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Inspector General
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ACQUISITION AND PROCUREMENT: Gateway Program's Concrete Casing Project Progressing Well; Cost Increases Will Likely Exceed Project Budget

Audit Report OIG-A-2014-004 | February 11, 2014





REPORT HIGHLIGHTS

Why We Did This Review

The Gateway Program is a planned but not fully funded set of projects that would double rail capacity between Newark, New Jersey, and New York City. One of Amtrak's initial projects is to construct a concrete casing to accommodate two new rail tunnels into Penn Station. In June 2013, the Federal Railroad Administration provided Amtrak a \$185 million grant to construct the concrete casing, which is scheduled to be completed in October 2015.

Because of an ongoing commercial development, the concrete casing project is being done now to preserve a right-of-way for the new tunnels. It is important to maintain the project's schedule because excessive delays could negatively impact the commercial development and could require Amtrak to abandon the project.

Amtrak's Board of Directors requested that we periodically review Northeast Corridor infrastructure projects. This is the first in a series of planned reports.

Our objective is to assess the adequacy of the project's management and implementation by focusing on cost, schedule, and performance.

For further information, contact Dave Warren, Assistant Inspector General for Audits, 202-906-4600.

To read the full report, see www.amtrakogig.gov/reading-room.

ACQUISITION AND PROCUREMENT: *Gateway Program's Concrete Casing Project Progressing Well; Cost Increases Will Likely Exceed Project Budget* (Audit Report OIG-A-2014-004, February 11, 2014)

What We Found

Amtrak has established an effective project management framework for managing the concrete casing project. We did not identify any significant risks related to the project's scheduled completion or the contractor's performance. We did note, however, that project costs are exceeding initial estimates. Amtrak is aware of this increase and is monitoring the potential for further cost escalation.

These are some of the highlights of our review:

- An executive steering committee has been established to oversee project implementation.
- The committee has a draft charter that identifies the senior executive accountable for the project and outlines the voting procedures.
- A construction management firm has been hired to assist in overseeing the project's implementation.
- Construction costs increased by \$10.2 million (about 8 percent) — leaving about \$5.1 million in the project's contingency fund for cost increases.
- The commercial developer has identified about \$9 million in additional cost increases that are being reviewed by Amtrak.
- The Long Island Rail Road has identified about \$5.3 million in support costs that were not included in the project budget.
- Other cost increases are likely as the project progresses.

Recommendations

To enhance Amtrak's management of the concrete casing project, we recommend that the Vice President, Northeast Corridor Infrastructure and Investment Development, take two actions:


1. Finalize and adopt the draft charter for the executive steering committee.
2. Develop a risk mitigation plan to address potential cost increases and funding sources.

In commenting on a draft of this report, the Vice President, Northeast Corridor Infrastructure and Investment Development agreed with our recommendations.



Memorandum

To: Stephen Gardner, Vice President, Northeast Corridor Infrastructure and Investment Development

From: David R. Warren, Assistant Inspector General, Audits 

Date: February 11, 2014

Subject: *ACQUISITION AND PROCUREMENT: Gateway Program's Concrete Casing Project Progressing Well; Cost Increases Will Likely Exceed Project Budget*
(Audit Report OIG-A-2014-004)

This report addresses one aspect of Amtrak's Gateway Program, a planned but not fully funded set of projects¹ that would double rail capacity between Newark, New Jersey, and Penn Station, New York City, including two new rail tunnels under the Hudson River. Amtrak estimates that the program will cost about \$14.7 billion and will be completed in 2025.

One of Amtrak's initial projects is to construct a concrete casing (box tunnel) beneath the Hudson Yards in New York City.² The project also includes partial demolition and temporary relocation of activities in the Long Island Rail Road's (LIRR) Maintenance of Equipment (MOE) building, reconstruction of the MOE building, and project management and administration. In June 2013, the Federal Railroad Administration (FRA) provided Amtrak a \$185 million grant to construct the concrete casing. The project started in June 2013 and is scheduled to be completed in October 2015.

Because of an ongoing commercial development over Hudson Yards, Amtrak is constructing the concrete casing now to preserve a right-of-way for two new rail tunnels into Penn Station. The right-of-way is critical for expansion of intercity and high-speed rail service on the Northeast Corridor (NEC). Further, the commercial

¹ These projects include constructing two rail tunnels under the Hudson River and expanding Penn Station tracks and platforms that will eventually connect to a future station.

