OFFICE of INSPECTOR GENERAL
NATIONAL RAILROAD PASSENGER CORPORATION

MAJOR PROGRAMS:

Amtrak Is Establishing a Structure for Managing the Frederick Douglass Tunnel Program, but Better Planning Would Improve Oversight and Reduce Risks

OIG-A-2024-010 | September 27, 2024

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Memorandum

To: Laura Mason
Executive Vice President, Capital Delivery

From: Jim Morrison
Assistant Inspector General, Audits

Date: September 27, 2024

Subject: *Major Programs: Amtrak Is Establishing a Structure for Managing the Frederick Douglass Tunnel Program, but Better Planning Would Improve Oversight and Reduce Risks* (OIG-A-2024-010)

The Frederick Douglass Tunnel (FDT) program is an estimated $6 billion passenger rail investment to replace the 1.4-mile-long Baltimore and Potomac (B&P) Tunnel in Baltimore, Maryland. The existing tunnel is more than 150 years old and requires significant maintenance and repairs to remain functional and safe for rail traffic. The program also includes track improvements, bridges, and ventilation facilities along a 10-mile section of the Northeast Corridor—the most heavily travelled rail corridor in the United States. To advance the program, the Federal Railroad Administration (FRA) awarded Amtrak (the company) $4.7 billion in grant funds. The company (the lead sponsor and asset owner) and the State of Maryland (the owner of the commuter rail service that will also use the asset) have spent or plan to provide the remaining $1.3 billion.[1] As of August 2024, the FDT program was progressing through final design, and the company planned to start major construction in September 2024.

The FDT program is one of several multi-billion-dollar capital programs the company is undertaking; it is the single largest infrastructure effort that it currently is leading. Given its size, scope, and importance, our objective was to assess the company's management and oversight of the FDT program. To complete our assessment, we reviewed guidance from company policies and industry sources for program and project management. We also reviewed the company's program management and planning documents, and we interviewed officials from the company's Capital Delivery department—responsible for the FDT program—and other supporting departments.

[1] According to the company's FRA grant application, the company committed $727 million, the State of Maryland committed $450 million, and the program spent $115 million prior to the application.

In addition, we interviewed officials from FRA and contractors who have roles on the program. For more details on our scope and methodology, see Appendix A.

SUMMARY OF RESULTS

The company is developing its management structure for the FDT program but initially did not have an effective structure or sufficient staff in place. In December 2022, the company decided to hire a contractor—a "delivery partner"—to provide management and oversight, but until it onboarded the contractor more than a year later, it relied on an overwhelmed internal team to manage multiple, complex, and concurrent commitments. As a result, the requisite planning has yet to be completed despite the program approaching major construction, which significantly increases the risk of cost overruns and delays. Two factors gave rise to these challenges:

- **The program team was short-staffed.** The Capital Delivery department—a nascent department when it took over the FDT program—initially assigned responsibility for the $6 billion program to one person, who had limited support to provide the management and oversight needed for a program of this magnitude. The team has steadily grown in numbers since 2022 but was initially overtasked.
- **The decision on the management structure was not made early enough.** The company did not identify and establish a management structure early enough to provide strong oversight as the program advanced through planning into construction. Company officials told us, and we agree, that an earlier decision would have allowed the company to procure the FDT program's delivery partner sooner and realize its benefits more immediately.

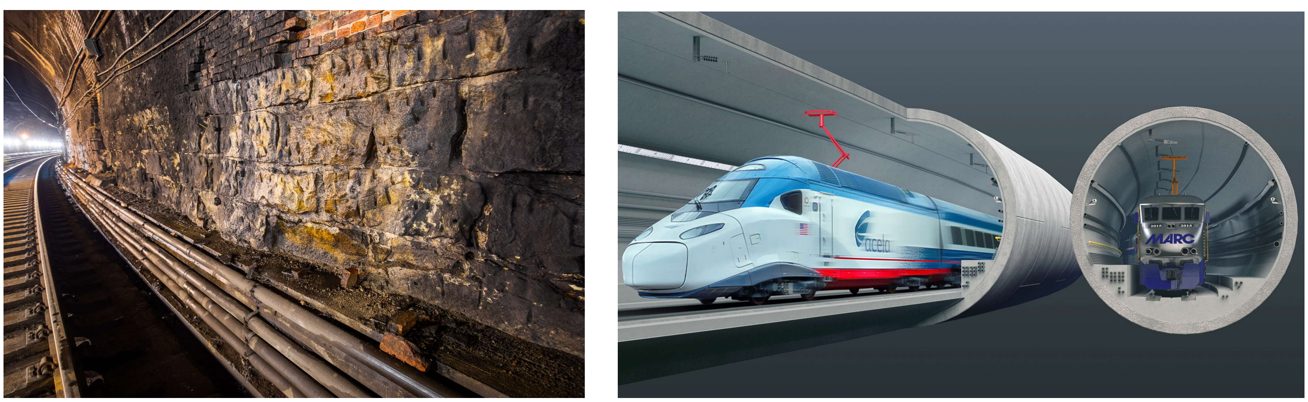
As a result, the company did not complete all the necessary planning, which resulted in delays and other challenges. Further, the delivery partner must now concurrently advance four areas of planning: (1) scheduling, (2) communications, (3) document management, and (4) risk management. Proceeding further into construction before completing this planning could significantly increase cost and schedule risks. More broadly, given the scale of the company's historic capital plans, avoiding similar challenges on other programs will be key to protecting and maximizing taxpayer investments.

To help the company reduce the risk of delays and overruns on the FDT program, we recommend that the Capital Delivery department advance the requisite planning before major construction begins. We also recommend that the company improve its program planning processes to ensure that it implements a management structure and provides sufficient staff early enough to avoid similar challenges on future programs. In commenting on a draft of this report, the Executive Vice President, Capital Delivery, and the Executive Vice President, Strategy and Planning, agreed with our recommendations and detailed the actions the company plans to take or has taken to address them. For management's complete response, see Appendix B.

