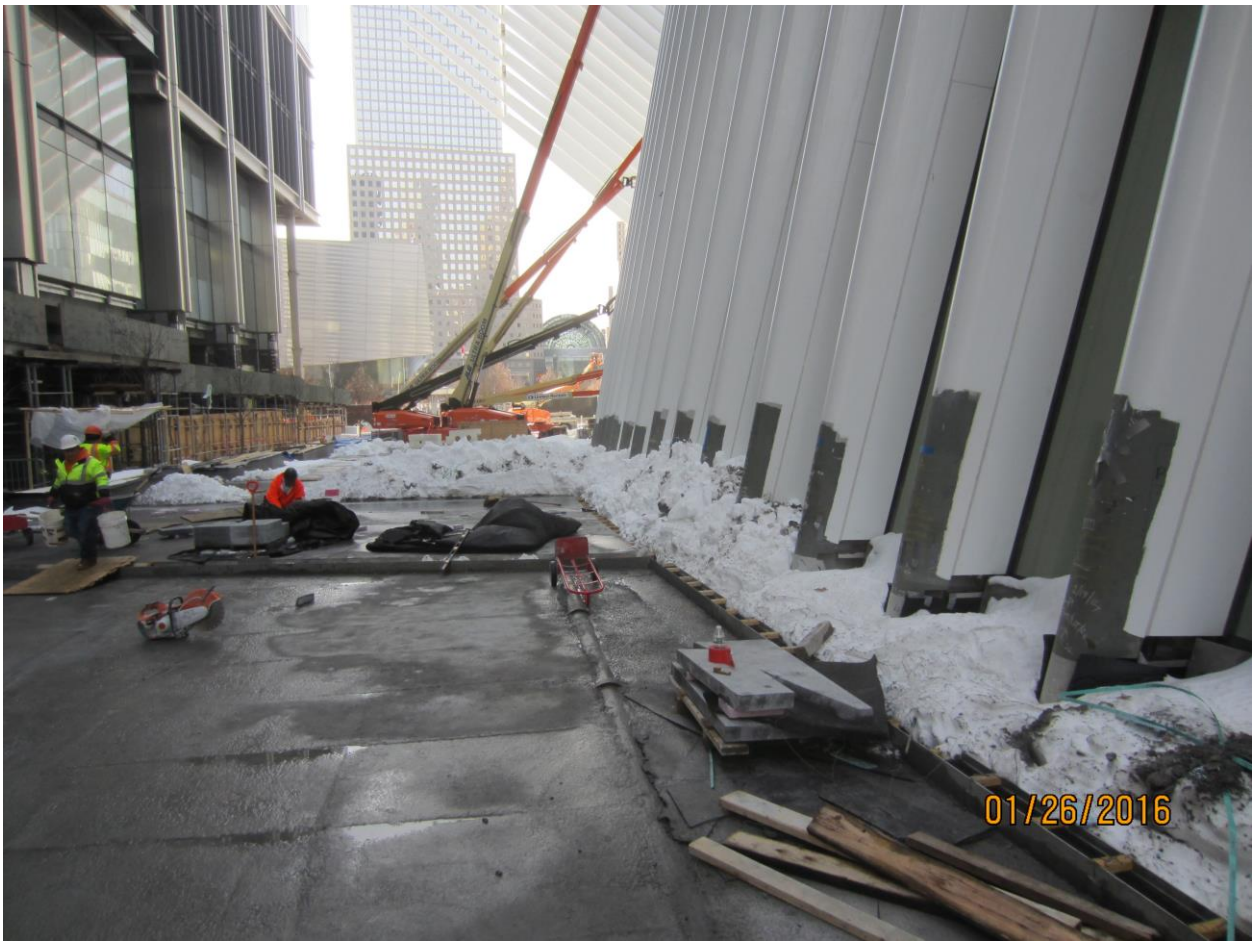
MONTHLY MONITORING REPORT

World Trade Center Port Authority Trans-Hudson Terminal
PORT AUTHORITY OF NEW YORK AND NEW JERSEY
New York, New York

January 2016



PMOC Contract Number: DTFT60-14-D-00010
Task Order Number: 006
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Cover: *View of the plaza on the south side of the oculus after partial snow removal allowed the installation of granite pavers to resume.*

DISCLAIMER

This report and all subsidiary reports are prepared solely for the Federal Transit Administration (FTA). This report should not be relied upon by any party, except the FTA or the project sponsor, in accordance with the purposes as described below.