² The box tunnel will measure approximately 800 feet long, 50 feet wide, and 35 feet tall.

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development and concrete casing need to be constructed at the same time to mitigate impacts on LIRR operations and the commercial development.

If the concrete casing project is excessively delayed and negatively impacts the commercial development schedule, Amtrak could be required to abandon the project. This could put completion of the Gateway Program at risk. Also, if the MOE rebuild is not completed by October 2015, Amtrak will continue to pay LIRR at least \$[REDACTED] per month to perform its operations at another location until the MOE rebuild is completed.

In April 2013, Amtrak's Board of Directors requested that we periodically review NEC infrastructure projects and provide timely information and recommendations on emerging issues. In May 2013, we provided the Board with our preliminary observations and identified risks related principally to project cost and project management complexities. (For the briefing we provided to the Board, see Appendix B.) The Board approved the project in May 2013.

This is our first report on NEC infrastructure projects; it builds on the work we performed in support of the May 2013 briefing to the Board. Our objective is to assess overall project management and implementation by focusing on whether cost, schedule, and performance requirements related to the concrete casing project are being met. For a more detailed discussion of our audit scope and methodology, see Appendix A.

THE PROJECT IS ON SCHEDULE, AND A MANAGEMENT FRAMEWORK HAS BEEN ESTABLISHED

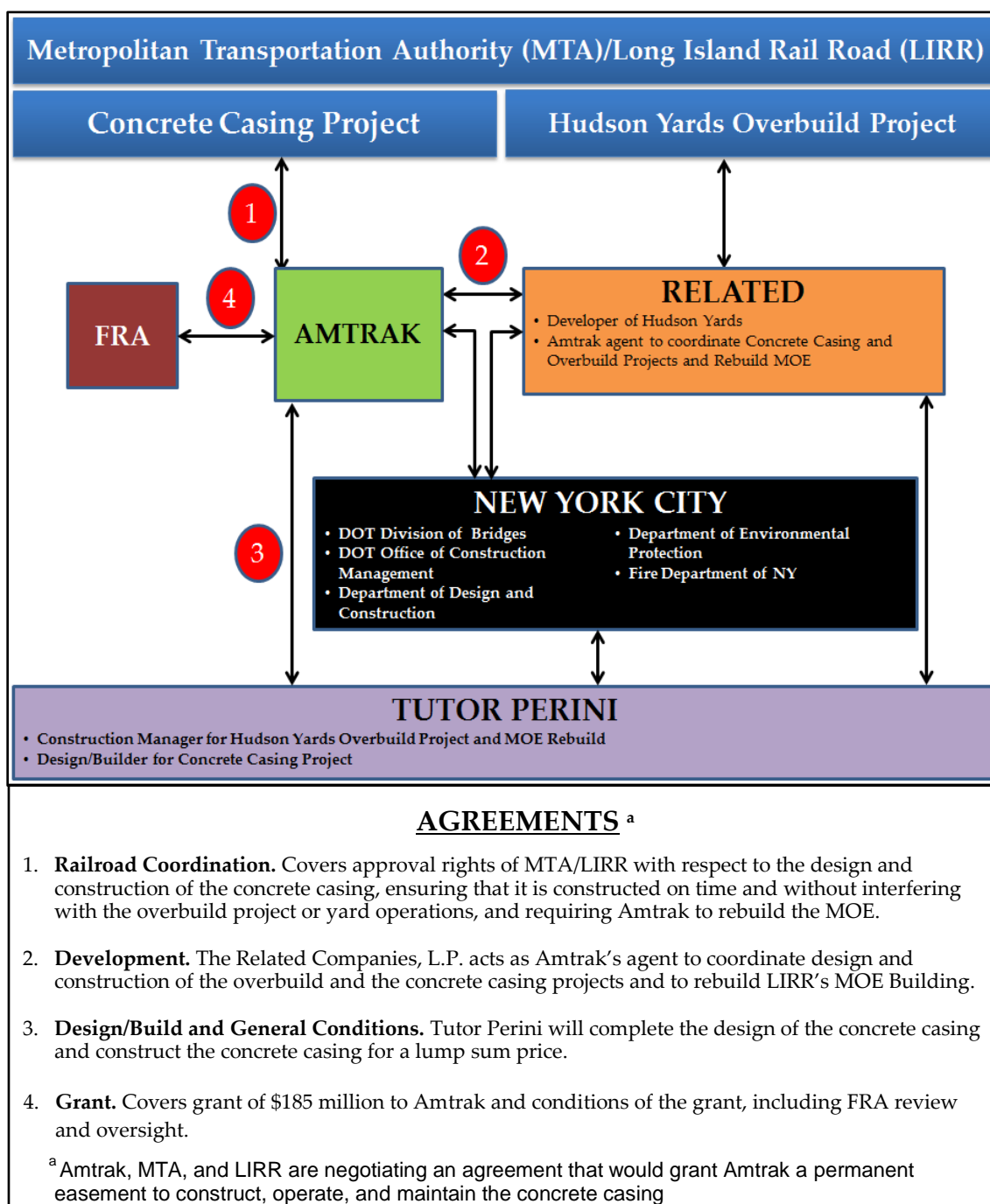
Amtrak has established an effective project management framework for managing the concrete casing project. We did not identify any significant risks related to the project's scheduled completion or the contractor's performance. Amtrak established an executive steering committee to provide senior management oversight of the project. The committee has drafted a charter that describes the committee's purpose, authority, organization, responsibilities, and protocols for meetings and reporting. The charter designates the Vice President, NEC Infrastructure and Investment Development, as the committee chair and explains the committee's voting procedures. However, when we completed our work, the charter had not been approved.

