislators who felt they had been left out of the conversation passed Senate Bill 14-197 to alter the manner in which HPTE entered into P3 projects. As explained above, the Governor vetoed the bill and issued Executive Order D 2014-010 which directed HPTE to adopt key provisions of Senate Bill 14-197.

By not maintaining adequate records of stakeholder outreach and engagement efforts, HPTE lacks data to evaluate its public relations efforts and cannot demonstrate that it has conducted sufficient meetings with all stakeholder groups, that the information provided includes adequate detail about the uniqueness and complexity of P3 projects, or ensure concerns raised during outreach activities have been appropriately addressed.

RECOMMENDATION 7

The High Performance Transportation Enterprise (HPTE) should expand upon its *Transparency Policy*, the Governor's Executive Order D 2014-010, and the *Transparency Outreach Public Engagement Plan* and develop a comprehensive communications plan for informing and soliciting input from stakeholders, policy makers, and the general public for future P3 projects. Additionally, HPTE should maintain adequate and complete records of meetings and outreach efforts to follow up on outstanding issues and to assist with evaluating the effectiveness of its comprehensive communications plan.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

AGREE. IMPLEMENTATION DATE: JULY 2015.

From the outset of the process for the US-36 P3 Project, HPTE believes it has complied with the State Constitution and all applicable statutes to be compliant with transparency. HPTE has embraced the Governor's Executive Order D 2014-010 in all respects. HPTE will expand upon the Transparency Policy and Transparency Outreach Public Engagement Plan by adding a formal HPTE Communications Strategic Plan this spring for proactively providing information and soliciting input from stakeholders, policy makers, and the general public for future P3 projects. The plan will provide for maintaining records of meetings and outreach efforts and for follow-up.

TRANSPARENCY AND OPEN RECORDS

Transparent processes and open records are fundamental to successful P3 projects and procurements. Transparent processes help stakeholders and the public understand the complexity of these projects and the types of risks that will be transferred to the private sector or retained by the public owner/agency. Transparent processes also eliminate conflicts and misunderstandings and ensure an attractive environment for private investors and government partners. To that end, the General Assembly specifically required HPTE to be subject to the Colorado Open Records Act (CORA) [Section 43-4-809 (2) (b), C.R.S.]. CORA [Section 24-72-201, et seq., C.R.S.] requires most of HPTE's documents and information, with some exceptions outlined in law, to be public records.

P3 projects and procurements involve an enormous variety of documents and information of interest to stakeholders, including legislators, the public, local governments, and private sector proposers. In most states, including Colorado, information and documents issued as part of the P3 program and procurement process are public records under CORA or similar state laws, including:

- **MINUTES AND DOCUMENTS** provided at HPTE Board meetings.
- **INITIAL PROJECT VALUE ANALYSIS** and any subsequent updates, which evaluate the feasibility of pursuing a P3 project compared to a conventional public sector approach.
- **KEY PROCUREMENT DOCUMENTS PREPARED BY HPTE**, such as the RFQ, initial and final RFPs, Short-lists of the Prospective Bidders, and Selection of the Preferred Bidder.
- **QUALIFICATIONS AND PROPOSALS SUBMITTED BY THE PROSPECTIVE BIDDERS**, which include the bidders' detailed proposals in response to the RFQ and RFP. These are confidential during the procurement process to ensure the integrity of the process. Selected items, such as private financial statements of the equity investors on the bidder's team that are identified by the bidder as proprietary, may be protected from release by law after the procurement process is complete.
- **COMMERCIAL AND FINANCIAL CLOSING DOCUMENTS**, which include the contractual and financing agreements executed between the State and the selected bidder, except for those documents or portions of documents protected from release by law. The computer software and methodology for the financial model, which is developed by the selected bidder, is an example of a portion of a document that may be deemed proprietary and protected by law.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our audit work was to evaluate whether HPTE's practices for ensuring transparency for the US-36 P3 project were adequate to ensure compliance with the provisions of CORA and consistent with industry best practices. To perform our work, we reviewed CORA [Section 24-72-201, et seq., C.R.S.] and the Funding Advancement for Surface Transportation and Economic Recovery Act ("FASTER") [Section 43-4-801, et seq., C.R.S.]. We interviewed HPTE management and staff of the Office of the Attorney General. We reviewed HPTE's policies and applied best practices used by Florida, Georgia, Texas, and Virginia to comply with public records laws and ensure adequate transparency for P3 procurements.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

We applied statutory criteria to evaluate HPTE's practices for complying with the provisions of CORA and FASTER statutes related to public records, and best practice criteria from Florida, Georgia, Texas, and Virginia to evaluate HPTE's practices for ensuring transparency.

As noted previously, FASTER statutes [Section 43-4-809 (2) (b) C.R.S.] provide that the records of HPTE shall be public records. CORA statutes [Section 24-72-202 (6) (a) (I), C.R.S.] define public records as "all writings made, maintained, or kept by the state, any agency, institution, a nonprofit corporation..., or political subdivision of the state...." To comply with CORA, state agencies must have mechanisms for identifying documents that meet the definition of "public records" and make them available publically, such as by posting the information on their websites or by responding to official public information requests.

Industry best practices suggest that public agencies integrate mechanisms for ensuring transparency into the development and implementation of their P3 programs. To that end, two best practice states—Georgia and Virginia—have promulgated rules or policies detailing which documents will become public records and when they will be made available, requiring that:

- All information provided by proposers will become public records in accordance with each state's open records laws.
- Proprietary information and trade secrets may not become public records. However, proposers have the burden of proof for establishing what information is proprietary and proposers must proactively identify this information and be prepared to defend against release if the public agency requests the information be made public record.

- Information submitted by proposers during the procurement process does not become a public record until the procurement phase is completed.

Additionally, two other states—Florida and Texas—have best practices in place to post state-issued procurement documents and processes on public internet sites as soon as they are issued and to post proposer-submitted documents and final closing agreements on public internet sites when procurement is complete and agreements are signed.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

HPTE does not have adequate mechanisms in place for its P3 program to identify key documents or portions of documents that should either become public record or remain confidential under CORA. Additionally, HPTE does not have adequate practices for outlining when in the procurement process public documents will be released as suggested by industry best practices. Although HPTE promulgated a new transparency policy in July 2014 after the completion of the US-36 P3 Project, the new policy is silent regarding which procurement documents are public records under CORA and the policy also does not establish milestones for when these records will be made publicly available. Further, the policy does not require proposers to proactively specify information they believe is not subject to release under CORA. Rather, the transparency policy only requires HPTE to post the executed concession agreement on its website at completion of procurement, except for information not subject to disclosure under CORA.

WHY DID THE PROBLEMS OCCUR?

The problems occurred because, during P3 project development and prior to procurement, HPTE did not work with the Office of the Attorney General to develop a comprehensive open records and transparency plan for HPTE's P3 Program. Although HPTE consulted with the Office of the Attorney General regarding its responses to open records requests, these responses were not provided within the context of a comprehensive open records and transparency plan, which typically includes policies for complying with open records laws and establishes strategies for enhancing public transparency and information accessibility. In addition to outlining the information that will become public under public records laws and identifying milestones for when dissemination will occur, a plan should assign the burden for claiming and defending an exemption from CORA provisions to the outside party. A plan is crucial for helping prospective bidders understand how HPTE will be using the information bidders provide and assists HPTE with proactively providing public records to the public and responding to public records requests efficiently. A plan would also assist HPTE with facilitating transparency after procurement and during the Project's construction and operational phases.