BACKGROUND

The FDT program will replace the B&P Tunnel in Baltimore, Maryland. The new tunnel will serve approximately nine million passengers annually on Amtrak and Maryland Area Rail Commuter (MARC) trains. Figure 1 shows the existing B&P Tunnel, which was built in 1873, and a rendering of the new tunnel.

Figure 1. Existing B&P Tunnel and Rendering of the Frederick Douglass Tunnel



Source: Amtrak

The FDT program has two planned phases.[2] The first phase—for which FRA awarded funding—includes building two, two-mile-long tubes designed for electrified passenger trains, as well as bridges and tracks. The second phase includes building two additional tubes to accommodate freight traffic, which will continue to use the B&P Tunnel in the interim. Once the four tubes are complete, the company plans to take the B&P Tunnel out of service.

[2] In May 2022, the FRA approved a two-phased approach during the National Environmental Policy Act evaluation process.

The first phase of the FDT program, the focus of our review,[3] combines various individual projects into three major construction packages:

- *Tunnel Construction (Package A)* includes the first two new tubes.
- *Southern Approach (Package B)* includes a new West Baltimore MARC station and five railroad bridge replacements.
- *Track and Systems Fit-Out (Package C)* includes track infrastructure for the two new tubes and three ventilation facilities for emergency evacuation of passengers.

Figure 2 provides an overview of these three packages.

Figure 2. Overview of FDT Construction Packages

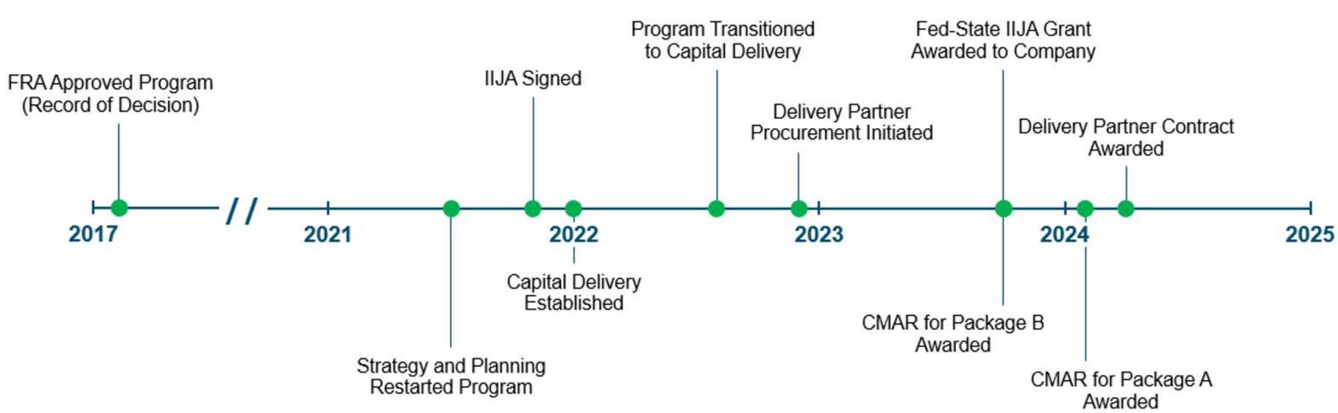
Sources: Amtrak and OIG analysis of company documentation

[3] Because funding has not yet been secured for the second phase, it was outside the scope of our review. For purposes of this report, the terms "the program" and "FDT program" refer to the first phase comprising the two initial tubes—which collectively are called "the tunnel."

Program history. FRA approved the proposed FDT program in March 2017. The company used $61.5 million in federal grant funding to advance planning and design,[4] but the availability of funding to advance into the multi-billion-dollar construction phase remained limited for several years. In 2021, with the passage of the Infrastructure Investment and Jobs Act (IIJA),[5] the company restarted program planning in anticipation of receiving funding. In 2023, FRA awarded the company $4.7 billion for the FDT program through its IIJA Federal-State Partnership for Intercity Passenger Rail Grant Program. The estimated completion date for the FDT program is 2035.

Company stakeholders. The company has the overall responsibility and authority for managing and executing the FDT program and is the ultimate asset owner. The company's Strategy and Planning department restarted the program in July 2021 and managed it through early planning and some of the design phase before handing it off to the Capital Delivery department, which the company created in January 2022 to execute and oversee its major infrastructure programs and fleet acquisitions. The Capital Delivery department, which received the FDT program in August 2022, is responsible for managing the program's day-to-day needs. The Procurement department manages and oversees the program's contracting actions and procurements. The Real Estate group and Law department also support the program. For a timeline of key events for the program, see Figure 3.

Figure 3. Timeline of Key Events of the FDT Program, as of June 2024



Source: OIG analysis of company documents

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[4] Funding for this grant was provided by the High Speed Intercity Passenger Rail Program and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Program.
[5] Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (2021).

External stakeholders. The following external stakeholders also have roles:

- *FRA* is a U.S. Department of Transportation agency that provides the company with annual grants and will provide oversight of the $4.7 billion the company will receive as part of the IIJA Federal-State Partnership for Intercity Rail Grant Program.
- *The Maryland Department of Transportation (MDOT)* operates the MARC train service through the B&P Tunnel and will also use the new tunnel. It will be the sole provider of service to the new West Baltimore MARC station. MDOT—an agency of the State of Maryland—is also a funding partner and has committed $450 million to the program.
- *The City of Baltimore* is the local government from which the company will seek certain permits and approvals during construction. The company plans to complete multiple agreements with the city to enable certain aspects of construction, including securing land for the new right-of-way, modifying existing city streets, and obtaining necessary properties for the construction of the tunnel and other program components.

Program contractors. The company selected multiple contractors and plans to contract with additional vendors to help it manage and deliver various elements of the FDT program, as follows:

- *Delivery partner.* In April 2024, the company selected a delivery partner to provide overall program management services, including overseeing each of the three construction packages. The delivery partner's services include design oversight, construction management, contract management, and other administrative support. The FDT program is the first time the company is using a delivery partner model for a program it is managing. In this model, the delivery partner shares the risk in delivering the program and, therefore, is incentivized to help complete the program on time and on budget.