For projects funded through FTA's Lower Manhattan Recovery program, the FTA and its Project Management Oversight Contractor (PMOC) use a risk-based assessment process to review and validate a project sponsor's budget and schedule. This risk-based assessment process is a tool for analyzing project development and management. Moreover, the assessment process is iterative in nature; any results of an FTA or PMOC risk-based assessment represent a "snapshot in time" for a particular project under the conditions known at that same point in time. The status of any assessment may be altered at any time by new information, changes in circumstances, or further developments in the project, including any specific measures a sponsor may take to mitigate the risks to project costs, budget, and schedule, or the strategy a sponsor may develop for project execution.

Therefore, the information in the monthly reports may change from month to month, based on relevant factors for the month and/or previous months.

REPORT FORMAT AND FOCUS

This monthly report is submitted in compliance with the terms of the Federal Transit Administration (FTA) Contract No. DTFT60-14-D-00010, Task Order No. 006. Its purpose is to provide information and data to assist the FTA in continually monitoring the grantee's technical capability and capacity to execute a project efficiently and effectively, and hence, whether or not the grantee continues to receive federal funds for project development.

This report covers the project management activities on the Permanent World Trade Center (WTC) Port Authority Trans-Hudson (PATH) Terminal (Hub) project, conducted by the Port Authority of New York and New Jersey (PANYNJ) as grantee and funded by the FTA's Lower Manhattan Recovery Office (LMRO).

EXECUTIVE SUMMARY

During January, a near-record winter storm ("Jonas") dropped over two feet of snow on the New York City metropolitan area, causing a multi-day delay in exterior construction activities on the PATH Hub project. However, the combination of snow removal and unseasonably warm weather during the days immediately following the storm limited the overall impact to the construction schedule.

Also during January, PANYNJ issued a press release announcing that it would be implementing a partial opening of the Transit Hall and North-South Concourse to pedestrian traffic in early March 2016. The addition of this initial pedestrian access route through the east bathtub will be a favorable development that is expected to relieve some of the peak hour congestion that occurs at the existing North Temporary Access (NTA).

Project Description

The WTC PATH Hub Terminal serves the PATH electrified rail transit system in Lower Manhattan. The PATH Hub is an extensive underground complex of pedestrian corridors and train station facilities that will replace the original WTC PATH Terminal destroyed by terrorist attack on September 11, 2001.

Construction Agreement (CA)

(b) (4) [redacted]

Quarterly Progress Review Meeting (QPRM)

The QPRM for the fourth quarter of 2015 has been scheduled for February 29, 2016.

Design Activity

The designer continues to provide construction support services, including the review of contractor shop drawings and other submittals.

Procurement Activity

World Trade Center Construction (WTCC) has completed all of the planned procurements for the PATH Hub project. However, change orders continue to be issued as necessary under the active construction contracts.

Construction Activity

Most of the Hub project construction activity was unaffected by winter storm "Jonas" that almost eclipsed the prior snow accumulation record and dropped over two feet of snow in the project vicinity on January 23, 2016. Fortunately, the storm occurred on a Saturday and was followed shortly thereafter by a series of unseasonably warm days. However, work at the oculus plaza and work staged from the oculus plaza experienced a multi-day delay as a result of the storm.

During January, replacement of the gaskets at the mating surface between the two oculus moveable skylight sections was deemed necessary, when some of the installed portions became dislodged. That replacement work began before the end of the month and is forecast to be completed during February 2016. Other east bathtub work focused on efforts to implement WTCC's plan to open a pedestrian path through portions of the Transit Hall and North-South Concourse later in the first quarter.

In the west bathtub, stone work on the west wall of Platform D commenced during the month, and the contractor continued to construct Platforms C and D utilizing two shifts. The contractor also worked to restore portions of the southern end of Track 5 in anticipation of the delivery of escalator trusses via rail in early February.

Schedule

On January 7, 2016, WTCC released Integrated Master Schedule (IMS) 83 (with a data date of December 1, 2015), (b) (4) [redacted]

Cost Data

WTCC submitted its monthly cost model revision on *January 30, 2016*. (b) (4) [redacted]

Risk Management

As of *January 2016*, the PMOC considers the following issues to be among the top risks to the PATH Hub project construction:

- Site-wide Systems Integration, Testing, and Commissioning.
- Completion of PATH Hub Support Rooms/Facilities/Elements.
- Remaining work to be performed by the low voltage contractors.
- Performance of Hub Project work by other WTC stakeholders.