WHY DOES THIS FINDING MATTER?

Since HPTE lacks adequate mechanisms to identify the documents that will become public records and the milestones for releasing them during the procurement process, HPTE cannot ensure that public records are released and made available in a timely manner in accordance with CORA. Further, HPTE cannot adequately ensure overall transparency, promote an informed public, or reduce conflict and confusion from stakeholders.

During the US-36 P3 Project procurement, tension occurred between HPTE and stakeholders because information was not available detailing which documents submitted by bidders were public records and when they would be released to the public. As a result, HPTE received requests to release copies of bidders' proposals while contracts were being negotiated, even though under CORA these records are not public during the procurement phase. If HPTE had identified these documents and their release dates in a comprehensive open records and transparency plan, HPTE would have been better positioned to efficiently respond to the information requests and provide requestors with the date upon which the records would become public.

Similarly, during the audit we noted that HPTE was uncertain whether the selected bidder's finance plan, which is part of the bidder's proposal and an exhibit to the concession agreement, constituted a public record under CORA. HPTE and Office of the Attorney General staff both confirmed that the selected bidder pressured HPTE not to release the finance plan, asserting that the plan was proprietary and therefore exempt from disclosure under CORA. Although the computer model and methodology that produced the finance plan may be proprietary, the output—or results—of the finance plan is a public record under open records laws in many other states. It is important that HPTE work with Office of the Attorney General staff to determine whether the output of the finance plan is a public record under CORA, and if so, make the finance plan information available to the public.

RECOMMENDATION 8

The High Performance Transportation Enterprise (HPTE) should continue to work with the Office of the Attorney General to develop a comprehensive open records and transparency plan for its P3 program that ensures compliance with the Colorado Open Records Act and with best practices. HPTE's plan should identify the key documents developed prior and during procurement, as well as during the construction and operation phases, that will become public records and determine milestones for when such documents will be released. HPTE should list these documents and their release dates in communications to prospective bidders as appropriate and make the open records and transparency plan and public records available to the public on its internet site.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE, with help from CDOT, is now working with the Office of the Attorney General to develop a comprehensive and specific open records and transparency plan for its P3 programs that is compliant with the Colorado Open Records Act and with national best practices. HPTE staff will recommend to the HPTE Board the incorporation of the plan into a formal policy that identifies how key P3 documents are identified as being public, and establish a schedule and mechanism for posting such information.

RECORDS MANAGEMENT

P3 projects generate volumes of records of interest to the public and the public/owner agency. Consequently, mechanisms for maintaining and accessing these records are important components of P3 programs. As discussed previously, HPTE's documentation related to the US-36 P3 Project is largely public record, and must be readily accessible and retrievable to respond to public records requests in accordance with CORA. Additionally, HPTE must be able to readily access all key documents efficiently—whether public or protected from release—over the 50-year project term for management purposes. Key project-related documents are needed to monitor the concessionaire's compliance with the contract, update key financial assumptions, manage HPTE and CDOT responsibilities under the contract, and use as a basis for future P3 procurements.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our audit work was to evaluate whether HPTE adequately complied with statutes and CDOT policies for records management and established efficient records management systems to ensure all records are readily accessible for managing operations and responding to public records requests. To complete our work, we reviewed statutes and policies promulgated by the Department of Personnel & Administration (DPA) and CDOT, and the Records Management Manual developed by the Division of State Archives and Public Records within DPA. We conducted interviews with HPTE management, reviewed documents provided by HPTE, and collected and applied best practices for document management.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

Colorado Revised Statutes outline specific records management requirements to ensure agencies have adequate systems to maintain and manage their records for the purpose of providing public access and for conducting business and managing operations. Specifically, Section 24-80-102.7 (2) (a), C.R.S., requires that “each state agency shall establish and maintain a records management program for the state agency and document the policies and procedures of such program.”

The Division of State Archives and Public Records within DPA has developed a Records Management Manual to assist state agencies with complying with records management statutes. CDOT, in accordance with the statute, has developed a records management system and guidelines. CDOT Procedural Directive 51.1 outlines requirements for maintaining records that apply to HPTE and directly relate to the US-

36 P3 Project; a partial list of these records retention requirements are displayed in the following table.

| HIGH PERFORMANCE TRANSPORTATION ENTERPRISE RECORDS RETENTION REQUIREMENTS APPLICABLE TO P3 PROJECTS | | |
|---|-------------------------------------|--|
| PROJECT FILE TYPE | RETENTION PERIOD | COORDINATION WITH CDOT CENTRAL FILES |
| Contractor Proposal and Supporting Documents | Permanent | One set of files to be transferred to CDOT Central Files for Permanent Storage |
| Bid Summary and Pre-Award Review/Evaluation | 6 Years | |
| Concession Agreement (Contract) and Supporting Documents | Permanent | One set of files to be transferred to CDOT Central Files for Permanent Storage |
| Project Monitoring Files, including inspections/monitoring reports and reports filed by the contractor/private team | Until 6 Years after Project Closure | |
| Attorney/Client Communications | Permanent | |
| Construction Plans related to Bridges | Permanent | Microfilm or Scan |
| SOURCE: CDOT records retention requirements as outlined in Procedural Directive 51.1. | | |

With respect to public records maintained only in electronic form, statute [Section 24-72-203, C.R.S.] and CDOT Policy 26.0 require that adequate processes be in place to provide electronic documents in response to an official open records request and to retain and archive documents in accordance with statute and policy requirements. Guidance promulgated by the Division of State Archives and Public Records notes that under Colorado's public records law, many electronic messages (emails) may be public records. The guidance provides that authors and recipients of email messages must “use their judgment as to the nature of the material and take appropriate steps to treat the [email] messages just as they would any other form of information” and apply the applicable records retention requirements to both the email and any attachments.

Additionally, CDOT Procedural Directive 51.1 requires each CDOT division to identify a records coordinator who, among other duties (1) works with the Department's Official Records Custodian on records retention and disposition requirements, (2) completes a “Record Analysis Sheet” that lists the types of documents retained and the state or federal statute requiring retention, and (3) advises the Official Records Custodian of any documents not included in existing records retention schedules and develops a schedule for those records.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

At the time of our audit, HPTE did not adequately maintain and could not readily access project files and electronic records for the US-36 P3 Project in accordance with requirements outlined in statute, CDOT policies, and Division of State Archives and Public Records guidance. Although HPTE maintains key final documents related to the development and procurement of the US-36 P3 Project, such as the final Project Value Analysis, RFQ, RFP, and concession agreement, HPTE did not maintain complete project records as required by statute and CDOT policies. For example, HPTE did not

maintain technical reports, supporting documentation for the Project Value Analysis, drafts of the concession agreement and related schedules, drafts of the RFQ and RFP, and emails and email attachments related to these documents transmitted between working group members and expert advisors. These documents were only available by requesting them from HPTE's expert advisors. Additionally, HPTE did not maintain some project documents, including presentations, summaries of technical documents, and other supporting records for the US-36 P3 Project, which were prepared by HPTE or CDOT staff who subsequently left employment. HPTE management noted that these records may be retrievable from CDOT's information system with assistance from IT staff; however management was uncertain whether these records still existed.