- *Construction managers at risk.* For two of the three construction packages,[6] the company has procured a "construction manager at risk" (CMAR). In September 2023, the company procured its first-ever CMAR to deliver FDT Package B, which includes the MARC station and multiple bridges. In

[6] The company has not yet procured a contractor to deliver Package C, which includes the systems fit-out (track infrastructure and ventilation) of the tunnel.

February 2024, the company selected a different CMAR to deliver Package A, which is the new tunnel. With such a model, a CMAR agrees to deliver a project within a guaranteed maximum price and then manage and control construction costs not to exceed that price. To arrive at a guaranteed maximum price, a CMAR also provides cost, schedule, and constructability inputs.

- *Program management consultant.* Since 2012, the company has used a program management consultant to perform program planning and management. The company is transferring these responsibilities to the delivery partner. The program management consultant contract will expire in September 2024.

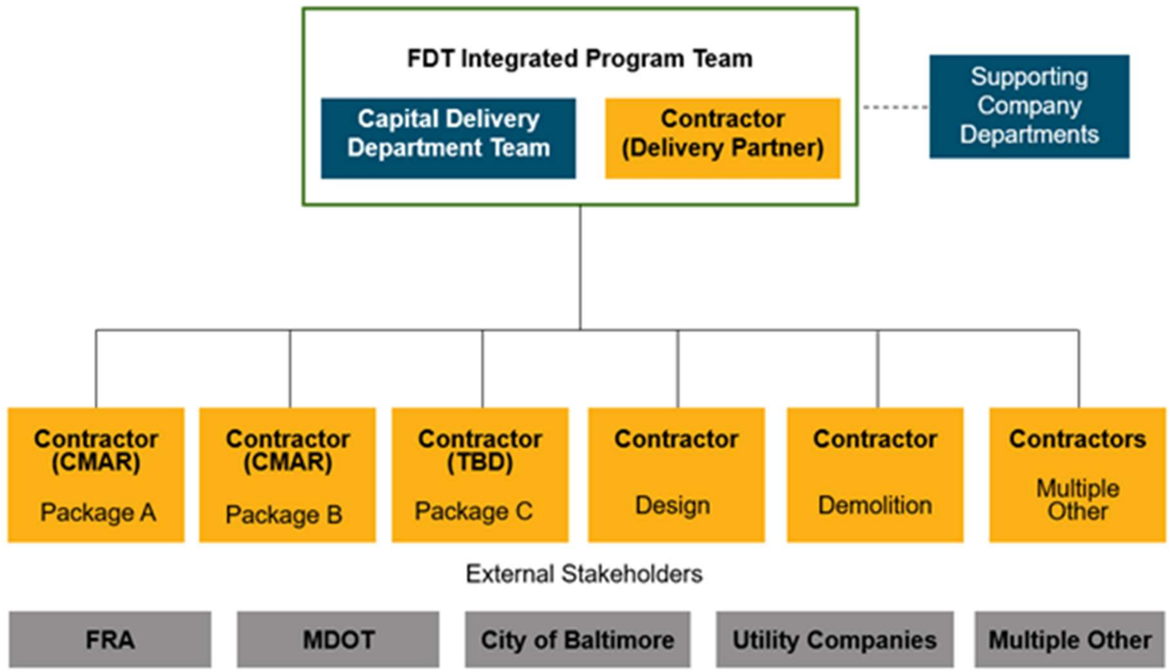
- *General engineering consultant.* Since September 2013, the company's general engineering consultant has provided engineering services to the FDT program. This consultant conducted design and permitting work, including civil, structural, geotechnical, electrical, architectural, and mechanical specifications and drawings.

- *Independent Cost Estimator.* In October 2023, the company procured a contractor to prepare construction cost estimates. The company is comparing the contractor's estimates to the estimates the CMARs provide for the guaranteed maximum prices.[7]

For an overview of the program team, contractors, and internal and external stakeholders involved in this complex program, see Figure 4.

[7] The company's cost estimation practices were outside the scope of our review.

Figure 4. Overview of FDT Program Team, Contractors, and Stakeholders



Source: OIG analysis of company documents

Program management standards. Program management refers to the processes by which an organization manages the component projects that support a program. Industry practices suggest that organizations establish a management structure in a program's early stages. A program management structure defines the composition of program participants and their roles and responsibilities in overseeing the program.[8] It also establishes processes and controls for monitoring progress and coordinating component projects to achieve the program's goals.

Company policy and industry standards also lay out specific planning activities that are necessary at the early stages of a program to prepare for managing complex and concurrent projects. These include establishing a program management plan that details the processes that organizations will use to oversee a program's projects, such as how they will develop, monitor, and manage the schedule; and how, when, and to whom

[8] Project Management Institute, *The Standard for Program Management*, Fourth Edition, describes such program governance and project lifecycle practices.

they will disseminate program information. These policies and standards establish how organizations are to manage costs, resources, stakeholder relationships, and risks.

MANAGEMENT AND OVERSIGHT STRUCTURE IS PROGRESSING BUT WAS NOT INITIALLY EFFECTIVE

The company initially did not have an effective management structure or sufficient staff in place contrary to industry standards. The following two factors gave rise to this challenge.

The program team was short-staffed. The company did not sufficiently staff the program team when it transitioned the FDT program to the Capital Delivery department. At that time, Capital Delivery was a nascent department that was developing its own processes. It was also hiring project and program management professionals to improve the company's oversight of its major capital programs. Despite progress in building Capital Delivery's capabilities, the department has yet to establish processes that ensure sufficient staffing at the outset of a program. As a result, the Capital Delivery department initially assigned responsibility for the $6 billion program to one person who had limited support to provide the management and oversight needed for a program of this size and complexity. The program manager's responsibilities included the following:

- overseeing the design and program management consultants
- assisting in the procurement of two CMARs and the delivery partner who would oversee billions of dollars in construction work
- managing and reporting program costs
- managing internal and external stakeholder relationships

From August 2022 through October 2023, the program team grew from one member to seven, including an Assistant Vice President for the program who joined the company in August 2023. Despite the addition of new staff, the volume of work continued to overtask the team: five of the six new staff-level members told us they were overwhelmed by the workload. Senior company officials told us the program was not sufficiently staffed at the outset—partially due to funding restrictions—and that the company should have sufficiently staffed the Capital Delivery team before the transition from the Strategy and Planning department.