The committee also includes the Vice President, Operations; General Counsel; Chief Engineer; Chief Financial Officer; and Chief Logistics Officer. A senior project manager and a project manager from the Engineering department manage the project. Amtrak has

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also contracted with a construction management firm for construction management and inspection services.

Figure 1. Project Relationships and Roles



Source: Amtrak Executive Steering Committee for Hudson Yards Concrete Casing Project

Certain information in this report has been redacted due to its sensitive nature.

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On August 20, 2013, the executive steering committee held its first meeting. Members were provided information on the project's reporting and organization, construction milestones, and Board update process. The committee had no written charter that clearly defined its role and responsibilities, as we noted in an August 28, 2013 meeting with the Vice President, NEC Infrastructure and Investment Development. Best project management practices among private and public organizations include establishing a charter that formally authorizes and guides a project to avoid gaps in project accountability and management. Such a gap occurred on the concrete casing project in August and September 2013 when Amtrak delayed awarding the contract for construction management and inspection services.

Program management officials stated that the delay was caused by the lack of clarity about the process for obtaining the Board's approval for funding. As a result, Amtrak had no third-party construction manager in place to manage and oversee the project for about six weeks after the general contractor was given the notice to proceed. According to the Deputy Chief Engineer, it would have been optimal to have the third-party contractor onboard, but the absence did not have a material impact on the project schedule. We noted that while the contractor was mobilizing, the Engineering department coordinated activities with Related and MTA, and there was no schedule slippage.

According to best project management practices, a charter should include the responsibilities and authority levels of assigned leadership and the project approval requirements—such as what factors constitute project success, and who will be responsible for final sign-off at the completion of the project. At its October 21, 2013 meeting, the executive steering committee discussed a draft charter. The draft charter describes the committee's purpose, authority, organization, responsibilities, and protocols for its meetings and reporting. It designates the Vice President, NEC Infrastructure and Investment Development, as the committee chair and explains the committee's voting procedures. When we completed our work, the charter had not been approved.

COSTS HAVE INCREASED, AND MORE INCREASES ARE LIKELY

Project costs are exceeding initial estimates. The contract price for the construction of the concrete casing project exceeded the initial estimate by approximately 8 percent. Three developing issues could further increase costs—additional work, support costs, and the need for rock mass grouting. The project's executive steering committee is aware of and is monitoring the potential for further escalation in costs.

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Increased Construction Cost

Construction costs for the project have increased by \$10.2 million (7.6 percent) from the initial estimate of \$133.6 million to the contract price of \$143.8 million, leaving about \$5.1 million in the project's contingency fund for contract modifications. Changes made by LIRR, Related, and Gateway Trans-Hudson Partnership³ were the primary reasons for the cost increase, as shown in Table 1.