During the US-36 P3 Project procurement, HPTE also did not identify a records coordinator to manage its records retention and disposition requirements. HPTE did not (1) complete a Record Analysis Sheet with an inventory of HPTE records and their retention schedules, (2) identify documents not included in existing records retention schedules, or (3) develop a schedule for those records as required by CDOT Procedural Directive 51.1. Certain key documents, such as the Project Value Analysis and the Evaluation of Delivery Options and their supporting documentation, do not appear to be listed on existing CDOT retention schedules. Other documents, such as project monitoring reports and reports provided by the concessionaire during the construction and operation phase, are generally listed on the CDOT retention schedule, but will need to be retained during the 50-year project term to provide historical information and help HPTE manage the Project over time. Although these documents are crucial to managing the US-36 P3 Project and future projects, HPTE has not developed a separate retention schedule for these documents.

WHY DID THE PROBLEMS OCCUR?

HPTE has not assessed its records management program and developed processes and systems to ensure compliance with statutes, the Records Management Manual, and CDOT policies and procedural directives. As noted previously, HPTE is a relatively new division within CDOT and the US-36 P3 Project was HPTE's first public-private partnership effort. HPTE was focused primarily on moving the US-36 P3 Project through procurement and financial close and into the construction phase. Although management acknowledged records management was important and HPTE did identify a records coordinator in September 2014, HPTE's systems and processes for maintaining, accessing, and managing records were neither prioritized nor developed to the level required by statute or CDOT requirements. HPTE's records management issues were further exacerbated by the following challenges:

- **NEW EMAIL VENDOR.** CDOT migrated to a new email vendor during the US-36 P3 Project procurement. HPTE could not retrieve emails and attachments that existed prior to the conversion unless those emails and attachments were saved in another electronic format or in hard copy. The conversion impaired HPTE's ability to search email communications, retrieve documents, or provide the documents in response to public records requests.

- **ELECTRONIC DOCUMENT MANAGEMENT SYSTEM.** HPTE lacks a document management system suitable for managing P3 projects. P3 projects have unique document management needs that cannot be met by the systems typically used by transportation departments, including CDOT. P3 projects extend for decades, whereas the construction phase of a transportation project generally extends for no more than 3 to 5 years. The amount of documentation HPTE must be able to maintain, easily locate, and retrieve is voluminous. Interactions with lenders and equity investors generate volumes of documents not present in traditional highway construction projects. Further, P3 projects require long-term monitoring and regular updates to financial models. Over time, staffing and ownership changes may occur for both the public owner/agency and the concessionaire. During the US-36 P3 Project, HPTE used a document management system maintained by RTD under a temporary agreement. The HPTE has since identified an electronic document management system that it believes will more adequately meet its needs. However, HPTE management indicated that they may need additional resources to acquire the system.

WHY DOES THIS FINDING MATTER?

Since HPTE does not adequately maintain and cannot readily access all project files and digital records as required by law and CDOT procedures, HPTE risks potential litigation related to public records requests. Further, if HPTE cannot readily access needed documents, whether public or protected from release, HPTE's ability to provide ongoing management of the Project over the 50-year term is impaired. For example, HPTE will need to access records throughout the life of the Project to (1) ensure any subsequent agreements executed are consistent with Project goals and objectives; (2) evaluate the overall success of the Project—including whether the Project produced adequate value and whether cost projections in the concessionaire's financial model are realized; (3) monitor whether certain problems or concerns persist over time, requiring HPTE to intervene and devise a solution; and (4) provide a foundation for preparing future P3 procurements.

Additionally, relying on expert advisors to maintain records may increase HPTE's consulting costs, since HPTE may incur fees for the time spent by expert advisors to locate records. When contracts with expert advisors terminate, advisors may not retain all documents or retain them for the required periods.

Finally, by not designating an HPTE records coordinator to inventory records or develop HPTE-specific records retention requirements, crucial public and protected records required to be maintained by law could be lost or deleted. As noted previously, HPTE identified a records coordinator in September 2014.

RECOMMENDATION 9

The High Performance Transportation Enterprise (HPTE) should work with the Colorado Department of Transportation's (CDOT's) Official Records Custodian to assess its records retention needs and develop processes and systems for records retention as outlined by statute, the Records Management Manual, and CDOT policies, procedures, and schedules. Specifically, HPTE should:

- A Inventory HPTE records and document the storage methods and retention requirements for both public and protected documents that statutes or procedures require be retained.
- B Review existing CDOT records retention schedules, identify areas where the schedules are not adequate to meet HPTE's document management and retention requirements for long-term P3 projects, develop HPTE-specific records retention schedules, and submit the schedules to appropriate authorities for approval.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

- A AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE is in the process now of inventorying HPTE records and of documenting requirements for both public and protected documents that statutes or procedures require be retained. Additionally, HPTE is establishing processes to ensure ready access to records throughout the life of the US-36 P3 Project. HPTE's response to Recommendation 10, in relation to the document management system, will assist in the implementation of this recommendation.

- B AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE is in the process now of reviewing existing CDOT records retention schedules, identifying areas where the schedules are not adequate to meet HPTE's document management and retention requirements for long-term P3 projects, and updating its retention policy to include retention of documentation specific to P3 projects. Additionally, HPTE identified a records coordinator last fall that is (1) working with the Department's Official Records Custodian on records retention and disposition requirements, (2) completing a "Record Analysis Sheet" and (3) advising the Official Records Custodian of any documents not included in existing records retention schedules and developing a schedule for those records.

RECOMMENDATION 10

The High Performance Transportation Enterprise (HPTE) should assess and evaluate resources for procuring a comprehensive document management system suitable for efficiently managing, maintaining, and accessing the documents associated with long-term P3 projects.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE has been assessing and evaluating resources for procuring a comprehensive document management system suitable for effectively managing, maintaining, and accessing documents associated with long-term P3 projects. As a result of this assessment, procurement will soon commence and HPTE expects to finalize contract negotiations with a provider of a document management system and implement the system by the end of the third quarter of 2015.

MONITORING P3 PROJECTS

P3 projects require extensive monitoring by the public owner/agency during the lifetime of the project. For example, the US-36 P3 Project requires HPTE to monitor the concessionaire's construction, operations and maintenance, and tolling activities over the 50-year term of the concession agreement to ensure performance requirements are met. As the State embarks on additional P3 projects, HPTE's monitoring responsibilities will grow exponentially. Further, HPTE's monitoring responsibilities are not limited to monitoring its concessionaires. Since public owner/agencies typically make extensive use of expert advisors when developing their P3 projects, HPTE is responsible for ongoing monitoring of expert advisor contracts to ensure the State receives adequate value for these consulting services.

