U.S. DEPARTMENT OF TRANSPORTATION

OFFICE OF INSPECTOR GENERAL

FHWA Needs To Clarify Roles and Processes for Approving and Monitoring Public-Private Partnerships

FHWA

Report No. ST2019019

March 6, 2019

U.S. DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

Highlights

FHWA Needs To Clarify Roles and Processes for Approving and Monitoring Public-Private Partnerships

Self-initiated

Federal Highway Administration | ST2019019 | March 6, 2019

What We Looked At

Rising demands on the transportation system and constraints on public resources have led to greater private sector involvement in constructing highway infrastructure through public-private partnerships (P3s). The use of P3s marks a shift away from traditional ways of procuring and financing highway projects solely with Government funding. However, P3s must conform to the same Federal requirements as other Federal-aid projects. The Federal Highway Administration (FHWA) is responsible for stewardship and oversight of Federal-aid highway, bridge, and tunnel projects where P3s are being considered or implemented. We initiated this audit to determine whether FHWA is providing adequate oversight of P3 highway projects. Our specific objectives were to assess FHWA's (1) approval process for P3 highway and bridge projects that include Federal investments and (2) monitoring of P3s once approved.

What We Found

FHWA has not followed its procedures for ensuring compliance with a P3-related requirement. Specifically, FHWA has not followed its procedures to ensure project financial plans assess the appropriateness of a P3 for project delivery, as required by law. In addition, FHWA is not following its current guidance for approving P3 projects, which notes that P3 projects warrant additional stewardship considerations to address unique risks. Once P3 projects have been approved, FHWA enhances monitoring of P3 projects during construction when the project has been designated as a Major Project. However, FHWA has not established processes for providing additional monitoring of P3s that are not Major Projects, even though they may also pose risks. In addition, although FHWA's guidance states that P3s that remain funded by Federal loans warrant additional oversight during the Operations and Maintenance phase, we found that the Agency is not fully carrying out this guidance and has not clearly defined roles and responsibilities for this oversight.

Our Recommendations

FHWA concurred with all five of our recommendations to improve its processes for approving P3 projects and monitoring projects once approved. We consider all five recommendations resolved but open pending completion of planned actions.

Contents

U.S. DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

Memorandum

Date: March 6, 2019

Subject: FHWA Needs To Clarify Roles and Processes for Approving and Monitoring Public-Private Partnerships | Report No. ST2019019

From: Barry J. DeWeese
Assistant Inspector General for Surface Transportation Audits

To: Federal Highway Administrator

Rising demands on the transportation system and constraints on public resources have led to greater private sector involvement in constructing highway infrastructure through public-private partnerships (P3s).[1] The use of P3s marks a shift away from traditional ways of procuring and financing highway projects by allowing a private partner to participate in some combination of design, construction, financing, operations, and maintenance, including the collection of toll revenues.

P3s can expand the capacity of States to finance infrastructure projects while accelerating delivery times, potentially reducing project costs, transferring project risks, and improving the cost-effectiveness of long-term maintenance. However, the transfer of responsibilities to the private partner poses risks to all parties, including the Federal Government, if the private partner is unable to meet performance standards or has issues with financial solvency during the project.

Within the U.S. Department of Transportation (DOT), multiple entities have responsibilities related to P3 funding and oversight.[2] The Federal Highway Administration (FHWA) is responsible for stewardship and oversight of Federal-aid highway, bridge, and tunnel projects where P3s are being considered or

[1] P3s are a financing and procurement tool formed through contractual agreements between public agencies and private-sector entities.
[2] Federal-funding of highway infrastructure P3 projects comes in the form of Federal-aid Highway Program funds, as well as loans and discretionary grants. The Secretary of Transportation can also authorize use of Private Activity Bonds, which are debt instruments issued on behalf of a private entity for highway and freight transfer projects that allow a private project sponsor to benefit from the lower financing costs of tax-exempt municipal bonds.

implemented. Those P3s must conform to the same Federal requirements under 23 U.S. Code (U.S.C.) as other Federal-aid projects authorized by FHWA, and FHWA and its State counterparts are responsible for ensuring that P3 projects demonstrate compliance with these Federal requirements. In addition, DOT's Build America Bureau—established in 2016— provides information and expertise in the use of different P3 approaches, as well as Federal financing, such as the Transportation Infrastructure Finance and Innovation Act (TIFIA)[3] loans and discretionary grants.

We initiated this audit to determine whether FHWA is providing adequate oversight of P3 highway projects. Our specific objectives were to assess FHWA's (1) approval process for P3 highway and bridge projects that include Federal investments and (2) monitoring of P3s once approved.[4] Our work focused on Design-Build-Finance-Operate-Maintain (DBFOM) projects, which are the most comprehensive project delivery type and the focus of FHWA's Center for Innovative Finance Support for new P3 projects.

We conducted our work in accordance with generally accepted Government auditing standards. Exhibit A details our scope and methodology. Exhibit B summarizes information for the P3 projects in our sample,[5] and exhibit C lists the organizations we visited or contacted.

We appreciate the courtesies and cooperation of Department of Transportation representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-5630 or Tiffany Mostert, Program Director, at (202) 366-0625.

cc: The Secretary
DOT Audit Liaison, M-1
FHWA Audit Liaison, HCFB-32

---

[3] The Transportation Infrastructure Finance and Innovation Act of 1998 established a Federal credit program (the TIFIA Program) to provide three forms of credit assistance—secured (direct) loans, loan guarantees, and standby lines of credit. The TIFIA Program's goal is to leverage Federal funds by attracting substantial private and other non-Federal co-investment to support critical improvements to the nation's surface transportation system.

[4] In this report, we are using the term "approve" to refer to FHWA's processes for project approval, including the authorization of a project for Federal aid.

[5] We reviewed a statistical sample of 7 P3 projects drawn from a universe of 13 DBFOM P3s authorized for Federal assistance between 2010 to 2017in four States—California, Indiana, Texas, and Virginia.

Results in Brief

FHWA has not followed its procedures to ensure P3 appropriateness is assessed as required or its guidance for approving P3 projects.