**Table 1. Cost Changes Between Initial Estimate and Contract Price
(in millions)**

Reason for Change	Amount	Percentage
Long Island Rail Road	\$4.4	43.3%
Related	2.9	28.7
Gateway Trans-Hudson Partnership	2.4	23.5
Increased insurance and Saturday premium	1.1	10.7
Other (Tutor Perini or Other Third-Party)	1.0	10.0
Savings due to contractor re-pricing	(1.7)	(16.1)
Total	\$10.2	100.0%

Source: Amtrak OIG analysis of initial and final lump sum agreements

Note: Numbers do not add to total due to rounding.

Prior to awarding the contract, Amtrak's Engineering department asked an independent construction firm, the Turner Construction Company, to review the final estimate of Tutor Perini (the design/build contractor) to determine if it was fair and reasonable. The review included assessing quantities of material, labor and material unit rates, equipment charges, subcontractor costs, insurance, profit, overhead, and other indirect costs.

The independent review also identified several areas in which Amtrak could negotiate with various stakeholders to yield savings. For example, the contract price is based on the local gas company relocating some gas lines at the construction site. However, Tutor Perini estimates that it could perform the work at a lower cost. If Tutor Perini is able to perform the work, Amtrak would share in any savings.

³ The Gateway Trans-Hudson Partnership—a joint venture of Parsons Brinkerhoff, Inc.; AECOM USA, Inc.; and STV Inc.—had the design contract for the concrete casing project, which was assumed by Tutor Perini.

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Potential Additional Cost Increases

Three developing issues could further increase the project's construction costs:

- **Additional work.** Tutor Perini has identified the need for additional work that it estimates will cost about \$9 million. The work consists of increasing the size of some caissons⁴ for the foundation of one of the commercial development's towers and performing additional work on adjacent platform caissons and foundations. Project management officials have conducted preliminary discussions with Related on these proposed changes, but no decisions have been made on the validity of potential cost increases, according to the senior project executive.
- **Increased support costs.** LIRR estimated its costs to support the project to be about \$5.3 million. These support costs were not included in the project budget. Project officials stated that there is some funding flexibility in other areas of the project budget that could be used to offset some of this additional cost. However, the precise areas and amounts would not be identified until a firm LIRR cost is determined.
- **Rock mass grouting.** Tutor Perini has identified a need for rock mass grouting⁵ on some of the caissons. The scope of work and estimated costs have not yet been developed, according to Tutor Perini's Vice President for Operations.

The project management team is aware of these issues and is working with Related, Tutor Perini, and LIRR to determine the potential impact on construction costs.

RECOMMENDATIONS

To further enhance the management of the concrete casing project, we recommend that the Vice President, NEC Infrastructure and Investment Development, take two actions:

1. Finalize and adopt the draft charter for the executive steering committee.
2. Develop a risk mitigation plan to address potential cost increases and funding sources.

⁴ A caisson is a watertight retaining structure used to work on foundations.

⁵ Rock mass grouting is the injection of grout into rock fissures to eliminate water seepage into foundations.

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MANAGEMENT COMMENTS AND OIG ANALYSIS

In commenting on a draft of this report, the Vice President, Northeast Corridor Infrastructure and Investment Development agreed with our recommendations. The Vice President noted that the executive steering committee has adopted a charter. We confirmed that all members signed it by January 24, 2014. He also noted that management is working to identify the appropriate amount and funding source(s) for additional contingency that may be needed, and expects to have that source in place by April 15, 2014.

For a copy of management's comments, see Appendix F.

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Appendix A

SCOPE AND METHODOLOGY

This report incorporates our preliminary observations on the concrete casing project and our work through December 2013. In May 2013, we briefed the Board of Directors on our preliminary observations (see Appendix B). Our objective is to assess overall project management and implementation by focusing on whether cost, schedule, and performance requirements related to the concrete casing project are being met. We conducted this audit work from May 2013 through December 2013 in Philadelphia, Pennsylvania; New York City; and Washington, D.C. Certain information in this report has been redacted due to its sensitive nature.

To assess overall project management, we compared Amtrak's project management plans and practices to best project management practices used by private industry and government entities. To identify best practices, we used the Project Management Institute's *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*⁶ and the *Government Accountability Office Schedule Assessment Guide*.⁷ To identify gaps in project management, we compared these best practices to Amtrak's *Project Management/Execution Plan* for the concrete casing project.

