



Cost Containment Working Group Board Update

May 22, 2019



Cost Containment Group Recommendations

Implementation Summary

Working Group Recommendation	LIRR	MTA Bus	MTA B&T
1. Project "CEO"	Empowering project leads resulted in no owner initiated change orders to date in 2019	Chief facilities officer will act as the Project CEO and has full authority over scope expansion requests	Ongoing practice used to shape roles and responsibilities within organization
2. Change Orders	New monitoring procedures increased awareness; average days open is reduced by 10%	New management process and milestone tracking resulted in zero change orders on two projects and over \$50,000 savings on one project	Project leads and managers review scopes and CO requests to minimize contractor and owner requested changes. Current trend reflects a 25% reduction in change order processing times
3. Cost and Schedule Projections	Integrated master and resource loaded schedules used to identify ROW conflicts on all future major capital projects. Several potential conflicts identified and resolved to date	Budgets are controlled, LDs, E&Os are enforced on all jobs. Specification and drawings constructability reviews implemented on all projects. Monthly schedules updates and milestone tracking	Risk assessments provide basis for enhanced cost and schedule control. Since 2010, projects were completed within 4% contingency and 2% schedule duration
4. Scope Reduction	Increased use of Design-Build contracts expected to allow for more contractor input and less prescriptive specifications	Elimination of customized specs is enforced. \$400k savings to date	Standard NYSDOT Specs adopted on all projects as ongoing practice
5. Force Account Tracking	Planned and earned Force Account charges are compared with schedule and all expenses are verified	Weekly certification of FA invoices in place. Monthly reports examined against inspection reports	Not a major cost driver for B&T; Force Account expenses are tracked on a monthly basis

A photograph of a subway station platform. In the foreground, a yellow subway train is stopped at the platform. Several passengers are visible, some standing and some walking. In the background, there are escalators and a large mural of a man's face on the wall. The scene is brightly lit with overhead lights.

New York City Transit Cost Containment Initiative Implementation Update

Track access and support, bureaucratic / lengthy processes, bespoke specs, and scope uncertainty all drive capital costs

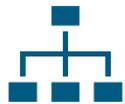
We have already made progress:



Increased General Orders by 40% since 2016



Increased productive time for General Orders using 10pm starts



Strengthened project leadership, increasing support for project leads



New Change Order process in circulation reducing processing by up to 50%



NYCT has embraced design-build contracting



Our contractors are noticing

Many more initiatives are underway:



We are rapidly implementing best value contracting including A+B bidding



We are updating our internal procedures that govern how capital projects are managed



Technical specifications are being rewritten to reduce customization and utilize industry standards



We are changing our planning paradigms to focus on corridor planning for greater efficiency



New contract types are under development to piggyback on planned work and address field conditions



Additional pre-contract testing and assessment will occur to ensure scopes reflect asset conditions



Duplicative requirements and onerous processes are being removed from the design process



Metro North Railroad Cost Containment Initiative Implementation Update



MNR Cost Containment Commitment



1. Empowered Project CEO's

2. Rebalance Project Risk

3. Budget Success

4. Change Order Process Improvements

5. Force Account Resource Management

SELECTED PROJECTS

Harmon Shop Replacement Phase V Stage II (\$440 million)

6th and 10th Ave. Overhead Bridge Replacement Mt. Vernon, NY (\$28 million)

	Action	Results
Empowered Project CEO	<ul style="list-style-type: none"> Controls adherence to scope of work 	<ul style="list-style-type: none"> ✓ Implemented
Change Order Process Improvements	<ul style="list-style-type: none"> Project Oversight Dashboard 	<ul style="list-style-type: none"> ✓ Team In-Place to Expedite Processing Time ✓ Under Development
New Contracts to Rebalance Project Risk	<ul style="list-style-type: none"> Alternative Project Delivery Schedule Driver Neutral Party Dispute Resolution Defined Commitments for Track Outage and Resources Differing Site Conditions Clause for Unforeseen Conditions Risk Assessment 	<ul style="list-style-type: none"> ✓ Design-Build Contract Awarded at Harmon ✓ Traditional Bid-Build Awarded for Mt. Vernon Bridges With Penalties to Enforce Schedule Adherence ✓ Included in Contract Terms and Conditions ✓ Included in Contract Terms and Conditions ✓ Included in Contract Terms and Conditions ✓ Risk Mitigations Incorporated During Design Phase
Cost and Schedule Projections	<ul style="list-style-type: none"> Benchmarked Similar Projects/Incorporated Lessons Learned Contract Outreach Sessions Held for Harmon Project Comprehensive Design Review Meetings Harmon RFP Encouraged Proposed Design Alternatives 	<ul style="list-style-type: none"> ✓ Implemented. More Accurate Cost and Schedule ✓ Competitive Proposals Received ✓ Award Amounts Within Engineer's Estimate (EE) <ul style="list-style-type: none"> ➤ Harmon – Award 6.5% Less Than EE ➤ Mt. Vernon Bridges – Award 1% Less Than EE ✓ Cost savings of \$4.9M (Harmon) Incorporated In Final Award Amount
Scope Reduction: Revising Specifications to Eliminate Customization	<ul style="list-style-type: none"> Technical Specifications Include a Work Matrix to Reduce Scope of Work Conflict between MNR and Contractor Utilize Construction Specification Institute (CSI) Format No Sole Sources Listed for Products/Equipment Increased Use of Design-Build Contacts Allows for More Contractor Input 	<ul style="list-style-type: none"> ✓ Implemented ✓ Designers/Contractors familiar with MNR's use of CSI Format ✓ Encouraged Competition ✓ Less Prescriptive Specifications