Since 2012, Federal law has required that initial financial plans describe the process used to assess the appropriateness of a P3 to deliver a project.[6] FHWA subsequently issued guidance that identified elements the initial financial plan should contain for the P3 assessment and directed FHWA to review the plans for compliance with these elements.[7] However, FHWA is not following the procedures outlined in its guidance. Of the four projects in our sample that FHWA authorized since the requirement was enacted, three projects' initial financial plans lacked some key elements related to the P3 appropriateness assessment, and one did not include the assessment at all. FHWA officials told us they did not review the initial financial plan for P3-related criteria because the State had already decided whether or not to pursue a P3 by the time it submitted the plan. Nevertheless, an incomplete P3 assessment diminishes transparency as to why a P3 approach was selected or rejected. In addition, according to FHWA officials, FHWA is not following its P3-specific guidance,[8] which notes that P3 projects warrant additional stewardship considerations to address unique risks and outlines FHWA staff roles in approving P3s. For example, several FHWA officials stated that the Agency does not analyze traffic and revenue assumptions as described in the guidance, because they lack the expertise to do so and they view this as the Build America Bureau's responsibility when assessing whether to provide a loan. As a result of our review, a FHWA Headquarters official acknowledged the Agency's P3 approval guidance is unclear and stated FHWA plans to revise it. Until FHWA updates the guidance to clarify its processes for approving P3 projects, the process the Agency uses to authorize P3 projects for Federal aid will not align with what it has communicated to its stakeholders.

---

[6] As described in 23 U.S.C. §106(h), the recipient of Federal financial assistance for a Title 23 project with a minimum estimated total cost of $100 million or more must develop an initial financial plan prior to the authorization of Federal funds for construction and annual updates thereafter and specifies that a financial plan shall assess the appropriateness of a public-private partnership to deliver the project. Recipient means the government (agency) to which a Federal-aid grant is awarded and which is accountable for the use of the funds provided.

[7] According to FHWA's 2014 Major Project Financial Plan Guidance, the P3 Assessment section of the financial plan should provide a narrative describing the process used to assess the appropriateness of a P3 to deliver the project. The narrative should include details on P3 legislative authority, the Project Sponsor's management plan, comparison of benefits and challenges of procuring the project as a P3 versus traditional procurement methods, and risk allocation analysis. The guidance also established compliance review procedures that require concurrences from both FHWA Headquarters and the Division Office that the plan meets all requirements, including the P3 assessment.

[8] *Public Private Partnership Oversight: How FHWA Reviews P3s*, January 2015.

FHWA enhances monitoring of most P3 projects during construction but is not carrying out its oversight guidance during operations and maintenance when a Federal commitment remains.

FHWA guidance states that construction oversight responsibilities for P3 projects are the same as for any Federal-aid project. If a P3 project qualifies as a Major Project—a project with an estimated total cost of $500 million or greater—FHWA is to provide the same additional oversight as required for all Major Projects. However, we identified gaps in FHWA's oversight for P3 projects that are not Major Projects. For example, FHWA has acknowledged that Quality Assurance (QA) can pose unique risks for any P3 project due to the fast-paced nature of the work, but the Agency does not take these risks into account when allocating its oversight resources. In addition, FHWA's guidance identifies additional oversight and related roles and responsibilities for FHWA staff, such as conducting site visits and reviewing performance reports for P3s that remain funded by Federal loans, including those provided under TIFIA, during the project's Operations and Maintenance phase. However, FHWA officials in three of the four Division Offices we visited were unaware of this guidance or not carrying it out during this phase. Moreover, the guidance does not reflect organizational changes. For example, the guidance states that FHWA's activities during this phase are to be conducted jointly with its TIFIA Joint Program Office (JPO)—which no longer exists, as its staff and functions were transferred into DOT's Build America Bureau.[9] Without clearly defined roles and responsibilities for both FHWA and Build America Bureau oversight of P3 projects when a Federal commitment remains, DOT is hindered in its ability to mitigate risks during this project phase that spans decades.

We are making recommendations to improve FHWA's processes for approving P3 projects and monitoring projects once approved.

Background

P3 project delivery approaches vary in the amount of private involvement and risk assigned to parties involved. For example, Design-Build projects, which are set up as fixed-price contracts between a private entity and a public agency to jointly-manage the design and construction of a new roadway facility, have the least private involvement. In contrast, under DBFOM projects, which are the most comprehensive project delivery type, the private partner (also called a

[9] The Department is administering the TIFIA program from the Build America Bureau but has not completed the process of transferring resources from FHWA to the Bureau. Although the Department has statutory authority to complete those transfers, a proviso in the fiscal year 2018 appropriation to the Bureau directs the Department to wait for approval from the Committees on Appropriations before exercising that authority.

concessionaire) provides the necessary up-front capital. The concessionaire is generally repaid by a State or local government in a series of installments funded by taxes, fees, or tolls and agrees to perform operations (e.g., the removal of snow and debris and the collection of tolls) and carry out maintenance on the highway for a specific period.

Before implementing a P3, States need to have legislative authority to pursue a P3 project. Currently, FHWA identifies 35 States, the District of Columbia, and one U.S. territory that have enacted statutes that enable the use of various P3 approaches for the development of transportation infrastructure. P3-enabling legislation varies widely among States. Some States provide broad authority for public entities to enter into and manage P3 agreements, while others strictly limit P3s to specific projects or project types and define the type of provisions that must or must not be included.

FHWA's policies and procedures for approving and overseeing P3 projects are guided by the laws and regulations governing Federal-aid highway projects, as well as guidance that applies to Major Projects.[10] Before FHWA authorizes Federal participation in a P3 project, the decision to use a P3 delivery method goes through State and local approval processes. These include approval through the Transportation Improvement Program, Statewide Transportation Improvement Program, and local transportation boards and committees during the planning phase of a project. At the end of the National Environmental Policy Act (NEPA)[11] process, the FHWA Division office signs off on the forms, and FHWA Headquarters checks that the NEPA process was approved by the Division office and the procurement process meets requirements.