MONITORING EXPERT ADVISORS

P3 projects, due to their complexity, require specialized expertise not required for traditional transportation projects. Even states with extensive P3 project experience, such as Florida, Texas, and Virginia, contract with expert advisors to obtain needed expertise for developing, procuring, implementing, and monitoring their P3 transportation projects. Hiring qualified, highly experienced expert advisors helps to ensure best value for the project and protects the public interest throughout all of the project phases. Experts with specialized P3 expertise are needed to provide:

- **LEGAL ASSISTANCE.** Legal experts develop the legal structures for the delivery options, procurement documents, draft contract documents, financing documents, and the final concession agreement. Legal experts also assist with contract negotiations. HPTE hired a legal expert advisor prior to analysis of the US-36 P3 Project delivery options and retained the advisor from procurement through financial close.
- **FINANCIAL ASSISTANCE.** Financial experts develop and analyze the delivery options and Project Value Analysis and analyze the bidders and the selected bidder's finance plan for advancing the project through financial close. HPTE hired a financial expert advisor prior to analysis of the US-36 P3 Project delivery options and retained the advisor from procurement through financial close.
- **TECHNICAL ASSISTANCE.** Technical experts analyze delivery options, develop cost estimates and performance standards for the operations and maintenance elements; develop the technical elements of the procurement and contract documents; advise on technical issues related to tolling, construction, and operations and maintenance; and monitor implementation of the project stages after financial close. CDOT hired an expert technical and tolling advisor for US-36 Phase 1 and continued the advisor's services for Phase 2 of the Project to assist with development and analysis for the procurement process. The expert technical

advisors are also assisting CDOT with monitoring the design and construction phase of both Phase 1 and Phase 2 of the Project.

In total HPTE's costs were \$2.5 million, \$2.8 million, and \$2.1 million for legal, financial, and technical expert advisors, respectively, from February 2011 through February 2014. These costs are comparable to costs other states typically incur for P3 procurements with similar complexity.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of the work was to determine whether HPTE hired qualified expert advisors and monitored their performance in accordance with industry standard practices and best practices outlined in statute, state fiscal rules, and guidance. To perform our work, we reviewed the qualifications of and the total value of payments made to HPTE's expert advisors. We also interviewed HPTE management, Office of the Attorney General staff, and expert advisor staff. We collected and applied industry standard practices and reviewed statutes, state fiscal rules, and guidance promulgated by the Office of the State Controller.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

Industry standard practices for P3 procurements used by the Federal Highway Administration, Canadian provinces, and other states, such as Florida, Virginia, and Texas, emphasize the importance of hiring qualified expert advisors to assist with the complex financial, technical, and legal aspect of these projects. To ensure expert advisors are "qualified," the public owner/agency should typically require the expert advisor to demonstrate in its proposal that each senior or lead has experience in three or more P3 projects and that each project has reached financial close and is in implementation.

These industry standard practices also recognize the importance of monitoring expert advisor contracts to ensure the public owner/agency receives high-quality, timely performance and that contract requirements are met. Additionally, State Procurement Code provisions [Section 24-103.5-101, C.R.S.] and State Fiscal Rule 3-1 set forth specific contract monitoring requirements for state agencies, including but not limited to:

- Designating at least one person who will be responsible for contract monitoring.
- Maintaining monitoring processes to ensure that results, objectives, and contract obligations are met.

- Monitoring the extent to which the vendor met or exceeded budgetary requirements of the contract.

Although statute [Section 43-4-809 (1), C.R.S.] exempts HPTE from the State Procurement Code and associated state fiscal rules outlined above, these contract monitoring requirements are good business practice and provide useful guidance to help ensure that the State and its vendors comply with contract requirements and that the vendor provides adequate performance in exchange for contract dollars expended.

Finally, statute [Section 24-30-202, C.R.S.], requires that a commitment voucher authorizing vendor services, such as an authorized task order under a contract, be in place before services are rendered.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

We found that HPTE and CDOT hired qualified legal, financial, and technical expert advisors to assist with these elements of the US-36 P3 Project. Specifically, each senior or lead expert advisor hired had experience in at least three or more P3 projects, and each project successfully reached financial close and was in implementation.

However, HPTE did not adequately monitor its expert advisors in accordance with industry standard practices or best practices outlined in statutes and state fiscal rules. For example:

- HPTE did not designate a contract monitor to monitor the expert advisors' performance or compliance with contract requirements.
- HPTE did not maintain a formal monitoring process for monitoring contractor performance.
- HPTE did not monitor the extent to which legal and financial expert advisors met or exceeded budgetary requirements of the contract.

HPTE's expert legal and financial advisors provided services that were not authorized by a commitment voucher, such as an authorized task order under a contract, in violation of statute. In one case, HPTE's expert legal advisor provided services that exceeded the authorized task order budget by a total of \$188,305 between December 2011 and June 2012. In another case, HPTE's expert financial advisor provided services that exceeded the authorized task order budget by a total of \$276,853 between March 2012 and June 2012. Although authorized task order budgets were exceeded, neither the legal nor the financial advisor provided services exceeding the total amount encumbered for their respective contracts.

WHY DID THE PROBLEMS OCCUR?

HPTE lacked an adequate system of internal controls to ensure expert advisor performance and expenditures were monitored. State Controller policies require state agencies to have an adequate system of internal controls to identify and prevent contract expenditures in excess of budget authority. During the US-36 P3 Project procurement, HPTE had a small staff of four full-time equivalent employees (FTE), including the Director, and none of these staff were specifically assigned to monitor the budget and task orders for expert advisor contracts or set up an adequate system of internal controls to prevent contract expenditures in excess of the approved task order budget.

According to State Controller Policy, the State Controller may “ratify” or allow payment for services not authorized by a contract if certain conditions are met, including but not limited to (1) the state agency’s chief fiscal agent notifies the State Controller of the occurrence in writing, (2) the services did not exceed the encumbrance for the contract, and (3) the fiscal agent provides an explanation and assurance that the services were provided at a fair price and corrective action has been taken to prevent future occurrences. The State Controller approved payment, or “ratified” payment for HPTE’s expert legal and financial advisors services in August 2013 and February 2014, respectively, after the CDOT chief fiscal agent provided written notification explaining the occurrence and the corrective actions to be taken to prevent future occurrences.

After the overruns occurred, HPTE and CDOT hired a budget analyst in July 2012 to provide support to both HPTE and the Colorado Bridge Enterprise. The budget analyst manages the budget and task orders for HPTE’s contracts, including expert advisor contracts. HPTE management reports that it now has regular weekly and monthly meetings with the budget analyst that include a review of the status of HPTE contract budgets. Additionally, HPTE management determined that, although HPTE is not subject to the State Procurement Code, it would be reasonable and appropriate to implement the contract monitoring requirements set forth in State Fiscal Rule 3-1.

WHY DOES THIS PROBLEM MATTER?

Lack of strong contract monitoring practices presents risks that the contractor will not provide services agreed to in the contract or will receive payment for services not provided. Since securing contracted advisors is crucial to the successful procurement of a P3 agreement, and the dollars invested in these advisors is significant, the importance of strong contract monitoring is magnified. Although HPTE had solid expert advisors that helped HPTE execute a successful P3 concession agreement that met the goals outlined for the project and delivered good value for the State, lack of oversight resulted in HPTE exceeding approved task order budgets, a statutory violation. As noted previously, the costs did not exceed the amount encumbered for the two contracts and the State Controller ultimately approved payment.