MTA Capital Construction Cost Containment Initiative Implementation Update



MTACC Active Projects Overview

Project Name	Project CEO	Construction Award	Project Phase	Delivery Method	Project Budget (Millions)	Owner Agency
Penn Station Access	Eve Michel	TBD	Preliminary Engineering	DB	\$1.4-1.7 B	MNR
Second Ave Subway Phase II	Tim Gianfrancesco	TBD	Preliminary Engineering	DB/P3	\$5.5-6 B	NYCT
LIRR Penn Station Train Hall Renovation	Peter Matusewitch	2019	Procurement	DB	\$594 M	LIRR
3 RD TRACK / LIRR Expansion Project	Mark Roche	2018	Construction	DB	\$2.6 B	LIRR
Canarsie Tunnel Core Rehab	Shawn Kildare	2017	Construction	DBB	\$922 M	NYCT
WTC Cortland Street Station	Daniel Creighton	2015	Closeout	DBB	\$181 M	NYCT
Second Ave Subway Phase I	Peter Kohner	2007	Closeout	DBB	\$4.6 B	NYCT
Fulton Street Station	Daniel Creighton	2005	Closeout	DBB	\$1.4 B	NYCT
East Side Access	Robert Troup	2001	Construction	DBB/DB	\$11 B	LIRR

Cost Containment Initiative

Project Implementation

• Project CEO

- Implemented on **all projects** awarded since 2018
- “Second-in-command” position added to provide aggressive technical leadership

• Change Orders

- Pilot three-step, two-signature approval process implemented on **LIRR Expansion Project**
- Reduced **East Side Access** change order processing time by **103 days**
- Overall number of outstanding change orders decreased by **over 70%** on **WTC Cortland Street Station**
- Further improvement expected

• Cost and Schedule Projections

- Cost estimates and schedules prepared using “contractor approach” not “quantity approach” on **all projects** awarded since 2018
- Objective is to take full account of access limitations, interfaces, risk cost

• Cost Reduction

- **Second Avenue Subway Phase II** used de-customization and “want vs need” assessment to realize **nearly \$1B in projected cost savings**.

- **All projects** awarded since 2018 utilize **allowances** to reduce high risk costs

- Early completion is incentivized on **LIRR Expansion** and **LIRR Penn Station Train Hall**

- Contractor **savings are shared** on **LIRR Penn Station Train Hall Project**

• Force Account Tracking

- Early Force Account Resource planning, contractual commitments for FA support and reconciliation of invoices to inspection reports are in place on **LIRR Expansion Project** and planned for projects in development

• New Contracts

- Single Design-Build or other modern alternative approach used on **all projects** including eligible contracts on **East Side Access**
- **LIRR Train Hall Project** procured via development agreement with property operator acting as developer
- In-build flexibility on risk and terms to enable value negotiations through procurement
- Use of incentives adopted in all projects awarded since 2018 including **East Side Access**

Next Steps for the Cost Containment Initiative

1. 18 months implementation process planned
 2. Establish a project health monitoring system for all agencies
 3. Dive deeper on selected projects
 4. Leave legacy for all agencies
- 
- The background of the slide is a blue-tinted photograph of a train station platform. A train is stopped at the platform, and several people are visible waiting. A sign on the platform reads "Elevator to Overpass Parking, Buses". The overall scene is dimly lit, with the blue tint dominating the color palette.