The National Surface Transportation and Innovative Finance Bureau (Build America Bureau) was established on July 20, 2016, in accordance with the Fixing America's Surface Transportation (FAST) Act.[12] The Bureau's purpose is to serve as the single point of contact and coordination for States, municipalities, and project sponsors looking to harness Federal transportation expertise,[13] apply for Federal transportation credit programs, and explore ways to access private capital in P3s. The Bureau is responsible for driving transportation infrastructure development

[10] We have previously reported on FHWA's Major Project approval and oversight. *FHWA Met Basic Requirements but Can Strengthen Guidance and Controls for Financial and Project Management Plans* (OIG Report Number ST2015018), January 27, 2015. OIG reports are available on our website at http://www.oig.dot.gov/.

[11]The National Environmental Policy Act (Pub. L. No. 91-190, Jan. 1, 1970) requires Federal agencies to assess the environmental effects of their proposed actions prior to making decisions, including making decisions on permit applications, adopting Federal land management actions, and constructing highways and other publicly owned facilities.

[12] Pub. L. No. 114-94.

[13] The term "Project Sponsor" includes any entity, such as a State DOT, that provides funds for the project and administers any Construction or Construction Engineering/Inspection activities for the project. A "concessionaire" invests its own money (known as equity) and borrows additional funds to pay for construction of a highway project.

projects in the United States through the Credit Programs team that oversees several credit programs, including TIFIA. For each highway P3 project that receives credit assistance, the Bureau's responsibilities are to perform a creditworthiness analysis before making a loan and provide oversight of portfolio loans to ensure repayment and maximize recovery of the Federal investment. In order to do this, the Bureau requires annual and other periodic reporting (including an annual financial plan, quarterly and annual financial statements, and periodic construction reports during construction), and conducts site visits, in addition to other activities common to administration of a loan portfolio.

FHWA Has Not Followed Its Procedures for Ensuring Compliance With a P3-Related Requirement or Its Guidance for Approving P3 Projects

FHWA has not followed its procedures to ensure project financial plans assess the appropriateness of a P3 for project delivery, as required in the law that provides the foundation for FHWA's Federal-aid highway project approval and oversight. In addition, based on our interviews with FHWA officials, FHWA is not following its current guidance for approving P3 projects.

FHWA Did Not Follow Its Procedures To Ensure Financial Plans Met the Criteria for Assessing Appropriateness of P3 Projects

The law that provides the foundation for FHWA's Federal-aid highway project approval and oversight—23 U.S.C. § 106—makes only one reference to P3s that pertains to all projects $100 million or greater and does not contain any requirements for approving P3 projects, in particular. Specifically, since 2012, Federal law has required recipients of Federal financial assistance for a Federal-aid highway project with an estimated total cost of $100 million or more to include in their financial plan an assessment of the appropriateness of a P3 to deliver the project.[14] FHWA issued guidance to implement this requirement that identified elements the initial financial plan should contain for the P3 assessment section,[15] which recipients are to develop prior to the authorization of Federal funds for construction. Initial financial plans for Major Projects—projects with a total estimated cost of $500 million or more—are submitted to FHWA Divisions for approval and, for projects under that threshold, the project sponsor must make these plans available to FHWA for review on request. The guidance also includes FHWA compliance review procedures and a related checklist for FHWA Headquarters and the Division Offices to use in reviewing and concurring that submitted initial financial plans meet all requirements, including the P3 assessment.

However, we found FHWA is not following its procedures to ensure plans comply with the P3 assessment requirements. FHWA officials at both Headquarters and the Division Offices we visited stated that FHWA approves P3 projects in accordance with the law and its related regulations, guidance, policies, and procedures, as it does for any other Federal-aid highway project. Yet, FHWA has authorized Major Projects when the recipient did not include a P3 assessment in the initial financial plans or did not follow FHWA's guidance that identifies elements the P3 assessment should contain. We analyzed the initial financial plans for the four projects in our sample that FHWA authorized for Federal-aid when this requirement was in effect—I-69 Section 5 (Indiana); Elizabeth River Tunnels (Virginia); I-35 W Segment 3A (Texas); and State Highway (SH) 288 (Texas).[16] One of them—the initial financial plan for I-69 Section 5 (Indiana)—did not include a P3 assessment of any kind. In addition, plans for the two Texas projects and for the Elizabeth River Tunnels (Virginia) did not contain all of the information described in FHWA's Financial Plan Guidance related to assessing the appropriateness of a P3 as the project delivery method. For example, one plan did not include components of the P3 assessment, such as documenting the risk allocation analysis results, a discussion of whether a P3 or traditional procurement could more effectively leverage the revenue stream for the project, and a concluding statement on the appropriateness of a P3 to deliver the project. Despite the incomplete P3 assessments, FHWA authorized these projects for Federal aid.

[14] 23 U.S.C. § 106(h)(3)(D) and (i).

[15] FHWA issued interim guidance on the requirements for Major Project Financial Plans in October 2012 and final guidance in December 2014.

[16] FHWA's interim guidance applied to its review of 3 of the initial financial plans—Elizabeth River Tunnels (Virginia), submitted in November 2012; I-35 W Segment 3A (Texas), submitted in December 2013; and I-69 Section 5 (Indiana), submitted in January 2014. It reviewed the initial financial plan for State Highway (SH) 288 (Texas), submitted in June 2017, under its final guidance.

Although it is a step in FHWA's compliance procedures, FHWA officials told us they do not review the initial financial plan for specific criteria related to P3s because the State has already decided to pursue a P3 by the time it submits the plan. Officials stated that FHWA defers to the project sponsor on the decision to pursue a project as a P3. However, the lack of an assessment means the financial plan does not meet a Federal requirement, and an incomplete assessment diminishes transparency as to why the P3 approach was selected or rejected as the appropriate vehicle for project delivery.

FHWA Has Not Followed Its Guidance Outlining P3 Approval Processes

Based on our interviews with FHWA officials, the Agency is not following its current guidance for approving P3 projects. In January 2015—after the projects in our sample were authorized to receive Federal aid—FHWA issued guidance to help State and local transportation agencies and the private sector understand how FHWA conducts stewardship and oversight of Federal-aid projects where P3s are being considered or implemented. The guidance outlines items specific to P3s for FHWA to consider in carrying out its responsibilities prior to authorizing the project for Federal aid for construction.