We also participated as observers in the executive steering committee meetings, which was formed to oversee the concrete casing project. In addition, we interviewed Amtrak's Vice President for Northeast Corridor (NEC) Infrastructure and Investment Development about the role and responsibilities of the executive steering committee. We also interviewed the senior project executive and the project manager about their roles and responsibilities and those of the construction manager hired by Amtrak. Finally, we interviewed Tutor Perini project officials and toured the construction site.

To provide observations on project implementation, we focused on the progress in implementing the four agreements associated with the project:

- Design/Build Contract with Tutor Perini to design and construct the concrete casing

⁶ Project Management Institute, Inc.; *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*—Fourth Edition (Newton Square, PA; 2008).

⁷ U.S. Government Accountability Office (GAO), *GAO Schedule Assessment Guide*, GAO-12-120G (Washington, D.C.; May 2012).

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- Development Agreement with The Related Companies, LP, to coordinate and oversee the concrete casing project with the development overbuild and MOE rebuild in the Hudson Yards
- Railroad Coordination Agreement with Long Island Rail Road (LIRR)/Metropolitan Transportation Authority (MTA) to ensure that the concrete casing can be constructed in a timely and orderly manner
- Permanent Easement Agreement with LIRR/MTA to grant Amtrak a permanent easement to use, operate, and maintain the concrete casing

Our initial work focused on identifying risks and open issues in the various agreements prior to the Board's approval. To identify risks, we reviewed each agreement to assess whether all costs were identified, reviewed, and agreed upon. To identify open issues, we interviewed personnel from three Amtrak groups who were drafting and finalizing the various agreements—the office of the Chief Engineer; NEC Infrastructure and Investment Development; and the Law department. On May 21, 2013, we provided the Board with our preliminary observations.

Once the Board approved the agreements, we conducted follow-up work to determine if the risks and open issues that we identified had been addressed. To determine if the open issues had been resolved, we reviewed the signed agreements and interviewed personnel from the three groups. To identify changes in project costs, we compared Tutor Perini's initial price (based on 60 percent design) to the final lump sum price, and we reviewed Turner Construction Company's analysis of the final lump sum proposal. We also interviewed two executives regarding the reason for the delay in awarding the construction management contract and its impact on project management—the Vice President, NEC Infrastructure and Investment Development, and the Chief, Corridor Development.

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 objectives.

Internal Controls

We reviewed the management controls Amtrak has in place for planning, guiding, and overseeing the concrete casing project. We focused on controls related to project cost,

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schedule, and performance issues. For cost, we reviewed the process used to review and validate construction cost increases between the initial cost estimate and final lump sum. For schedule, we reviewed the base line schedule and identified key milestones that we will use to monitor progress. For performance, we reviewed the controls established for project oversight—including the roles of the executive steering committee, Engineering staff, and the contractor hired to provide construction management services.

Computer-Processed Data

We did not use computer-processed data for any aspect of the audit.

Prior Audit Reports


We did not identify any prior audit reports related to the concrete casing project, but we did review two reports related to project management and governance:

- *American Recovery and Reinvestment Act: Opportunities Exist to Recover Funds and Reduce Future Costs by Improving Procurement Policies* (Audit Report OIG-A-2013-016, July 29, 2013)
- *Amtrak Corporate Governance: Implementing a Risk Management Framework is Essential to Achieving Amtrak's Strategic Goals* (Report No. OIG-A-2012-007, March 30, 2012)


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Appendix B

OIG Briefing to Board of Directors




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DISCUSSION DRAFT

Preliminary Observations on
Concrete Casing Project
May 2013

1



Estimated Cost for Concrete Casing Project

Category	Estimated Cost (\$000)	Percent
Construction	\$134,500	72.7
MOE Rebuild	17,000	9.2
LIRR Operations	10,610	5.7
Contingency	15,000	8.1
Project Management	4,500	2.4
LIRR Force Account	1,800	1.0
Business/Legal	1,500	0.8
Total	\$184,910	100.0

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Draft Agreements

The Board of Directors is being asked to approve the following agreements:

1. Design Build Agreement with Tutor-Perini to design and construct the concrete casing
2. Development Agreement with Related to coordinate and oversee the concrete casing project with the overbuild and for the MOE rebuild
3. Railroad Coordination Agreement with LIRR/MTA to ensure concrete casing can be constructed in a timely and orderly manner
4. Permanent Easement Agreement with LIRR/MTA to grant Amtrak a permanent easement to construct, own, operate, and maintain the concrete casing. Related cosigns to grant access to maintain and inspect column interface with concrete casing

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Overall Observations and Suggestions

We have some observations and suggestions related to the proposed concrete casing agreements and ways to control the associated risk.