Technical Capacity and Capability Review (TCCR)

The TCCR will be updated as necessary in conjunction with the update of the Project Execution Plan (PEP).

Project Management Plan (PMP)

WTCC submitted an updated draft of its Operations Management Plan (OMP), a PMP sub-plan, in mid-November following discussion of the expected document contents among the FTA, the Project Management Oversight Contractor (PMOC), and WTCC. In late December 2015, the PMOC transmitted a draft spot report on the draft OMP to the FTA for review and comment, and *the FTA subsequently provided comments on the PMOC's spot report. FTA comments included expanding the spot report to address pedestrian flow observations following phased opening of the new facilities.*

Project Quality Assurance

During *January 2016*, WTCC Quality Assurance (QA) completed three oversight audits that included reviewing the Construction Manager (CM) QA's field audits and performing its own field construction audits. The *January 2016* audit total reflects the three WTCC QA audit reports that were issued and received at the time this monthly report was drafted. No quality issues were identified for corrective action.

Site Safety

The WTC PATH Hub project has established its own project safety performance goals for Total Case Incident Rate (TCIR) and Lost-Time Incident Rate (LTIR) of less than 5.0 and less than 2.0, respectively. In *Dec*ember 2015, the project had two recordable incidents and *two* lost-time incidents, resulting in a monthly TCIR of 3.*96* and an LTIR of *3.96*, based on *101,053.5* hours worked. Safety initiatives that took place in *January* are discussed in the project monitoring

section of this report. The *January 2016* safety data for the project was not fully available when this report was drafted but is expected to be available after mid-*February* 2016. *For calendar year 2015, the project recorded a TCIR of 3.04 and an LTIR of 1.45 based on 1,512,100 hours worked.*

Issues/Problems/Suggestions

In mid-January, PANYNJ issued a press release announcing that it would be implementing a partial opening of the Transit Hall and North-South Concourse to pedestrian traffic in early March 2016. The addition of this initial pedestrian access route through the east bathtub is a favorable development in service to passengers and pedestrians. The existing North Temporary Access (NTA) will continue to act as a point of egress for PATH passengers until more of the permanent egress points are also placed into service during subsequent planned partial openings.

WTCC continues to focus on opening areas of the project for public use. However, the project's back-of-house and support elements also require completion in order to fulfill the terms of the RRCA and deliver a fully functional WTC PATH Hub facility. A broader focus on the complete project scope would be beneficial.

MONITORING REPORT

A. Project Description

The PATH Hub facility is an intermodal terminal serving the PATH electrified heavy rail transit system, which has a total of 13 stations in New York and New Jersey. When completed, the WTC PATH Hub will connect to 11 New York City Transit (NYCT) subway lines in Lower Manhattan. The PATH Hub will include a platform level, associated mezzanine and concourse levels called the PATH Hall, and a terminal building called the Transit Hall, or oculus, with north-south and east-west pedestrian connections to the NYCT subways, the World Financial Center, and WTC above-grade site development. It will be a permanent replacement of the original WTC PATH Terminal complex destroyed by the terrorist attack on September 11, 2001.

B. Project Status

Construction Agreement

The CA was signed on April 25, 2006. An RRCA was executed on September 18, 2012. (b)(4) [redacted]

Quarterly Progress Review Meeting

The QPRM for the fourth quarter of 2015 has been scheduled for February 29, 2016.

WTC Site Master Plan

WTCC's latest site master plan is Master Plan Version 11, dated October 10, 2013. *This was re-confirmed with WTCC during January.*

Environmental Compliance

(Reported on separately by FTA's LMRO.)

Design Support During Construction

The designer continued providing post-award design support services for the PATH Hub construction during *January*, including responding to contractor Requests for Information (RFIs), reviewing contractor submittals, and providing design certifications for completed elements of construction. Through the end of the *fourth* quarter of 2015, WTCC reports that the designer has issued a total of 52 design certification letters for the PATH Hub project.