Specifically, FHWA's guidance states that differences in the way P3s and traditional Federal–aid projects are procured, financed, and implemented raise important regulatory issues that FHWA staff take into consideration as they ensure effective Federal stewardship of P3 projects in conjunction with the State or local transportation agencies. Since a P3 project includes a design-build contractual component, there may be special Federal stewardship considerations during the project's procurement process regarding the extent and timing of private sector involvement in project development and design, the proposed design of the project itself, and the price reasonableness of the contract award. For example, the guidance states there is a greater chance for conflict of interest during P3 projects because they are generally costly, complex projects and the market of private firms involved in P3 projects is relatively small. Therefore, the guidance indicates that FHWA Division Office staff should be aware of potential conflict of interest issues during both the NEPA and procurement phases.

Yet, officials in two of the four Division Offices we visited were unaware of the FHWA P3 guidance. Therefore, they were not using it. As a result, Division Offices may not be consistently considering issues that are unique to P3 projects in authorizing Federal aid for those projects.

Moreover, according to FHWA officials, FHWA's P3 guidance does not reflect its actual processes. For example, FHWA officials from Headquarters and one

Division Office stated that FHWA does not analyze traffic and revenue assumptions, as described in the guidance, to assess the reasonableness of toll projections for a P3 project. FHWA's Headquarters officials stated that the guidance was unclear and misleading, as reviewing traffic and revenue assumptions is not related to FHWA's responsibility to concur with a project's price reasonableness, as the guidance indicates. Furthermore, FHWA Headquarters and Division officials indicated that FHWA lacks the expertise to analyze traffic and revenue studies and that this was the Build America Bureau's responsibility when assessing whether to provide a loan. A FHWA Headquarters official stated that the Agency plans to revise the guidance to remove this language. However, until the guidance is updated to clarify FHWA's processes for approving P3 projects, including FHWA's role if any in assessing traffic and revenue projections, the process FHWA uses to authorize P3 projects for Federal aid will not align with what it has communicated to its stakeholders.

FHWA Enhances Monitoring of Most P3 Projects During Construction but Is Not Carrying Out Its Guidance To Oversee P3 Projects' Operations and Maintenance

FHWA has processes that provide for additional monitoring during construction of P3s that are also Major Projects but not for P3s that are not Major Projects, even though they may also pose risks. In addition, although FHWA developed guidance for overseeing P3 projects funded by Federal loans during Operations and Maintenance, the Agency has not fully implemented this guidance.

FHWA Enhances Monitoring of Most P3 Projects During Construction, but Risks Remain

According to FHWA guidance, FHWA is to provide additional monitoring during project construction of P3s that are also Major Projects, using the same processes as it does for all Major Projects. However, FHWA has not established processes for providing additional monitoring of P3s that are not Major Projects, even though they may also pose risks. Instead, FHWA applies the same level of oversight as it would for any non-Major project. Specifically, although P3 projects present unique considerations during construction, FHWA's risk assessment processes, which it uses to assign resources for construction oversight, have not fully accounted for these risks.[17] FHWA officials noted that the primary factor they use when assessing a P3 project's risk and assigning resources is project cost. However, this does not account for other factors, such as quality assurance (QA),[18] which according to FHWA QA guidance may also increase the risk level for the Design-Build aspect of a P3 project. For example, according to FHWA QA guidance, on some Design-Build projects, it may be challenging to conduct sampling and testing to validate the quality of the product at the specified rate due to the quantities of material being placed and the fast-paced nature of the work. FHWA's P3 guidance states that FHWA Division Offices will recognize different types of risks that P3 projects may be subject to in their risk assessments of State and local transportation agencies' Federal-aid construction programs. However, FHWA has not specified for FHWA Division Offices what types of P3 risks they should consider in their risk assessments. By relying on cost as the primary risk factor, FHWA may be missing opportunities to identify and assign resources to higher-risk P3 projects that do not qualify as Major Projects.

FHWA P3 guidance states that basic construction oversight responsibilities for P3 projects are no different than they are for any Federal-aid project, which are based on Federal law. Should a P3 project qualify as a Major Project, then FHWA provides additional oversight, as it does for all Major Projects.[19] For example, the P3 guidance states that during the construction phase of a P3 project, FHWA staff are responsible for reviewing and accepting engineering reports and monthly updates, as well as reviewing changes to the Project Management Plan, if the project is a Major Project. The guidance also indicates that the FHWA Division Office assists the TIFIA JPO, which transferred its staff and functions to the Department's Build America Bureau,[20] in completing annual TIFIA Credit Surveillance Reports and in coordinating periodic status meetings and site visits to review the project's status and identify any credit risks.

[17] According to FHWA, its Risk Based Stewardship and Oversight program integrates risk management into the performance planning process to identify stewardship and oversight initiatives. It is conducted at both the National and Division level and includes initiatives for both programs and projects.

[18] The American Association of State Highway and Transportation Officials (AASHTO) defines Quality Assurance (QA) as (1) All those planned and systematic actions necessary to provide confidence that a product or facility will perform satisfactorily in service; or (2) making sure the quality of a product is what it should be. FHWA's QA procedures involve all factors that comprise the State highway agency's determination of the quality of the product as specified in the contract requirements. These factors include verification sampling, testing, and inspection and may include results of quality control sampling and testing.

[19] 23 U.S.C. § 106 (h).

[20] The Department is administering the TIFIA program from the Build America Bureau but has not completed the process of transferring resources from FHWA to the Bureau. Although the Department has statutory authority to complete those transfers, a proviso in the fiscal year 2018 appropriation to the Bureau directs the Department to wait for approval from the Committees on Appropriations before exercising that authority.

Of the 13 DBFOM P3 projects in our universe, 10 exceeded $500 million and therefore met FHWA's Major Project criteria. In addition, at some point in their lifecycle, all seven of the P3 projects in our sample were designated as Major Projects and were subject to additional oversight.[21] For example, FHWA Division Offices designated all seven projects in our sample as Projects of Division Interest (PODI) and developed PODI plans to identify potential risks that may occur on a highway project as well as documented FHWA's strategy to mitigate those risks in accordance with FHWA Major Project guidance.