Observations

- Corporate officials have been working diligently in a coordinated manner over the last several months to draft and finalize the agreements. We recognize the complexity and highly-compressed timeframe of the negotiations
- Approving the agreements places Amtrak at some financial risk; however, disapproving places Gateway Program at risk
- Related, Tutor Perini, MTA, and LIRR have limited financial investment and other interests in the concrete casing project as compared to relative benefits providing them an advantage in the negotiations. Amtrak officials stated that the parties negotiated in good faith

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Overall Observations and Suggestions

Observations (continued)

- The agreements are not finalized thus final costs are unknown. For example, design is at 60 percent (100 percent design is expected June 24), this agreement represents about 70 percent of the estimated project costs
- Final cost will be decided at 100 percent design. Amtrak officials stated that unit and materials prices and quantities have been agreed to and the risk of cost increases are limited to changes in site conditions and third-party and Amtrak changes
- Project abandonment can occur if Amtrak misses a milestone for completing a section of the concrete casement project. If mitigation efforts are unsuccessful, Related can exclude Amtrak from portions of the project where Amtrak is not on schedule. This risk places high importance on effective project management oversight of contractor performance.

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Overall Observations and Suggestions

Observations (continued)

- Going forward, the project management structure between the Vice President, NEC IID and the Vice President, Operations (Engineering) has not yet been formalized

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Overall Observations and Suggestions

Suggestions

The Board of Directors take action to have the appropriate corporation officials

- identify the risks in the various agreements where Amtrak could be responsible for increased costs depending on events and develop mitigation plans to minimize the potential impact of these risks
- assign clear project management accountability for the project
- provide the Audit and Finance Committee periodic briefings on the project cost, schedule, performance, and risk mitigation actions
- in the context of future NEC projects, perform a cost benefit analysis of developing in-house project management capability versus outsourcing these tasks

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Appendix C

Preconstruction Activities Milestones

Activity	Baseline Schedule ^c		Actual Completion Date	Status
	Start	Scheduled Completion		
<i>Advertise Amtrak CM Scope of Work^a</i>	Not Applicable	██████	██████	●
<i>Award Amtrak CM Contract^a</i>	Not Applicable	██████	██████	●
<i>Issue Notice to Proceed^a</i>	██████	Not Applicable	██████	●
Utilities Work Plans ^b	██████	██████	██████	●
Maintenance of Equipment Building Demolition Work Plans	██████	██████	██████	●
Track Demolition Work Plans	██████	██████	██████	●
Soil Disposal Classification Work Plans	██████	██████	██████	●

Source: Amtrak OIG analysis of Amtrak Gateway Tunnel Project documents

Notes:

^a Amtrak's critical milestones

^b Consolidates work plans for electric, fire protection, gas, and storm-water utilities

^c Baseline Schedule from *Amtrak Gateway Tunnel Contract Schedule*, October 25, 2013

Legend:

- Milestone not started or completed as scheduled
- Milestone started as scheduled and in process
- Milestone completed as scheduled

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Appendix D

Tunnel Construction Milestones

Activity	Baseline Schedule ^b		Actual Completion Date	Status
	Start	Completion		
Retail Area				
Support of Excavation/Excavation				●
Invert Slabs				
Walls				
Roof Slabs				
Overbuild Foundation Piers				
Waterproofing/Backfill				
Tower D Area				
Mobility/Site Fence/Site Demolition				●
Site Utility Relocations^a				●
Support of Excavation/Excavation				●
Invert Slabs				
Walls				
Roof Slabs				
Overbuild Foundation Piers				
Waterproofing/Backfill				
Platform/Plaza				
Support of Excavation/Excavation				●
Invert Slabs				
Walls				
Roof Slabs				
Overbuild Foundation Piers				
Waterproofing/Backfill				
Final Utility/Site Restoration				
Amtrak Tunnel Complete^a				

Source: Amtrak OIG analysis of Amtrak Gateway Tunnel Project documents

Notes:

^a Amtrak's critical milestones

^b Baseline schedule from *Amtrak Gateway Tunnel Contract Schedule*, October 25, 2013