Further compounding this problem, the program team had limitations on how it could use its program management consultant to advance the program. After the company decided to use a delivery partner, its existing program management consultant sought to bid on that contract. To reduce potential conflicts of interest, the company precluded the consultant from fully supporting the program team in the interim. For example, to avoid providing information that would have given the bidding consultant an unfair advantage over other firms, the program team removed risk management activities—a key component of program planning—from the program management consultant's scope of services. Such limitations, along with insufficient staffing, adversely impacted the program team's progress during the period of the delivery partner's selection process.

The decision on program management structure was not made early enough. The company did not establish a program management structure early enough. Industry practices for program management suggest that organizations develop and implement such a structure at the outset of a program. Interviews and company planning documents indicate, however, that the company did not initially identify a structure for how it would provide management and oversight of the program. Ultimately, in December 2022, the company decided to use a delivery partner, but procuring one took more than a year partly because it was the first time the company was procuring such a contractor. In the meantime, the company continued to rely on its overwhelmed internal program team to advance planning and prepare for construction.

Company officials agreed that the decision to use a delivery partner should have been made earlier to allow enough time to procure the contract and maximize the benefits the delivery partner was intended to provide. For example, the delivery partner's scope of duties includes program planning, contract management, support of pre-construction activities, and overseeing all contractors for the program—including the two CMARs that the company onboarded before the delivery partner. During the delivery partner procurement, these duties fell to the internal program team to manage.

INEFFECTIVE STRUCTURE LED TO INCOMPLETE PLANNING

Without an effective management and oversight structure or sufficient staff from the outset, the company struggled to produce the necessary planning for the FDT program as it neared construction. As a result, the program experienced delays and faces a significantly increased risk of cost overruns and additional delays as it proceeds into major construction. Moreover, the recently selected delivery partner must now concurrently complete program management planning in four key areas at the same time that it and the company prepare for and start construction: (1) scheduling, (2) communications, (3) document management, and (4) risk management.

Schedule Management Weaknesses

Without sufficient staff, the Capital Delivery department did not have the capacity to advance and manage the program's schedule. Instead, the program team continued to rely on the design contractor that had managed the schedule during the design phase. Although managing the schedule in the design phase is a common practice for design contractors, they typically are not positioned to have program-level insight into non-design activities, such as the procurement of contractors and other pre-construction activities. As a result, the schedule did not reflect detailed activities beyond the design phase or provide realistic timelines for current activities to inform project-level planning for construction.

Company and industry practices for schedule management include the processes and controls for planning, developing, managing, executing, and controlling the schedule.

Company and contractor officials told us that developing a more complete program schedule is an important planning gap that the program team needs to address as it advances into construction. We previously reported on how weaknesses in scheduling practices can raise the risk of delays and cost increases as projects progress through construction.[9] On the FDT program, the company is anticipating it will start major construction eight months later than its schedule estimated. Specifically, the schedule underestimated how long it would take to procure a CMAR—the first of its kind at Amtrak. The time it took to complete that procurement ultimately delayed all construction activities that the CMAR was to manage. A more complete schedule that reflected program-level inputs from relevant stakeholders would have helped the company better control work activities and avoid delays to the start of construction.

As of May 2024, the delivery partner took the design contractor's schedule and was developing an integrated program schedule. Effective schedule management will help the company proactively control the tasks to meet its timelines. It will also help provide

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[9] *Asset Management: Better Schedules, Cost Estimates, and Project Management Could Help Mitigate Risks to Washington Union Station Projects* (OIG-A-2018-008), July 24, 2018.

the multiple stakeholders supporting this complex program with the information they need to effectively plan all of the detailed components of the three construction packages and complete them successfully, on time, and within budget.

Incomplete Communications Management

The Capital Delivery department has not identified the information that stakeholders need to manage the program, where to get it, and who is responsible for obtaining and communicating it. In 2021, the company identified more than 45 internal and external stakeholders with a role on the program. More recently, in 2024 the delivery partner developed a matrix identifying points of contact for internal and external stakeholders involved in various components of the program. The company has not expanded this list, however, to understand stakeholders' roles and information needs and to determine how the company will meet them—details industry standards suggest that organizations document in a comprehensive communications plan. As a result, the company has not consistently obtained and shared information necessary to manage the program. For example, the program team was unaware of an exemption for obtaining permits to demolish properties to begin construction. Without this information, the company's contractor unnecessarily applied for the permits, and the permitting process delayed the demolition of eight of nine properties by several months. Officials from two internal departments confirmed they knew of—and would have shared—the company's exemption status with the program team if they had been involved in the permit discussion.

Company and industry practices for communications management include the processes and tools necessary to ensure that all stakeholders are appropriately informed to effectively coordinate program activities.

The program's Assistant Vice President, who joined the company in August 2023, recognized a gap in the company's communications with external stakeholders and began addressing it. For example, before the Assistant Vice President's arrival, the program team was coordinating with a local utility company to review utility relocation plans. The team, however, was engaging with the utility at the staff-level, not with the utility's executive leadership who would be able to commit resources to meet the program's schedule.[10] The program team now conducts regular meetings with the

[10] The utility company is responsible for moving the existing power cable infrastructure and providing the power necessary to operate major machinery during the tunnel's construction.

utility company's senior leadership, which has helped the two organizations align priorities and expectations, according to the Assistant Vice President.