Construction Status

Winter Storm Effects: On Saturday, January 23, 2016, winter storm "Jonas" dropped over two feet of snow in lower Manhattan, nearly eclipsing the snow accumulation record. The post-storm conditions at the PATH Hub site prevented most outdoor construction activities from resuming at the start of the following workweek. Indoor project activities were relatively unaffected, except where the delivery and handling of construction materials was made difficult during snow removal operations. Prompt snow removal and the early return of fair weather limited the impact of the storm to no more than three days of delay in those areas where snow had accumulated and drifted.

Oculus Painting: *Although exterior painting work was curtailed during January, the prime painting contractor continued working on the interior of the oculus, where repair and filling of steel surface defects continued, followed by the application of the multi-coat paint system. Also within the remaining scope of work for this contractor is the restoration of the oculus steel surfaces at the locations where approximately 40 points of temporary attachment of the hanging scaffold system were made. The contractor has started this restoration work, and it was ongoing at the end of the month. Exterior painting work is not expected to resume until the spring of 2016.*

Oculus Curtain Wall: During *January*, the curtain wall contractor continued to perform finish work on the glass panel portion of the curtain wall system in the southwest and northwest quadrants. *The contractor completed installation of the metal panels in the northwest quadrant, and made progress on work in the southwest quadrant, although this work was interrupted for three days by the heavy snow accumulation that occurred on January 23, 2016.* As of the end of January, *approximately 100* metal trim panels, representing approximately *6 percent* of the total quantity required, remained to be installed. *WTCC is currently projecting that it will complete the remaining curtain wall work, including watertightness testing of the remaining portions of the finished curtain wall, by the end of February 2016.*

Oculus Skylight: *During January, the contractor began the replacement of the skylight ridge gasket system when it was observed that the previously installed ridge gasket material had torn and was dislodged at multiple locations. An initial assessment suggested that the gasket material had become misshapen during extended storage prior to installation, causing the gaskets to incorrectly align with the skylight in the closed position. Additionally, the sensor system, which is intended to automatically trigger minor positioning changes in the skylight panels as the oculus structure moves under varying environmental conditions, had not yet been installed, thus leaving the ridge gaskets exposed to greater movements than had been intended. Replacement of the entire ridge gasket system and installation of the sensor system were both ongoing during January, and are expected to continue into February 2016. Other remaining work includes the installation of bird screens, and the delivery and installation of the curved steel and checker plate catwalk portions of the WT-3 metal panels. The same prime contractor holds both the curtain wall and the skylight contracts.*

Platforms C and D: WTCC continued to execute the work at Platforms C and D on a two-shift basis during *January*. Along the west wall of Platform D, also known as the north-south shear wall, *stone tile installation commenced during the month. Also during January, carpenters continued preparing* the underside of the precast smoke purge ducts to later receive metal cover

panels, *and the placement of the last few sections of platform slab neared completion at the north end of Platform C. Also at the north end of Platform C, work to build the spaces that will ultimately house support equipment commenced. Below Platform C, electricians continued to install conduits, working from south to north, in the utility chase.* Also during *January, work on stairs 4, 5, 7, 8, 9, and 10 between the platform and mezzanine levels advanced, including installation of metal stair stringers, treads, and risers. Additional lengths of the southern portion of Track 5 were restored during the month in preparation for the expected delivery, via rail flatcars, of the first escalator trusses in early February*.

East-West Connector: Above the north end of the mezzanine level of the PATH Hall, at elevation 284, work on the previously omitted portion of the upper level of the East-West Connector advanced during January with placement of approximately half of the required concrete floor slab for this area. This construction of the eastern portion of the upper level of the East-West Connector must be performed in phases in order to accommodate a temporary walkway that was opened in 2015 between the WTC PATH Station and Tower 1. WTCC expects that work on this project element will continue during most of 2016.

East Bathtub Mechanical, Electrical, Plumbing (MEP), and Fire Protection Work: *At the east end of the main floor of the oculus, at the base of the east grand stairs, the mechanical contractor advanced the work on the remaining sections of the radiant heating system. That installation is a prerequisite for the installation of the remaining sections of the stone floor. At the fresh air shaft in the Tower 3 podium, t*he repair of the insulation layer and the sheet metal air shaft lining *commenced* during January, *and was ongoing at the end of the month. The in-shaft scaffold system that is being used to perform the work will remain in place until the work is completed; the presence of this scaffold system is one of the constraints on utilizing the fresh air shaft to supply outside air to the Central Fan Plant. At the top of the shaft, supply fans SF-1, 2, and 3 continue to be installed. Work on control wiring and additional work to finish the air intake plenum were both ongoing at the end of the month. Work at the Emergency Chiller Plant was also being performed throughout January.*