Legend:

- Milestone not started or completed as scheduled
- Milestone started as scheduled and in process
- Milestone completed as scheduled

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Appendix E

Maintenance of Equipment Facility Milestones

Activity	Baseline Schedule ^b		Actual Completion Date	Status
	Start	Completion		
60% Design for Rebuild of MOE	██████	██████	██████	●
90% Design for Rebuild of MOE	██████	██████	██████	●
100% Design for Rebuild of MOE	██████	██████	██████	●
Buyout/Procurement	██████	██████		●
Maintenance of Equipment Building— Utility Disconnects	██████	██████	██████	●
Maintenance of Equipment Building— Remove/Store Existing Equipment	██████	██████	██████	●
Maintenance of Equipment Building— Demolition	██████	██████	██████	●
<i>MOE Building Rebuild Construction^a</i>	██████	██████		
<i>Long Island Rail Road Move Back into MOE^a</i>	██████	██████		

Source: Amtrak OIG analysis of Amtrak Gateway Tunnel Project documents

Notes:

^a Amtrak's critical milestones

^b Baseline schedule from *Amtrak Gateway Tunnel Contract Schedule*, October 25, 2013

Legend:

- Milestone not started or completed as scheduled
- Milestone started as scheduled and in process
- Milestone completed as scheduled

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Appendix F

COMMENTS FROM AMTRAK'S MANAGEMENT

NATIONAL RAILROAD PASSENGER CORPORATION

60 Massachusetts Avenue, NE, Washington DC 20002

Memo



Date January 23, 2014
 To David Warren, OIG-Audits

From Stephen J. Gardner, Vice President
 Department NEC Infrastructure & Investment Dev.
 Subject Acquisition/Procurement: Gateway
 cc DJ Stadtler, Eleansor Acheson,
 William Herrmann, Bob LaCroix,
 Bruce Pohlott, Joe Rago, Paul Vilter,
 Matthew Gagnon, Melantha Paige

Message

This memo is in response to the Office of Inspector General Draft Audit Report 012-2013. *Acquisition and Procurement: Gateway Program's Concrete Casing Project Programming Progressing Well; Cost Increases Will Likely Exceed Budget (Draft Audit Report 012-2013)*

Management agrees with the report's recommendations as discussed below. We have been working with the Office of Inspector General (OIG) team since prior to the launch of project implementation and appreciate the feedback and recommendations they have shared with us during that time.

Recommendation 1:

Recommendation: Finalize and adopt the draft Charter for the Executive Steering Committee (ESC).

Management Response/Action Plan: Management agrees with the OIG's recommendation. The charter has been adopted by the HYCC Executive Steering Committee (ESC) and as of January 24th, all members of the ESC are expected to have signed it.

Recommendation 2:

Recommendation: Develop a risk mitigation plan to address potential cost increases and funding sources.

Response: Management agrees with the OIG's recommendation and has developed an Action Plan which we believe will address the need for a risk mitigation plan related to potential cost increases (see Exhibit A attached to this memo). Management is also working to identify the appropriate amount and funding source(s) for additional contingency that may be needed. Management expects to have that source in place by April 15, 2014.

Please let me know if you have any further concerns.

Certain information in this report has been redacted due to its sensitive nature.

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Appendix G

ABBREVIATIONS

FRA	Federal Railroad Administration
GAO	U.S. Government Accountability Office
LIRR	Long Island Rail Road
MOE	Maintenance of Equipment
MTA	Metropolitan Transportation Authority
NEC	Northeast Corridor
PMBOK Guide	A Guide to the Project Management Body of Knowledge

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Appendix H

OIG TEAM MEMBERS

Michael Kennedy, Senior Director

Matt Simber, Senior Director

Dorian Herring, Auditor-in-Charge

David P. Bixler, Contractor

Jason Fong, Contractor

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OIG MISSION AND CONTACT INFORMATION

Amtrak OIG's Mission	The Amtrak OIG's mission is to provide independent, objective oversight of Amtrak's programs and operations through audits, inspections, evaluations, 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.
Obtaining Copies of OIG Reports and Testimony	Available at our website: www.amtrakoig.gov
To Report Fraud, Waste, and Abuse	Report suspicious or illegal activities to the OIG Hotline (you can remain anonymous): Web: www.amtrakoig.gov/hotline Phone: 800-468-5469
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