Notwithstanding these improvements, the Capital Delivery department still does not have a complete communications management plan to ensure that similar communications occur—at the right level—for each of the dozens of stakeholders across the entire program. Such a plan would help the team identify and communicate needs and priorities to advance the program more effectively as it enters the construction phase, when several additional contractors and stakeholders will be involved.[11] This would help facilitate effective program management and would increase the likelihood of completing the program on time and on budget.

Inadequate Document Management

The company did not establish the document management tools it would use for the FDT program before awarding multiple contracts. In June 2024, the company augmented its Enterprise Project and Portfolio Management (EPPM) system[12] with a centralized document management system. This timeframe, however, was too late to help the FDT program, which already had most of the major contractors on board.[13]

[11] We previously reported that during development of the Moynihan Train Hall, program managers were not coordinating with internal stakeholders to identify business function requirements, such as equipment or other technical needs, which resulted in schedule delays. *Governance: Early Planning and Oversight Deficiencies Led to Initial Program Failures and Continued Risks to the Moynihan Train Hall Program* (OIG-A-2020-014), August 17, 2020.

[12] EPPM is the project management system the company has been developing since July 2022.

[13] The company also plans for EPPM to provide a capability that will allow teams to track costs at a more detailed level, but it is not yet available. In its absence, the FDT team tracks costs at a high level without the ability to easily identify costs for specific projects. We previously reported on this companywide challenge and recommended that the company specify what it needs to implement more detailed ways to track costs. *Governance: Company Is Strengthening Project Cost Management but Can Better Organize Costs and Improve Guidance* (OIG-A-2023-010), July 17, 2023.

In absence of an enterprise document management tool, Capital Delivery has been using a web-based collaboration tool to store and manage the FDT program's contracts, agreements, communications, draft program files, design drawings, and other records. This tool, however, has access limitations that prevent contractors from easily viewing files, and it cannot efficiently manage the thousands of documents anticipated for the program going forward. Program contractors told us this tool was not appropriate for a program of this scale and complexity, which could slow document review workflows. Company officials agreed that the current tool will not address the needs of the FDT program as it begins construction, which include access control and storage for thousands of agreements and files from at least 10 contractors.

Company and industry practices for document management involve creating, storing, organizing, tracking, and distributing documents to ensure that the right version of a document is available to the right people at the right time.

The program team, however, had not yet established a timeline for transitioning to the EPPM system as of June 2024, and the program team and delivery partner were discussing possible interim solutions but had not yet identified what they will use. Not having a complete document management plan identifying the tools and processes the program team will use could hinder the company's ability to retrieve contracts and agreements, which increases legal and compliance risks.[14] Further, it poses schedule risk if workflows are delayed when stakeholders need to review files and cannot easily retrieve and distribute them.

[14] We previously reported on challenges the Moynihan Train Hall Program experienced because it did not establish a document management system, including the company having to ask an external party for copies of its own approval letters because it could not locate these documents. *Governance: Early Planning and Oversight Deficiencies Led to Initial Program Failures and Continued Risks to the Moynihan Train Hall Program* (OIG-A-2020-014), August 17, 2020.

Inconsistent Risk Management

The Capital Delivery department has not consistently monitored the status of known risks and may have missed early opportunities to identify and implement mitigation actions for risks that could emerge later. For example, given the staffing constraints and contractor limitations we noted above, the team has not met regularly to discuss, review, and update the status of program-level risks, such as stakeholder coordination, workforce planning, and track outages. In addition, it has not regularly updated three key risk management documents that help ensure that the company is managing risks to increase the chances of delivering the program successfully—a risk management plan, risk register, and mitigation plans—as Table 1 shows.

Company and industry practices for risk management include the process of identifying and analyzing risks, planning to respond to them, implementing mitigation plans, and monitoring the status of risks as a program progresses.

Table 1. Missing Elements of Risk Management

Industry Practices for Risk Documentation[a]	Status for FDT Program
Program risk management plan Annually update the program risk management plan, which documents the processes for identifying, assessing, evaluating, managing, and documenting risks.	**Not updated annually** The program team has not updated and approved the program's risk management plan since 2017.
Program risk register Review and update the risk register during regularly scheduled meetings to determine whether risks have been realized, have been mitigated, or remain active.	**Not reviewed regularly** The program team developed a risk register, which it updated twice from 2017 through 2023.
Risk mitigation plans Identify plans to avoid, mitigate, accept, or transfer each identified risk, and develop mitigation plans when necessary.	**Developed but not followed** The program team developed mitigation plans, but the assigned officials are not pursuing them for risks related to labor (force account),[b] track outages, and external stakeholder management—the three risks we reviewed in more depth.

Source: OIG analysis of risk documentation the program team provided as of April 2024

Note:
[a] Based on company requirements and industry practices

[b] Force account is the use of one's own labor force to carry out a capital project. Force account includes company labor employed to construct portions of the project and to protect and support a construction contractor's forces while working on or near company assets.

Since onboarding its delivery partner, the company updated its program risk register, but associated risk plans remain in draft. Without complete risk management plans and related processes, the likelihood increases that the program will realize risks that could significantly increase its costs, delay the schedule, and impact the company's ability to deliver the program successfully. For example, although the team identified the availability of force account labor as a risk to the program's schedule, it has not yet developed the multi-year plans needed to mitigate this risk. Officials responsible for companywide force account planning told us the FDT program had not yet submitted the program's force account needs as of May 2024, which is required if the program anticipates it will need such labor in the next three years. We previously reported on another project in which the company's force account budget more than doubled in part due to unmanaged risks.[15] Given the sheer size of the $6 billion FDT program, similar risks—if realized—could generate significant cost and schedule impacts.

CONCLUSIONS

The FDT program is the single largest infrastructure effort that the company is leading. With construction to start this year, the company and delivery partner are rapidly integrating their teams to provide the management and oversight necessary for a program of this scale and complexity. Advancing the program management planning that languished over the prior years will help the company better control its schedule, communicate with its many stakeholders, organize the massive number of documents that will be generated, and identify and mitigate risks that could significantly impact the program if left unaddressed.