RECOMMENDATION 11

The High Performance Transportation Enterprise (HPTE) should review processes and establish an adequate system of internal control for monitoring the performance and budget for contracted expert advisors to ensure the work remains within the budgeted amount and the services delivered are of sufficient quality and delivered in accordance with the requirements set forth in the contract. Additionally, HPTE should consider implementing the contract monitoring best practices outlined in statute and State Fiscal Rule 3-1.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

AGREE. IMPLEMENTED AND ONGOING.

HPTE has established procedures for monitoring the performance and budget of contracted expert advisors to ensure services are of sufficient quality and meet the requirements set forth in the contract. HPTE continues to have weekly meetings with its Budget Analyst to review the budget and future obligations. These meetings go into more detail on a bi-weekly basis. Discussed are such items as current and future needs, budget expended to date, projected budget expenditures, and remaining funds on each contract.

HPTE has also started a discussion with CDOT's Division of Contracts and Procurement on how to incorporate State Fiscal Rule's 3-1 contract monitoring provisions. It is anticipated that a formal procedure will be in place by this summer.

OPERATIONS AND MAINTENANCE MONITORING

Once construction on the US-36 P3 Project is complete and the highway is open to traffic, the corridor must be operated and maintained on an ongoing basis for the 50-year project term. Under the US-36 P3 Project concession agreement, the concessionaire is responsible for (1) operations and routine maintenance for the I-25 managed lanes and the entire US-36 corridor (e.g., new managed lanes and the existing general purpose lanes) and (2) major maintenance on the I-25 and US-36 managed lanes during the contract period. The concessionaire must also coordinate operations and maintenance services with toll services, CDOT and local agency traffic management systems (e.g., emergency warning and messaging on electronic signs), and CDOT operations and maintenance efforts on feeder highways to ensure the optimum performance and safety of the US-36 corridor.

The concession agreement requires the concessionaire to provide operations and maintenance services in accordance with specific, outcome-focused performance requirements. The performance requirements establish quality expectations—or outcomes—for the concessionaire’s operations and maintenance services and are intended to meet CDOT’s expectations for safety and service and RTD’s operational requirements for express bus service in the managed lanes as outlined in the concession agreement. The performance specifications shift the risk and responsibility for the outcome from the State to the concessionaire and allow the concessionaire flexibility to determine how to best achieve the outcomes to provide best value to the State and the public.

Since P3 projects are typically performance driven, public owner/agencies must determine how the performance specifications will be monitored to provide assurance that the concessionaire is meeting its contractual obligations. One aspect of monitoring and enforcing is assessing “points” when performance requirements are not met. The number of points assessed depends on the number and severity of the non-compliance incidents. Accumulating non-compliance points can (1) trigger financial penalties, (2) allow for the public owner/agency to “step-in” if a major problem is not adequately addressed by the concessionaire, and (3) ultimately provide for cancellation of the concession agreement if continued major non-compliance occurs.

Most concession agreements provide incentives to encourage the concessionaire to self-report on its performance, including reporting incidents of non-compliance. An example of a self-reporting incentive is reducing the time allowed for the concessionaire to correct a particular problem if the concessionaire did not report it, but the public owner/agency uncovers it. Incentives help to reduce the resources needed for public owner/agencies to monitor the concessionaire’s performance.

HPTE's and CDOT's responsibilities for monitoring the concessionaire for the US-36 P3 Project are outlined in the following three documents:

- 1 **CONCESSION AGREEMENT**—the concession agreement as amended and restated at financial close on February 25, 2014 between the concessionaire and HPTE. The concession agreement outlines certain monitoring activities, including the concessionaire's required reports and reporting timeframes and specific requirements for handling non-compliance, safety concerns, and any other major items related to operations and maintenance issues. The concession agreement also provides basic requirements governing interactions between HPTE and the concessionaire.
- 2 **THE PROJECT MANAGEMENT PLAN**—prepared by HPTE on November 15, 2013 to meet Federal Highway Administration requirements for the TIFIA loans. The Project Management Plan outlines HPTE's obligations related to stewardship for federal funds and holds HPTE ultimately accountable for monitoring operations and maintenance performed by the concessionaire in accordance with the concession agreement.
- 3 **THE MEMORANDUM OF UNDERSTANDING (MOU)**—executed on September 30, 2013 between CDOT and HPTE to outline the working relationship between the two agencies. The MOU generally delegates primary responsibility for overseeing operations and maintenance on P3 projects to CDOT with support from HPTE; however, the MOU requires the parties to further define their roles and responsibilities for specific project elements in a project-specific agreement for each project.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our work was to evaluate whether HPTE and CDOT have established systematic processes and mechanisms for monitoring the concessionaire's operations and maintenance activities to ensure performance standards outlined in the concession agreement are met. To perform our work, we reviewed the RFP, financial close documents (e.g., the concession agreement and related supporting documents), the MOU between HPTE and CDOT, the Project Management Plan prepared by HPTE for the Federal Highway Administration as part of the TIFIA loans, the HPTE US-36 Concession Project Interagency Agreement between HPTE and CDOT, and documentation used to develop the operations and maintenance scope and performance standards for the US-36 P3 Project. We interviewed HPTE and CDOT management on their planned practices for monitoring operations and maintenance for the US-36 P3 Project. We also collected and applied best practices used by Canadian provinces and the states of Virginia, Florida, and Texas for monitoring the operations and maintenance components of P3 projects.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

The Federal Highway Administration's Monitoring and Oversight Fact Sheet provides broad guidance to public owner/agencies to ensure that P3 projects achieve the performance standards established in the concession agreement, including performance standards related to operations and maintenance services. Jurisdictions with significant experience with P3 projects, such as Canadian provinces and the states of Virginia, Florida, and Texas, have all developed systematic processes and mechanisms for monitoring operations and maintenance activities to ensure performance standards outlined in the concession agreement are met. These processes and mechanisms typically include:

- **DEVELOPING A MONITORING MANAGEMENT PLAN.** This plan ensures timely coordination between the public owner/agency and the concessionaire during the operating period of the P3 project. The plan typically includes detailed information on the public owner/agency's:
 - Roles and responsibilities for ensuring monitoring tasks are clear for major operations and maintenance elements.
 - Decision-making process for incidents and emergencies, which require review and approval or rapid response from the public owner/agency.
 - Review and decision-making processes for assessing points for non-compliance with performance standards and other issues that warrant follow-up action by the public owner/agency.
- **PROCESSES FOR MANAGING CHANGES AND CLAIMS RELATED TO OPERATIONS AND MAINTENANCE.** Under the concession agreement, the concessionaire submits a "claim" for expenses incurred for implementing changes requested by the public owner/agency or for risk events that remain the responsibility of the public owner/agency. The public owner/agency should develop internal processes and a decision-making protocol for reviewing and responding timely to claims from the concessionaire during the operations and maintenance stage of the US-36 P3 Project in accordance with the requirements of the concession agreement.