East Bathtub Finish Work: During *January, t*he stone contractor *completed the installation of* the *custom stone treatments on the curved walls that define the north and south limits of the east grand staircase at the main floor of the oculus. The same contractor also made progress on installing stone on the stairs in the oculus northeast quadrant between elevation 296 and elevation 306.* Also during *January, installation of* sections of the curved *glass railing at the 296 elevation and eastern end of the oculus began.* At the oculus plaza area, the waterproofing and sitework contractor *advanced* the installation of stone pavers, *although the winter storm of January 23 and the cold temperatures at other times during the month forced delays in this activity. At month's end,* tenting, along with temporary heat application, *remained* under consideration as a means of continuing to move forward with this work.

Vertical Circulation: During *January, the contractor constructed the elevator pit floor slabs for elevators 1, 2, 3, and 4 at the southern ends of Platforms C and D, and continued to prepare and plan for the delivery of escalators 4 and 7 and the delivery of elevators 1 through 4, both of which are expected to occur during February. Escalators are scheduled to be delivered, from south to north, on Platforms C and D every several weeks. The mechanical subcontractor is installing the double-walled containment pipe for the elevator hydraulic lines from the elevator*

machine room to the elevator pits. In the elevator machine room, electrical panels, automatic transfer switches (ATSs), and controllers are being installed. Work on "scenic" elevators 14 and 18 at the oculus also advanced during January, and WTCC is now forecasting their completion during the second quarter of 2016. *During the month of January, the vertical circulation contractor* concentrated its efforts on *supporting WTCC's recently revived plan to route pedestrian traffic through the east bathtub using a three-phase approach, starting in early March 2016. Elevators 16 and 17 are important to this program, and elevator installation crews are working overtime to advance completion of those two elevators. WTCC is forecasting that testing of those elevators will occur before the end of February 2016. Work on escalators 35/36 and 39/40 (east and west diving boards) is ongoing and is scheduled to be completed by the end of the second quarter.* The status of elevators (and material lifts) and escalators through the end of *January* 2016 remains unchanged from December, and is summarized in the following table:

Item	In Service Last Month	In Service This Month	Onsite/Under Construction Last Month	Onsite/Under Construction This Month	Not Yet Onsite	Total
Escalators	14	14	26	26	7	47
Elevators	9	9	8	8	4	21

Commissioning: During *January, WTCC resequenced the priorities for the commissioning entity, directing that the three-phase opening of the pedestrian paths through the east bathtub be given preference over other work. To that end, the project designer generated a list of project elements that are required to support each phase of the three phases of the program, and the commissioning team adopted the list and used it to guide its January activities. The commissioning team expects to continue to use the list as a guide until all three phases of the pedestrian path through the east bathtub are opened. Phase 1 of the east bathtub pedestrian route is targeted to open in early March 2016, and will allow pedestrians to enter the main floor of the oculus, the lower level of the southern leg of the North-South Concourse, and the transportation lobby at Tower 4 at Liberty Street*.

Fire Alarm System: During *January*, work on the new fire alarm system advanced in the east bathtub, where the installation of detection devices and annunciators and the wiring of those devices to the various data-gathering panels were *again* advanced in both the public and the back-of-house spaces. *Testing of the portions of the fire alarm system that serve the lower level of the South Concourse was also performed in anticipation of the planned opening of that space to pedestrian traffic in March 2016.* In the west bathtub, the fire alarm contractor *continued to install the* under-platform conduit *in the utility chase below* Platform *C*.

Radio System: During *January, the CM developed a schedule for installing certain priority elements of the sitewide radio system. That schedule identifies areas where the radio system contract work is impeded due to incomplete predecessor work by contractors working for other WTC site stakeholders. The effect of the incomplete predecessor work was highlighted as potentially delaying the activation of the radio system at certain PATH Hub project spaces. Options for avoiding delays to the Hub project portion of the sitewide radio system were undergoing review at the end of the month.*

Telecommunications and Security Systems: During *January*, the contractor proceeded with installation of the Supervisory Control and Data Acquisition (SCADA) equipment, *which included pulling CAT 5 cables*. Interoperability *problems* between Lenel and Firecom remained an open issue in *January*. *WTCC's position continues to be that the vendors need to resolve this issue between them; however, WTCC upper management is working with both vendors to expedite resolution. The contractor completed its camera survey and identified areas where the lack of a finished ceiling will require the installation of temporary cameras. WTCC requested that the contractor provide a date and schedule for the network integration testing. Also during January, the contractor submitted the results of the Factory Acceptance Testing (FAT) of the public address system equipment that was performed in mid-November 2015; the results were satisfactory*.