The lessons learned from the initial stages of the FDT program will help other capital programs as they move through planning and into construction. Improving the company's processes for deciding on and implementing a management structure and providing sufficient staff will help ensure strong oversight on other programs as the company embarks on its multi-billion-dollar portfolio of capital improvements.

RECOMMENDATIONS

For the FDT program, we recommend that the Executive Vice President, Capital Delivery:

1. Complete the requisite program management planning before starting construction or, if not feasible, as soon as possible thereafter. At a minimum, this should include updating the schedule, developing a communications plan, establishing a document management plan with a related system, and advancing risk management plans.

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[15] *Major Programs: Portal North Bridge Project is Progressing, but Opportunities Exist to Improve Company Oversight and Reduce Risk* (OIG-A-2024-007), May 2, 2024.

For future programs, we recommend that the Executive Vice President, Capital Delivery, in coordination with the Executive Vice President, Strategy and Planning:

2. Establish processes to ensure that the company decides on and implements a program's management structure early enough to provide strong, continuous oversight for the entire life of a program.

3. Establish processes to ensure that program teams have sufficient staff before the company transitions a program from the Strategy and Planning department to the Capital Delivery department.

MANAGEMENT COMMENTS AND OIG ANALYSIS

In commenting on a draft of this report, the Executive Vice President, Capital Delivery, and the Executive Vice President, Strategy and Planning, agreed with our recommendations and identified actions the company plans to take or has taken to address them, which we summarize below.

- **Recommendation 1:** Management agreed with our recommendation to complete the requisite program management planning, including updating the schedule, developing a communications plan, establishing a document management plan with a related system, and advancing risk management plans. Management stated that it is implementing steps to accelerate company readiness for construction, which includes addressing immediate planning needs such as advancing the schedule and building communication strategies.[16] The target completion date is October 1, 2024.

- **Recommendation 2:** Management agreed with our recommendation to establish processes to ensure that the company decides on and implements a program's management structure early enough to provide strong, continuous oversight for the entire life of a program. Management stated that it intends to use a new planning tool to provide the Capital Delivery department early visibility into upcoming projects and their potential transition from the Strategy and Planning department. Management stated that this early visibility will provide the Capital

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[16] Management stated that it started these actions while we were performing our audit work. We will review the actions the company took as part of our standard recommendation follow-up process.

Delivery department with sufficient time to start planning for each project's structure and staffing. The target completion date is December 31, 2025.

- **Recommendation 3:** Management agreed with our recommendation to establish processes to ensure that program teams have sufficient staff before the company transitions a program from the Strategy and Planning department to the Capital Delivery department. Management stated that the Capital Delivery department and Strategy and Planning department intend to coordinate to develop a plan for each project's organizational structure, including identifying necessary staff. In addition, management plans to transition a project to the Capital Delivery department only after critical roles are filled and the project is ready for the next phase. It plans to document these actions in the Capital Delivery Project Management Manual. The target completion date is September 30, 2025.

For management's complete response, see Appendix B. Management also provided technical comments that we have incorporated in this report as appropriate.

APPENDIX A

Objective, Scope, and Methodology

This report provides the results of our audit of the Frederick Douglass Tunnel (FDT) program. Our objective was to assess the company's management and oversight of the FDT program. We conducted our audit work from October 2023 through August 2024 in Washington, D.C. and Philadelphia, Pennsylvania.

To assess the company's management and oversight of the FDT program, we reviewed the company's policies and standards on program management, as well as program management guidance from other public- and private-sector sources. We also reviewed program documents, including the program management plan, risk management and contingency plan, risk register, and schedule. To assess their completeness, we compared these documents to applicable company policies and industry practices. In addition, we interviewed officials from the Capital Delivery department's FDT program team, as well as officials from the Finance, Legal, Strategy and Planning, and Procurement departments. We also interviewed officials from FRA and contractors who support the program.

To assess the company's efforts to monitor and mitigate identified risks, we selected a non-generalizable sample of three risks from the company's program risk register: track outages, force account, and external stakeholders. We selected these 3 risks from 7 risks that the company rated as high on its risk register, which had a total of 81 identified risks. We selected these three because they were the most relevant to our objective pertaining to management and oversight. For each risk, we interviewed the accountable officials to determine the extent to which they implemented the mitigation plans listed. For the track outages and force account risks, we interviewed company officials from the Capital Delivery department to obtain their perspective on and the status of the mitigation plans. The results of our review pertaining to our selected risks (1) cannot be projected to all program risks facing the team and (2) were not a basis for our findings, conclusions, or recommendations.

We conducted this performance audit in accordance with generally accepted government auditing standards. 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 objective.

Internal Controls

We reviewed internal controls for overseeing and managing the FDT program. Specifically, we assessed internal control components and underlying principles and determined that all five internal control areas were significant to our audit objective:

- **Control environment.** Management should establish an organizational structure, assign responsibility, and delegate authority to achieve the entity's objectives.
- **Risk assessment.** Management should identify, analyze, and respond to risks related to achieving the defined objectives.
- **Control activities.** Management should design control activities to achieve objectives and respond to risks. Management should design the entity's information system and related control activities to achieve objectives and respond to risks.
- **Information and communication.** Management should internally and externally communicate the necessary quality information to achieve the entity's objectives.
- **Monitoring.** Management should establish and operate activities to monitor the internal control system and evaluate the results. Management should remediate identified internal control deficiencies on a timely basis.

We developed audit work to ensure that we assessed each of these controls. This included assessing whether the company established an organizational structure, developed risk management documentation, implemented controls to conduct program management and oversight, and communicated information with stakeholders. We have noted in this report the control deficiencies our audit work identified. Because our review was limited to these internal control components and underlying principles, it may not have disclosed all of the internal control deficiencies that may have existed at the time of the audit.

Computer-Processed Data

Our analyses and findings did not rely on computer-generated data from any company information systems.