To carry out the monitoring responsibilities in the areas outlined above, the public owner/agency must have a complete understanding of the performance standards and monitoring requirements outlined in the concession agreement. This is important not only for monitoring contract requirements, but also for resolving disputes and assessing penalties for non-performance.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

HPTE and CDOT lack systematic processes and mechanisms for monitoring operations and maintenance activities to ensure the performance standards outlined in the concession agreement are met. Specifically:

- **HPTE AND CDOT DO NOT HAVE AN ADEQUATE MONITORING MANAGEMENT PLAN FOR MONITORING THE CONCESSIONAIRE'S OPERATIONS AND MAINTENANCE PERFORMANCE.** Although HPTE and CDOT have executed several documents that outline broad responsibilities for monitoring the concessionaire's operations and maintenance activities, none of these documents constitute a comprehensive monitoring management plan. Specifically, these documents do not:
 - Provide information on the units and individuals within HPTE or CDOT responsible for monitoring the concessionaire's major maintenance and operations plans, reviewing the concessionaire's reports, conducting periodic meetings to address and resolve issues and concerns, dealing with incidents and emergencies, or coordinating activities between the public owner/agency and the concessionaire operations and maintenance staff.
 - Outline the decision-making process HPTE and CDOT will use to handle incidents and emergencies to ensure prompt review and approval.
 - Detail HPTE's and CDOT's review and decision-making processes for assessing points for non-compliance with performance specifications, or for taking more severe action for continued non-compliance.
- **HPTE DOES NOT HAVE ADEQUATE PROCESSES IN PLACE TO MANAGE CHANGES AND CLAIMS DURING THE OPERATIONS PHASE.** None of the documents executed by HPTE include a decision-making protocol for reviewing and responding timely to claims from the concessionaire in accordance with the requirements of the concession agreement.

Additionally, although CDOT will have responsibility for operations and maintenance monitoring, the CDOT operations and maintenance field staff who will interact with the concessionaire on the US-36 P3 Project are not fully informed on the detailed performance standards, monitoring requirements, and protocols for interaction between HPTE and the concessionaire that are outlined in the concession agreement. CDOT operations and maintenance personnel do not perform operations and maintenance work according to the performance standards and penalty systems typically used for P3 projects, which focus on performance outcomes and impacts for non-compliance.

WHY DID THE PROBLEMS OCCUR?

HPTE and CDOT have not established a comprehensive monitoring framework for monitoring the concessionaire during the operations phase of the concession agreement. Specifically:

- **HPTE AND CDOT HAVE NOT EXECUTED A PROJECT-SPECIFIC AGREEMENT** outlining their respective roles and responsibilities for monitoring operations and maintenance for the US-36 P3 Project as required by the MOU. The project-specific agreement should outline detailed responsibilities, and identify the responsible organizational units and key personnel required to perform those responsibilities, so that each agency's monitoring responsibilities are clear. The project-specific agreement is a necessary first step in establishing a monitoring framework.
- **HPTE HAS NOT ESTABLISHED MECHANISMS TO ENSURE ADEQUATE TECHNICAL REVIEW** of the concessionaire's monitoring plans and reports. HPTE contracted with an external accounting firm to monitor the concessionaire's compliance with requirements to provide monitoring plans and reports as outlined in the concession agreement. Additionally, CDOT's Office of Major Project Development (OMPD) hired an engineering firm to assist in supporting OMPD and HPTE with technical reviews on a task order basis. Although these contracted services are available to provide monitoring support, HPTE and CDOT will need to identify the respective roles and responsibilities of HPTE, CDOT, and the contractors with respect to monitoring the technical requirements outlined in the concessionaire's plans and reports over the 50-year term of the agreement. Further, since the contracted engineering firm that is providing OMPD with technical monitoring support is a member of the concessionaire consortium and is responsible for engineering design for the US-36 P3 Project, HPTE and CDOT will need to ensure that appropriate firewalls and other contractual controls are in place to ensure that the engineering firm is not monitoring its own work.

Both HPTE and CDOT lack experience with complex P3 projects and the long-term obligations that are present during the operations phases. To form a basis for a monitoring framework and address the knowledge and experience gap, HPTE and CDOT could hold a series of workshops with experienced CDOT operations and maintenance personnel to train them on contract requirements, work through sample scenarios, and identify ways these scenarios should be monitored. A "scenario workshop," would allow participants to see how the contract mechanisms work and help identify the elements that need to be included in the monitoring management plan and framework. Prioritizing issues identified through the scenario workshop would also help with determining timelines for addressing issues in the monitoring management plan. HPTE and CDOT could also use the scenario workshops to develop processes for claims review and to identify any HPTE or CDOT obligations that were overlooked when developing the Project Management Plan for the Federal Highway Administration or the MOU for the concession agreement.

Although the number of U.S. P3 projects in the operations phase is limited, these projects provide an opportunity to identify “lessons learned” by other states with experience monitoring operations and maintenance performed by concessionaires. HPTE and CDOT could leverage the experience and processes used by these other states and identify leading practices to strengthen the monitoring framework for the US-36 P3 Project.

WHY DOES THIS FINDING MATTER?

Without systematic processes and mechanisms for monitoring operations and maintenance activities, risks increase that HPTE and CDOT will fall short on their monitoring responsibilities and not identify and address concessionaire compliance and performance issues in a timely manner. Lack of clear assignment of HPTE’s and CDOT’s monitoring responsibilities could result in slow response times to critical issues and render HPTE or CDOT unable to identify resources or provide clear direction on the Project. Further, delays in responding to critical issues may negatively impact US-36 P3 Project operations, which could lead to financial claims by the concessionaire or RTD.

Since the US-36 corridor interacts with other segments of Colorado’s state highway system, not identifying compliance or performance issues on the US-36 and I-25 managed lanes could negatively impact performance on other state highways. Further, not actively managing and monitoring the requirements of the concession agreement from the point of implementation could damage HPTE’s and CDOT’s relationship between the concessionaire and other partners, such as RTD, and impair the overall success of the Project over the term of the 50-year concession agreement.

RECOMMENDATION 12

The High Performance Transportation Enterprise (HPTE) should work with the Colorado Department of Transportation (CDOT) to develop a comprehensive monitoring framework and systematic mechanisms for managing and monitoring the concessionaire during the 50-year operations phase of the concession agreement. Specifically, HPTE should work with CDOT to:

- A Execute a project-specific agreement for the US-36 P3 Project specifying in detail HPTE's, CDOT's, and their contractors' respective roles and responsibilities for operations and maintenance monitoring.
- B Review and revise, as appropriate, the contract with the engineering firm responsible for monitoring the concessionaire's technical requirements to ensure adequate controls are in place to prevent the engineering firm from monitoring its own work.
- C Provide training through "scenario workshops" to educate and obtain input from CDOT operations and maintenance personnel on the performance standards and related requirements outlined in the concession agreement.
- D Use the information developed through the "scenario workshops" to develop detailed monitoring management plans that ensure adequate technical review, provide for managing incidents and emergencies, establish protocols for addressing noncompliance, and incorporate processes for change and claims management for the operations phase.
- E Further refine the monitoring framework by researching and incorporating leading practices and lessons learned from other U.S. P3 projects that are in the operations phase.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

- A AGREE. IMPLEMENTATION DATE: JULY 2015.

HPTE and CDOT will soon implement and execute a project-specific agreement for the US-36 P3 Project, specifying in detail HPTE's, OMPD/CDOT's, and the contractors' respective roles and responsibilities for operations and maintenance monitoring in a form that more clearly fits into a comprehensive monitoring management plan.

B AGREE. IMPLEMENTED AND ONGOING.