FHWA Headquarters also assigns specialized technical resources, such as a Specially Designated Project Oversight Manager (SDPOM), to Major Projects.[22] These SDPOM personnel are meant to be highly knowledgeable of the Major Project oversight process, as well as the complexities of managing and overseeing a P3 project. Six of the seven projects in our sample received an SDPOM. Indiana I-69 Section 5 was not considered a Major Project during construction. As such, it did not receive additional FHWA oversight resources, such as an SDPOM. However, the project experienced several issues during the construction phase. Specifically, the project faced construction delivery problems, was not meeting deadlines, and, therefore, FHWA Indiana Division Officials stopped providing milestone payments. In 2016, the subcontractors stopped working on the project due to late payments from the private developer, which resulted in further delays in completing the construction, and the credit rating agency downgraded the bonds sold to help finance the project because of increased financial risks. Ultimately, the State terminated the contract and assumed control of the project from the private developer. As a result, the project is no longer considered a P3 project. A FHWA Indiana Division Office official said the Division Office was not regularly hearing about these developments as they were occurring and identified the need for more awareness of developing issues as a lesson learned. As such, the Indiana I-69 Section 5 project illustrates the role that additional oversight measures, such as an SDPOM, could have played in providing more timely information to FHWA, which may enable it to help mitigate project risks.

---

[21] While Indiana I-69 Section 5 was treated as a Major Project prior to construction, FHWA officials subsequently reversed their decision to treat I-69 Section 5 as a Major Project, because the estimated project cost dropped below the $500 million threshold required for major projects.

[22] A Specially Designated Project Oversight Manager (SDPOM) is the lead FHWA representative assigned to ensure the scope, schedule, and budget meet the purpose and need for an assigned Major Project anywhere in the United States. SDPOMs serve in a consultative role to State and local executives, influence design and operation of the project, and work to proactively identify and eliminate potential project delays and cost overruns. Responsibilities include managing the entire operational range of activities from the Federal perspective, including environment, procurement, design, and construction.

FHWA Is Not Carrying Out Its Guidance for Overseeing P3 Projects During Operations and Maintenance When a Federal Commitment Remains

For traditional projects, FHWA's oversight typically ends after construction once the project is accepted into the Federal highway system, and State DOTs assume responsibility for the final phase, Operations and Maintenance.[23] However, FHWA's guidance states that P3s that remain funded by Federal loans warrant additional oversight during the Operations and Maintenance phase and identifies related roles and responsibilities for FHWA. These activities include conducting site visits, reviewing performance reports and providing input on conditions that may be affecting performance, ensuring compliance with the TIFIA credit agreement, reviewing financial plan annual updates, and reviewing disbursement requests for, and making disbursements of, TIFIA funds.

However, FHWA has not fully implemented this guidance and is not actively performing this oversight. FHWA officials in three of the four Division Offices we visited were unaware of the roles and responsibilities detailed in the guidance. They stated that, aside from monitoring disbursements of Federal-aid and TIFIA funds after substantial completion of a project and providing technical assistance when requested, they did not believe their roles and responsibilities extend beyond construction. Instead, once a P3 project substantially completes construction, FHWA personnel transition their oversight towards other projects. For example, the SDPOM, who would have a significant amount of knowledge about the oversight, progress, and challenges of a P3 project, will transition to another high-risk project, potentially in another State.

In addition, the utility of the guidance is limited, because FHWA has not updated it to reflect organizational changes that have impacted FHWA's roles and responsibilities for overseeing P3 projects that remain funded by Federal loans during Operations and Maintenance. For example, according to the guidance, FHWA's activities during the phase are to be conducted jointly with the TIFIA JPO—which FHWA once housed but was disbanded when its staff and functions were transferred into the Build America Bureau. In addition, Build America Bureau

---

[23] 23 U.S.C. § 116, which pertains to Federal-Aid Highway Maintenance, describes that it is the State transportation department or other direct recipient's duty to maintain, or cause to be maintained, any Federal-aid Highway project. This section also prescribes that, if at any time, the Secretary finds that any such project is not being properly maintained, the Secretary shall call that fact to the attention of the State transportation department or other direct recipient, require corrective actions, and withhold approval of further projects when appropriate.

officials told us that, because the Bureau does not have enough staff with the skills and expertise to ensure its P3 investments meet the concession agreement's performance standards,[24] the Bureau sometimes asks FHWA to provide technical assistance during Operations and Maintenance. While FHWA Division officials indicated their staff will respond to inquiries and requests for assistance during Operations and Maintenance, they have not accounted for the resources necessary to provide ongoing assistance in this role.

The resource demand can be particularly high when a problem occurs. For example, Texas SH 130—a DBFOM toll road with a Federal TIFIA loan of $430 million—experienced significant performance issues in the Operations and Maintenance phase and ultimately declared bankruptcy. Project ownership reverted to the lenders with a stake in the project, which includes the Department. As a result of these issues, the Federal Government is now the part owner of a State highway, a role that the Federal Government typically does not play, and FHWA is taking on an enhanced oversight role. FHWA Texas Division officials described that the Division staff provided enhanced materials testing validation oversight at the Bureau's request. FHWA Texas Division officials also stated that they will conduct oversight of the Texas SH 130 maintenance rehabilitation efforts, as if it were a conventional construction project.

However, FHWA Division staff provide assistance only when requested and do not expect to regularly play a role in P3 projects following construction. A FHWA Headquarters official stated that FHWA needs to update the P3 guidance to reflect changes stemming from the TIFIA JPO moving to the Build America Bureau, including defining the roles and responsibilities of each entity during Operations and Maintenance for P3 projects that remain funded by Federal loans. Without clearly defined roles and responsibilities for both FHWA and Build America Bureau staff, DOT is hindered in its ability to mitigate risks during this project phase that spans decades.

Conclusion

The use of P3s is an innovative opportunity to finance public transportation projects. However, they are complex transactions and present unique risks of additional Federal involvement and impact on the mobility of the traveling public if a P3 project does not perform as intended. While FHWA has taken steps to ensure many P3 projects receive additional oversight, the Agency can do more to establish controls, clarify roles and responsibilities between FHWA and other

[24] A concession agreement gives a concessionaire the right to operate and collect revenues or fees for the use of a federally funded highway in return for compensation to be paid to the highway agency.

project stakeholders, and update and implement its guidance throughout the life of a project, including after construction is complete. Until then, FHWA lessens its ability to identify and mitigate risks for P3 projects, leaving considerable Federal investments at risk.