Prior Reports

In conducting our analysis, we reviewed and used information from the following OIG reports:

- *Major Programs: Portal North Bridge Project is Progressing, but Opportunities Exist to Improve Company Oversight and Reduce Risk* (OIG-A-2024-007), May 2, 2024
- *Governance: Company Is Strengthening Project Cost Management but Can Better Organize Costs and Improve Guidance* (OIG-A-2023-010), July 17, 2023
- *Areas for Management Focus in Advance of Infrastructure Investment and Jobs Act Funding* (OIG-SP-2022-008), March 31, 2022
- *Governance: Company Needs a Comprehensive Framework to Successfully Manage its Commitments to the Gateway Program* (OIG-A-2022-006), February 4, 2022
- *Governance: Early Planning and Oversight Deficiencies Led to Initial Program Failures and Continued Risks to the Moynihan Train Hall Program* (OIG-A-2020-014), August 17, 2020
- *Observations on Risks to the Acela 21 Information Technology Program Element* (OIG-MAR-2020-009), April 22, 2020
- *Asset Management: Better Schedules, Cost Estimates, and Project Management Could Help Mitigate Risks to Washington Union Station Projects* (OIG-A-2018-008), July 24, 2018
- *Train Operations: The Acela Express 2021 Program Faces Oversight Weaknesses and Schedule Risks* (OIG-A-2018-002), November 16, 2017
- *Acquisition and Procurement: Adopting Additional Leading Practices to Manage the Baltimore Penn Station Redevelopment Could Help Mitigate Project Risks* (OIG-A-2017-002), December 14, 2016

APPENDIX B

Management Comments

NATIONAL RAILROAD PASSENGER CORPORATION

Memo

AMTRAK

Date:	September 16, 2024	From:	Laura Mason, EVP Capital Delivery Dennis Newman, EVP Strategy & Planning
To:	Jim Morrison, Assistant Inspector General, Audits	Department(s):	Capital Delivery and Strategy & Planning
		cc	Stephen Gardner, CEO Roger Harris, President Eleanor Acheson, EVP General Counsel Robert Grasty, EVP CHRO Eliot Hamlisch, EVP Marketing & CCO Steven Predmore, EVP CSO Gerhard Williams, EVP Service & Delivery Ops Tracie Winbigler, EVP CFO Christian Zacariassen, EVP CIO

Subject: Management Response to **Major Programs:** *Amtrak Is Establishing a Structure for Managing the Frederick Douglass Tunnel Program, but Better Planning Would Improve Oversight and Reduce Risks* (Draft Audit Report for Project No. 001-2024).

This memorandum provides Amtrak's response to the draft interim audit report titled, "*Amtrak Is Establishing a Structure for Managing the Frederick Douglass Tunnel Program, but Better Planning Would Improve Oversight and Reduce Risks*". Management agrees with all the noted OIG recommendations below and appreciates the opportunity to provide a response.

For the FDT program, the OIG recommends that the Capital Delivery department:

Recommendation #1:

Complete the requisite program management planning before starting construction or, if not feasible, as soon as possible thereafter. At a minimum, this should include updating the schedule, developing a communications plan, establishing a document management plan with a related system, and advancing risk management plans.

Management Response/*Action Plan*:

Amtrak agrees with this recommendation. The Program has had a program management plan in place since 2013, which was last revised by Amtrak with support from the incumbent program management consultant in July 2022, and includes plans for communications, schedule, document control, and risk management, among others. Since bringing on the Delivery Partner in March 2024, the Program has updated and issued a revision to the FDT Project Management

Plan that has been adjusted as we transition from the planning and design phases to the construction phase. It includes all subplans consistent with Amtrak's Project Management Policy and Standards. The PMP includes the construction management plan, design management plan, safety management plan, risk management plan, quality management plan, program controls plan, document management plan, and other key plans to deliver the program.

Since awarding the Delivery Partner contract in March 2024, the FDT Program has implemented a dual-track approach to accelerate readiness for construction, which is scheduled to commence in Q4 2024 (see Figure 1).

Track 1 was launched during the Delivery Partner's six-month mobilization phase and establishes a 10-year framework for program management best practices. This track ensures the program has the necessary structure to execute, monitor, and deliver a safe and reliable system for Amtrak and its customers.

Track 2 addresses immediate operational and alignment needs. Given the urgency of integrating the Delivery Partner into an active program, this track has focused on deploying essential tools and aligning the team to meet the Program's schedule, budget, safety, and quality standards. Key actions include:

- Tailoring procedures, processes, workflows, and tools to identify and address gaps.
- Cultivating a high-performing, collaborative culture to enhance team functionality through effective team building.
- Assembling a comprehensive body of knowledge from program participants, capturing system requirements and other critical factors affecting scope, schedule, cost, and risks.
- Establishing a complete baseline for the Program, including scope, risks, schedule, budget, and interfaces, and securing consensus among stakeholders.
- Developing robust internal and external communication strategies and leveraging technology to improve engagement and efficiency.

These efforts have successfully laid a strong foundation for the program. During this period, the FDT team has expanded from a core group of a dozen Amtrak employees to over 100 dedicated professionals, all working toward delivering a world-class system. The new and existing team members are being onboarded and trained to align with a unified vision and set of goals for the FDT program.

Track 1 and Track 2 are expected to be completed by mid-September 2024. The outcomes will form the basis for the Annual Work Plan (AWP) for FY 25, which will guide the program's strategy and be updated as the program progresses through its various stages.