The contracted engineering firm that is providing OMPD with technical monitoring support has engaged a subcontractor to independently monitor its engineering design work on the US-36 P3 Project. HPTE and OMPD/CDOT will ensure that the subcontractor's work comes to them directly and that there are appropriate firewalls and other contractual controls in place to ensure that the engineering firm is not monitoring its own work.

C AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE and OMPD/CDOT will provide training through "scenario workshops" to educate and obtain input from OMPD/CDOT operations and maintenance personnel on the performance standards and related requirements outlined in the concession agreement.

D AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE and OMPD/CDOT both agree to use the information developed through the operations and maintenance "scenario workshops" to develop detailed monitoring management plans that ensure adequate technical review, provide for managing incidents and emergencies, establish protocols for addressing noncompliance, and incorporate processes for change and claims management.

E AGREE. IMPLEMENTATION DATE: SEPTEMBER 2015.

HPTE and OMPD/CDOT believe that they can further leverage experiences from other states to strengthen the monitoring framework for the US-36 P3 Project. We are regularly engaged in communication with P3 leaders in other states. HPTE and CDOT agree to further refine the monitoring framework established for the US-36 P3 Project by researching and incorporating leading practices and lessons learned from other US P3 projects that are presently in their operations phases.

PROJECT MANAGEMENT FRAMEWORK

As noted throughout this report, P3 initiatives are large, complex projects with significant risks, benefits, and long-term commitments. Therefore, application of project management principles is crucial to managing these projects for the maximum benefit to the State. As funding for transportation system improvement continues to be limited in Colorado, it is likely that the State will be embarking on more of these projects. A robust project management framework, supported by adequate guidance, training, resources, and expertise, is essential to establishing a sustainable program that manages these risks and commitments effectively for current and future projects.

WHAT AUDIT WORK WAS PERFORMED AND WHAT WAS THE PURPOSE?

The purpose of our work was to evaluate the adequacy of HPTE's mechanisms for managing complex P3 projects and ensuring successful project delivery in the future. To perform our work, we reviewed HPTE's and CDOT's policies and guidelines related to project management and evaluated the HPTE's project management resources and expertise. We reviewed and applied project management standards outlined in the *CDOT Guide* and the *Project Management Body of Knowledge (PMBOK Guide)* promulgated by the Project Management Institute. We collected and applied project management best practices used by P3 programs in California, Virginia, and the Canadian Province of Alberta. We interviewed HPTE management, CDOT staff from the Office of Major Projects Development (OMPD), as well as CDOT staff responsible for managing the design-build stage of the US-36 Phase 1 and US-36 P3 Projects.

HOW WERE THE RESULTS OF THE AUDIT WORK MEASURED?

The *CDOT and PMBOK Guides* both recognize the importance of implementing strong and systematic project management processes for initiating, planning, executing, monitoring, controlling, and closing projects. These processes guide project teams and help ensure complex projects are consistently successful, repeatable, and meet their defined goals.

WHAT PROBLEMS DID THE AUDIT WORK IDENTIFY?

As noted at the beginning of this chapter, HPTE successfully executed a P3 concession agreement for the US-36 P3 Project that provided the "best value" for the State, based on the goals outlined for the project. However, throughout the audit we

found that HPTE lacked systematic project management processes for managing all elements of complex P3 projects from beginning to end. Specifically, we noted areas where HPTE experienced challenges in the P3 development and procurement process and we identified areas where planning, communication, and monitoring could be improved to better position HPTE for managing its P3 program in the future.

WHY DID THE PROBLEMS OCCUR?

The US-36 P3 Project was HPTE's first P3 project and the learning curve was substantial for all partner agencies involved, including HPTE, CDOT, the Office of the Attorney General, and the Office of the State Controller. Since HPTE did not have previous experience with P3 procurements, HPTE lacked an overall project management framework and detailed guidance for managing large and complex P3 initiatives. A project management framework, along with guidelines or manuals that are specifically tailored for P3 projects, provides a systematic method for outlining the key elements, decision points, and processes required for developing, procuring, and operating P3 projects in Colorado. Other states with experience in P3 projects such as California and Virginia, and the Canadian Province of Alberta, have developed comprehensive manuals and guidelines that establish a project management framework for carrying out the planning, development, procurement, and implementation phases of P3 projects.

HPTE also has limited resources available for developing a project management framework for its P3 projects. HPTE is an "enterprise;" therefore, HPTE does not receive appropriated resources for ongoing operations. In September of 2013, CDOT and HPTE executed an MOU that provided HPTE with additional technical support through the newly-created Office of Major Project Development (OMPD). However, OMPD also has limited resources and must rely on other CDOT resources and expert advisors to augment its resources. As the number of P3 projects increase, the stress on limited HPTE and OMPD resources will make it difficult to provide effective project management for the following key activities:

- Planning, development, and procurement of new P3 projects.
- Managing existing P3 projects, such as the US-36 P3 Project, over long-term concession agreements.
- Managing legal, financial, and technical expert advisors, as well as other contracted resources such as public relations firms, for existing and new P3 projects under consideration or in procurement.
- Providing training for CDOT, Office of the State Controller, and Office of the Attorney General staff involved in supporting P3 projects.

Early in the development of HPTE's P3 program, HPTE had limited opportunities to obtain detailed training, including specific project management training, for acquiring

the expertise needed to undertake additional and increasingly complex P3 endeavors. The significant learning curve involved with embarking on a P3 program points to the importance of building on lessons learned from the first P3 project and growing skills for future projects.

WHY DOES THIS FINDING MATTER?

Without systematic project management processes for executing complex P3 projects, risks increase that P3 projects may not meet their goals or provide best value to the State. Sound and systematic project management processes will enhance efficiency and help ensure the State only pursues P3 projects that are founded on solid information and sound decision-making, that major project components are considered during procurement and implementation, and that any problems that emerge are dealt with timely. Additionally, systematic project management processes will help HPTE to ensure projects meet their schedules and budget.

As transportation funding continues to be limited, the State will likely embark on additional P3 projects. These projects endure for decades, during which time staff will turnover and management personnel will change. Solid project management processes will provide HPTE the necessary tools to protect the State's interests and ensure these projects are managed and implemented consistently over their project terms.

RECOMMENDATION 13

The High Performance Transportation Enterprise (HPTE) should build upon the best practices and lessons learned from the US-36 P3 Project and strengthen its P3 program for the future by:

- A Developing a project management framework and detailed guidance for managing large and complex P3 initiatives. The framework should identify the key elements, decision points, information, and processes required for developing, procuring, and operating P3 projects in Colorado.
- B Working with the Colorado Department of Transportation (CDOT) and the HPTE Board to develop strategies for acquiring adequate resources and project management expertise for managing, developing, and overseeing its P3 program.
- C Identifying staff training needs and ensuring adequate resources are allocated to provide ongoing training, including project management training and specific training on HPTE's project management guidelines, to HPTE personnel and staff from CDOT, the Office of the State Controller, and the Office of the Attorney General working on P3 projects.

RESPONSE

HIGH PERFORMANCE TRANSPORTATION ENTERPRISE

- A AGREE. IMPLEMENTATION DATE: JANUARY 2016.

HPTE agrees that building on the successful execution and closing of the US-36 P3 Project, it will establish a formal systematic management process for all elements of P3 projects as a necessary and prudent next step.