Recommendations

To improve FHWA's approval and monitoring processes for public-private partnership (P3) projects, we recommend that the Federal Highway Administrator:

1. Require FHWA Headquarters and Division Offices to follow established procedures for reviewing and approving initial financial plans to ensure they include an assessment of the appropriateness of a P3 for project delivery.
2. Revise and issue guidance to communicate to FHWA staff and stakeholders the processes FHWA will use to take Federal stewardship considerations into account in approving P3 projects. This guidance should address FHWA's role, if any, in the assessment of traffic and revenue assumptions.
3. Develop and issue Agencywide guidance identifying risks specific to P3 projects that Division Offices should consider in their risk assessments of State and local transportation agencies' Federal-aid construction programs.
4. Consult with the Build America Bureau to define FHWA's and the Bureau's roles and responsibilities during the Operations and Maintenance phase for P3 projects.
5. Develop and issue guidance to internal and external stakeholders communicating the processes FHWA will use to oversee P3 projects, including during the Operations and Maintenance phase for P3 projects that remain funded by Federal loans.

Agency Comments and Office of Inspector General Response

We provided FHWA with our draft report on November 27, 2018, and received its formal response on February 15, 2019, which is included as an appendix to this report. FHWA concurred with all five of our recommendations and proposed appropriate actions and completion dates. Accordingly, we consider all recommendations as resolved but open pending completion of the planned actions.

Actions Required

We consider all five recommendations resolved but open pending completion of planned actions.

Exhibit A. Scope and Methodology

We conducted this performance audit between June 2017 and November 2018 in accordance with generally accepted Government auditing standards as prescribed by the Comptroller General of the United States. Those 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 that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Our audit objectives were to assess FHWA's (1) approval process for P3 highway and bridge projects that include Federal investments and (2) monitoring of P3s once approved. The scope of our audit focused on FHWA's approval and monitoring processes for DBFOM projects, which are the most comprehensive project delivery type.

To conduct our work, we reviewed Federal laws, regulations, policies, procedures, and other guidance to understand the requirements for FHWA in approving and monitoring P3 projects. To assess FHWA's implementation of the requirements and guidance we identified, we selected a random sample of P3 projects from a FHWA listing of 13 DBFOM P3 projects authorized for Federal assistance from 2010 to June 30, 2017, obtained from FHWA P3 Project Profiles, though we found no projects were approved between January 1, 2017, and June 30, 2017. We tested the accuracy of the data on this listing during our sample review and tested the completeness of the listing by comparing FHWA P3 Project Profile data with the Bureau's listing of Projects Financed by Transportation Infrastructure Finance and Innovation Act (TIFIA) loans and other sources. We did not find any discrepancies. Therefore, we determined that the data was reliable for the purposes of this audit. We stratified the universe of 13 projects authorized for project delivery by FHWA into 2 strata representing 8 States. We selected a probability proportional to size with replacement sample, with size equal to the project cost, from each stratum where Stratum 1 was a sample of 4 out of 7 projects using the toll concession model, and Stratum 2 was a sample of 3 out of 6 projects using the availability payment concession model. Our sample of 7 projects or 53.8 percent of the 13 projects in our universe included $8.109 billion or 59.3 percent of the $13.664 billion in the universe. We also reviewed information related to one other relevant P3 project, not part of the universe, which FHWA brought to our attention in the course of our audit.

In the course of our audit, we interviewed FHWA and Build America Bureau headquarters officials to understand FHWA's oversight roles and responsibilities including coordination with the Bureau. Our review also included site visits to entities involved with the projects in our sample—FHWA Division Offices and State DOTs in five States: California, Indiana, Kentucky, Texas, and Virginia. While the Indiana Department of Transportation (INDOT) implemented the Ohio River Bridges East End Crossing P3 project, we met with FHWA Kentucky Division and Kentucky Transportation Cabinet due to the bi-State agreement, as the bridge crosses State lines.

Exhibit B. Summaries of OIG-Sampled P3 Projects

Project Profile: **Elizabeth River Tunnels**

Source: Elizabeth River Tunnels

State	Virginia
Project Type	DBFOM - Toll Concession
Project Description	The Elizabeth River Tunnels (Downtown / Midtown Tunnel) project consists of five construction components involving three facilities in the Hampton Roads region of Virginia. Collectively, the project is known as the Elizabeth River Tunnels. The $2.1 billion project has been delivered on a DBFOM concession basis by Elizabeth River Crossings Opco, LLC, which is composed of Skanska Infrastructure Development and Macquarie Group and is operating the concession for 58 years.
Estimated Project Cost	$2.089 million
Funding Breakdown	Private Activity Bonds - $675 million TIFIA Loan - $422 million Equity Contributions - $272 million Public Funds - $408 million Toll Revenues - $268 million TIFIA Capitalized Interest - $43 million
Project Phase	Operations and Maintenance
Date of Financial Close	April 2012

Project Profile: **I-95 HOV/HOT Lanes**

Source: Virginia Department of Transportation

State	Virginia
Project Type	DBFOM - Toll Concession
Project Description	The I-95 Express Lanes will be the second major step in creating a regional network of tolled managed lanes in Northern Virginia. The project consists of the development, design, finance, construction, maintenance and operation of 29.4 miles of High Occupancy Vehicle (HOV)/High Occupancy Toll (HOT) Lanes along I-95 and I-395 in Northern Virginia, from Garrisonville Rd. in Stafford County to Edsall Rd.in Fairfax County over a 76-year concession period. The new managed lanes will provide congestion relief and connectivity to users travelling to and from major employment centers in Northern Virginia.
Estimated Project Cost	$922.6 million
Funding Breakdown	TIFIA Loan - $300.0 million Private Activity Bonds - $252.6 million Commonwealth of Virginia Grant - $82.6 million Private Equity - $280.4 million TIFIA Capitalized Interest - $6.5 million Interest Earnings - $0.6 million *A Transportation Investment Generating Economic Recovery III grant is used to pay the subsidy cost of the loan to the Federal Government.
Project Phase	Operations and Maintenance
Date of Financial Close	November 2012