Central Fan Plant: During *January, limited progress was observed on the* fit-out of the engineer's office at the Central Fan Plant, following delivery of the furniture for this office *in December*. *During January, work progressed on the installation of the two permanent 20-inch chilled water supply and return lines within the utility tunnel as sections of pipe were placed on permanent supports and welded to one another. The utility tunnel is also receiving banks of electrical conduits that will carry electrical service between the east and west bathtubs once conductors are pulled and the lines energized. Elsewhere in the Central Fan Plant, work on the installation of power-operators at various supply air plenum dampers and spill air plenum dampers continued during January.*

Construction Logistics

The WTCC Office of Program Logistics (OPL) continues to facilitate construction progress and the sharing of access, egress, and work zones among all contractors onsite. During *January*, *OPL engaged in discussions with the Metropolitan Transportation Authority (MTA) concerning the planned opening of the interconnection between the Transit Hall on the PATH Hub side of the boundary and the Dey Street Concourse on the NYC Transit side of the boundary. WTCC is projecting that this interconnection will be opening in early March 2016, thereby allowing pedestrian traffic between the two facilities*.

Interagency Coordination

During *January, the MTA Capital Construction (MTACC) unit continued to advance the work at the 1 Line Cortlandt Street Station, which bisects the WTC site, dividing it into eastern and western portions. NYC Transit's 1 Line service continues to run through the site without making a station stop while the new platforms and other major improvements are built. Considerable coordination between the OPL and MTACC is required in order to allow the MTACC contractors access to their work area while other PATH Hub construction advances in adjacent spaces.* Elsewhere, the Campus Plan work by the New York City Department of Design and Construction continues to require close coordination with WTCC as it proceeds to establish the WTC site perimeter treatments that will control vehicle access at all four sides of the site *perimeter*.

Community Relations

OPL continued to distribute construction alerts, updates, and monthly construction progress newsletters to the community and stakeholders. Updates on the project are listed at the website wtcprogress.com *and publicized on commonly-used social media outlets,* and specific presentations are periodically made to Manhattan's Community Board #1. *During January, PANYNJ issued a press release announcing the planned partial opening of the Transit Hall portion of the PATH Hub project with a forecast date of early March 2016 for the first phase of a three-phase sequence. The partial opening of the Transit Hall will be the first utilization of this portion of the project by the public.*

C. Schedule

On January 7, 2016, WTCC released IMS 83 (with a data date of December 1, 2015), (b) (4) [redacted]

The following table summarizes the 90-day look-ahead for significant activities:

Significant Activity	**Action by**
Stone Floor Installation at Elevation 274	WTCC
Mezzanine Structural Steel Complete at Platform C	WTCC
Central Fan Plant Online	WTCC
Emergency Generator Plant Online	WTCC
Partial Opening of Transit Hall to Pedestrian Traffic	*WTCC*

The PMOC, independent of the grantee's schedule forecasts, has independently developed forecasts for various critical schedule milestones. The results of that effort identified the following forecast dates for the milestone events listed:

Schedule Tool Topic	**PMOC Forecast**
(b) (4) [redacted]	[redacted]
[redacted]	[redacted]

D. Cost Data

(b) (4) [redacted]

(b) (4)

reflects the updated engineer's estimates for all packages in the completed procurement plan and includes the PATH Hub project's share of the common infrastructure projects, such as Retail, the Central Chiller Plant, the Common Electrical System, and site-wide operational support elements. WTCC continues to update the cost allocations that are assigned to the PATH Hub project.

The following table summarizes the latest available EAC (WTCC's forecast) and expenditures as of *December 31, 2015*:

Description	EAC (WTCC's Forecast) (in millions)	Expenditures (in millions)
Construction	$2,811	$2,526
Program Management and Design	721	*707*
(b) (4)	(b)	(

WTCC submitted its monthly cost model revision on *January 29, 2016*. It shows that WTCC's EAC for the federally funded PATH Hub project (b) (4)

E. Risk Management

As of *January 2016*, the PMOC considers the following issues to be among the top risks to the PATH Hub project construction:

- Site-wide Systems Integration, Testing, and Commissioning.
- Completion of PATH Hub Support Rooms/Facilities/Elements.