HPTE staff is seeking the necessary budget resources and will shortly recommend to the HPTE Board that HPTE engage an outside expert P3 program/project advisor to develop a management framework and detailed guidance for HPTE and OMPD in developing, procuring, and operating P3 projects in Colorado.

- B AGREE. IMPLEMENTATION DATE: JANUARY 2016.

As with any "first project," the lessons learned from the US-36 P3 Project will be instructive for HPTE going forward. Acting on the feedback obtained from this audit and other outside input, HPTE staff agrees to work with CDOT and the HPTE Board to develop strategies for acquiring sustainable and adequate resources and project

management expertise for managing, developing, and overseeing P3 projects. A request for an additional project management FTE is in process.

C AGREE. IMPLEMENTATION DATE: JANUARY 2016.

HPTE is already working to identify staff training needs and also ensure that adequate resources are allocated to provide internal and ongoing training to all applicable state employees working on P3 projects. Representatives of the Office of the Attorney General and Office of the State Controller were an integral part of the US-36 P3 Project procurement and negotiating process, learning the lessons of that project.

HPTE, OMPD, and CDOT staff have and will be enabled and encouraged to attend P3 courses and training sessions sponsored by the Federal Highway Administration, USDOT, and other government/trade associations. These programs typically include project management training. Specific training sessions on HPTE's project management guidelines will also be scheduled.

GLOSSARY

TERMS

Commercial Close

The point where the project parties (e.g., the public owner/agency and the concessionaire) execute the contract documents, which allows the concessionaire to move forward with finalizing financing. Commercial close occurs before financial close because the lenders and rating agencies need the contract documents to complete their due diligence reviews.

Concession Agreement

The agreement between the public owner/agency and the concessionaire outlining each party's requirements for implementing the P3 project. Under the concession agreement, the public owner/agency owning the transportation facility grants the concessionaire the right to future revenues or payments for a specified term in exchange for the concessionaire taking on some of the risks and rewards of financing, designing, constructing, operating, and maintaining the transportation facility.

Concessionaire

The lead private sector entity in the concession agreement responsible for implementing the project in accordance with the agreement. Typically this entity is created specifically for this role on the project.

Financial Close

Represents the point in the procurement process when all financing documents for the Project are finalized and executed by the appropriate parties, allowing the P3 project to move forward.

Handback

The point in the project life when the concessionaire "hands over" the facility to the public owner/agency for operations and maintenance at the end of the concession agreement term (50 years in the case of the US-36 P3 Project).

High-Occupancy Vehicles (HOVs)

Vehicles that contain two or more people, in accordance with 23 C.F.R. Sec. 810.4, and the agreement between CDOT and the Federal Highway

Administration in partnership with DRCOG and the Federal Transit Administration. Under the Project Agreement for the US-36 P3 Project, the minimum number of people contained in an HOV will increase to three people in 2017, or earlier if warranted by the congestion levels of the lanes designated for HOV use.

Managed Lane

Travel lane(s) that are managed for traffic congestion by limiting ingress/egress points and/or applying a toll to users, such as single occupancy vehicles. The tolls may increase or decrease depending on congestion to ensure that traffic in the managed lanes moves at required travel speeds. Some vehicles, such as HOVs, busses, and emergency vehicles, can travel managed lanes without being charged a toll.

Private Activity Bonds (PABs)

Bonds issued by a public entity that are generally sold on the open public market and publicly traded. The interest paid to the bondholders is exempt from federal income tax except for those bondholders subject to the Alternative Minimum Tax under 26 U.S.C. Part VI.

Project Development

The phase prior to procurement, during which the public owner/agency investigates options, analyzes the project, and develops the decision-making process used to decide whether to use a P3 or traditional approach for project implementation. The project development phase includes but is not limited to project planning analysis, environmental analysis, cost analysis, preliminary design analysis, and preparation of the initial Project Value Analysis.

Project Value Analysis (Value for Money)

An industry standard practice used to analyze project delivery options to determine the benefits and costs of delivering a major project through a P3 approach compared to traditional delivery approaches by the public owner/agency. The Project Value Analysis includes estimated total project costs that assign values to the risks assumed by the public owner or the concessionaire under the P3 and traditional approaches. The analysis includes summaries that compare the approaches for discussion and decision-making purposes.

Public Private Partnership (P3)

Contractual arrangement where the public sector and private sector share the risks and rewards of financing, constructing, operating, and maintaining a transportation facility, such as a highway or interchange, in exchange for the right of future revenues or payments for a specified term.

P3 Procurement Process

The process for advertising and competitively bidding a specific P3 project, selecting a bidder to enter into negotiations, and executing a concession agreement with the selected bidder. The procurement process for P3 projects normally includes a two-step process as outlined below:

Request for Qualifications (RFQ)—where the public owner/agency identifies the scope of the project; the anticipated roles, responsibilities, and qualifications of the selected bidder; and requests interested bidders to submit their Statements of Qualifications. The public owner/agency evaluates interested bidders' Statements of Qualifications and “short-lists” the bidders selected to move to the next step of the procurement process.

Request for Proposal (RFP)—where the public owner/agency outlines the specific technical, legal, and financial requirements for the P3 project in an initial draft that is finalized after considering comments and questions received from shortlisted bidders. The final request for proposal defines the requirements that bidders must meet in their proposals. The public owner evaluates and ranks the proposals based on requirements set forth in the request for proposal.

Selected Bidder

The bidder whose proposal receives the highest ranking through the public owner/agency's proposal evaluation process, and after the protest period lapses, is selected by the public owner/agency to enter into negotiations on the concession agreement.

Transportation Facility

A section of roadway and its associated interchanges/intersections that together, form a travel corridor. The US-36 corridor from Boulder to I-25 is an example of a transportation facility.

ABBREVIATIONS

CDOT

Colorado Department of Transportation

CORA

Colorado Open Records Act [Section 24-72-201, et. seq., C.R.S.]

DPA

Department of Personnel & Administration

DRCOG

Denver Regional Council of Governments

E-470

The E-470 Public Highway Authority

FASTER

Funding Advancements for Surface Transportation and Economic Recovery Act of 2009 [Section 43-4-806, C.R.S.]

FHWA

Federal Highway Administration

FTE

Full-Time Equivalent employee position

HPTE

High Performance Transportation Enterprise

NEPA

National Environmental Policy Act [42 U.S.C. Sec. 4321 et seq.]

MOU

Memorandum of Understanding

OMPD

Office of Major Project Development, an Office located within CDOT

P3

Public-Private Partnership

PMBOK

Project Management Body of Knowledge promulgated by the Project Management Institute

RFP

Request for Proposals

RFQ

Request for Qualifications

RTD

Regional Transportation District

TABOR

Colorado's Taxpayer Bill of Rights [Section 20 of Article X of the State Constitution]

TIFIA

Transportation Infrastructure Finance and Innovation Act [23 U.S.C., Chapter 6]

TIFIA JPO

TIFIA Joint Program Office located within the Office of Innovative Program Delivery, Federal Highway Administration

TIGER

Transportation Investment Generating Economic Recovery discretionary grant program

USDOT

United States Department of Transportation

CLARY
CONSULTING, LLC