Project Profile: **35W North Tarrant Express**

Source: North Tarrant Express (NTE) Mobility Partners

State	Texas
Project Type	DBFOM - Toll Concession
Project Description	As a result of work performed under a predevelopment agreement, a 52-year concession agreement (effective 2009) between the Texas Department of Transportation (TxDOT) and NTE Mobility Partners was executed on March 1, 2013, to design, build, finance, operate, and maintain Segment 3A and operate and maintain Segment 3B of the NTE in the Fort Worth, TX, region.[25] Segment 3A includes construction of two managed lanes in each direction and improvements to approximately 6.5 miles of I-35W from north of I-30 near downtown Fort Worth to north of I-820, including the I-35W/I-820 interchange.
Estimated Project Cost	$1,397 million
Funding Breakdown	Private Activity Bonds - $270.6 million TIFIA Loan - $524.4 million Council of Governments - $145 million Interest income - $46 million Equity - $442 million
Project Phase	Construction
Date of Financial Close	September 2013

[25] North Tarrant Express Segment 3A is the project included in our sample of P3 projects.

Project Profile: **SH 288 Toll Lanes**

Source: Drive288

State	Texas
Project Type	DBFOM - Toll Concession
Project Description	SH 288 is a 61-mile highway between Houston and the Gulf of Mexico providing a vital route for commuters, freight and commercial trucking, and hurricane evacuation. The SH 288 Toll Lanes project is located within Harris County and involves the development, design, construction, financing, operation, and maintenance of four new toll lanes that extend 10.3 miles along the median of SH 288, as well as the maintenance of the existing general purpose lanes along the SH 288 corridor.
Estimated Project Cost	$1,063.6 million
Funding Breakdown	Private Activity Bonds - $298.6 million TIFIA Loan - $357.0 million Private Equity - $375.3 million TxDOT Funds (for the Texas Medical Center Connector) - $17.1 million TIFIA Capitalized Interest - $14.9 million Interest Income - $0.7 million
Project Phase	Construction
Date of Financial Close	April 2016

Project Profile: **Ohio River Bridges East End Crossing**

Source: Louisville and Southern Indiana Bridges Authority

State	Indiana
Project Type	DBFOM - Availability Payments
Project Description	The East End Crossing project includes a new bridge facility across the Ohio River, and associated roadway, tunnel, and facilities, connecting Clark County, IN, and Jefferson County, KY, approximately 8 miles east of Louisville. The East End Crossing project is being delivered as an availability-pay design-build-finance-operate-maintain concession with a 4-year construction and a 35-year operation term. The concessionaire will be responsible for the operations and maintenance of the project with the exception of the Kentucky approach's tunnel, which will be maintained by the Commonwealth of Kentucky.
Estimated Project Cost	$1,319.2 million
Funding Breakdown	Indiana - State and Federal Funds - $392 million Other State and Federal Funds - $208.1 million Private Activity Bonds (Series A) - $488.9 million Long-term Private Activity Bonds (Series B) - $18.9 million Kentucky - State and Federal Funds - $88 million Equity - $78.1 million
Project Phase	Operations and Maintenance
Date of Financial Close	April 2015

Project Profile: **I-69 Section 5**

.

Source: Aztec/TYPSA

State	Indiana
Project Type	DBFOM- Availability Payments
Project Description	The I-69 Section 5 project will reconstruct and upgrade 21 miles of State Route 37 (an existing four-lane divided highway southwest of Indianapolis) between Bloomington and Martinsville, IN, to full Interstate highway standards. Section 5 was being implemented as a 35-year availability payment DBFOM concession. Due to financial and project delivery difficulties, Indiana Finance Authority (IFA) and the State terminated the contractual relationship with the private partner and returned direct control of the project to INDOT in July 2017. Therefore, this project is no longer considered a P3.
Estimated Project Cost	$560 million
Funding Breakdown	Private Activity Bonds - $243.6 million Private Activity Bond Sale Premiums - $8 million Equity - $115.8 million Milestone Payment - $108 million INDOT Public Sector Funds - $93 million Highway Revenue Bonds - $246 million Bondholder Reimbursement - $12 million Payment to IFA - $50 million
Project Phase	Construction
Date of Financial Close	July 2014 (Private Activity Bonds)

Project Profile: **Presidio Parkway**

Source: Caltrans

State	California
Project Type	DBFOM- Availability Payments
Project Description	The Presidio Parkway project is a replacement of Doyle Drive, a 1.6-mile segment of Route 101 in San Francisco that is the southern access to the Golden Gate Bridge, connecting Marin and San Francisco counties and providing a major regional traffic link between the peninsula and North Bay Area counties. The project's focus is to improve public safety hazards that presented significant public risk, as the legacy facility was seismically vulnerable and structurally deficient.
Estimated Project Cost	$851.6 million
Funding Breakdown	*Phase I:* Federal Funds $ 70.8 million American Recovery and Reinvestment Act of 2009 Grant - $83.3 million State Funds - $229 million Local Funds - $103.9 million *Phase II:* Bank Loan - $166.6 million TIFIA Tranche A Loan - $89.8 million TIFIA Tranche B Loan - $60.2 million Parent Company Contribution - $2.6 million Private Equity - $43 million TIFIA Capitalized Interest - $2.5 million
Project Phase	Construction
Date of Financial Close	June 2012

Exhibit C. Organizations Visited or Contacted

Federal Highway Administration

Headquarters, Washington, DC

California Division Office, Sacramento, CA

Indiana Division Office, Indianapolis, IN

Kentucky Division Office, Frankfurt, KY

Texas Division Office, Austin, TX

Virginia Division Office, Richmond, VA

Build America Bureau

Headquarters, Washington, DC

State Departments of Transportation

California Department of Transportation, Sacramento, CA

Indiana Department of Transportation, Indianapolis, IN

Kentucky Transportation Cabinet, Frankfort, KY

Texas Department of Transportation, Austin, TX

Virginia Department of Transportation, Richmond, VA

Exhibit D. List of Acronyms

AASHTO	American Association of State Highway and Transportation Officials
DBFOM	Design-Build-Finance-Operate-Maintain
DOT	Department of Transportation
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
HOT	High Occupancy Toll
HOV	High Occupancy Vehicle
IFA	Indiana Finance Authority
INDOT	Indiana Department of Transportation
JPO	Joint Program Office
NEPA	National Environmental Policy Act
NTE	North Tarrant Express
OIG	Office of Inspector General
P3	Public Private Partnership
PODI	Project of Division Interest
QA	Quality Assurance
SDPOM	Specially Designated Project Oversight Manager
SH	State Highway
TxDOT	Texas Department of Transportation
TIFIA	Transportation Infrastructure Finance and Innovation Act
U.S.C.	U.S. Code