NATIONAL RAILROAD PASSENGER CORPORATION

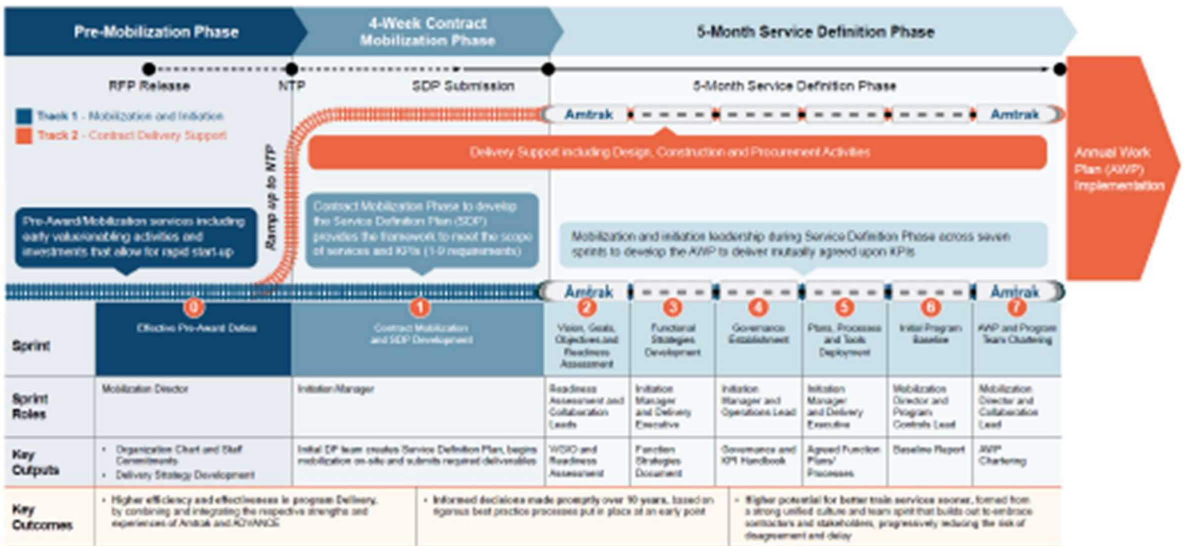

Figure 1

Responsible Amtrak Official(s):
Luigi Rosa, AVP MP Frederick Douglass Tunnel Program

Target Completion Date: October 1, 2024

For future programs, we recommend that the Capital Delivery department, in coordination with the Strategy and Planning department:

Recommendation #2:

Establish processes to ensure that the company decides on and implements a program's management structure early enough to provide strong, continuous oversight for the entire life of a program.

Management Response/*Action Plan*:

Amtrak agrees with this recommendation and Capital Delivery (CAPD) will utilize the new Capital Pipeline process/tool to ensure a strong, continuous project management structure throughout the entire life of a program. The Capital Pipeline tool prototype will be available in a Microsoft Power App in September of 2024 as a temporary solution, and later included in EPPM Release 4 that is expected to be operational in early FY 2026 as a permanent solution for Amtrak's early project pipelining capability.

The Capital Pipeline Planning tool, which captures projects from the 5-year plan and other sources, will be leveraged by CAPD to gain early visibility into upcoming projects and their potential transition from Strategy & Planning (S&P) to CAPD. This early visibility will provide CAPD leadership with sufficient time to start planning for project structure and staffing, using the data in the Pipeline Tool that will include early estimates for size, scale, scope complexity, and rough order of magnitude budget. Using this data, CAPD will be able to size overall project staffing needs and identify key positions that should be in place at the time of the initial transition between S&P and CAPD.

Responsible Amtrak Official(s):
Yevgeniya Burg, AVP Capital Portfolio Governance
Jim Short, VP CAPD Program Development & Project Services

Target Completion Date: December 31, 2025

Recommendation #3:

Establish processes to ensure that program teams have sufficient staff before the company transitions a program from the Strategy and Planning department to the Capital Delivery department.

Management Response/*Action Plan:*

Amtrak agrees with this recommendation and Capital Delivery (CAPD) and Strategy & Planning (S&P) will implement the following two actions:

1. **Organizational Structure Planning in the PMP:**
   Amtrak's S&P department develops capital improvement projects through the Initiation and Planning phases. As part of those efforts, in accordance with Amtrak's Project Management Policy and Standards, a Project Management Plan (PMP) is developed for each project, and then updated annually. Within the PMP, there is a section that addresses Organizational Management topics including Project Leadership, Team Organization, Capacity & Capability and more. Going forward, for projects that will transition to the Capital Delivery department, S&P and CAPD will collaborate on the development of that PMP section for the year that a transition is expected to occur. This collaboration in the planning phase of projects will provide CAPD the early opportunity to identify the staff that will be needed for the successful management of the project following the handover from S&P.
2. **CAPD Filling of Critical Roles:**
   The handoff from S&P to Capital Delivery will only occur once critical roles are filled and the next phase of the project is ready to be managed. S&P and CAPD will collaborate on a transition phase to enhance continuity, including the goal of transitioning at the start of an AOP cycle where possible. These processes will be documented in the CAPD Project Management Manual.

Responsible Amtrak Official(s):
Yevgeniya Burg, AVP Capital Portfolio Governance
Jeff Ensor, Senior Director Portfolio Management, Strategy & Planning
Jim Short, VP CAPD Program Development & Project Services

Target Completion Date: September 30, 2025 (S&P and CAPD will implement the collaboration efforts by September 30, 2024. The CAPD Project Management Manual is planned to be published by September 30, 2025)

APPENDIX C

Abbreviations

B&P	Baltimore and Potomac
CMAR	Construction Manager at Risk
EPPM	Enterprise Project and Portfolio Management
FDT	Frederick Douglass Tunnel
FRA	Federal Railroad Administration
IIJA	Infrastructure Investment and Jobs Act
MARC	Maryland Area Rail Commuter
MDOT	Maryland Department of Transportation
OIG	Amtrak Office of Inspector General
the company	Amtrak

APPENDIX D

OIG Team Members

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OIG MISSION AND CONTACT INFORMATION

Mission

The Amtrak OIG's mission is to provide independent, objective oversight of Amtrak's programs and operations through audits and investigations focused on recommending improvements to Amtrak's economy, efficiency, and effectiveness; preventing and detecting fraud, waste, and abuse; and providing Congress, Amtrak management, and Amtrak's Board of Directors with timely information about problems and deficiencies relating to Amtrak's programs and operations.

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or

800-468-5469

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