- Remaining work to be performed by the low voltage contractors.
- Performance of Hub Project work by other WTC stakeholders.

F. Technical Capacity and Capability Review

The FTA uses the PEP to measure WTCC's technical capacity and capability.

Project Management Plan

An updated draft of WTCC's OMP, a PMP sub-plan, was resubmitted in mid-November, following discussion of the expected document contents among the FTA, the PMOC, and WTCC. In late December 2015, the PMOC transmitted a draft spot report on the draft OMP to the FTA for review and comment, *and the FTA subsequently provided comments on the PMOC's spot report. FTA comments included expanding the spot report to address pedestrian flow observations following phased opening of the new facilities.*

Project Quality Assurance

During *January 2016*, WTCC QA completed three oversight audits that included reviewing the CM QA's field audits and performing its own field construction audit. The *January* audit total reflects the three WTCC QA audit reports that were issued and received at the time this monthly report was drafted. No quality issues were identified for corrective action.

G. Site Safety

The WTC PATH Hub project has established safety performance goals for its TCIR and LTIR of less than 5.0 and less than 2.0, respectively. In *December* 2015, the project had two recordable incidents and *two* lost-time incidents, resulting in a TCIR of 3.*96* and an LTIR of *3.96* for the month, based on *101,053.5* hours worked. *For calendar year 2015, the project recorded a TCIR of 3.04 and an LTIR of 1.45 based on 1,512,100 hours worked.* As part of its ongoing safety initiatives, WTCC Safety holds weekly safety committee meetings with all site contractor safety managers. During *January*, WTCC Safety issued safety information for use by its site safety managers, including information that addressed the topics of *Site-Wide Coordination of Work and Safe Access to Work Areas, and also issued an Inclement Weather Advisory that was sent out before the January 23, 2016 snowstorm and included a high-wind advisory and precautions for protecting the construction site.* Site safety managers were encouraged to discuss these topics at toolbox talks.

The *January* safety data for the project was not fully available at the time this report was drafted but is expected to be available after mid-*February* 2016.

H. Issues/Problems/Suggestion

In mid-January, PANYNJ issued a press release announcing that it would be implementing a partial opening of the Transit Hall and North-South Concourse to pedestrian traffic in early March 2016. The addition of this initial pedestrian access route through the east bathtub is a favorable development in service to passengers and pedestrians. The existing North Temporary

Access (NTA) will continue to act as a point of egress for PATH passengers until more of the permanent egress points are also placed into service during subsequent planned partial openings.

WTCC continues to focus on opening areas of the project for public use. However, the project's back-of-house and support elements also require completion in order to fulfill the terms of the RRCA and deliver a fully functional WTC PATH Hub facility. A broader focus on the complete project scope would be beneficial.

End of report. Appendices follow.

APPENDIX A – LIST OF ACRONYMS

ATS	Automatic Transfer Switch
BATC	Building Automation and Temperature Controls
CA	Construction Agreement
CM	Construction Manager
EAC	Estimate at Completion
EDS	Emergency Distribution Substation
FAT	Factory Acceptance Testing
FTA	Federal Transit Administration
IMS	Integrated Master Schedule
LMRO	Lower Manhattan Recovery Office
LTIR	Lost-Time Incident Rate
MEP	Mechanical, Electrical, and Plumbing
MTA	Metropolitan Transportation Authority
MTACC	MTA Capital Construction
NTA	North Temporary Access
NYCT	New York City Transit
OMP	Operations Management Plan
OPL	Office of Program Logistics
PANYNJ	Port Authority of New York and New Jersey
PATH	Port Authority Trans-Hudson
PEP	Project Execution Plan
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
QA	Quality Assurance
QPRM	Quarterly Progress Review Meeting
RCD	Required Completion Date
RFI	Request for Information
RRCA	Revised and Restated Construction Agreement
SCADA	Supervisory Control and Data Acquisition
TCCR	Technical Capacity and Capability Review
TCIR	Total Case Incident Rate
TPTO	Temporary Permit to Occupy
WTC	World Trade Center
WTCC	World Trade Center Construction