Exhibit E. Major Contributors to This Report

TIFFANY **MOSTERT**	PROGRAM DIRECTOR
KRYSTAL **PATRICK**	PROJECT MANAGER
RACHEL **ALDERMAN**	SENIOR AUDITOR
RYAN **SANDERS**	SENIOR ANALYST
SHARLENA **DELANEY**	ANALYST
JAMES **MCGEE**	ANALYST
PETRA **SWARTZLANDER**	SENIOR STATISTICIAN
FRITZ **SWARTZBAUGH**	ASSOCIATE COUNSEL
TOM **DENOMME**	PROJECT CONSULTANT
AUDRE **AZUOLAS**	SENIOR TECHNICAL WRITER
CHRISTINA **LEE**	VISUAL COMMUNICATIONS SPECIALIST

U.S. Department of Transportation
Federal Highway Administration

Memorandum

Subject: **INFORMATION:** FHWA Management Response to the Office of Inspector General (OIG) Draft Report on Public-Private Partnerships (17S3008S000)

Date: February 15, 2019

From: Brandye L. Hendrickson
Deputy Administrator

Brandye L. Hendrickson

In Reply Refer To: HCFB-30

To: Barry J. DeWeese
Assistant Inspector General
for Surface Transportation Audits

The Federal Highway Administration (FHWA) supports the transportation community in exploring and implementing innovative strategies to deliver major highway investment projects. Public-Private Partnerships (P3s), specifically those that combine the five major phases of Design-Build-Finance-Operate-Maintain, allow the private sector to bring their innovation, efficiency, and capital to address complex transportation challenges. Federal support for these projects includes FHWA Federal-aid formula funds and loans provided through the Build America Bureau's Transportation Infrastructure Finance and Innovation Act (TIFIA) credit program. Since 1999, the Department of Transportation has loaned State highway projects more than $19 billion in TIFIA credit assistance, almost half of which has assisted P3-delivered projects. In addition to TIFIA loans, the Build America Bureau allocates tax-exempt private activity bond authority and provides access to P3 expertise.

The FHWA is a national leader in promoting innovations, technologies and practices that improve the delivery of highway projects. Together with the Build America Bureau, FHWA has overseen and provided financial assistance to some of the most significant highway projects of the past 20 years. The FHWA provides technical assistance and encourages States to explore P3 opportunities as an option to minimize life-cycle costs and maximize innovation. To this end, FHWA has developed a robust P3 toolkit that contains analytical tools and guidance documents to assist in informing public sector policy-makers, legislative and executive staff, and transportation professionals in the implementation of P3 projects.

Most projects in OIG's sample had financial plans there were approved 5 years ago or longer, a timeframe coinciding with FHWA's early financial plan guidance and associated oversight processes. Since then, FHWA has expanded its analytic tools and guidance documents, many of which are already responsive to gaps OIG identified in its draft report. Examples of FHWA's completed and ongoing improvement efforts include the following:

- Updated financial plan guidance, established the Major Projects standard operating procedures (SOPs), and implemented checklists and statistical sheets for all financial plan reviews. These improvements help to ensure that project sponsors address all elements, including an assessment of P3 appropriateness, are addressed in a project's financial plan.
- Conducted cost estimate review (CER) workshops for all Major Projects. In addition to FHWA reviewing the project cost, all project risks, including risks associated with different delivery methods, such as P3s, are discussed and evaluated with the project sponsors and subject matter experts. As part of the CERs, FHWA also discusses the P3 assessment information the project sponsor should include in a project's financial plan.
- Initiated a focus group to establish SOPs related to TIFIA cost eligibility and disbursements. This group may help to clarify the respective roles of the Build America Bureau and FHWA concerning stewardship and oversight of projects, including P3s, financed with TIFIA loans.
- Gathering lessons learned and best practices for Major Projects, including P3s. This information will be disseminated to all Major Projects oversight managers to share with project sponsors.

The FHWA will use OIG's report to continue to improve the documentation of its current stewardship practices; enhance the dissemination of its current stewardship practices; strengthen communication between Headquarters and field; and clarify its working relationship with the Build America Bureau. We concur with all five recommendations as written, and plan to complete the following actions by December 31, 2019 to address the recommendations. For recommendation 1, FHWA will clarify the P3 assessment requirement in our financial plan guidance, while making clear the undisputed autonomy of the public sponsor in determining the outcome of that assessment. The FHWA maintains it is the public sponsor's prerogative to explore and determine the funding and financing approaches it pursues in its capital program improvements. For recommendation 2, FHWA agrees to clarify in its guidance Federal stewardship considerations regarding P3 projects. The FHWA will clarify in its guidance that Divisions are responsible for assessing the reasonableness of the price of the construction work, not the reasonableness of traffic and revenue assumptions. For projects seeking TIFIA credit assistance, the Build America Bureau will continue to perform its creditworthiness analysis as part of its underwriting process, which may include an analysis of traffic and revenue forecasts. For recommendation 3, FHWA will clarify in its guidance the types of risks Division Offices should consider in their risk assessment of P3 projects. For recommendations 4 and 5, FHWA will update and disseminate guidance regarding operations and maintenance oversight roles and responsibilities.

We appreciate the opportunity to review the OIG draft report. Please contact Tony Furst, Chief Innovation Officer, at (503) 316-2574 with any questions.

U.S. DOT OIG
Fraud & Safety
Hotline

hotline@oig.dot.gov | (800) 424-9071

https://www.oig.dot.gov/hotline

Our Mission

OIG conducts audits and investigations on behalf of the American public to improve the performance and integrity of DOT's programs to ensure a safe, efficient, and effective national transportation system.

OFFICE OF INSPECTOR GENERAL
U.S. Department of Transportation
1200 New Jersey Ave SE
Washington, DC 20590